



# PRODUCTS & SERVICES **21** **CATALOG** **22**

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GNSS/GPS (L1/L2/L5)  
GLONASS/ BEIDOU/ Galileo  
5G/4G/LTE

Wi-Fi/ Bluetooth/ ZigBee/ ISM  
LoRa/Sigfox/NB-IoT/ISM  
SATCOM

Combination  
Accessories  
Antennas services



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Controlling wireless networks and energy distribution in the spatial domain on the RF level is the final frontier of wireless communications.

Maxtena provides advanced beamforming antennas, RF and Cybersecurity products & solutions for terrestrial and satellite-based networks. Our Dynamic Aperture Technology <sup>TM</sup> (DAT) and CyberRF technologies empower our customers to develop unparalleled solutions for GNSS, SATCOM, LTE, WIFI, IOT, OT, Military and terrestrial applications which are used on Land, Air or Sea.

We use proprietary and patented technologies to design extremely lightweight and high-performance RF antennas and systems for a variety of communications spectrums.

Headquartered in Washington DC Metro, and having additional offices in North America and Europe, Maxtena is at the forefront of wireless innovation.

A large, stylized lightbulb graphic. The bulb's glass part is a wireframe mesh containing a grayscale image of the Earth. The base of the bulb is a series of concentric circles. The text "We are Inventing the Future of Wireless Technology" is centered within the globe.

**We are Inventing  
the Future of  
Wireless Technology**





## Commitment to Innovation

Our management team has a proven record of delivering innovative products to the marketplace. We have the ability to define a market need, research and develop a product, set up production, and execute on production.

## Commitment to Our Customers and Partners

We believe that each product we deliver and service we render should not only meet, but exceed the expectation of our customer. We have a strong record of maintaining existing business relationships in the government and commercial sectors and protecting critical intellectual property through patents and trade secrets.



## Commitment to Our Team

We pride ourselves on building a diverse workforce with exciting opportunities and exceptional benefits for our team members. Our core values – creative, involved, exceptional, and innovative – are the foundation of our collaborative and inventive work environment. We believe that by promoting teamwork and cooperation we will be able to find continued success and promote professional growth.



*Dear Valued Customer,*

*MAXTENA Incorporated is the recognized global leader in developing and producing innovative wireless solutions. We are engaged in designing, manufacturing and marketing a comprehensive range of embedded, external and custom Advanced RF antennas & systems for GNSS, ISM, SATCOM, MSS and 5G LTE applications.*

*Furthermore, Maxtena beamforming solutions combine software define radios with artificial intelligence and complex electromagnetics to create cutting edge products and solutions for our customers. Maxtena commitment to innovation is unprecedented. Our technologies power some of today's most cutting-edge wireless solutions.*

*Maxtena devices enable range of products from satellite phones to Unmanned Aerial Vehicles. These solutions allow our customers to seamlessly access data from anywhere in the world. Here we have taken an approach where the next advances in wireless communications will come from looking at fundamental problems from the electromagnetics perspective. This new perspective lends itself to novel technologies which we hope will drive the new Internet infrastructure with smaller and higher efficiency devices, enable higher data rates and combat interference.*

*With our leading customer support, design capabilities, and highest quality manufacturing we work passionately to exceed your expectations.*

*With warm regards,*

*Stani Licul  
Chief Executive Officer Maxtena Inc.*

# Why Maxtena is your antenna supplier of choice?



**Patented Technology**



**REACH**



**Certifications**



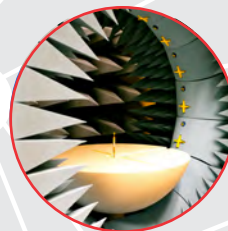
**Quality assurance**



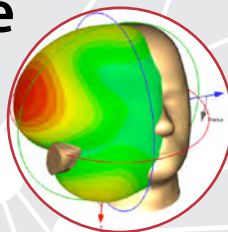
**RoHS compliance**



**ISO 9001**



**Manufacturing cutting-edge antenna solutions for the connected world**



**State-of-the art design and test Chambers facilities**



**Support off-the-shelf orders & fully customized integrations**



**Large Portfolio of External & Embedded antennas**



## Helix Antennas



We offer a unique set of patented helix antennas for satellite communications. Our advanced helical antennas operate across several satellite networks from GNSS, Iridium, Inmarsat, Thuraya and Globalstar to C-band, S-band and X-band frequencies. We also offer several antennas that work across multiple networks. The antennas are available in different sizes and form factors. We produce both external antennas that come in a range of rugged housings, as well as embedded antennas. Our embedded antennas are custom built to fit perfectly in your device's own housing. We have developed countless first-to market helix innovations, and our antennas are currently being used in multiple major SATCOM & IOT Applications, Tracking and Navigation Devices and Military Communications Equipment.

## Microstrip Antennas



We offer a large portfolio of both active and passive advanced conformal wave microstrip antennas. The antennas are available in several different sizes and configurations depending on customer requirements. This included externally mounted and or embedded antenna solutions. The active antennas can be customized with different filtering, LNA, cable lengths and connectors upon request. All of our microstrip antennas offer high performance with a very low profile. The antennas are ideal for various professional IOT applications. The compact size and lightweight features of the microstrip antennas make them perfect for various commercial and industrial uses. By utilizing various RF and material advances, Maxtena is the leader in conformal antenna solutions used for IOT, Automotive and Autonomous applications.

## Iridium solutions



From maritime and military, to mining and UAV's and IOT, Maxtena offers Iridium technology to empower OEMs, customers, and end users across various industries to manage their heavy equipment fleets more efficiently — optimizing overall performance, improving safety for equipment and crews, and remote communication and beyond line of sight control and command. The Iridium antennas and modems are available in several different sizes depending on customer requirements. We produce both external antennas that come in a range of rugged housings, as well as embedded antennas. These antennas can be customized with different cable lengths and connectors upon request. Iridium modems are provided for embedded designs along with complete plug and play products with cloud connected services. We provide also complete Iridium IOT solutions including trackers and value add products. Iridium provides real time access to high-value data letting you or your customers take actions to prevent potential failures and avoid costly consequences.



## Cellular /Wifi/4G Antennas



We offer a wide selection of antennas across a broad range of frequencies between 700- 960 MHz, 1710-2170 MHz and 2500-2700 MHz, dual-band 2.4GHz/5GHz, cellular, and Bluetooth antennas. It enhances connectivity for multiple devices in nearly any location. Our antennas are purpose-built to provide compact, high gain, and a constant worldwide connectivity. The antennas are available in several different sizes depending on customer requirements. We produce both external antennas that come in a range of rugged housings, as well as embedded antennas. These antennas can be customized with different cable lengths and connectors upon request. We have developed countless high-performance antennas, and they are currently being used in multiple IOT devices (Wearables, Routers, Smart Home, UAV/Drone, and Connected Vehicles).

## 5G Antennas



We offer high performing 5G antennas that provide coverage for all lower and mid 5G bands along with custom solutions for mm wave frequencies. By offering the most comprehensive portfolio of external antennas with different mounting options, omnidirectional radiation patterns for easy integration in wireless communication devices, we are the leaders of 5G antenna solutions. Our 5G antennas are great for telematics systems, remote surveillance, asset tracking and any IOT system applications. All of our 5G antenna solutions are fully customizable and optimized for the customers system.

## LTE & MIMO Antennas



Our advanced patented LTE & MIMO antennas are available in rugged, low profile form factors. We utilize the latest advances in antenna designs and bring to market the best performing LTE/MIMO antennas in the world. Our antennas are optimized for outstanding isolation specifications and performances. This allows our customers to have the best and most innovative solutions on the market. We have developed cutting edge MIMO antennas and our antennas are currently being used in multiple major commercial transport, HD video monitoring, buses, and trains.

## SigFox/LoRA/ISM Antennas



We offer a wide selection of SigFox/LoRA/ISM antennas that operate within the 902-928 MHz, 2.4 GHz and 5.7-5.8 bands and include a wide variety of indoor and outdoor antennas. ISM antennas are ideal for various installations for IOT, smart metering, digital signage, and industrial monitoring. The antennas are available in several different sizes depending on customer requirements. These antennas can be customized with various cable lengths and connectors upon request. All of our external antennas are IP67 rate which allow for the most environmentally challenging installations.



## Rail & Transportation Antennas



Our patented & fully EN 50155 Certified Rail 4x4 MIMO LTE antennas are the most advanced solutions available. They ensure the most optimal data aggregation connectivity by providing outstanding RF performances.

As technology capabilities increase, the world is becoming more connected and so does the demand for a smart, and fastest growing transportation market. Maxtena is the industry leader in developing new antenna technologies for vehicle – to – vehicle (V2V) and vehicle – to – anything (V2X) applications. We have developed cutting edge dedicated short-range communications (DSRC) antennas which are vehicle and DSRC transponder agnostic. All DSRC antennas are available for external and internal automotive applications. At Maxtena, we offers the most advanced train and rail antennas in rugged, low profile form factors.

## GNSS Timing Antennas



Our GNSS Timing antennas are state of the art designed and developed rugged solutions which are IP69K rated and vertisile for any installation necessary. The antennas are fully customizable and feature high gain LNA's along with superb filtering capabilities.

Precise time is crucial to a variety of economic activities around the world. Communication systems, electrical power grids, and financial networks all rely on precision timing for synchronization and operational efficiency. GNSS enables users to determine the time to within 100 billionths of a second, without the cost of owning and operating atomic clocks. Maxtena has the latest antenna technology and products for professional precision timing applications.

## Accessories



Maxtena offers a high variety of antenna accessories including mounting brackets, RF Cable, cable sub assemblies, pins, connectors and value added services. Custom solutions are available upon request. Our mounting applications: Magnet, wall, screw, pole, and adhesive mounting antennas.





## Industrial IOT

Our antennas are designed for reliable performance in high precision, heavy-duty GNSS tracking applications and various IOT communications. They support a diverse range of applications such as precision agriculture, IOT, Smart City, Asset management, asset tracking, mobile computing devices and mining equipment.

## Military

Our ruggedized antennas can be integrated externally or internally with Military/ Defense applications including Military Radios, UAVs, soldier worn communication gear and satellite phones and radios. They can support forces on the ground, in the air, or on the sea.

## Autonomous & Automotive

Drones, Robotics, Autonomous Vehicles are some of the many products you can find that are using our antenna solutions. Our compact antennas provide OEMs with fewer mechanical constraints to compensate for when designing cutting-edge equipment.



The antenna Market opportunities is segmented by type (helical antenna, patch antenna, MIMO Antenna, 5G antenna, and DSRC antenna), by application (GNSS, LTE-Wifi, Military, Maritime, and transportation), by product (Drone, trackers, automotive devices, and DAS applications), and also by geography.





"Our mission is to design and manufacture cutting-edge antenna solutions for the connected world. We'll support off-the-shelf orders as well as fully customized integrations."



# Basics for choosing the applicable antenna

## Technology

- Frequency bands(WIFI, GPS, ...)
- Technology (helix, patch, conformal antennas, Smart antennas, MIMO, UWB, Connected Array, Aperture antenna...)
- Features (Antenna gain, directivity, VSWR, bandwidth, Impedance, axial ratio ...)

## Applications

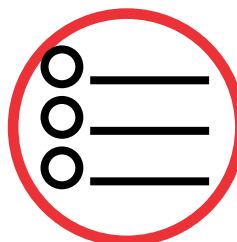
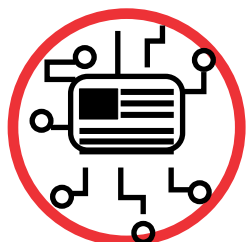
- Mounting options (Screw mount, Magnet Mount, Adhesive mount ...)
- Connector Type (SMA, TNC, U.FL...)
- Dimensions
- Certifications

## Requirements

- Polarization
- Radiation patterns
- High spectral efficiency & high throughput
- Frequency range signal

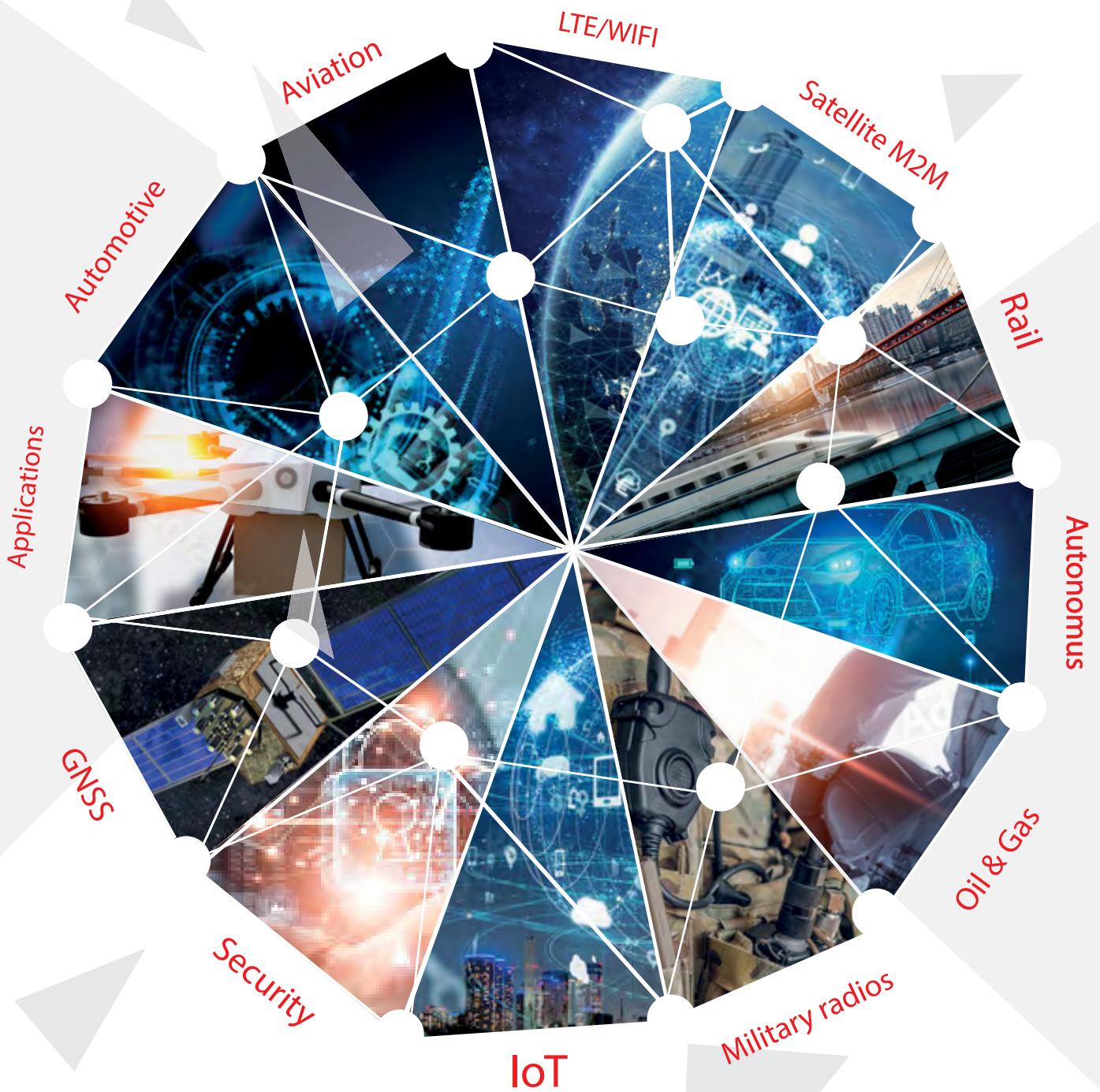
## Others

- Additional mounting options
- Custom connector & cable
- Mounting brackets





Some common applications include autonomous, M2M, and asset tracking. While many of our products are multi-platforms, some specific antennas are more suitable with regards certain applications.



*Our commitment to innovation is unprecedented. Our technologies power some of today's most cutting-edge wireless solutions. These solutions allow consumers to seamlessly access data from anywhere in the world. Here we take an approach where the next advances in wireless communications will come from looking at fundamental problems from the antenna/electromagnetic perspective. This new perspective lends itself to novel technologies to drive the new Internet infrastructure with smaller and higher efficiency devices, enable more bandwidth and combat interference. Two of our most successful and highly sought-after technologies include Helicore and Microstrip Patch. We are proud to present you with the technologies on which our products are designed and engineered.*

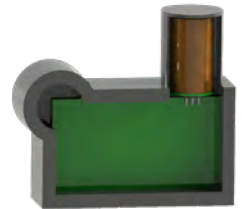


## Helicore

Our patented Helicore technology provides an extremely example and low-cost platform for designing different antenna products where pattern, polarization purity, efficiency and size are the driving design parameters. Patented Helicore technology uses air as the dielectric core and minimizes typical losses associated with ceramic materials. Helicore technology is pushing antenna limits in terms of axial ratio, bandwidth, and pattern stability. The design itself allows easy active circuitry and filtering addition due to the independent nature of feed and antenna structure. Helicore technology addresses widely known issues with ceramic materials and ceramic antenna manufacturing processes which create wide dielectric constant variations due to material, temperature, and humidity variations. Those variations are rejected in reduced performance of ceramic antennas and low manufacturing yields.

### KEY ADVANTAGES AND FEATURES:

- ✓ Active circuitry and filtering integrated with antenna
- ✓ Differential of single-ended architecture
- ✓ Smaller in size
- ✓ Lower manufacturing cost
- ✓ Lighter in weight compared to ceramic solutions
- ✓ Superb axial ratio at lower elevation angles for significant multipath rejection
- ✓ Multiband and wideband capabilities (e.g. L1-L2, GPS-GLONASS, etc...)
- ✓ Meets 200 V/m susceptibility requirements
- ✓ Superb noise figure performance
- ✓ Ground-plane independent design



## Microstrip

Our Microstrip technology offers a truly optimized wireless system. We are pioneering the optimization of the microstrip antenna by using proper electromagnetic grounding schemes to optimize solutions for the highest efficiency and axial ratio purity. Our technology incorporates the ground plane and creates highly optimized solutions for the application. Microstrip antennas are typically low performance and do not give the desired performance to the customer in more complex integrations where the antenna ground plane is reduced, or other parts of the device are interfering. This results in significantly lower efficiency and deteriorated axial ratio purity. We offer a technology that uses an electromagnetically co-optimized antenna and ground plane combination that enhances the system performance.

### KEY ADVANTAGES AND FEATURES:

- ✓ Antenna and ground plane co-optimization for maximum performance
- ✓ Efficiency can be as much as 40% higher than regular patch technology
- ✓ Axial ratio purity improved by as much as 3 dB compared to conventional technology

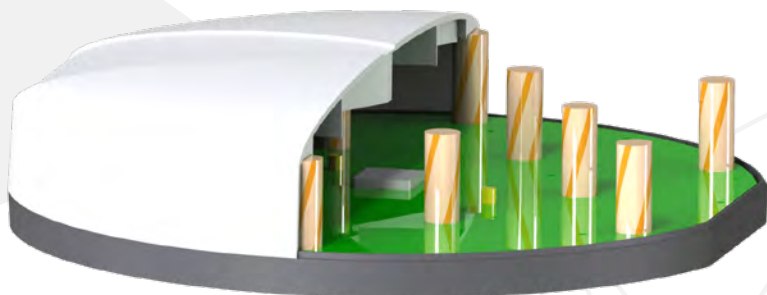


## DAT

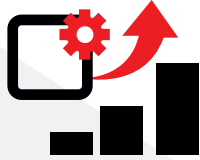
DAT™ (Dynamic Aperture Technology) is an advanced platform designed for building a new generation of low-cost user terminals that will enable higher data throughputs, stronger link integrity, and lower power consumption for aerial, maritime, and land mobile communications. One of the major impediments in mobile communications is the antenna technology. To deliver “rich” data content a new technology is required. The major complication is that in a mobile environment communication happens between moving objects. Things get significantly more complicated with satellite communications where a satellite is also moving with the respect to the end user on Earth. The current state of the art user terminals is still relying on mechanically steered or fixed solutions. These solutions either exhibit poor efficiency or are cost prohibitive. Maxtena has created the DAT™ platform to address these issues. The applications for our DAT™ platform are numerous. The typical applications are for mobile satellite communications on the move, including land, aerial, and maritime applications. However, other applications such as radar and direction-finding systems are also possible. Our DAT™ platform allows for low cost, small size, and low weight applications, which could be ideal for high-data terminals for UAV's and other aeronautical platforms.

### KEY ADVANTAGES AND FEATURES:

- ✓ Achieves omni-directional coverage with the high performance of a directional antenna
- ✓ Single beam or multi-beam in single aperture/multibeam aggregation – higher throughput even on legacy systems
- ✓ Software configurable/software controlled aperture for a variety of applications and reconfigurations
- ✓ Digital sensor and gyroscopic control for accurate tracking of satellites and platform dynamics
- ✓ Interference nulling for better signal to noise
- ✓ Tracking and performing interference detection for link integrity and sustained high throughput
- ✓ Extremely low power design due to distributed power amplifier approach
- ✓ Fast satellite acquisition and tracking from computationally efficient algorithms
- ✓ Digitally steered beams eliminate all moving parts
- ✓ Scalable platform accommodates wide range of frequencies and satellite networks – L to Ka band
- ✓ Mobile platform dynamics over 360 degrees per second turning ratios







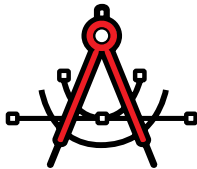
**50+ patents**  
and continued IP  
portfolio growth



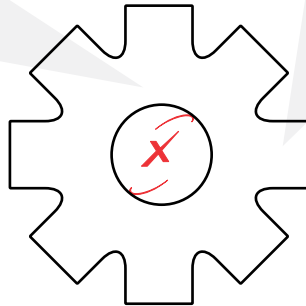
**#1 SATCOM**  
Antenna Provider



**2.5B Antenna**  
solutions sold and  
shipped to market



**24 Antenna**  
Measurement  
Systems



**3000 Platforms**  
designed with  
leading customers



**5 Global**  
Design  
Centers



**300+**  
Advanced  
RF antennas



## Feasibility support

### Our Approach

The design of new products relies on the extensive use of accurate computer simulation models. Our technical staff has a unique knowledge in electromagnetic simulation and numerical modeling gained through years of experience working on embedded antenna designs and general RF problems in both industry and academia.

Every aspect of the electrical design is considered by our proprietary simulation models – from the geometry and material characteristics of the antenna enclosures to the effects of parasitic reactance on printed circuit board traces. We also consider the statistical variation of component tolerances in actual production.

### Benefits to Our Approach

Our simulation techniques and methodologies have been validated successfully over a wide range of products. It has always been our goal to leverage innovative computer simulations to dramatically reduce the product design cycle and to minimize prototyping expenses. Throughout development our customers can expect:

- ✓ Added risk mitigation
- ✓ Decreased prototyping costs
- ✓ Schedule acceleration

### What Our Customers Can Expect

- ✓ Development of simplified 3-D simulation model
- ✓ Investigation into design trade-offs
- ✓ Antenna optimization based off customer provided bounds
- ✓ Estimation of user proximity effects on antenna performance
- ✓ Preliminary assessment of compliance with respect to performance requirements



## Antenna Measurement

### Our Approach

By investing in the SATIMO Starlab Anechoic Chamber we have state of the art measurement capabilities at our fingertips. We use the SATIMO Starlab Anechoic Chamber to measure radiative characteristics of the antenna for both passive and active systems. We are also equipped to provide customers with TRP and TIS measurements.

### Benefits to Our Approach

Our advanced measurement capabilities ensure that product development cycle progresses without setbacks. Additional value to our measurement approach include:

- ✓ Quick troubleshooting
- ✓ Customized radiation pattern data post processing
- ✓ Radiated performance tracking throughout product development cycle

### What Our Customers Can Expect

- ✓ TRP measurements
- ✓ TIS measurements
- ✓ Multiple antenna correlation and efficiency
- ✓ 3-D complex antenna pattern



## Antenna Integration

### Our Approach

By leveraging the most advanced electromagnetic simulation software available, we can accurately predict the performance of new designs before any hardware is built. Prototyping is then used to verify the correlation between the design and final product. Our in-house measurement capabilities allow for quick turn prototype validation. In addition to antenna design, we provide antenna integration support for customers that require a high level of device integration.

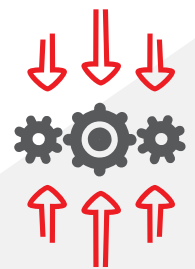
### Benefits to Our Approach

Our integration services include both the electrical path, from the antenna to receiver and beyond, as well as the mechanical and industrial design support for devices that are either space or geometry limited. The benefits also include:

- ✓ Accurate first design
- ✓ Minimization of design iterations
- ✓ Quick turnaround
- ✓ Fast assessment of design modifications and adaptation
- ✓ Predictable results

### What Our Customers Can Expect

- ✓ Import devices full 3-D mechanical database
- ✓ Development of fully featured simulation model
- ✓ Determination of the optimal grounding map
- ✓ PCB RF layout optimization
- ✓ Complete assessment of compliance and requirements
- ✓ Result verification through initial prototyping



## Antenna Manufacturing

### Our Approach

Maxtena's philosophy for manufacturing is to provide minimal overhead and more competitive price points. As a result of this philosophy we are committed to outsourced manufacturing capabilities where capital investment and overhead costs are minimized due to their distribution across a large customer base. Our strategy uses both oversea and US based facilities and we only use ISO certified contract manufacturers. Each prospective CM is required to complete a quality questionnaire and submit to a full quality audit.

### Benefits to Our Approach

Our diversified manufacturing strategy allows us to support production ranging from a few units to large volume manufacturing. Additional value to our manufacturing approach include:

- ✓ Quality Assurance
- ✓ Fully capable of meeting all production requirements

### What Our Customers Can Expect

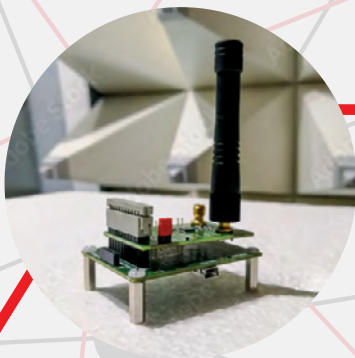
- ✓ Cost effective low volume production
- ✓ Competitive high volume manufacturing
- ✓ Scalable production model
- ✓ ITAR registered CM
- ✓ Quality assurance with innovative and proprietary end of line testing methodologies



The high precision of Maxtena's antennas relies on the cutting-edge testing and measurement capabilities of our company. Our antenna designs are approved before manufacturing, using ultra high accuracy testing, and measurements.

*Key Components  
Of Our  
Measurement  
system*

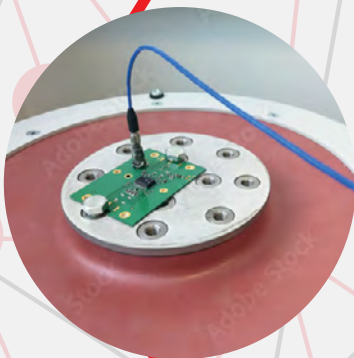
The Anechoic Chamber



Vector Network Analyzers (Up To 20 GHz)



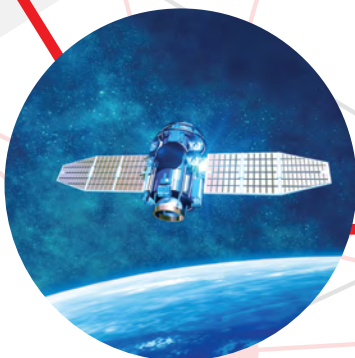
Environment Test Equipment



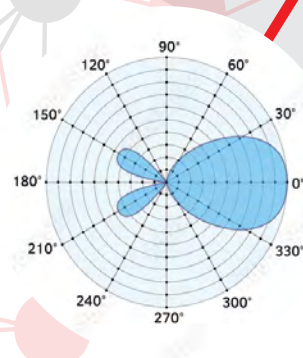
Positioning Controller



GPS Satellite Recognition



Antenna Measurement Software



## FEASIBILITY STUDIES

The design of new products relies on the extensive use of accurate computer simulation models. Our engineering staff has a unique knowledge in electromagnetic simulation and numerical modeling gained through years of experience working on embedded antenna designs and general RF problems in both industry and academia. Every aspect of the electrical design is considered by our proprietary simulation models – from the geometry and material characteristics of the antenna enclosures to the effects of parasitic reactance on printed circuit board traces. We also consider the statistical variation of component tolerances in actual production.

### WHAT TO EXPECT

- ✓ Development of simplified 3-D simulation models
- ✓ Investigation into design trade-offs
- ✓ Antenna optimization based off customer provided bounds
- ✓ Estimation of user proximity effects on antenna performance
- ✓ Preliminary assessment of compliance with respect to performance requirements

## CHAMBER TESTING

Maxtena has in-house the latest in antenna and RF measurement capabilities. We use the SATIMO Starlab Anechoic Chamber to measure radiative characteristics of the antenna for both passive and active systems. We are also equipped to provide you with TRP and TIS measurements.

### WHAT TO EXPECT

- ✓ Multiple antenna correlation and efficiency
- ✓ 3-D complex antenna pattern
- ✓ Antenna input response
- ✓ TRP/TIS measurements

## PROTOTYPING

By leveraging the most advanced electromagnetic simulation software available, we can accurately predict the performance of new designs before any hardware is built. Prototyping is then used to verify the correlation between the design and final product. Our in-house measurement capabilities allow for quick turn prototype validation. In addition to antenna design, we provide antenna integration support for clients that require a high level of device integration.

### WHAT TO EXPECT

- ✓ Import devices full 3-D mechanical database
- ✓ Development of fully featured simulation models
- ✓ Determination of the optimal grounding map PCB RF layout optimization
- ✓ Complete assessment of compliance and requirements
- ✓ Result verification through initial prototyping



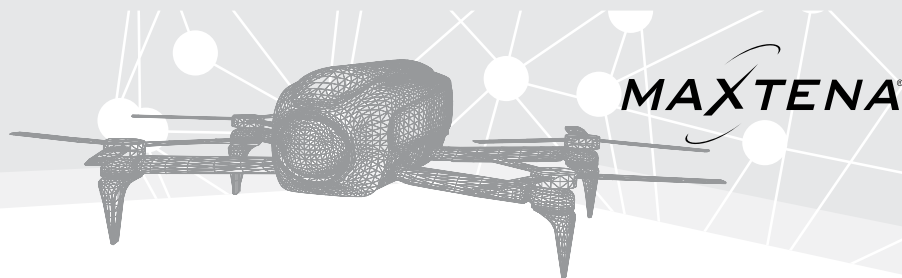
# Helix Antennas

**MAXTENA®**





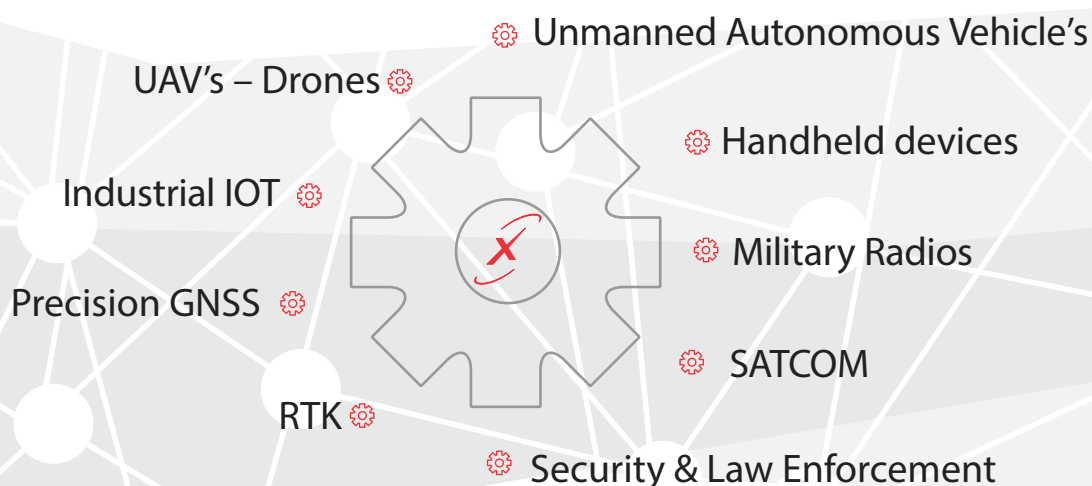
# Helix antennas



We offer the most advanced patented and innovative RF antenna solutions for a variety of GNSS, IOT, LTE and ISM applications. Our Helicore™ antennas are the best performing and lightest helix solutions available. The patented Helicore™ technology offers both a weight advantage and performance advantage for the most demanding applications and environments. The antennas can be used for GNSS,

LTE, ISM and SATCOM networks and can either be embedded or used externally with a device. Our helix antennas can get a signal in many more orientations compared to a block ceramic antenna. If the orientation of the unit is not always toward the sky then one of our helix antennas will be the ideal choice as an antenna ground plane is not required.

## Applications



# Helical GPS L1 External



## M1575HCT-22P-SMA

### High Performance Passive GPS Antenna

Part #: 100 00043-01

✓ GPS band ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification              |
|---------------------------|----------------------------|
| Frequency                 | 1575 MHz                   |
| Antenna element peak gain | 1dB (typical)/ 1.5db (max) |
| Axial Ratio               | -0.5 dBic (typical)        |
| VSWR                      | 1.5 (max)                  |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw on design / SMA               |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |



## M1575HCT-22P-MR

### High Performance Passive GPS Antenna

Part #: 100-00042-01

✓ GPS band ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification              |
|---------------------------|----------------------------|
| Frequency                 | 1575 MHz                   |
| Antenna element peak gain | -0.5 dBic (typical)        |
| Axial Ratio               | 1dB (typical)/ 1.5db (max) |
| VSWR                      | 1.5 (max)                  |

#### Key mechanical specifications:

| Parameter                   | Specification                         |
|-----------------------------|---------------------------------------|
| Mounting option / Connector | Screw on design / MR                  |
| Dimensions                  | 47.1 mm (height) x 18.5 mm (diameter) |



## M1575HCT-15A-SMA

### High Performance Active GPS Antenna

Part #: 100-00028-07

✓ GPS band ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification             |
|---------------------------|---------------------------|
| Frequency                 | 1575.42 MHz (GPS)         |
| Antenna element peak gain | 28 dBic (typical) @ 3.3 V |
| Axial Ratio               | 1dB (max) @ zenith        |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw on design / SMA               |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |

# Helical GPS L1 External



## M1575HCT-GN

High performance GPS Passive Antenna

Part #: 100-00146-01

- ✔ Very low axial ratio ✔ IP-67 mounted ✔ Ultra light weight - 45 grams ✔ Ground plane independent



### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 1575 MHz         |
| Antenna element peak gain | 1.8 dBic (GPS)   |
| Axial Ratio               | 0.2 dB (typical) |

### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw on design / SMA               |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |

# Helical GPS L1 Embedded



## M1516HCT-22-P

### High performance GPS GLONASS Antenna

Part #: 108-00073-01

✔ GPS band ✔ Very low axial ratio ✔ Easy integrate 3 pin connectors ✔ Ultra light weight - 2 grams ✔ Ground plane independent



#### Key electrical specifications:

| Parameter    | Specification                        |
|--------------|--------------------------------------|
| Frequency    | 1575 MHz (GPS)<br>1602 MHz (GLONASS) |
| Axial Ratio  | 1 dB (typical) / 1.5 dB (max)        |
| Polarization | RHCP                                 |
| VSWR         | ≤ 1.5                                |

#### Key mechanical specifications:

| Parameter  | Specification |
|------------|---------------|
| Connector  | 3 Pin OR U.FL |
| Weight     | 2 grams       |
| Dimensions | 35.2 x 24mm   |



## M1575HCT-22P-MR

### High Performance Passive GPS Antenna

Part #: 100-00042-01

✔ GPS band ✔ Very low axial ratio ✔ Easy integrate 3 pin connectors ✔ Ultra light weight - 2 grams ✔ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 1575 MHz      |
| Antenna element peak gain | -0.5 dBic     |
| Polarization              | RHCP          |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | N/A                   |
| Dimensions                  | 24.30 x 22 x 12.85 mm |

# Helical GPS/GLONASS L1 External

MAXTENA®

## M1516HCT-15A-SMA

### High-Performance Active Antenna

Part #: 100-00107-01

- ✓ High performance dual stage LNA active antenna
- ✓ GPS and GLONASS L1 band
- ✓ A screw-on design
- ✓ An integrated SMA connector
- ✓ Ultra-light design
- ✓ IP67
- ✓ Very light - 10.6 grams



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 1575 MHz      |
| Antenna element peak gain | -0.5 dBic     |
| Polarization              | RHCP          |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | SMA Connector         |
| Dimensions                  | 24.30 x 22 x 12.85 mm |

## M1516HCT-GN

### GPS GLONASS Passive Antenna

Part #: 100-00150-01

- ✓ Very low axial ratio
- ✓ IP-67 mounted
- ✓ Ultra-light weight-45 grams
- ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                        |
|---------------------------|--------------------------------------|
| Frequency                 | 1575 MHz (GPS) / 1602 MHz (Glonass)  |
| Antenna element peak gain | 1.8 dBic (GPS) / -1.7 dBic (Glonass) |
| Axial Ratio               | 0.2 dB (typical)                     |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | SMA male                             |
| Dimensions                  | 135 mm (height) x 18.5 mm (diameter) |

## M1516HCT-P-EXT

### GPS GLONASS Passive Antenna

Part #: 100-00114-01/02/03/04

- ✓ Very low axial ratio
- ✓ Ground plane independent
- ✓ Magnet mount
- ✓ 1,500 mm LRM100 coaxial cable
- ✓ TNC, SMA, SMB, MCX connector



#### Key electrical specifications:

| Parameter                 | Specification                        |
|---------------------------|--------------------------------------|
| Frequency                 | 1575 MHz (GPS) / 1602 MHz (Glonass)  |
| Antenna element peak gain | 1.8 dBic (GPS) / -1.7 dBic (Glonass) |
| Axial Ratio               | 0.5 dB (typical) / 1 dB (max)        |

#### Key mechanical specifications:

| Parameter                   | Specification                               |
|-----------------------------|---------------------------------------------|
| Mounting option / Connector | Magnet Mount/ TNC, SMA, SMB, MCX connectors |
| Dimensions                  | 52.2 mm (height) x 36 mm (diameter)         |



# Helical GPS/GLONASS L1 External





## M1516HCT-P-SMA

High Performance L1 GPS GLONASS Passive Antenna

Part #: 100-00002-02

✔ Very low axial ratio ✔ IP-67 mounted ✔ Ultra-light weight ✔ Ground plane independent



Key electrical specifications:

| Parameter                 | Specification                       |
|---------------------------|-------------------------------------|
| Frequency                 | 1575 MHz (GPS) / 1602 MHz (Glonass) |
| Antenna element peak gain | 1.5 dBic (GPS) / 1.5 dBic (GLONASS) |
| Axial Ratio               | 0.5 dB (typical) / 1 dB (max)       |

Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw mount/ SMA connector          |
| Dimensions                  | 2.20 mm (height) x 36 mm (diameter) |

# Explore

Our product

## M1516HCT-P-EXT

MAXTENA®

## M1516HCT-P-EXT

The M1516HCT-P-EXT is a dual band, high performance antenna designed for both GPS and GLONASS, and built on Maxtena proprietary Helicore® technology. This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor.

The M1516HCT-P-EXT is an external magnet mount antenna, featuring a 1,500 mm LRM100 coaxial cable with integrated connector. This product is ideal for applications requiring high quality reception of both GPS and GLONASS signals.

The M1516HCT-P-EXT will be available either as an off-the-shelf antenna housed in rugged housing or as an embedded antenna option which is mounted on the inside of a customer's designed enclosure

For the embedded version, Maxtena provides support for installation and integration of the embedded antenna to offer an exceptional antenna performance. Maxtena can embed the antenna in any housing, then tune the antenna to match their housing's materials, electronics, and space.



### Features

- ✓ Very low axial ratio
- ✓ Ground plane independent
- ✓ Magnet mount
- ✓ 1,500 mm LRM100 coaxial cable
- ✓ TNC, SMA, SMB, MCX connector

### Suggested Applications include

- ✓ Vehicle and fleet tracking
- ✓ Military & security
- ✓ Asset tracking
- ✓ Oil & gas industries
- ✓ Navigation devices
- ✓ Mining equipment
- ✓ LBS & M2M applications
- ✓ Handheld devices
- ✓ Law enforcement

# Helical GPS/GLONASS L1 Embedded



## M1561HCT-22-P

### Passive GPS GLONASS Beidou Antenna

Part #: 108-00073-02

✓ GPS, GLONASS and Beidou bands ✓ Very low axial ratio ✓ Easy integrate 3 pin connectors ✓ Ultra light weight - 2 grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter    | Specification                                          |
|--------------|--------------------------------------------------------|
| Frequency    | 1575 MHz (GPS) 1602 MHz (GLONASS)<br>1561 MHz (Beidou) |
| Axial Ratio  | 1 dB (typical) / 1.5 dB (max)                          |
| Polarization | RHCP                                                   |
| VSWR         | ≤ 1.5                                                  |

#### Key mechanical specifications:

| Parameter  | Specification |
|------------|---------------|
| Connector  | 3 Pin OR U.FL |
| Weight     | 2 grams       |
| Dimensions | 26.9 x 12.8mm |



## M1516HCT-P-UFL

### High Performance L1 GPS GLONASS Passive embedded Antenna

Part #: 108-00072-01

✓ Very low axial ratio ✓ IP-67 mounted ✓ Ultra-light weight (3 grams) ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                          |
|---------------------------|----------------------------------------|
| Frequency                 | 1575 MHz (GPS) /<br>1602 MHz (GLONASS) |
| Antenna element peak gain | 1.5 dBic (GPS) / 1.5 dBic (GLONASS)    |
| Axial Ratio               | 0.5 dB (typical) / 1 dB (max)          |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw mount/ U.FL connector         |
| Dimensions                  | 33 mm (height) x 13.2 mm (diameter) |

# Helical GPS/GLONASS/ Beidou External



## M1580HCT-P-SMA

### GPS/BEIDOU/GLONASS PASSIVE ANTENNA

Part #: 100-00180-01

✓ Very low axial ratio ✓ Superb multipath rejection ✓ IP-67 Rated ✓ Ground plane independent ✓ Omni Directional ✓ High Gain & Efficiency



#### Key electrical specifications:

| Parameter    | Specification       |
|--------------|---------------------|
| Frequency    | 1575.42 MHz         |
| Passive gain | -2.5 dBic (typical) |
| Axial Ratio  | 1 dB (max) @ zenith |

#### Key mechanical specifications:

| Parameter  | Specification  |
|------------|----------------|
| Connector  | SMA            |
| Dimensions | Ø 18.5 × 38 mm |



## M1561HCT-22P-MR

### High Performance Passive GPS/GLONASS/Beidou Antenna

Part #: 100-00042-06

✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra light weight ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                    |
|---------------------------|----------------------------------|
| Frequency                 | 1575 MHz<br>1602 MHz<br>1561 MHz |
| Antenna element peak gain | -0.5 dBic (typical)              |
| Axial Ratio               | 1 dB (typical) / 1.5 dB (max)    |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | SMA                                 |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |

# Helical GPS/GLONASS/ Beidou Embedded

## M1580HCT-22-P

### Passive GPS GLONASS Galileo Antenna

Part #: 108-00073-03

- ✓ GPS, GLONASS and Galileo (E1) bands
- ✓ Very low axial ratio
- ✓ Easy integrate 3 pin connectors
- ✓ Ultra light weight - 2 grams
- ✓ Ground plane independent



#### Key electrical Specifications:

| Parameter                 | Specification                                                |
|---------------------------|--------------------------------------------------------------|
| Frequency                 | 1575 MHz (GPS)<br>1602 MHz (GLONASS)<br>1176.45 MHz (Beidou) |
| Antenna element peak gain | 1 dB (typical) / 1.5 dB (max)                                |
| Polarization              | RHCP                                                         |
| VSWR                      | ≤ 1.5                                                        |

#### Key mechanical Specifications:

| Parameter  | Specification                    |
|------------|----------------------------------|
| Connector  | U. FL coaxial 50 Ohm termination |
| Weight     | 2 grams                          |
| Dimensions | 26.9 x 12.8 mm                   |

## MULTIBAND-HELIX-1539

### High Performance Omnistar/GPS/GLONASS/Beidou Embedded Antenna

Part #: 100-00049-01

- ✓ Ultra Compact 8 Element Multiband RHCP Helix
- ✓ Multiple Operating bands 1539MHz-1610 MHz - Beidou/GPS L1/GLONASS/Omni-star
- ✓ Maxtena patented Helicore™ light-weight air-dielectric design
- ✓ U. FL coaxial 50 Ohm termination



#### Key electrical Specifications:

| Parameter                 | Specification                                                 |
|---------------------------|---------------------------------------------------------------|
| Frequency                 | 1539 MHz-1610 MHz                                             |
| Antenna element peak gain | 1.5 dBic (typical) @1575MHz /<br>0.2 dBic (typical) @1575 MHz |
| Axial Ratio               | 2.0 dB (typical) @bore-sight                                  |

#### Key mechanical Specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | U. FL coaxial 50 Ohm termination     |
| Dimensions                  | 29.20 mm (height) x 17 mm (diameter) |



# Discover

Our new L1 L2 L5 L-Band

MAXTENA®

## Multi-Frequency Active Antenna

### M9HCT-A-SMA

Maxtena introduces the world's most advanced, smallest, patented GNSS antenna for high precision and autonomous multi-frequency applications. The M9HCT-A-SMA antenna is a high accuracy, multi-frequency active helix GNSS antenna + L-band corrections services. The revolutionary design will offer simultaneous GNSS reception on L1: GPS, GLONASS, Galileo, Beidou, L2: GPS L2C, Galileo E5B and GLONASS L3OC and L5: GPS + L-band corrections in a rugged, compact and ultra-lightweight form factor. The antenna is a perfect match for high precision applications.

The M9HCT-A-SMA is a great fit for the UAV markets where high performance and low weight are driving features in antenna selection. The M9HCT-A-SMA active helix design features Maxtena's patented compact and lightweight Helicore® technology. This technology provides excellent pattern control, polarization purity and high efficiency in a very compact form factor. The M9HCT-A-SMA is ground plane independent and offers extremely low power consumption and minimal phase center variation over azimuth crafted for high precision applications. The antenna offers superb axial ratio ensuring multipath error is mitigated.

For the embedded version, Maxtena provides support for installation and integration of the embedded antenna to offer an exceptional antenna performance. Maxtena can embed the antenna in any housing, then tune the antenna to match their housing's materials, electronics and space.



#### Features

- ✓ GNSS/QZSS-L1/L2, QZSS-L6, GLONASS-G1/G2, Galileo-E1/E6, Beidou-B1/B3 + L-band
- ✓ Rugged IP67 rating with SMA mount
- ✓ Small form factor
- ✓ Ground plane independent
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Low phase center variation over azimuth and elevation and among different samples
- ✓ Ultra-lightweight
- ✓ Automotive grade electronics

#### Suggested Applications include

- ✓ UAV/ Drones
- ✓ Unmanned Ground Vehicles (UGV)
- ✓ Unmanned Systems
- ✓ High Precision Navigation
- ✓ Military & Security
- ✓ Agriculture & FarmTech
- ✓ Handheld GNSS Devices

Helical GPS/GLONASS/ Galileo  
External

MAXTENA®

 **M1580HCT-GN**  
GPS Beidou Glonass Passive Antenna  
Part #: 100-00151-01

- ✔ Very low axial ratio
- ✔ IP-67 mounted
- ✔ Ultra light weight - 45 grams
- ✔ Ground plane independent



Key electrical Specifications:

| Parameter                 | Specification                                              |
|---------------------------|------------------------------------------------------------|
| Frequency                 | 1561 MHz (Beidou)<br>1575 MHz (GPS)<br>1602 MHz (Glonass)  |
| Antenna element peak gain | 1.3 dBic (Beidou)<br>1.8 dBic (GPS)<br>-1.7 dBic (Glonass) |
| Axial Ratio               | 0.2 dB (typical)                                           |

Key mechanical Specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | SMA male                             |
| Dimensions                  | 135 mm (height) x 18.5 mm (diameter) |

# Helical GPS/GLONASS/ Galileo Embedded



## M1580HCT-22-P

### Passive GPS GLONASS Galileo Antenna

Part #: 108-00073-03

- ✓ GPS, GLONASS and Galileo (E1) bands
- ✓ Very low axial ratio
- ✓ Easy integrate 3 pin connectors
- ✓ Ultra light weight - 2 grams
- ✓ Ground plane independent



#### Key electrical Specifications:

| Parameter    | Specification                                                |
|--------------|--------------------------------------------------------------|
| Frequency    | 1575 MHz (GPS)<br>1602 MHz (GLONASS)<br>1176.45 MHz (Beidou) |
| Axial Ratio  | 1 dB (typical) / 1.5 dB (max)                                |
| Polarization | RHCP                                                         |
| VSWR         | $\leq 1.5$                                                   |

#### Key mechanical Specifications:

| Parameter  | Specification |
|------------|---------------|
| Connector  | 3 Pin OR U,FL |
| Weight     | 2 grams       |
| Dimensions | 26.9 x 12.8mm |



## M4HCT-22-P

### Passive GPS GLONASS Galileo Beidou Antenna

Part #: 108-00073-04

- ✓ GPS, GLONASS ,Galileo, Beidou bands
- ✓ Very low axial ratio
- ✓ Easy integrate 3 pin connectors
- ✓ Ultra light weight - 2 grams
- ✓ Ground plane independent



#### Key electrical Specifications:

| Parameter    | Specification                                                |
|--------------|--------------------------------------------------------------|
| Frequency    | 1575 MHz (GPS)<br>1602 MHz (GLONASS)<br>1176.45 MHz (Beidou) |
| Axial Ratio  | 1 dB (typical) / 1.5 dB (max)                                |
| Polarization | RHCP                                                         |
| VSWR         | $\leq 1.5$                                                   |

#### Key mechanical Specifications:

| Parameter  | Specification |
|------------|---------------|
| Connector  | 3 Pin OR U,FL |
| Weight     | 2 grams       |
| Dimensions | 26.9 x 12.8mm |

# Helical L1 GPS/GLONASS/ Galileo/Beidou External



## **M4HCT-A-SMA** Multi-Frequency Active Antenna Part #: 100-00117-01

- ✔ Quadrifilar helix antenna ✔ Rugged IP67 rating with SMA mount ✔ Small form factor ✔ Ground plane independent ✔ GIS, RTK and other high accuracy GNSS applications ✔ Low power consumption ✔ Low phase center variation over azimuth and elevation and among different samples ✔ Ultra-lightweight ✔ Automotive grade electronics



### Key electrical Specifications:

| Parameter                 | Specification                        |
|---------------------------|--------------------------------------|
| Frequency                 | 1559-1607 MHz (L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 0.5 dB                               |
| Axial Ratio               | Max 0.9 dB @ the Zenith              |
| Conducted Gain            | 3.0 dB $\pm$ 3 dB                    |

### Key mechanical Specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Screw on design/ SMA connector    |
| Dimensions                  | 51 mm (height) x 34 mm (diameter) |

# Helical L1 GPS/GLONASS/ Galileo/Beidou Embedded



## M4HCT-22-P

### Passive GPS GLONASS Galileo Beidou Antenna

Part #: 108-00073-04

- ✓ GPS, GLONASS, Galileo, Beidou bands
- ✓ Very low axial ratio
- ✓ Easy integrate 3 pin connectors
- ✓ Ultra light weight - 2 grams
- ✓ Ground plane independent



#### Key electrical Specifications:

| Parameter    | Specification                                                |
|--------------|--------------------------------------------------------------|
| Frequency    | 1575 MHz (GPS)<br>1602 MHz (GLONASS)<br>1176.45 MHz (Beidou) |
| Axial Ratio  | 1 dB (typical) / 1.5 dB (max)                                |
| Polarization | RHCP                                                         |
| VSWR         | $\leq 1.5$                                                   |

#### Key mechanical Specifications:

| Parameter  | Specification |
|------------|---------------|
| Connector  | 3 Pin OR U.FL |
| Weight     | 2 grams       |
| Dimensions | 26.9 x 12.8mm |



## M4HCT-A-EMB

### Embedded L1 GPS/GLONASS/Galileo/Beidou Active Antenna

Part #: 108-00074-01

- ✓ Quadrifilar helix antenna
- ✓ Small form factor
- ✓ Ground plane independent
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Low phase center variation over azimuth and elevation and among different samples
- ✓ Ultra-lightweight
- ✓ Automotive grade electronics



#### Key electrical Specifications:

| Parameter                 | Specification                           |
|---------------------------|-----------------------------------------|
| Frequency                 | 1559-1607 MHz<br>(L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 0.5 dB                                  |
| Axial Ratio               | Max 0.9 dB @ the Zenith                 |
| Conducted Gain            | 3.0 dB $\pm$ 3 dB                       |

#### Key mechanical Specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | Embedded                                |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |



# Helical L1/L2 GPS/GLONASS External



## M1227HCT-A2-SMA

Rugged L1/L2 GPS GLONASS Active Antenna

Part #: 100-00004-02

✓ L1/L2 GPS-GLONASS bands ✓ Rugged IP-67 rating ✓ Superior out-of-band rejection ✓ 50 V/m jamming resistant ✓ Very low noise figure ✓ SMA mount ✓ Ground plane independent ✓ GIS & RTK applications ✓ Ultra-light weight - 24 grams (typical)



### Key electrical Specifications:

| Parameter                 | Specification                                                                               |
|---------------------------|---------------------------------------------------------------------------------------------|
| Frequency                 | 1217-1250 MHz (L2) /<br>1565-1610 MHz (L1)                                                  |
| Antenna element peak gain | 1217-1250 MHz (L2) /<br>1565-1610 MHz (L1)                                                  |
| Axial Ratio               | 0.5dB (L1), 0.5dB (typical)<br>1dB (max)                                                    |
| Conducted Gain            | 30 dBic @ 1227MHz (typical)<br>28 dBic @ 1575 MHz (typical)<br>28 dBic @ 1602 MHz (typical) |

### Key mechanical Specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw on design / SMA |
| Dimensions                  | 50x30 mm              |



## M1227HCT-SMA-GN

L1/L2 GPS GLONASS ACTIVE ANTENNA/SMA

Part #: 100-00105-01

✓ Very low axial ratio ✓ IP-67 mounted ✓ Ultra lightweight - 45 grams ✓ Ground plane independent



### Key electrical Specifications:

| Parameter                 | Specification                                                |
|---------------------------|--------------------------------------------------------------|
| Frequency                 | 1565-1610 MHz (L1)<br>1217-1250 MHz (L2)                     |
| Antenna element peak gain | 2 dBic @ 1227 MHz 2 dBic<br>@ 1575 MHz                       |
| Axial Ratio               | Max 0.9 dB @ the Zenith                                      |
| Conducted Gain            | ≤ 1 dB (0.5 dB typical) (L2)<br>≤ 1 dB (0.5 dB typical) (L1) |

### Key mechanical Specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | SMA Connector   |
| Dimensions | Ø 18.5 × 135 mm |



## M1227HCT-TNC-G

L1/L2 GPS GLONASS ACTIVE ANTENNA/TNC

Part #: 100-00133-02

✓ Very low axial ratio ✓ IP-67 mounted ✓ Ultra lightweight - 45 grams ✓ Ground plane independent



### Key electrical Specifications:

| Parameter                 | Specification                           |
|---------------------------|-----------------------------------------|
| Frequency                 | 1559-1607 MHz<br>(L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 0.5 dB                                  |
| Axial Ratio               | Max 0.9 dB @ the Zenith                 |
| Conducted Gain            | 3 0 dB ±3 dB                            |

### Key mechanical Specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | TNC Connector                           |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |

# Helical L1/L2 GPS/GLONASS External



## M7HCT-A-SMA

Rugged L1/L2 GPS GLONASS Active Antenna

Part #: 100-00069-01

- ✔ Quadrifilar helix antenna
- ✔ Rugged IP67 rating with SMA mount
- ✔ Small form factor
- ✔ Ground plane independent
- ✔ GIS, RTK and other high accuracy GNSS applications
- ✔ Low power consumption
- ✔ Low phase center variation over azimuth and elevation and among different samples
- ✔ Ultra-lightweight
- ✔ Automotive grade electronics



### Key electrical Specifications:

| Parameter                 | Specification                                                               |
|---------------------------|-----------------------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | Max 1.2 dB @ the Zenith<br>Max 0.9 dB @ the Zenith                          |
| Axial Ratio               | Max 0.9 dB @ the Zenith                                                     |
| Conducted Gain            | 30 dB $\pm$ 3 dB                                                            |

### Key mechanical Specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Screw on design / SMA             |
| Dimensions                  | 51 mm (height) x 34 mm (diameter) |

# Helical L1/L2 GPS/GLONASS Embedded



## M1227HCT-A-EMB

**Embedded L1/L2 GPS GLONASS Active Antenna**

Part #: 108-00044-01

- ✓ L1/L2 GPS-GLONASS bands
- ✓ Superior out-of-band rejection
- ✓ 50 V/m jamming resistant
- ✓ Very low noise figure
- ✓ SMA mount
- ✓ Ground plane independent
- ✓ GIS & RTK applications
- ✓ Ultra-light weight



### Key electrical specifications:

| Parameter                 | Specification                                                        |
|---------------------------|----------------------------------------------------------------------|
| Frequency                 | 1217-1250 MHz (L2) /<br>1565-1610 MHz (L1)                           |
| Antenna element peak gain | L1 28 dBic / L2 30 dBic                                              |
| Axial Ratio               | L1 0.5 dB (typical) / 1 dB (max)<br>L2 0.5 dB (typical) / 1 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw on design / SMA |
| Dimensions                  | 35.2 x 24mm           |



## M7HCT-A-EMB

**Embedded L1 GPS/GLONASS/Galileo/Beidou**

Part #: 108-00075-01

- ✓ Quadrifilar helix antenna
- ✓ Rugged IP67 rating with SMA mount
- ✓ Small form factor
- ✓ Ground plane independent
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Low phase center variation over azimuth and elevation and among different samples
- ✓ Ultra-lightweight
- ✓ Automotive grade electronics



### Key electrical specifications:

| Parameter                 | Specification                           |
|---------------------------|-----------------------------------------|
| Frequency                 | 1559-1607 MHz<br>(L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 0.5 dB                                  |
| Axial Ratio               | Max 0.9 dB @ Zenith                     |
| Conducted Gain            | 30 dB $\pm$ 3 dB                        |

### Key mechanical specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | Embedded                                |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |

# Helical GPS/GLONASS/L-Band External



## M9HCT-A-SMA

Rugged L1/L2/L5 GPS GLONASS/ L-band corrections Active Antenna

Part #: 100-00124-01

- ✔ Quadrifilar helix antenna ✔ Rugged IP67 rating with SMA mount ✔ Small form factor ✔ Ground plane independent ✔ GIS, RTK and other high accuracy GNSS applications ✔ Low power consumption ✔ Low phase center variation over azimuth and elevation and among different samples ✔ Ultra-lightweight ✔ Automotive grade electronics



### Key electrical specifications:

| Parameter                 | Specification                                                     |
|---------------------------|-------------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz 1559-1606 MHz<br>1164-1189 MHz (L5) 1539 - 1559 MHz |
| Antenna element peak gain | 1.3 dB / 0.5 dB / 0.5 dB / 1.5 dB                                 |
| Axial Ratio               | ≤ 1.2 dB @ Zenith ≤ 0.9 dB @ Zenith<br>1.1 dB @ Zenith ≤ 0.5 dB   |
| Conducted Gain            | 30 dB ±3 dB                                                       |

### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Screw on design / SMA             |
| Dimensions                  | 51 mm (height) x 34 mm (diameter) |

Helical GPS/GLONASS/L-Band  
Embedded

MAXTENA®

 **M9HCT-A-EMB**  
**Embedded active Antenna (L1, L2, LL5, & L-band)**  
Part #: 100-00124-01

- ✔ Quadrifilar helix antenna✔ Small form factor✔ Ground plane independent✔ GIS, RTK and other high accuracy GNSS applications
- ✔ Low power consumption✔ Low phase center variation over azimuth and elevation and among different samples✔ Ultra-lightweight
- ✔ Automotive grade electronics



Key electrical specifications:

| Parameter                 | Specification                                                               |
|---------------------------|-----------------------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 1.1 dB / 0.5 dB                                                             |
| Axial Ratio               | Max 1.2 dB @ Zenith<br>Max 0.9 dB @ Zenith                                  |
| Conducted Gain            | 30 dB ±3 dB                                                                 |

Key mechanical specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | Embedded                                |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |



# Helical Multi-Frequency bands External



## M1227HCT-A2-SMA

**Rugged L1/L2 GPS GLONASS Active Antenna**

Part #: 100-00004-02

✓ L1/L2 GPS-GLONASS bands ✓ Rugged IP-67 rating ✓ Superior out-of-band rejection ✓ 50 V/m jamming resistant ✓ Very low noise figure ✓ SMA mount ✓ Ground plane independent ✓ GIS & RTK applications ✓ Ultra-light weight - 24 grams (typical)



### Key electrical specifications:

| Parameter                 | Specification                                                                                |
|---------------------------|----------------------------------------------------------------------------------------------|
| Frequency                 | 1217-1250 MHz (L2) /<br>1565-1610 MHz (L1)                                                   |
| Antenna element peak gain | 2 dBic @ 1227 MHz (typical)<br>/ 2 dBic @ 1575 MHz (typical)                                 |
| Axial Ratio               | 0.5dB (L1), 0.5dB (typical) / 1dB (max)                                                      |
| Total Gain                | 30 dBic @ 1227 MHz (typical)<br>28 dBic @ 1575 MHz (typical)<br>28 dBic @ 1602 MHz (typical) |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw on design / SMA |
| Dimensions                  | 50x30 mm              |



## M4HCT-A-SMA

**Multi-Frequency Active Antenna**

Part #: 100-00117-01

✓ Quadrifilar helix antenna ✓ Rugged IP67 rating with SMA mount ✓ Small form factor ✓ Ground plane independent ✓ GIS, RTK and other high accuracy GNSS applications ✓ Low power consumption ✓ Low phase center variation over azimuth and elevation and among different samples ✓ Ultra-lightweight ✓ Automotive grade electronics



### Key electrical specifications:

| Parameter                 | Specification                           |
|---------------------------|-----------------------------------------|
| Frequency                 | 1559-1607 MHz<br>(L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 0.5 dB                                  |
| Axial Ratio               | Max 0.9 dB @ the Zenith                 |
| Conducted Gain            | 30 dB ±3 dB                             |

### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Screw on design/ SMA connector    |
| Dimensions                  | 51 mm (height) x 34 mm (diameter) |



## M7HCT-A-SMA

**Rugged L1/L2 GPS GLONASS Active Antenna**

Part #: 100-00069-01

✓ Quadrifilar helix antenna ✓ Rugged IP67 rating with SMA mount ✓ Small form factor ✓ Ground plane independent ✓ GIS, RTK and other high accuracy GNSS applications ✓ Low power consumption ✓ Low phase center variation over azimuth and elevation and among different samples ✓ Ultra-lightweight ✓ Automotive grade electronics



### Key electrical specifications:

| Parameter                 | Specification                                                               |
|---------------------------|-----------------------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | Max 1.2 dB @ the Zenith<br>Max 0.9 dB @ the Zenith                          |
| Axial Ratio               | Max 0.9 dB @ the Zenith                                                     |
| Conducted Gain            | 30 dB ±3 dB                                                                 |

### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Screw on design / SMA             |
| Dimensions                  | 51 mm (height) x 34 mm (diameter) |

# Helical Multi-Frequency bands External

## M8HCT-A-SMA

### Rugged L1/L2/L5 GPS GLONASS Active Antenna

Part #: 100-00124-01

✓ Quadrifilar helix antenna ✓ Rugged IP67 rating with SMA mount ✓ Small form factor ✓ Ground plane independent ✓ GIS, RTK and other high accuracy GNSS applications ✓ Low power consumption ✓ Low phase center variation over azimuth and elevation and among different samples ✓ Ultra-lightweight ✓ Automotive grade electronics



#### Key electrical Specifications:

| Parameter                 | Specification                                                                                     |
|---------------------------|---------------------------------------------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1)<br>1164-1189 MHz (L5) |
| Antenna element peak gain | 1.1 dB / 0.5 dB / 0.5 dB                                                                          |
| Axial Ratio               | Max 1.2 dB @ Zenith<br>Max 0.9 dB @ Zenith<br>1.1 dB @ Zenith                                     |
| Conducted Gain            | 30 dB ±3 dB                                                                                       |

#### Key mechanical Specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Screw on design / SMA Connector   |
| Dimensions                  | 51 mm (height) x 34 mm (diameter) |

## M9HCT-A-SMA

### Rugged L1/L2/L5 GPS GLONASS/ L-band corrections Active Antenna

Part #: 100-00124-01

✓ Quadrifilar helix antenna ✓ Rugged IP67 rating with SMA mount ✓ Small form factor ✓ Ground plane independent ✓ GIS, RTK and other high accuracy GNSS applications ✓ Low power consumption ✓ Low phase center variation over azimuth and elevation and among different samples ✓ Ultra-lightweight ✓ Automotive grade electronics



#### Key electrical specifications:

| Parameter                 | Specification                                                     |
|---------------------------|-------------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz 1559-1606 MHz<br>1164-1189 MHz (L5) 1539 - 1559 MHz |
| Antenna element peak gain | 1.3 dB / 0.5 dB / 0.5 dB / 1.5 dB                                 |
| Axial Ratio               | ≤ 1.2 dB @ Zenith ≤ 0.9 dB @ Zenith<br>1.1 dB @ Zenith ≤ 0.5 dB   |
| Conducted Gain            | 30 dB ±3 dB                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Screw on design / SMA Connector   |
| Dimensions                  | 51 mm (height) x 34 mm (diameter) |

# Helical Multi-Frequency bands Embedded



## M1227HCT-A-EMB

**Embedded L1/L2 GPS GLONASS Active Antenna**

Part #: 108-00044-01

- ✓ L1/L2 GPS-GLONASS bands
- ✓ Superior out-of-band rejection
- ✓ 50 V/m jamming resistant
- ✓ Very low noise figure
- ✓ SMA mount
- ✓ Ground plane independent
- ✓ GIS & RTK applications
- ✓ Ultra-light weight



### Key electrical specifications:

| Parameter                 | Specification                                                        |
|---------------------------|----------------------------------------------------------------------|
| Frequency                 | 1217-1250 MHz (L2) / 1565-1610 MHz (L1)                              |
| Antenna element peak gain | L1 28 dBic / L2 30 dBic                                              |
| Axial Ratio               | L1 0.5 dB (typical) / 1 dB (max)<br>L2 0.5 dB (typical) / 1 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw on design / SMA |
| Dimensions                  | 35.2 x 24mm           |



## M4HCT-A-EMB

**Embedded L1 GPS/GLONASS/Galileo/Beidou Active Antenna**

Part #: 108-00074-01

- ✓ Quadrifilar helix antenna
- ✓ Small form factor
- ✓ Ground plane independent
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Low phase center variation over azimuth and elevation and among different samples
- ✓ Ultra-lightweight
- ✓ Automotive grade electronics



### Key electrical Specifications:

| Parameter                 | Specification                        |
|---------------------------|--------------------------------------|
| Frequency                 | 1559-1607 MHz (L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 0.5 dB                               |
| Axial Ratio               | Max 0.9 dB @ the Zenith              |
| Conducted Gain            | 3.0 dB ±3 dB                         |

### Key mechanical Specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | Embedded                                |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |



## M7HCT-A-EMB

**Embedded L1 GPS/GLONASS/Galileo/Beidou**

Part #: 108-00075-01

- ✓ Quadrifilar helix antenna
- ✓ Rugged IP67 rating with SMA mount
- ✓ Small form factor
- ✓ Ground plane independent
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Low phase center variation over azimuth and elevation and among different samples
- ✓ Ultra-lightweight
- ✓ Automotive grade electronics



### Key electrical specifications:

| Parameter                 | Specification                        |
|---------------------------|--------------------------------------|
| Frequency                 | 1559-1607 MHz (L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 0.5 dB                               |
| Axial Ratio               | Max 0.9 dB @ Zenith                  |
| Conducted Gain            | 30 dB ±3 dB                          |

### Key mechanical specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | Embedded                                |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |

# Helical Multi-Frequency bands Embedded



## M8HCT-A-EMB

### Embedded L1/L2/L5 GPS GLONASS Active Antenna

Part #: 108-00076-01

- ✓ Quadrifilar helix antenna
- ✓ Small form factor
- ✓ Ground plane independent
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Low phase center variation over azimuth and elevation and among different samples
- ✓ Ultra-lightweight
- ✓ Automotive grade electronics



#### Key electrical specifications:

| Parameter                 | Specification                                                 |
|---------------------------|---------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz<br>1559-1606 MHz<br>1164-1189 MHz (L5)          |
| Antenna element peak gain | 1.1 dB / 0.5 dB / 0.5 dB                                      |
| Axial Ratio               | Max 1.2 dB @ Zenith<br>Max 0.9 dB @ Zenith<br>1.1 dB @ Zenith |
| Conducted Gain            | 30 dB $\pm$ 3 dB                                              |

#### Key mechanical specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | Embedded                                |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |



## M9HCT-A-EMB

### Embedded active Antenna (L1, L2, LL5, & L-band)

Part #: 100-00124-01

- ✓ Quadrifilar helix antenna
- ✓ Small form factor
- ✓ Ground plane independent
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Low phase center variation over azimuth and elevation and among different samples
- ✓ Ultra-lightweight
- ✓ Automotive grade electronics



#### Key electrical specifications:

| Parameter                 | Specification                                                               |
|---------------------------|-----------------------------------------------------------------------------|
| Frequency                 | 1192-1231 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Antenna element peak gain | 1.1 dB / 0.5 dB                                                             |
| Axial Ratio               | Max 1.2 dB @ Zenith<br>Max 0.9 dB @ Zenith                                  |
| Conducted Gain            | 30 dB $\pm$ 3 dB                                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                           |
|-----------------------------|-----------------------------------------|
| Mounting option / Connector | Embedded                                |
| Dimensions                  | 34.60 mm (height) x 28.50 mm (diameter) |

**Iridium/GPS/GLONASS**

**MAXTENA®**

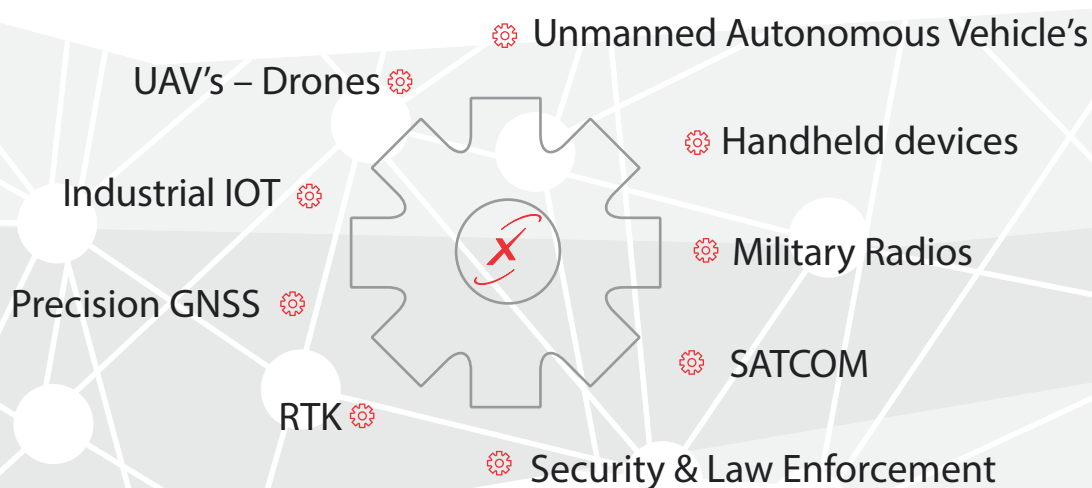




Maxtena's line of GPS and GLONASS helix antenna can get a signal in many different orientations compared to a block ceramic antenna. If the orientation of the unit containing the antenna is not always toward the sky then one of our helix antennas will be the ideal choice as an antenna ground plane is not required.

Maxtena's line of Iridium antennas are fully Iridium network certified and designed to complement a wide range of applications, including fleet, asset and personal tracking, handheld devices, satellite telephony, utility monitoring, and more.

## Applications





# Helical Iridium/ GPS/GLONASS External

## M1610HCT-GN

### GPS GLONASS Iridium Passive Antenna

Part #: 100-00149-01

- ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight-45grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                                               |
|---------------------------|-------------------------------------------------------------|
| Frequency                 | 1575 MHz (GPS)<br>1602 MHz (Glonass)<br>1621 MHz (Iridium)  |
| Antenna element peak gain | 3.8 dBic (GPS)<br>-1.7 dBic (Glonass)<br>2.0 dBic (Iridium) |
| Axial Ratio               | 0.2 dB (typical)                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | SMA male                             |
| Dimensions                  | 135 mm (height) x 18.5 mm (diameter) |

## M1600HCT-P-SMA

### High Performance Iridium/GPS/GLONASS Passive Antenna

Part #: 100-00003-02

- ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight- 11grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                                                   |
|---------------------------|-----------------------------------------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)<br>1575 MHz (GPS)<br>1602 MHz (GLONASS) |
| Antenna element peak gain | 2.8 dBic (Iridium)<br>-3 dBic (GPS)<br>0 dBic (GLONASS)         |
| Axial Ratio               | 0.5 dB (typical) / 1 dB (max)                                   |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw on design / SMA male          |
| Dimensions                  | 48 mm (height) x 18.5 mm (diameter) |

## SatFleet

### Low Profile, Iridium Certified, Active GPS Fleet Antenna for Iridium Voice/Data and GPS

Part #: 100-00045-01

- ✓ Superior Iridium Voice/Data performance ✓ Iridium ground plane independent ✓ High performance helix Iridium antenna ✓ Rugged IP-67 housing ✓ Low profile with screw mount ✓ Superb low elevation performance ✓ Low weight



#### Key electrical specifications:

| Parameter                 | Specification                                       |
|---------------------------|-----------------------------------------------------|
| Frequency                 | 1621 MHz<br>1575.42 MHz                             |
| Antenna element peak gain | 1.4dBic (typical) @ broadside<br>5.5 dBic           |
| Axial Ratio               | 1.5 dB (typical)<br>1.5 dB (typical) / 2.5 dB (max) |

#### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | Screw on design  |
| Dimensions                  | 61 x 50 x 116 mm |

# Helical Iridium/ GPS/GLONASS External



## SatFleet 3in1

**Low Profile, Iridium Certified, Active GPS Fleet Antenna for Iridium Voice/Data and GPS**

Part #: 100-00131-01

- ✓ Superior Iridium Voice/Data performance
- ✓ Iridium ground plane independent
- ✓ High performance helix Iridium antenna
- ✓ Rugged IP-67 housing
- ✓ Low profile with screw mount
- ✓ Superb low elevation performance
- ✓ Low weight



### Key electrical specifications:

| Parameter                 | Specification                                                                          |
|---------------------------|----------------------------------------------------------------------------------------|
| Frequency                 | 1621 MHz<br>1575.42 MHz<br>1602 MHz (Glonass)                                          |
| Antenna element peak gain | 1.6 dBic (typical) @ broadside<br>5.5 dBic<br>5.5 dBic                                 |
| Axial Ratio               | 1.7 dB (typical)<br>1.5 dB (typical) / 2.5 dB (max)<br>1.5 dB (typical) / 2.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | Screw on design  |
| Dimensions                  | 61 x 50 x 116 mm |



## M1610HCT-22P-MR

**High Performance Passive Iridium/GPS/GLONASS Antenna**

Part #: 100-00042-09

- ✓ Very low axial ratio
- ✓ IP-67 mounted and unmounted
- ✓ Ultra light weight
- ✓ Ground plane independent



### Key electrical specifications:

| Parameter                 | Specification                         |
|---------------------------|---------------------------------------|
| Frequency                 | 1575 MHz<br>1602 MHz<br>1616-1626 MHz |
| Antenna element peak gain | -0.5 dBic (typical)                   |
| Axial Ratio               | 1 dB (typical) / 1.5 dB (max)         |

### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | SMA                                 |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |



## M1600HCT-22P-MR

**High Performance Passive Iridium/GPS Antenna**

Part #: 100-00042-08

- ✓ Very low axial ratio
- ✓ IP-67 mounted and unmounted
- ✓ Ultra light weight
- ✓ Ground plane independent



### Key electrical specifications:

| Parameter                 | Specification                             |
|---------------------------|-------------------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)<br>1575 MHz (GPS) |
| Antenna element peak gain | -0.5 dBic (typical)                       |
| Axial Ratio               | 1 dB (typical) / 1.5 dB (max)             |

### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | SMA                                 |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |

Helical Iridium/ GPS/GLONASS  
External





M1602HCT-22P-MR  
High Performance Passive GPS/GLONASS Antenna  
Part #: 100-00042-03

✔Very low axial ratio✔ IP-67 mounted and unmounted✔Ultra light weight✔Ground plane independent



Key electrical specifications:

| Parameter                 | Specification                        |
|---------------------------|--------------------------------------|
| Frequency                 | 1575 MHz (GPS)<br>1602 MHz (GLONASS) |
| Antenna element peak gain | -0.5 dBic (typical)                  |
| Axial Ratio               | 1 dB (typical) / 1.5 dB (max)        |

Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | SMA                                 |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |

Helical Iridium/ GPS/GLONASS  
Embedded



 **M1600HCT-P-UFL**  
High Performance Iridium Passive Embedded Antenna  
Part #: 100-00032-01

✔ Very low axial ratio ✔ Iridium bands ✔ Ultra light weight - 3 grams ✔ Ground plane independent



Key electrical specifications:

| Parameter                 | Specification                   |
|---------------------------|---------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)         |
| Antenna element peak gain | 2.8 dBic (Iridium)              |
| Axial Ratio               | 0.2 dB (typical) / 0.5 dB (max) |

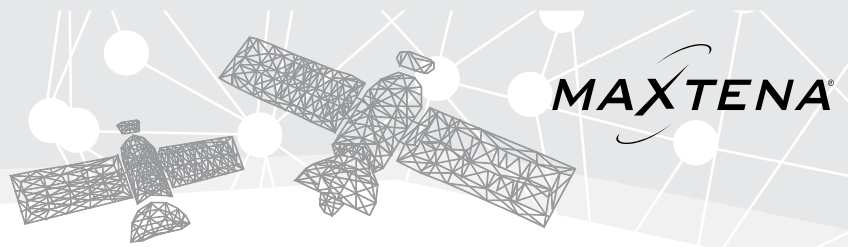
Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | Embedded         |
| Dimensions                  | 61 x 50 x 116 mm |

# SATCOM Antenna Systems

**MAXTENA<sup>®</sup>**



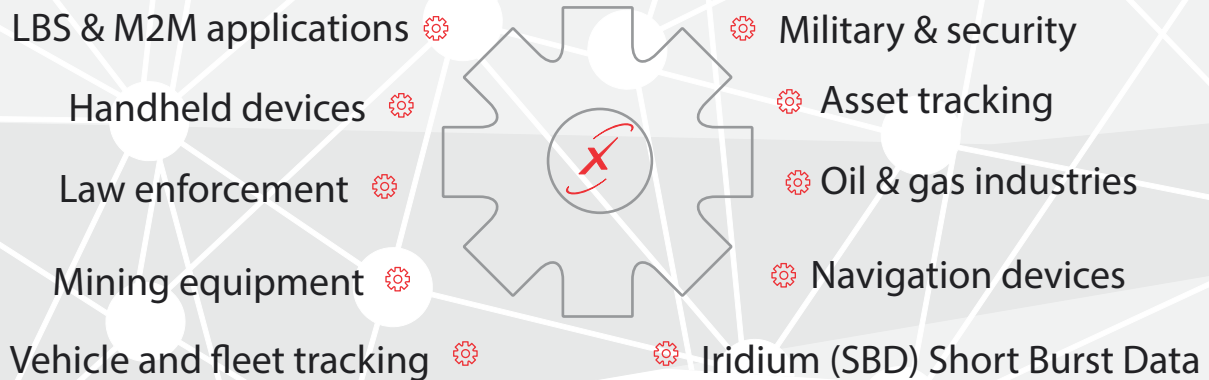


From maritime and military, to mining and oil and gas, Maxtena offers Iridium technology to empower OEMs, customers, and end users across various industries to manage their heavy equipment fleets more efficiently — optimizing overall performance, improving safety for equipment and crews, and connecting to meet intelligence. The antennas are available in several different sizes depending on customer requirements.

Maxtena's line of Iridium antennas are fully Iridium Network Certified and designed to complement a wide range of applications, including fleet, asset and personal tracking, handheld devices, satellite telephony, utility monitoring and more.

We produce both external antennas that come in a range of rugged housings, as well as embedded antennas. These antennas can be customized with different cable lengths and connectors upon request. Iridium provides real time access to high-value data letting you or your customers take actions to prevent potential failures and avoid costly consequences.

## Applications





### M1621HCT-P-SMA Iridium Certified Passive Antenna

## M1621HCT-P-SMA

The M1621HCT-P-SMA is a high performance Iridium Certified passive antenna designed for wireless applications.

The antenna is built on proprietary Maxtena Helicore® technology. This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor.

The M1621HCT-P-SMA is a screw-on design, featuring an integrated SMA connector and is rated IP-67 when mounted for added protection. This product is designed for applications requiring high quality reception of the Iridium network.

Compliant with any Iridium Modem (9602, 9603, and 9523)

Measures: 48 mm (height) x 18.50 mm (width)



#### Features

- ✓ Optimized for Iridium network
- ✓ Very low axial ratio
- ✓ IP-67 mounted and unmounted
- ✓ Ultra-light weight
- ✓ Ground plane independent

#### Suggested Applications include

- ✓ Vehicle and fleet tracking
- ✓ Military & security
- ✓ Asset tracking
- ✓ Iridium (SBD) Short Burst Data
- ✓ Oil & gas industries
- ✓ Navigation devices
- ✓ Mining equipment
- ✓ LBS & M2M applications
- ✓ Handheld devices



For the embedded version, Maxtena provides support for installation and integration of the embedded antenna to offer an exceptional antenna performance. Maxtena can embed the antenna in any housing, then tune the antenna to match their housing's materials, electronics, and space.

# Iridium Helix antennas External



## M1621HCT-GN

### High performance Iridium Antenna

Part #: 100-00147-0

- ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight-45grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification      |
|---------------------------|--------------------|
| Frequency                 | 1621 MHz (Iridium) |
| Antenna element peak gain | 2.0 dBic (Iridium) |
| Axial Ratio               | 0.25 dB (typical)  |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | SMA male                             |
| Dimensions                  | 135 mm (height) x 18.5 mm (diameter) |



## M1621HCT-P-SMA

### High Performance Iridium Passive Antenna

Part #: 100-00003-02

- ✓ Very low axial ratio ✓ IP-67 mounted ✓ Ultra light weight - 11 grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                  |
|---------------------------|--------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)        |
| Antenna element peak gain | 2.8 dBic (Iridium)             |
| Axial Ratio               | 0.2 dB (typical)/ 0.5 dB (max) |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw on design/ SMA male           |
| Dimensions                  | 48 mm (height) x 18.5 mm (diameter) |



## M1621HCT-P-EXT

### Iridium Certified Passive External Magnet Mount Antenna

Part #: 100-00044-01/02/03/04

- ✓ Optimized for the Iridium network ✓ Very low axial ratio ✓ TNC, SMA, SMB, MCX connector ✓ Ground plane independent ✓ Magnet mount ✓ Ultra-light weight - 52 grams



#### Key electrical specifications:

| Parameter                 | Specification                 |
|---------------------------|-------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)       |
| Antenna element peak gain | 1 dBic (typical)              |
| Axial Ratio               | 0.5 dB (typical) / 1 dB (max) |

#### Key mechanical specifications:

| Parameter                   | Specification                               |
|-----------------------------|---------------------------------------------|
| Mounting option / Connector | Magnet Mount /TNC, SMA, SMB, MCX connectors |
| Dimensions                  | 52.20 mm (height) x 36 mm (diameter)        |

# Iridium Helix antennas

## External



### M1621HCT-22P-MR

High Performance Passive Iridium Antenna

Part #: 100-00042-07

- ✔ Very low axial ratio ✔ IP-67 mounted and unmounted ✔ Ultra light weight ✔ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                 |
|---------------------------|-------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)       |
| Antenna element peak gain | -0.5 dBic (typical)           |
| Axial Ratio               | 1 dB (typical) / 1.5 dB (max) |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | SMA                                 |
| Dimensions                  | 38 mm (height) x 18.5 mm (diameter) |



## M1600HCT12-UFL

### Thuraya helical Passive Antenna

Part #: 100-00108-01

- ✔ Very low axial ratio
- ✔ Ultra light weight - 11 grams
- ✔ Ground plan independent



#### Key electrical specifications:

| Parameter                 | Specification                                                  |
|---------------------------|----------------------------------------------------------------|
| Frequency                 | 1525 MHz - 1660.5 MHz                                          |
| Antenna element peak gain | 3.5 dBic @ 1540 MHz (typical)<br>3.5 dBic @ 1640 MHz (typical) |
| Axial Ratio               | 1.5 dB (max)                                                   |

#### Key mechanical specifications:

| Parameter                   | Specification                      |
|-----------------------------|------------------------------------|
| Mounting option / Connector | U. FL                              |
| Dimensions                  | 100 mm (height) x 12 mm (diameter) |



## M1590HCT-HP-TH

### Thuraya Rugged high-performance Antenna

Part #: 100-00137-01

- ✔ Optimized for Thuraya network
- ✔ Very low axial ratio
- ✔ IP66 and RoHS compliant
- ✔ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification         |
|---------------------------|-----------------------|
| Frequency                 | 1525 MHz - 1660.5 MHz |
| Antenna element peak gain | 3.0 dBic (typical)    |
| Axial Ratio               | 2.2 dB (typical)      |

#### Key mechanical specifications:

| Parameter                   | Specification                      |
|-----------------------------|------------------------------------|
| Mounting option / Connector | a mast mount design/TNC connector  |
| Dimensions                  | 125 mm (height) x 45 mm (diameter) |



## M1580HCT-SMA

### Inmarsat high-performance Active Antenna

Part #: 100-00068-01

- ✓ Superior out-of-band rejection
- ✓ Very low axial ratio
- ✓ Pattern constant with frequency
- ✓ Ultra-light weight
- ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                                                  |
|---------------------------|----------------------------------------------------------------|
| Frequency                 | 1525 MHz - 1660.5 MHz                                          |
| Antenna element peak gain | 1.5 dBic @ 1540 MHz (typical)<br>1.5 dBic @ 1640 MHz (typical) |
| Axial Ratio               | 1.5 dB (max)                                                   |

#### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | SMA Connector                     |
| Dimensions                  | 51 mm (height) x 30 mm (diameter) |



## M1590HCT-LP-MM

### Inmarsat Low Prole Antenna – Magnet Mount

Part #: 100-00183-02

- ✓ Very low axial ratio
- ✓ Ground plane independent
- ✓ Magnet mount
- ✓ 1,500 mm LRM100 coaxial cable
- ✓ TNC, SMA, SMB, MCX connector



#### Key electrical specifications:

| Parameter         | Specification                          |
|-------------------|----------------------------------------|
| Frequency         | 1575 MHz (GPS) /<br>1602 MHz (GLONASS) |
| Antenna Peak Gain | 1.5 dBic (GPS) /<br>1.5 dBic (GLONASS) |
| Axial Ratio       | 0.5 dB (typical) / 1 dB (max)          |

#### Key mechanical specifications:

| Parameter                   | Specification                                  |
|-----------------------------|------------------------------------------------|
| Mounting option / Connector | Magnet Mount/<br>TNC, SMA, SMB, MCX connectors |
| Dimensions                  | 52.20 mm (height) x 36 mm (diameter)           |



## M1590HCT-LP-SM

### Inmarsat Low Prole Antenna – Hole Mount

Part #: 100-00183-01

- ✓ Optimized for the Inmarsat Network
- ✓ IP66 and ROHS compliant
- ✓ Ground plane independent
- ✓ High gain & low axial ratio
- ✓ Through hole mount
- ✓ Low profile



#### Key electrical specifications:

| Parameter         | Specification                       |
|-------------------|-------------------------------------|
| Frequency         | 1525-1560 MHz (GPS)<br>1625-1660MHz |
| Polarization      | RHCP                                |
| Antenna Peak Gain | 2 dBic                              |
| Axial Ratio       | 2.0:1                               |

#### Key mechanical specifications:

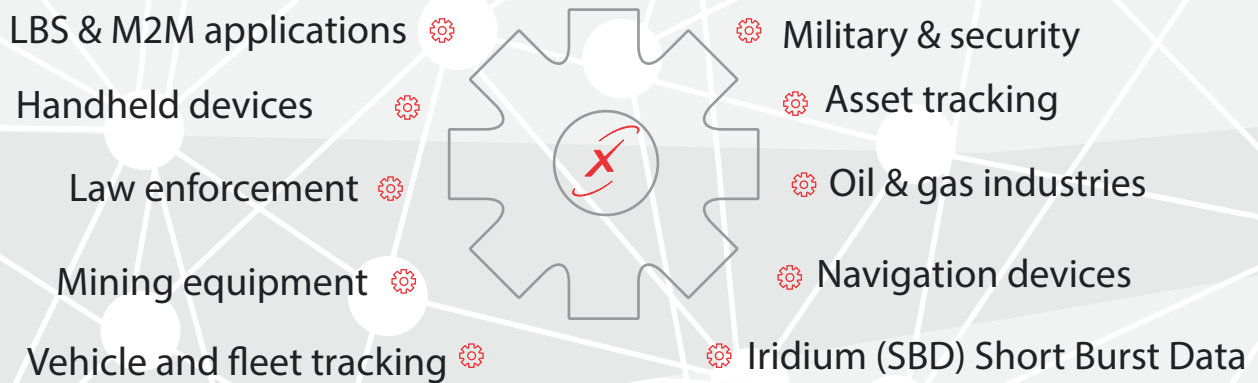
| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw Mount/ TNC connector |
| Weight                      | 125 grams                  |
| Dimensions                  | Ø 79.5 x 38mm              |

**MAXTENA<sup>®</sup>**



Maxtena's line of Iridium antennas are fully **Iridium Network Certified** and designed to compliment a wide range of applications, including fleet, asset and personal tracking, handheld devices, satellite telephony, utility monitoring and more. Maxtena designs and manufactures advanced antenna solutions based on our patented Dynamic Aperture Technology™ (DAT). Our antennas empower our customers to develop unparalleled solutions for GNSS, Terrestrial and Satellite M2M and MSS applications.

## Applications



## M9603N

### Iridium 9603 Transceiver

Part #: 208-00002-02

- ✓ Smallest form factor of any commercial satellite transceiver available
- ✓ Only 11.4 grams
- ✓ Single board transceiver
- ✓ Simple AT Command interface
- ✓ No SIM required
- ✓ Automatic notification that mobile-terminated messages are queued
- ✓ No SIM required



#### Key electrical specifications:

| Parameter              | Specification            |
|------------------------|--------------------------|
| Frequency              | 1616 to 1626.5 MHz       |
| Duplexing method       | TDD (Time Domain Duplex) |
| Input/output impedance | 50Ω                      |

#### Key mechanical specifications:

| Parameter  | Specification                     |
|------------|-----------------------------------|
| Weight     | 11.4g                             |
| Dimensions | 31.5 mm x Width: 29.6 mm x 8.1 mm |

## M9602N

### Iridium 9602 Transceiver

Part #: 208-00001-02

- ✓ Single board transceiver
- ✓ No SIM required
- ✓ Designed to be incorporated in an OEM Solution
- ✓ GPS RF Pass-through technology
- ✓ Simple AT command interface



#### Key electrical specifications:

| Parameter              | Specification            |
|------------------------|--------------------------|
| Frequency              | 1616 to 1626.5 MHz       |
| Duplexing method       | TDD (Time Domain Duplex) |
| Input/output impedance | 50Ω                      |

#### Key mechanical specifications:

| Parameter  | Specification                |
|------------|------------------------------|
| Weight     | 30 g                         |
| Dimensions | 41 mm x Width: 45 mm x 13 mm |

## M9523N

### Iridium 9523 Transceiver

Part #: 208-00003-01

- ✓ Ultra-compact form factor
- ✓ Single-board transceiver
- ✓ Voice and Circuit Switched Data capable
- ✓ Larger SBD buer size than the 9602 or 9603
- ✓ Iridium Push-to-Talk options available
- ✓ Direct PCB integration
- ✓ Pole-to-pole global coverage
- ✓ FCC, Industry Canada, and ITU approval
- ✓ SMS
- ✓ LBS



#### Key electrical specifications:

| Parameter              | Specification            |
|------------------------|--------------------------|
| Frequency              | 1616 to 1626.5 MHz       |
| Duplexing method       | TDD (Time Domain Duplex) |
| Input/output impedance | 50Ω                      |

#### Key mechanical specifications:

| Parameter  | Specification           |
|------------|-------------------------|
| Weight     | 32 g                    |
| Dimensions | 70.44 x 36.04 x 14.6 mm |

# Explore

the Iridium Edge® Pro,

GPS TRACKING SHORT BURST DATA (SBD)



## Iridium Edge® Pro

Iridium Edge Pro offers a simplified way to innovate, customize, and deploy smarter solutions for remote asset management. Create customizable end-to-end monitoring solutions for vessels, vehicles, and remote equipment using Iridium's best in class two-way network and truly global coverage.

The Iridium Edge® Pro is a standalone device with Short Burst Data® (SBD) that offers real-time GPS tracking capabilities, and a flexible programming platform that allows developers to create and run their own custom-made applications. Example uses include fisheries, vessel and fleet management, and remote monitoring.



### Benefits

#### Highly Mobile

The Iridium® satellite network provides communications and connectivity for mobile applications like oil and gas, transportation, agriculture and surface mining anywhere on the planet allowing tracking and monitoring of vehicles and assets operating in remote areas.

#### Reliable Coverage

Devices using the Iridium satellite network are enabled by a constellation of 66 Low-Earth Orbit (LEO) mobile satellites that provide service anywhere on the planet.

#### Low Latency

The Iridium satellites in Low-Earth Orbit (~800 km), enable signals to travel in 1/40 the time compared to geostationary satellites (36,000 km), resulting in low-latency, always-on connections ideal for Internet of Things (IoT) deployments.

### Features

- ✓ Quick partner (VAR) development using Java
- ✓ Common services including geofencing, event logging and position reporting
- ✓ Easily paired with cellular solutions using programmable interfaces
- ✓ Standalone finished product for GPS tracking
- ✓ Programming over the air
- ✓ Eclipse based IDE and Virtual Device emulators
- ✓ Multiple interfaces: RS232, CANBus and BLE

## IRIDIUM EDGE SOLAR

**Iridium Edge Solar**  
Part #: 106-00002-01

- ✓ Bluetooth capability for wireless sensor integration and local device connectivity
- ✓ Over-the-Air Configuration Changes
- ✓ Interval and Scheduled Reporting Modes
- ✓ Start/Stop Reporting
- ✓ In Motion Reporting
- ✓ Fully Encapsulated, No External Connectors, Water Ingress Protected
- ✓ Accelerometer and Magnetometer
- ✓ LED Status Indicator



### Key electrical specifications:

| Parameter                                              | Specification |
|--------------------------------------------------------|---------------|
| Reliability                                            | IPC9592a      |
| Internal Non-rechargeable & Solar Chargeable Batteries |               |

### Key mechanical specifications:

| Parameter  | Specification                |
|------------|------------------------------|
| Weight     | 470 grams                    |
| Dimensions | 164.2 mm x 71.2 mm x 32.9 mm |

## IRIDIUM EDGE

**Iridium Edge**  
Part #: 106-00002-01

- ✓ Connectivity beyond cellular limits for 100% global IOT coverage
- ✓ Hardware-ready device for simple, low risk integration
- ✓ Ready to install for quick time-to-market
- ✓ Robust power supply for industrial installations
- ✓ 180° line of site for compromised locations
- ✓ Iridium 9602 Transceiver
- ✓ Power Requirements: 9-32v input voltage
- ✓ Power Consumption (Average): Transmit Slot Max. 1.6W
- ✓ Power On Max. Current 0.5A
- ✓ Operational Max. Current 0.3A



### Key electrical specifications:

| Parameter       | Specification                                                                                    |
|-----------------|--------------------------------------------------------------------------------------------------|
| Iridium Devices | Iridium 9603 Short Burst Data modem<br>Iridium Core 9523 Transceiver<br>Iridium 9602 Transceiver |

### Key mechanical specifications:

| Parameter  | Specification    |
|------------|------------------|
| Weight     | 330 grams        |
| Dimensions | 130 x 80 x 30 mm |

## IRIDIUM EDGE PRO

**GPS TRACKING SHORT BURST DATA (SBD)**  
Part #: 106-00001-01

- ✓ Quick partner (VAR) development using Java
- ✓ Common services including geofencing, event logging and position reporting
- ✓ Easily paired with cellular solutions using programmable interfaces
- ✓ Standalone finished product for GPS tracking
- ✓ Programming over the air
- ✓ Low-cost development kits available
- ✓ Eclipse based IDE and Virtual Device emulators
- ✓ Multiple interfaces: RS232, CANBus and BLE



### Key electrical specifications:

| Parameter              | Specification            |
|------------------------|--------------------------|
| Frequency              | 1616 to 1626.5 MHz       |
| Duplexing method       | TDD (Time Domain Duplex) |
| Input/output impedance | 50Ω                      |

### Key mechanical specifications:

| Parameter  | Specification          |
|------------|------------------------|
| Weight     | 200 g                  |
| Dimensions | 127 mm x 90 mm x 41 mm |



## Iridium Edge

## Iridium Edge Pro

## Iridium Edge Solar

| Form Factor                 | Standalone                                                                                     | Standalone with GPS, Java Programmable                  | Standalone with GPS, Configurable Profiles                                       |
|-----------------------------|------------------------------------------------------------------------------------------------|---------------------------------------------------------|----------------------------------------------------------------------------------|
| Dimensions (L x W x H)      | 130 x 80 x 30 mm                                                                               | 127 x 90 x 41 mm                                        | 164 x 71 x 33 mm                                                                 |
| Weight                      | 330 g                                                                                          | 200 g                                                   | 470 g                                                                            |
| Interfaces                  | AT+ Command, RS 232                                                                            | 4 I/O, CANbus, RS 232, RS 485                           | BLE                                                                              |
| Power Requirements          | 9-32 V                                                                                         | 7-32 V                                                  | Internal Non-rechargeable & Solar Chargeable Batteries                           |
| Power Consumption (Average) | Transmit Slot Max. 1.6W<br>Power On Max. Current 0.5A<br>Operational Max. Current 0.3A         | Receive 0.6W<br>GNSS +0.6W                              | Harvests Energy from the Sun                                                     |
| Operating Temperature       | -40°C to +55°C                                                                                 | -40°C to +85°C                                          | -40°C to +85°C                                                                   |
| Environmental Specs         | SAE J1455,* IP 67                                                                              | SAE J1455,* IP 67                                       | SAE J1455,* MIL-STD-910, IP 68                                                   |
| Typical Applications        | Asset Tracking, Fleet Management, Environment & Safety Monitoring, Remote Automation & Control | Fisheries, Vessel & Fleet Management, Remote Monitoring | Oil & Gas, Transportation, Agriculture, Surface Mining, Asset & Vehicle Tracking |
| Development Kit             | Yes                                                                                            | Yes                                                     | Yes                                                                              |
| Services                    | SBD®                                                                                           | SBD®                                                    | SBD®                                                                             |
| Average Latency             | <20 Seconds Per 340 Bytes (MO)                                                                 | <20 Seconds Per 340 Bytes (MO)                          | <20 Seconds Per 340 Bytes (MO)                                                   |
| Certifications*             | US (FCC), EU (CE Mark)                                                                         | US (FCC), EU (CE Mark)                                  | US (FCC), EU (CE Mark)                                                           |
| Data Speed                  | 2.4 Kbps                                                                                       | 2.4 Kbps                                                | 2.4 Kbps                                                                         |



## M9523N-KIT

### Iridium 9523N Developer Kit

Part #: 401-00005-01

- ✓ M9523N Test Interface Card
- ✓ 2x 9523N Core Modules
- ✓ 2x SIM Cards
- ✓ Supplied Mounting Screws
- ✓ AC/DC Power Adapter
- ✓ Kit contains an antenna



#### Key mechanical specifications:

| Parameter  | Specification       |
|------------|---------------------|
| Dimensions | 70.44 mm x 36.04 mm |



## M9602N-KIT

### Iridium 9602N Developer Kit

Part #: 401-00003-01

- ✓ 9602N SBD Module
- ✓ AC Adapter (with international connectors)
- ✓ Test Interface Card (the development board itself)
- ✓ 9602N Development CD – which contains a test tool and all the documentation one would need to get started
- ✓ Mounting Screws & PCB Spacers/Risers
- ✓ Kit contains an antenna



#### Key mechanical specifications:

| Parameter  | Specification               |
|------------|-----------------------------|
| Dimensions | 31.5 mm x 29.6 mm x 8.10 mm |



## M9603N-KIT

### Iridium 9603N Developer Kit

Part #: 401-00004-01

- ✓ 9602N SBD Module
- ✓ AC Adapter (with international connectors)
- ✓ Test Interface Card (the development board itself)
- ✓ 9602N Development CD – which contains a test tool and all the documentation one would need to get started
- ✓ Mounting Screws & PCB Spacers/Risers
- ✓ Kit contains an antenna



#### Key mechanical specifications:

| Parameter  | Specification               |
|------------|-----------------------------|
| Dimensions | 31.5 mm x 29.6 mm x 8.10 mm |

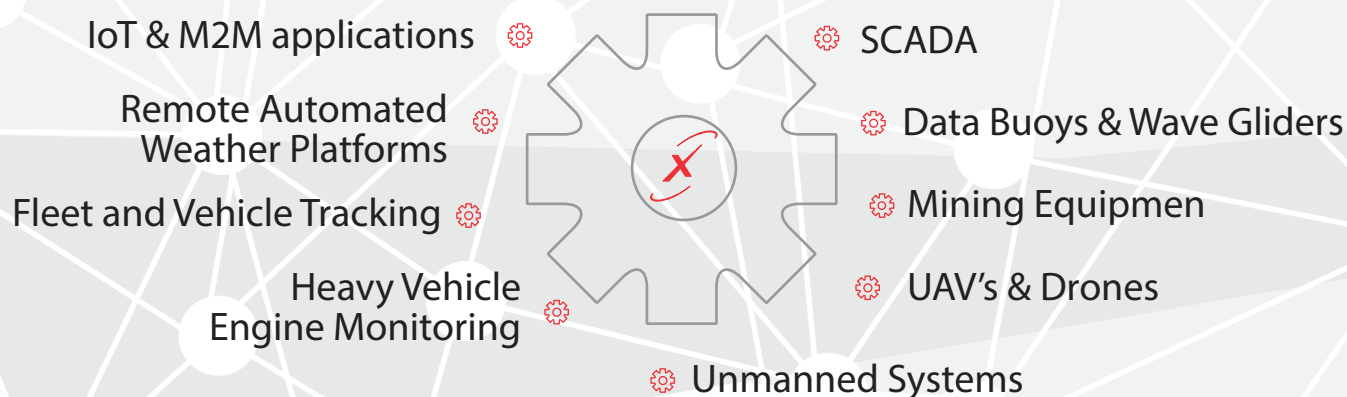


# Maxtena Iridium Connected Products



Allowing you to save development time and money when incorporating an Iridium connected solution into your product line. Maxtena's Iridium Satellite Modems & SBD Controllers can be used without having to embed an Iridium transceiver directly onto your board. Our products are fully certified for the Iridium satellite network and accommodating a wide range of Iridium airtime services (SBD/RUDICS/CSD) and sophisticated cloud-based AI powered backend. Maxtena can help you add satellite connectivity to your product line and expand your reach to any location on the globe.

## Applications





## MAX2400-EX

**Iridium 9523 carrier board with RS232 & enclosure**

Part #: 100-00219-01

- ✓ Full 9-wire RS232 interface to Iridium® 9523 transceiver
- ✓ Wide supply voltage range (4.5– 32 VDC)
- ✓ Transient voltage protection
- ✓ Integrated SIM card holder
- ✓ Screw mountable aluminum enclosure
- ✓ SMA RF connector
- ✓ Easy integration into OEM products with a convenient DB15 interface



### Key electrical specifications:

| Parameter       | Specification                          |
|-----------------|----------------------------------------|
| Input Voltage   | $\leq 4.5\text{ V} ; \geq 32\text{ V}$ |
| Nominal Current | 70 mA typ.                             |

### Key mechanical specifications:

| Parameter  | Specification           |
|------------|-------------------------|
| Connector  | SMA                     |
| Dimensions | 4.8L x 2.6W x 1.3H inch |



## MAX9523-PCB

**Iridium 9523 carrier board with RS232. PCB version only**

Part #: 108-00085-02

- ✓ Full 9-wire RS232 interface to Iridium® 9523 transceiver
- ✓ Wide supply voltage range (4.5– 32 VDC)
- ✓ Transient voltage protection
- ✓ Integrated SIM card holder
- ✓ Screw mountable aluminum enclosure
- ✓ SMA RF connector
- ✓ Easy integration into OEM products with a convenient DB15 interface



### Key electrical specifications:

| Parameter       | Specification                          |
|-----------------|----------------------------------------|
| Input Voltage   | $\leq 4.5\text{ V} ; \geq 32\text{ V}$ |
| Nominal Current | 70 mA typ.                             |

### Key mechanical specifications:

| Parameter  | Specification           |
|------------|-------------------------|
| Connector  | SMA                     |
| Dimensions | 4.8L x 2.6W x 1.3H inch |



## MAX340-EX

**Iridium 9602 daughter board with RS232 & enclosure**

Part #: 100-00230-01

- ✔ Data for plug and play satellite communication ✔ Available as a PCB or encapsulated product ✔ Powered via USB ✔ GPS enabled global two-way communication ✔ Additional power and data header ✔ Integrated GPS/Iridium antenna



### Key electrical specifications:

| Parameter | Specification |
|-----------|---------------|
|-----------|---------------|

|                   |                                   |
|-------------------|-----------------------------------|
| Operating Voltage | 4.5-32 VDC                        |
| Operating Current | 5 mA standby<br>0.7 A peak @ 12 V |

### Key mechanical specifications:

| Parameter | Specification |
|-----------|---------------|
|-----------|---------------|

|            |                |
|------------|----------------|
| Weight     | 150 g          |
| Dimensions | 3.9 x 2 x 1.2" |

### Key communication specifications:

| Parameter | Specification |
|-----------|---------------|
|-----------|---------------|

|                                                                                    |               |
|------------------------------------------------------------------------------------|---------------|
| Transceiver                                                                        | Iridium 9602N |
| 3.3V serial only. Accepts Satelligent extended AT commands and Iridium AT commands |               |



## MAX9602-PCB

**Iridium 9602 daughter board with RS232. PCB version only**

Part #: 108-00087-02

- ✔ Data for plug and play satellite communication ✔ Available as a PCB or encapsulated product ✔ Powered via USB ✔ GPS enabled global two-way communication ✔ Additional power and data header ✔ Integrated GPS/Iridium antenna



### Key electrical specifications:

| Parameter | Specification |
|-----------|---------------|
|-----------|---------------|

|                   |                                   |
|-------------------|-----------------------------------|
| Operating Voltage | 4.5-32 VDC                        |
| Operating Current | 5 mA standby<br>0.7 A peak @ 12 V |

### Key mechanical specifications:

| Parameter | Specification |
|-----------|---------------|
|-----------|---------------|

|            |                  |
|------------|------------------|
| Weight     | 40 g             |
| Dimensions | 3.5 x 1.8 x 1.6" |

### Key communication specifications:

| Parameter | Specification |
|-----------|---------------|
|-----------|---------------|

|                                                                                    |               |
|------------------------------------------------------------------------------------|---------------|
| Transceiver                                                                        | Iridium 9602N |
| 3.3V serial only. Accepts Satelligent extended AT commands and Iridium AT commands |               |



## MAX9603-ENC

**Iridium 9603 controller with GPS & enclosure**

Part #: 100-00220-01

✓ Controller for Iridium® 9603N SBD transceiver ✓ 48 channel SiRFstarIV™ chipset based GPS ✓ Serial interface for 3rd party equipment or PC control ✓ Wide supply voltage range (7– 28 VDC) ✓ Fused 5V switched power output for external devices ✓ Two 12 bit Analog to Digital (ADC) inputs ✓ Two Digital I/O's (configurable as panic input) ✓ Transient voltage protection ✓ Ultra-low standby power consumption (< 100 µA) ✓ OEM and standalone versions available ✓ Easy integration into OEM products with a convenient DB15 interface ✓ Application Programming Interface support through extended AT commands



### Key electrical specifications:

| Parameter         | Specification                          |
|-------------------|----------------------------------------|
| Operating Voltage | 7-28 VDC                               |
| Operating Current | 100 µA mA standby<br>0.6 A peak @ 12 V |

### Key mechanical specifications:

| Parameter  | Specification |
|------------|---------------|
| Weight     | 90 g          |
| Dimensions | 3 x 1.7 x 1 " |

### Key communication specifications:

| Parameter                                                                          | Specification |
|------------------------------------------------------------------------------------|---------------|
| Transceiver                                                                        | Iridium 9603N |
| 3.3V serial only. Accepts Satelligent extended AT commands and Iridium AT commands |               |



## MAX9603-PCB

**Iridium 9603 controller with GPS. PCB version only**

Part #: 108-00086-02

✓ Controller for Iridium® 9603N SBD transceiver ✓ 48 channel SiRFstarIV™ chipset based GPS ✓ Serial interface for 3rd party equipment or PC control ✓ Wide supply voltage range (7– 28 VDC) ✓ Fused 5V switched power output for external devices ✓ Two 12 bit Analog to Digital (ADC) inputs ✓ Two Digital I/O's (configurable as panic input) ✓ Transient voltage protection ✓ Ultra-low standby power consumption (< 100 µA) ✓ OEM and standalone versions available ✓ Easy integration into OEM products with a convenient DB15 interface ✓ Application Programming Interface support through extended AT commands



### Key electrical specifications:

| Parameter         | Specification                          |
|-------------------|----------------------------------------|
| Operating Voltage | 7-28 VDC                               |
| Operating Current | 100 µA mA standby<br>0.6 A peak @ 12 V |

### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Weight     | 20 g            |
| Dimensions | 2 x 1.4 x 0.5 " |

### Key communication specifications:

| Parameter                                                                          | Specification |
|------------------------------------------------------------------------------------|---------------|
| Transceiver                                                                        | Iridium 9603N |
| 3.3V serial only. Accepts Satelligent extended AT commands and Iridium AT commands |               |

## SatFleet

**Low Profile, Iridium Certified, Active GPS Fleet Antenna for Iridium Voice/Data and GPS**

Part #: 100-00045-01

✓ Superior Iridium Voice/Data performance ✓ Iridium ground plane independent ✓ High performance helix Iridium antenna ✓ Rugged IP-67 housing ✓ Low profile with screw mount ✓ Superb low elevation performance ✓ Low weight



### Key electrical specifications:

| Parameter                 | Specification                                       |
|---------------------------|-----------------------------------------------------|
| Frequency                 | 1621 MHz<br>1575.42 MHz                             |
| Antenna element peak gain | 1.4dBic (typical) @ broadside<br>5.5 dBic           |
| Axial Ratio               | 1.5 dB (typical)<br>1.5 dB (typical) / 2.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | Screw on design  |
| Dimensions                  | 61 x 50 x 116 mm |

## SatFleet 3in1

**Low Profile, Iridium Certified, Active GPS Fleet Antenna for Iridium Voice/Data and GPS**

Part #: 100-00131-01

✓ Superior Iridium Voice/Data performance ✓ Iridium ground plane independent ✓ High performance helix Iridium antenna ✓ Rugged IP-67 housing ✓ Low profile with screw mount ✓ Superb low elevation performance ✓ Low weight



### Key electrical specifications:

| Parameter                 | Specification                                                                          |
|---------------------------|----------------------------------------------------------------------------------------|
| Frequency                 | 1621 MHz<br>1575.42 MHz<br>1602 MHz (Glonass)                                          |
| Antenna element peak gain | 1.6 dBic (typical) @ broadside<br>5.5 dBic<br>5.5 dBic                                 |
| Axial Ratio               | 1.7 dB (typical)<br>1.5 dB (typical) / 2.5 dB (max)<br>1.5 dB (typical) / 2.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | Screw on design  |
| Dimensions                  | 61 x 50 x 116 mm |

## M1621HCT-P-SMA

**High Performance Iridium Passive Antenna**

Part #: 100-00003-02

✓ Very low axial ratio ✓ IP-67 mounted ✓ Ultra light weight - 11 grams ✓ Ground plane independent



### Key electrical specifications:

| Parameter                 | Specification                   |
|---------------------------|---------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)         |
| Antenna element peak gain | 2.8 dBic (Iridium)              |
| Axial Ratio               | 0.2 dB (typical) / 0.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw on design/ SMA male           |
| Dimensions                  | 48 mm (height) x 18.5 mm (diameter) |

## M1621HCT-P-EXT, Iridium Certified Passive External Magnet Mount Antenna

### M1621HCT-P-EXT

The M1621HCT-EXT is a high-performance Iridium certified passive external magnet mount antenna designed for wireless applications. The antenna is built on proprietary Maxtena Helicore® technology.

This technology provides exceptional pattern control, polarization purity and high efficiency in a very compact form factor.

The M1621HCT-EXT is an external magnet mount antenna, featuring a 1,500 mm LRM100 coaxial cable with integrated connector. The very small size and light weight make this helical Iridium antenna unique in the market and perfect for various commercial and industrial applications.

This antenna is the ideal solution for the most extreme and demanding applications where reliable satellite reception and high accuracy are required. It can be used to boost the performance of the Iridium handsets among other uses.

For the embedded version, Maxtena provides support for installation and integration of the embedded antenna to offer an exceptional antenna performance. Maxtena can embed the antenna in any housing, then tune the antenna to match their housing's materials, electronics, and space.



#### Features

- ✓ Optimized for the Iridium network Very low axial ratio
- ✓ TNC, SMA, SMB, MCX connector Ground plane independent
- ✓ Magnet mount
- ✓ Ultra-light weight - 52 grams

#### Suggested Applications include:

- ✓ Vehicle and fleet tracking
- ✓ Military & security
- ✓ Asset tracking
- ✓ PDAs and laptops
- ✓ Oil & gas industries
- ✓ Navigation devices
- ✓ Law enforcement
- ✓ LBS & M2M applications
- ✓ Iridium (SBD) Short Burst Data



## M1621HCT-P-EXT

### Iridium Certified Passive External Magnet Mount Antenna

Part #: 100-00044-01/02/03/04

- ✓ Optimized for the Iridium network ✓ Very low axial ratio ✓ TNC, SMA, SMB, MCX connector ✓ Ground plane independent ✓ Magnet mount ✓ Ultra-light weight - 52 grams



#### Key electrical specifications:

| Parameter                 | Specification                 |
|---------------------------|-------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)       |
| Antenna element peak gain | 1 dBic (typical)              |
| Axial Ratio               | 0.5 dB (typical) / 1 dB (max) |

#### Key mechanical specifications:

| Parameter                   | Specification                                |
|-----------------------------|----------------------------------------------|
| Mounting option / Connector | Magnet Mount / TNC, SMA, SMB, MCX connectors |
| Dimensions                  | 52.20 mm (height) x 36 mm (diameter)         |

## M1610HCT-GN

### GPS GLONASS Iridium Passive Antenna

Part #: 100-00149-01

- ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight-45grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                                               |
|---------------------------|-------------------------------------------------------------|
| Frequency                 | 1575 MHz (GPS)<br>1602 MHz (Glonass)<br>1621 MHz (Iridium)  |
| Antenna element peak gain | 3.8 dBic (GPS)<br>-1.7 dBic (Glonass)<br>2.0 dBic (Iridium) |
| Axial Ratio               | 0.2 dB (typical)                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | SMA male                             |
| Dimensions                  | 135 mm (height) x 18.5 mm (diameter) |

## M1600HCT-P-SMA

### High Performance Iridium/GPS/GLONASS Passive Antenna

Part #: 100-00003-02

- ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight- 11grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                                                   |
|---------------------------|-----------------------------------------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)<br>1575 MHz (GPS)<br>1602 MHz (GLONASS) |
| Antenna element peak gain | 2.8 dBic (Iridium)<br>-3 dBic (GPS)<br>0 dBic (GLONASS)         |
| Axial Ratio               | 0.5 dB (typical) / 1 dB (max)                                   |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Screw on design / SMA male          |
| Dimensions                  | 48 mm (height) x 18.5 mm (diameter) |



## M1600HCT-P-UFL

### High Performance Iridium Passive Embedded Antenna

Part #: 100-00032-01

- ✓ Very low axial ratio ✓ Iridium bands ✓ Ultra light weight - 3 grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                   |
|---------------------------|---------------------------------|
| Frequency                 | 1616-1626 MHz (Iridium)         |
| Antenna element peak gain | 2.8 dBic (Iridium)              |
| Axial Ratio               | 0.2 dB (typical) / 0.5 dB (max) |

#### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | Embedded         |
| Dimensions                  | 61 x 50 x 116 mm |



## M1610HCT-GN

### GPS GLONASS Iridium Passive Antenna

Part #: 100-00149-01

- ✓ Very low axial ratio ✓ IP-67 mounted and unmounted ✓ Ultra-light weight-45grams ✓ Ground plane independent



#### Key electrical specifications:

| Parameter                 | Specification                                               |
|---------------------------|-------------------------------------------------------------|
| Frequency                 | 1575 MHz (GPS)<br>1602 MHz (Glonass)<br>1621 MHz (Iridium)  |
| Antenna element peak gain | 3.8 dBic (GPS)<br>-1.7 dBic (Glonass)<br>2.0 dBic (Iridium) |
| Axial Ratio               | 0.2 dB (typical)                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | SMA male                             |
| Dimensions                  | 135 mm (height) x 18.5 mm (diameter) |



## MEA-1621-SM

### External Iridium Passive Antenna – Screw Mount

Part #: 189-00060-01

- ✓ Frequency coverage: 1616-1627 MHz ✓ Easy mounting: Screw Mount ✓ Optimized for Iridium network ✓ High Performance ✓ Ground Plane Independent ✓ Anti-Rotation Mechanism ✓ Customizable Cable and Connector ✓ ROHS Certified ✓ Small size: Dimensions 80 x 74 x 25.6 mm ✓ Rugged housing ✓ IP69 / IP67



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 1616-1627 MHz |
| Antenna element peak gain | 4.5 dB        |
| Polarization              | RHCP          |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 x 74 x 43 mm            |



## MEA-1621-GGG

### External Iridium Passive Antenna – Screw Mount

Part #: 100-00098-01

- ✓ Optimized for GPS/GLONASS/IRIDIUM/ Cellular networks
- ✓ Easy mounting
- ✓ 1m cable length RG-174, CFD-200 cables
- ✓ Rugged housing
- ✓ Customer specification connectors
- ✓ IPX7 waterproof housing



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                  |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1575.42 MHz / 1602 MHz<br>824-960 MHz / 1710-2170 MHz<br>1621 MHz                                                              |
| Antenna element peak gain | 2dBi Typ. @1575MHz /<br>2.5dBi Typ. @1602MHz<br>-0.56~-2.69dBi@824~960MHz<br>1.69~-5.2dBi@1710~2170MHz<br>3.5dBi Min. @1621MHz |
| Polarization              | Linear                                                                                                                         |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | Diameter 145 x (H) 32.8 mm |



## MEA-1600-SM

### External Iridium/GNSS Passive Antenna – Screw Mount

Part #: 189-00059-01

- ✓ 2in1 antenna: GPS/GLONASS/Galileo and Iridium
- ✓ High performance
- ✓ Low Profile
- ✓ Cable 1: GPS/GLONASS /Galileo - 1575-1606 MHz
- ✓ Cable 2: Iridium - 1616-1627 MHz
- ✓ Easy mounting: Screw Mount
- ✓ Iridium certified antenna
- ✓ Anti-Rotation Mounting Customizable
- ✓ Cable and Connector
- ✓ Low profile 80 × 74 × 25.6 mm
- ✓ IP69



#### Key electrical specifications:

| Parameter                 | Specification          |
|---------------------------|------------------------|
| Frequency                 | 1575.42 MHz / 1602 MHz |
| Antenna element peak gain | 28 dB @ 2.7 V          |
| Polarization              | RHCP                   |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 × 74 × 25.6 mm          |



## MEA-LGI-SMA

### 5GNR & Iridium GNSS Antenna – Screw Mount

Part #: 189-00059-01

- ✓ 3in1 antenna: 5GNR, Iridium and GNSS
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mounting
- ✓ Optimized for Iridium network
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile 80 × 74 × 25.6 mm
- ✓ IP69



#### Key electrical specifications:

| Parameter                 | Specification                                                                                        |
|---------------------------|------------------------------------------------------------------------------------------------------|
| Frequency                 | 617-960 MHz    1427-2690 MHz<br>3300-5000 MHz    5150-5925 MHz<br>1616 - 1627 MHz    1559 - 1608 MHz |
| Antenna element peak gain | 2.3 dBi    5.1 dBi<br>2.6 dBi    2.7dBi<br>5.2 dBi    28 dB @ 2.7 V                                  |
| Polarization              | Linear                                                                                               |

#### Key mechanical specifications:

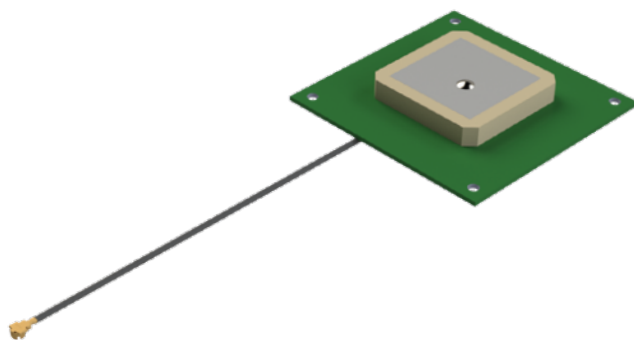
| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 × 74 × 25.6 mm          |

## Our exclusive Iridium Passive Antenna

### MPA-D254-1621

Our patch antenna offerings are perfect for projects with a smaller scope and budget for which high-performance and lower weight is not a primary factor for consideration for the antenna. They are ideal for less demanding applications where extreme performance and battery life can be sacrificed at the expense of device cost.

The antenna MPA-D254-1621 product designed for Iridium-based embedded applications, and is used in GPS handheld units, mobile devices, and tracking devices. It features higher upper hemisphere efficiency and a lower axial ratio as compared to regular patch antennas. The antenna comes standard with a 100 mm cable and U. FL connector, custom alternatives can be requested.



#### Features

- ✓ Iridium frequency band
- ✓ U. FL connector or other
- ✓ Compact size
- ✓ Custom tuning

#### Suggested Applications include:

- ✓ Vehicle and fleet tracking
- ✓ Military & security
- ✓ Asset tracking
- ✓ Iridium (SBD) Short Burst Data
- ✓ Oil & gas industries
- ✓ Navigation devices
- ✓ Mining equipment
- ✓ LBS & M2M applications
- ✓ Handheld devices



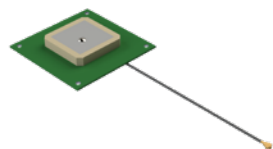


## MPA-D254-1621

### Iridium Passive Antenna – 25mm

Part #: 100-00024-02

- ✓ Iridium frequency band
- ✓ U. FL connector or other
- ✓ Compact size
- ✓ Custom tuning



#### Key electrical specifications:

| Parameter                 | Specification  |
|---------------------------|----------------|
| Frequency                 | 1616-1626 MHz  |
| Antenna element peak gain | 2.5 dBic       |
| Axial Ratio               | 4 dB (typical) |

#### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | U. FL connector      |
| Dimensions                  | 25 mm x 25 mm x 4 mm |

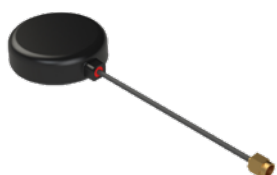


## MEA-1600-AM

### IRIDIUM/GPS Magnetic/Adhesive Mount Antenna

Part #: 100-00237-01

- ✓ Easy mounting: magnetic/adhesive mount
- ✓ Low profile
- ✓ Customizable cable and connector
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter         | Specification             |
|-------------------|---------------------------|
| Frequency         | 1575.42 MHz 1616-1627 MHz |
| Peak Gain         | 2.5 dBi 2.6 dBi           |
| Radiation Pattern | Hemispherical             |

#### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Magnetic/Adhesive Mount/ SMA Male |
| Dimensions                  | Ø 54 x 14.7 mm                    |



## MEA-1621-MT-MA

### Iridium High Performance Screw Mount Antenna

Part #: 100-00227-01

- ✓ Optimized for Iridium Network
- ✓ High Performance
- ✓ High efficiency & 4.5 dBic Iridium Peak Gain
- ✓ Easy Mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Rugged design
- ✓ Customizable Cable and Connector
- ✓ IP67



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 1616-1627 MHz |
| Peak Gain         | 4.5 dBi       |
| Radiation Pattern | Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw Mount/ SMA Male |
| Dimensions                  | Ø 74 x 34.7 mm        |



## MEA-1621-MT-SM

### Iridium High Performance Screw Mount Antenna

Part #: 100-00226-01

- ✓ Optimized for Iridium Network
- ✓ High Performance
- ✓ Easy Mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Rugged design
- ✓ Customizable Cable and Connector
- ✓ IP67



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 1616-1627 MHz |
| Peak Gain         | 4.5 dBi       |
| Radiation Pattern | Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw Mount/TNC Female Bulkhead |
| Dimensions                  | 116 x 110 x 74 mm               |



## MEA-1621-MT-TNC

### Iridium High Performance Marine Pole Mount Antenna

Part #: 100-00225-01

- ✓ Optimized for Iridium Network
- ✓ High Performance
- ✓ High efficiency & 4.5 dBic Iridium Peak Gain
- ✓ Easy Mounting: Pole Mount
- ✓ Ground Plane Independent
- ✓ Rugged design
- ✓ Integrated TNC Female
- ✓ IP67



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 1616-1627 MHz |
| Peak Gain         | 4.5 dBi       |
| Radiation Pattern | Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Pole Mount/TNC Female |
| Dimensions                  | Ø 74 x 116 mm         |



# Microstrip Patch Antennas

**MAXTENA®**



# Microstrip Patch Antennas

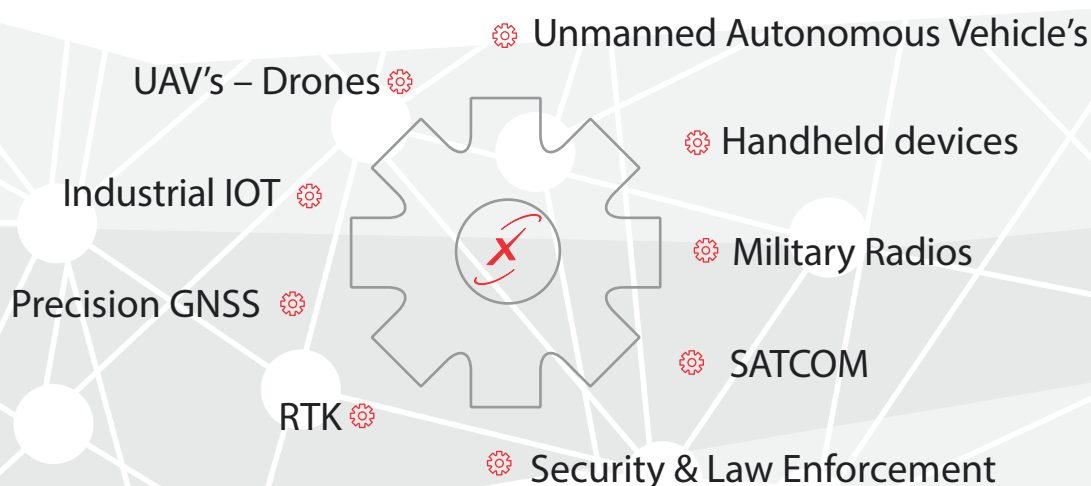


MAXTENA®

We offer a large portfolio of both active and passive advanced conformal wave microstrip antennas. The antennas are available in several different sizes and configurations depending on customer requirements. This included externally mounted and or embedded antenna solutions.

The active antennas can be customized with different filtering, LNA, cable lengths and connectors upon request. All of our microstrip antennas offer high performance with a very low profile. The antennas are ideal for various professional IOT applications. The compact size and lightweight features of the microstrip antennas make them perfect for various commercial and industrial uses. By utilizing various RF and material advances, Maxtena is the leader in conformal antenna solutions used for IOT, Automotive and Autonomous applications.

## Applications



## L1 PASSIVE GPS MICROSTRIP ANTENNA

### MPA-254

The MPA-254 is a 25 mm ceramic GPS passive patch antenna based on Maxtena technology.

Our patch antenna offerings are perfect for projects with a smaller scope and budget for which high-performance and lower weight is not a primary factor for consideration for the antenna. This antenna is designed for embedded applications such as GPS handheld units, mobile devices, and tracking devices. It features higher upper hemisphere efficiency and a lower axial ratio as compared to regular patch antennas.

The MPA-254 ceramic patch antenna is a low profile (25x25x4mm), designed for combined GPS applications. The MPA-254 is designed to provide excellent performance in the 1575.42 range frequency.

This 25 mm square embedded ceramic patch offers a typical peak gain of 5.5 dBi for frequency covered. The interface connector is mounted through pin solution, and double-sided adhesive.

Maxtena offers custom tuning service based on customer request depending on the customer device and ground plane mounting.



#### Features

- ✓ GPS L1 frequency
- ✓ Adhesive mounting
- ✓ Pin-Connector
- ✓ Compact size
- ✓ Custom tuning 25 mm x
- ✓ 25 mm x 4 mm
- ✓ Realized gain: 5.5 dBi

#### Suggested Applications include:

- ✓ Vehicle and fleet tracking
- ✓ Military & security
- ✓ Asset tracking
- ✓ Iridium (SBD) Short Burst Data
- ✓ Oil & gas industries
- ✓ Navigation devices
- ✓ Mining equipment
- ✓ LBS & M2M applications
- ✓ Handheld devices



## MPA-104-C

**GPS Passive Antenna – 10mm**

Part #: 189-00008-01

✓ GPS L1 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification                   |
|----------------|---------------------------------|
| Frequency      | 1583-1597 MHz                   |
| Gain at Zenith | -3.5 dBic typ.                  |
| Axial Ratio    | 1.5 dB (typical) / 2.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Pin connector           |
| Dimensions                  | 10 mm x 10 mm x 4.76 mm |

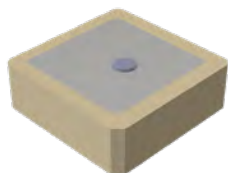


## MPA-124-C

**GPS Passive Antenna – 12mm**

Part #: 189-00079-01

✓ GPS L1 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification                   |
|----------------|---------------------------------|
| Frequency      | 1575.42 MHz                     |
| Gain at Zenith | -3.0 dBic typ                   |
| Axial Ratio    | 1.5 dB (typical) / 2.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Pin connector          |
| Dimensions                  | 12 mm x 12 mm x 4.2 mm |



## MPA-134-GPS

**GPS Passive Antenna – 12mm**

Part #: 189-00056-01

✓ GLONASS frequency ✓ Easy mounting ✓ Pin-Connector ✓ Compact size ✓ Advanced Ceramic Material ✓ Ground Plane Dependent  
 ✓ Dimensions 13 x 13 x 4 mm



### Key electrical specifications:

| Parameter      | Specification   |
|----------------|-----------------|
| Frequency      | 1595 - 1610 MHz |
| Gain at Zenith | -1.5 dBic typ.  |
| Axial Ratio    | 5 dBi           |

### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | Pin connector     |
| Dimensions                  | 13mm x 13mm x 4mm |



## MPA-152-C

GPS Passive Antenna – 15mm x 2mm

Part #: 100-00084-01

✓ GPS L1 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification  |
|----------------|----------------|
| Frequency      | 1575.42 MHz    |
| Gain at Zenith | -2.0 dBic typ. |
| Axial Ratio    | 3 dB typ.      |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Pin connector          |
| Dimensions                  | 15 mm x 15 mm x 2.2 mm |



## MPA-154-C

GPS Passive Antenna – 15mm

Part #: 189-00081-01

✓ GPS L1 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification |
|----------------|---------------|
| Frequency      | 1575.42 MHz   |
| Gain at Zenith | -1.0 dBic typ |
| Axial Ratio    | 3 dB (max)    |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Pin connector          |
| Dimensions                  | 15 mm x 15 mm x 4.2 mm |



## MPA-182-C

GPS Passive Antenna – 18mm x 2mm

Part #: 100-00085-01

✓ GPS L1 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification   |
|----------------|-----------------|
| Frequency      | 1595 - 1610 MHz |
| Gain at Zenith | -1.5 dBic typ.  |
| Axial Ratio    | 5 dBi           |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Pin connector          |
| Dimensions                  | 25 mm x 25 mm x 2.2 mm |





## MPA-184-C

GPS Passive Antenna – 18mm

Part #: 189-00082-01

✓ GPS L1 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification   |
|----------------|-----------------|
| Frequency      | 1573 - 1585 MHz |
| Gain at Zenith | +2.5 dBic typ   |
| Axial Ratio    | 3 dB typ.       |

### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Pin connector           |
| Dimensions                  | 18 mm x 18 mm x 4.26 mm |



## MPA-254

GPS Passive Antenna – 25mm

Part #: 189-00003-01

✓ GPS L1 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification                   |
|----------------|---------------------------------|
| Frequency      | 1575.42 MHz                     |
| Gain at Zenith | 5.5 dBic                        |
| Axial Ratio    | 1.5 dB (typical) / 2.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | Pin connector        |
| Dimensions                  | 25 mm x 25 mm x 4 mm |



## MPA-258-L1-L5

L1 L5 GPS Embedded Antenna – 25mm

Part #: 189-00057-01

✓ GPS L1 L5 frequency ✓ Dual stacked patch ✓ Thru-Hole Mount ✓ Compact size ✓ Ceramic Material ✓ Advanced Ceramic Materials ✓ High Performance



### Key electrical specifications:

| Parameter      | Specification                                     |
|----------------|---------------------------------------------------|
| Frequency      | (L1) 1575.42 ± 1.023 MHz<br>(L5) 1176.45 ± 12 MHz |
| Gain at Zenith | 1.8 dB i typ.<br>0.5 dB i typ.                    |
| Polarization   | RHCP                                              |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | Thru-Hole Mount      |
| Dimensions                  | 25 mm x 25 mm x 8 mm |





## MPA-356-1516

**Passive GPS GLONASS Beidou Antenna – 35mm x 6mm**

Part #: 189-00049-01

✓ GPS, GLONASS, Beidou frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter     | Specification                                                                                             |
|---------------|-----------------------------------------------------------------------------------------------------------|
| Frequency     | GPS: 1575.42 MHz $\pm$ 1.023 MHz<br>GLONASS: 1602 MHz $\pm$ 5 MHz<br>Beidou: 1561.098 MHz $\pm$ 2.046 MHz |
| Realized gain | GPS: +3.7 dBi typ.<br>GLONASS: +4.9 dBi typ.<br>Beidou: +5.2 dBi typ.                                     |
| Polarization  | RHCP                                                                                                      |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | Pin connector        |
| 18 mm x 18 mm x 4 mm        | 35 mm x 35 mm x 6 mm |

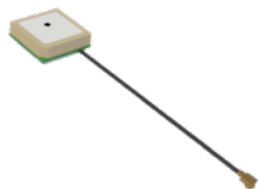


## MPA-406-1227

**Passive GPS L2 Antenna – 40.5mm x 6.5mm**

Part #: 189-00047-01

✓ GPS L2 frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter      | Specification       |
|----------------|---------------------|
| Frequency      | 1227.6 $\pm$ 10 MHz |
| Gain at Zenith | -3.8 dBi typ        |
| Axial Ratio    | 3 typ.              |

### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Pin connector           |
| Dimensions                  | 40.5mm x 40.5mm x 6.5mm |

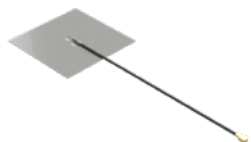


## MEA-1176-AM

**GNSS – L1/L2/L5/L6 Adhesive mount antenna**

Part #: 100-00199-01

✓ Low profile: 45.4  $\times$  45.4  $\times$  0.2 mm ✓ Easy mounting: Self-Adhesive ✓ Multi-Band-Constellation ✓ Flexible Material ✓ High Performance  
✓ Customizable Cable and Connector



### Key electrical specifications:

| Parameter                 | Specification                                                                                                      |
|---------------------------|--------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1561.09, 1575.42, 1602 MHz (L1)<br>1227.6, 1246 MHz (L2)<br>1176.45, 1207.14 MHz (L5)<br>1268.52, 1278.75 MHz (L6) |
| Antenna element peak gain | 4.9 dBic (L1)<br>3.1 dBic (L2)<br>3.2 dBic (L5)<br>2.9 dBic (L6)                                                   |
| Radiation pattern         | Hemispherical                                                                                                      |

### Key mechanical specifications:

| Parameter                   | Specification                                           |
|-----------------------------|---------------------------------------------------------|
| Mounting option / Connector | Adhesive /U.FL Standard<br>(Other Connectors Available) |
| Dimensions                  | 45.4 $\times$ 45.4 $\times$ 0.2 mm                      |

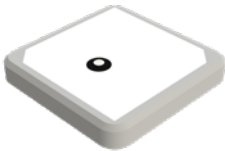


## MPA-356-1575

### GPS MICROSTRIP ANTENNA

Part #: 189-00049-02

- ✔ Adhesive mounting ✔ Pin connector ✔ Compact size ✔ Custom tuning



#### Key electrical specifications:

| Parameter      | Specification               |
|----------------|-----------------------------|
| Frequency      | 1575.42 MHz $\pm$ 1.023 MHz |
| Gain at Zenith | +3.7 dBi typ.               |
| Polarization   | RHCP                        |

#### Key mechanical specifications:

| Parameter                   | Specification                 |
|-----------------------------|-------------------------------|
| Mounting option / Connector | Pin connector/ Adhesive mount |
| Dimensions                  | 35 x 35 x 6mm                 |



## MIA-GPS-10-C

GPS Active Antenna – 10mm

Part #: 189-00072-01

✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Compact size ✓ Custom tuning ✓ Custom connector / cable size



### Key electrical specifications:

| Parameter      | Specification        |
|----------------|----------------------|
| Frequency      | 1.575GHz 1575.42 MHz |
| Gain at Zenith | -3 dBic (typ.)       |
| Axial Ratio    | ≤ 4.0dB              |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | I-PEX                  |
| Dimensions                  | 10 mm x 10 mm x 5.9 mm |

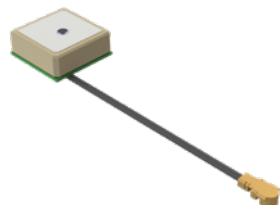


## MIA-GPS-12-C

GPS Active Antenna – 12mm

Part #: 189-00073-01

✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Compact size ✓ Custom tuning ✓ Custom connector / cable size



### Key electrical specifications:

| Parameter      | Specification  |
|----------------|----------------|
| Frequency      | 1575.42 MHz    |
| Gain at Zenith | -4.5 dBic typ. |
| Axial Ratio    | ≤ 4.0dB        |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I-PEX                |
| Dimensions                  | 12 mm x 12 mm x 6 mm |

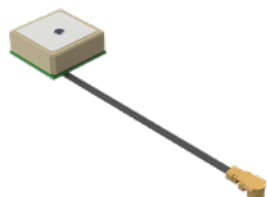


## MIA-GPS-12-HC

High Current GPS Active Antenna – 12mm

Part #: 189-00039-01

✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Compact size ✓ Custom tuning ✓ Custom connector / cable size



### Key electrical specifications:

| Parameter      | Specification  |
|----------------|----------------|
| Frequency      | 1575.42 MHz    |
| Gain at Zenith | -4.5 dBic typ. |
| Axial Ratio    | ≤ 4.0dB        |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I-PEX                |
| Dimensions                  | 12 mm x 12 mm x 4 mm |

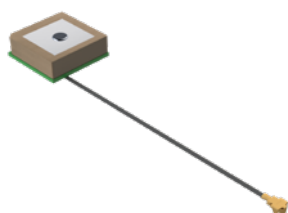


## MIA-GPS-15-C

GPS Active Antenna – 15mm

Part #: 189-00070-01

- ✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Compact size ✓ Custom tuning ✓ Custom connector/Cable size ✓ Excellent out-of-band signal rejection ✓ Ideal antenna solution for RTK systems



### Key electrical specifications:

| Parameter      | Specification |
|----------------|---------------|
| Frequency      | 1575.42 MHz   |
| Gain at Zenith | 5dBic         |
| Axial Ratio    | ≤ 5dB         |

### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | I-PEX         |
| Dimensions                  | 15x15x4 mm    |

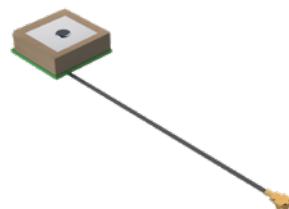


## MIA-GPS-15-HC

GPS Active Antenna – 15mm

Part #: 189-00040-01

- ✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Compact size ✓ Custom tuning ✓ Custom connector/Cable size



### Key electrical specifications:

| Parameter   | Specification                   |
|-------------|---------------------------------|
| Frequency   | 1575.42 MHz ± 10 MHz (L1)       |
| Gain (LNA)  | 26 dB                           |
| Axial Ratio | 1.5 dB (typical) / 2.5 dB (max) |

### Key mechanical specifications:

| Parameter                   | Specification                 |
|-----------------------------|-------------------------------|
| Mounting option / Connector | U.FL connector                |
| Dimensions                  | 16.38 mm x 16.38 mm x 4.89 mm |

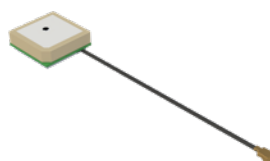


## MIA-GPS-18-C

GPS Active Antenna – 18mm

Part #: 189-00074-01

- ✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Compact size ✓ Custom tuning ✓ Custom connector/Cable size



### Key electrical specifications:

| Parameter   | Specification                              |
|-------------|--------------------------------------------|
| Frequency   | 1575.42 MHz                                |
| Gain        | 0 dBic typ. @ zenith<br>≥23dB, 25dB (typ.) |
| Axial Ratio | ≤4 dB                                      |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I- PEX ( F )         |
| Dimensions                  | 18mm x 18mm x 6.5 mm |

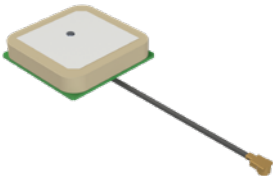


## MIA-GPS-25-C

GPS Active Antenna – 25mm

Part #: 189-00075-01

✔ GPS L1 frequency ✔ Active LNA circuitry ✔ Compact size ✔ Custom tuning ✔ Custom connector/Cable size



Key electrical specifications:

| Parameter                 | Specification              |
|---------------------------|----------------------------|
| Frequency                 | 1575.42 MHz                |
| Antenna element peak gain | + 5.0 dBic @ Zenith 30±3dB |
| Axial Ratio               | ≤ 3.0dB                    |

Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | I-PEX                      |
| Dimensions                  | 25.1 mm x 25.1 mm x 7.4 mm |

## M9708CWT, our new

## L1 L2 L5 Multi-Frequency Active Antenna

# M9708CWT

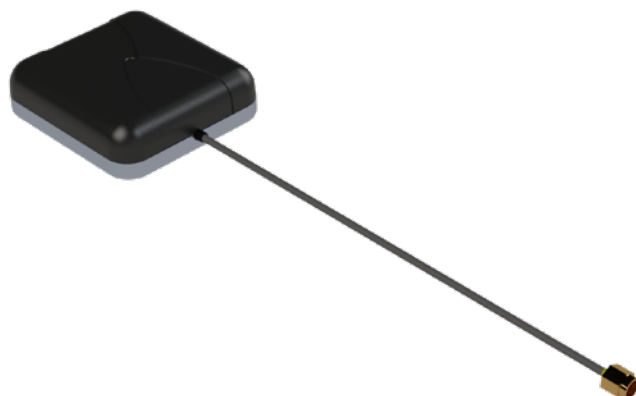
Maxtena Releases the M9708CWT a Rugged Low Profile Multi-Frequency GNSS Antenna for SATCOM Applications.

The new active conformal wave antenna is unrivaled in performance and capabilities, able to operate across the L1/L2 GPS, GLONASS, Galileo and Beidou bands with superior precision.

The M9708CWT antenna is designed using Maxtena's proprietary Optimized Microstrip Technology, a technology that uses an electromagnetically co-optimized antenna and ground plane combination to enhance the performance of an antenna system.

The M9708CWT antenna is a high accuracy, multi-frequency active conformal wave GNSS antenna. The revolutionary design features concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, GLONASS L3OC, and L2 OF in a rugged, compact, and ultra-lightweight form factor. The antenna is a perfect match for GNSS applications where size, performance, and cost drive antenna selection. The M9708CWT is built on Maxtena's proprietary Optimized Microstrip Technology, which features 40% better efficiency and 3 dB improved axial ratio purity compared to competitor patch technology. Maxtena's M9708CWT has unique features that make it the best option for high-accuracy GNSS applications. It offers a low axial ratio not only at the zenith, but also in other elevation angles ensuring multipath error is mitigated. With the M9708CWT full hemispherical coverage is achieved by an exceptionally large 3 dB beamwidth, ensuring the full view of sky and satellites at lower elevation angles.

The M9708CWT will be available either as an off-the-shelf antenna housed in rugged automotive grade PCB plastic with automatic grade electronics or as an embedded antenna option which is mounted on the inside of a customer's designed enclosure.



Maxtena's CEO Stani Licul said, "Maxtena has developed a very capable platform that can address many existing challenges in the GNSS market segment. Our M9708CWT uses advanced materials to achieve maximum bandwidth and RF with super low group delay characteristics. The advanced materials used can be conformal to different surfaces thus providing a very attractive solution for the automotive, IOT and autonomous markets. The M9708CWT provides the most optimal balance in terms of efficiency, size, and power."



### Features

- ✓ Low profile design
- ✓ Rugged IP67 rating
- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Automotive grade housing

### Suggested Applications include

- ✓ Vehicle and fleet tracking
- ✓ Military & security
- ✓ Asset tracking
- ✓ Oil & gas industries
- ✓ Mining equipment
- ✓ LBS & M2M applications



# Multi-Frequency Active Microstrip Antenna

## External



### MEA-1227-SM

GNSS/L1L2 Screw Mount

Part #: 189-00062-01

- ✓ Pre-Filter ✓ Low Noise Figure ✓ Low Power Consumption ✓ Customizable Cable and Connector ✓ Dimension 80 x 74 x 25.6 mm
- ✓ Anti-Rotation Mechanism ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification                         |
|---------------------------|---------------------------------------|
| Frequency                 | 1227.6 MHz (L2)<br>1561-1606 MHz (L1) |
| Antenna element peak gain | 3.4 dBi (L2)    5.3 dBi (L1)          |
| Axial Ratio               | ≤ 3dB                                 |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



### MEA-1227-MM

GNSS/L1L2 Magnet Mount

Part #: 100-00202-01

- ✓ Superb out of band rejection ✓ Outstanding filtering ✓ High Precision ✓ Easy mounting: Magnetic Mount ✓ Low Profile - Ø 54 x 21.5 mm
- ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification                         |
|---------------------------|---------------------------------------|
| Frequency                 | 1227.6 MHz (L2)<br>1561-1606 MHz (L1) |
| Antenna element peak gain | 4.9 dBi (L2)    4.4 dBi (L1)          |
| Axial Ratio               | ≤ 3dB                                 |

#### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Magnet Mount / SMA Male |
| Dimensions                  | Ø 54 x 21.5 mm          |

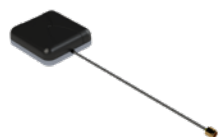


### M1559CWT

L1 GPS GLONASS Active Multi-Frequency Antenna – External

Part #: 100-00118-01

- ✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou ✓ Low profile design ✓ Rugged IP67 rating ✓ Small form factor
- ✓ Low power consumption ✓ Minimal phase center variation over azimuth and elevation ✓ Negligible group delay variation
- ✓ Automotive grade



#### Key electrical specifications:

| Parameter     | Specification                           |
|---------------|-----------------------------------------|
| Frequency     | 1559-1610 MHz<br>(L1, E1, B1, B1-2, G1) |
| Realized gain | 3.3 dB                                  |
| Axial Ratio   | Max 2.7 dB at the Zenith                |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | SMA, SMB, MCX (customer choice) |
| Dimensions                  | 75mm x 70mm x 23 mm             |

# Multi-Frequency Active Microstrip Antenna

## External

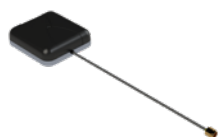


### M9706CWT

#### L1/L2 GPS GLONASS Active Multi-Frequency Antenna – External

Part #: 100-00090-01

- ✓ Low profile design
- ✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, and GLONASS L3OC
- ✓ Rugged IP67 rating
- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Automotive grade housing



#### Key electrical specifications:

| Parameter     | Specification                                                               |
|---------------|-----------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Realized gain | 2.6 dB      3.3 dB                                                          |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith                        |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | SMA, SMB or MCX (customer's choice) |
| Dimensions                  | 75mm x 70mm x 23 mm                 |



### M9708CWT

#### L1/L2/L5 GPS GLONASS Active Multi-Frequency Antenna – External

Part #: 108-00060-02

- ✓ Low profile design
- ✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, and GLONASS L3OC
- ✓ Rugged IP67 rating
- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Automotive grade housing



#### Key electrical specifications:

| Parameter     | Specification                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1)<br>1164-1189 MHz (L5, E5A) |
| Realized gain | 2.6 dB<br>3.3 dB<br>-2dB                                                                               |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith<br>Max 3 dB at the Zenith                         |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | SMA, SMB or MCX connector |
| Dimensions                  | 75mm x 70mm x 23 mm       |

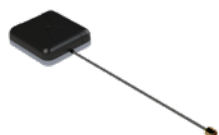


### M1593CWT

#### L1/L2/L5 GPS GLONASS + L-Band- Active Multi-Frequency Antenna – External

Part #: 100-00191-01

- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low Power Consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Automotive grade housing



#### Key electrical specifications:

| Parameter     | Specification                                                             |
|---------------|---------------------------------------------------------------------------|
| Frequency     | 197-1249 MHz<br>1559-1606 MHz<br>1539 - 1559 MHz                          |
| Realized gain | 2.6 dB @1197-1249 MHz<br>3.3 dB @1559-1606 MHz<br>1.5 dB @1539 - 1559 MHz |
| Polarization  | RHCP                                                                      |

#### Key mechanical specifications:

| Parameter                   | Specification                                              |
|-----------------------------|------------------------------------------------------------|
| Mounting option / Connector | Magnetic base, fixed installation option/<br>SMA, SMB, MCX |
| Dimensions                  | 75mm x 70mm x 23 mm                                        |

# Multi-Frequency Active Microstrip Antenna

## External

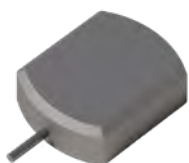


### MEA-GPS-GG

#### GPS GLONASS Active External Antenna

Part #: 189-00015-01

✓ GPS/GLONASS coverage ✓ Active LNA circuitry ✓ Waterproof housing ✓ Compact size ✓ Custom tuning



#### Key electrical specifications:

| Parameter              | Specification               |
|------------------------|-----------------------------|
| Frequency              | 1590 MHz                    |
| Total system peak gain | 30 dB @ 2.5 V / 32 dB @ 5 V |
| Axial Ratio            | 1 dB (min)                  |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | SMA, TNC or other     |
| Dimensions                  | 48 mm x 39 mm x 14 mm |

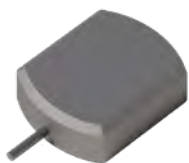


### MEA-GPS-S

#### GPS Active External Antenna

Part #: 189-00016-01

✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Waterproof housing ✓ Compact size ✓ Custom tuning



#### Key electrical specifications:

| Parameter              | Specification               |
|------------------------|-----------------------------|
| Frequency              | 1575.42 MHz                 |
| Total system peak gain | 28 dB @ 2.5 V / 30 dB @ 5 V |
| Axial Ratio            | 2.5 dB (min)                |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | SMA, TNC or other     |
| Dimensions                  | 48 mm x 39 mm x 14 mm |



### MEA-GPS-SM

#### GPS Active External Antenna

Part #: 189-00017-01

✓ GPS L1 frequency ✓ Active LNA circuitry ✓ Waterproof housing ✓ Compact size ✓ Custom tuning



#### Key electrical specifications:

| Parameter              | Specification               |
|------------------------|-----------------------------|
| Frequency              | 1575.42 MHz                 |
| Total system peak gain | 26 dB @ 2.5 V / 28 dB @ 5 V |
| Axial Ratio            | 2 dB (min)                  |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | SMA, TNC or other |
| Dimensions                  | Ø 46.5 x 29.93 mm |

# Multi-Frequency Active Microstrip Antenna

## External



### MEA-5IG-MA

5G NR, Iridium and GNSS Magnetic/Adhesive Mount

Part #: 100-00206-01

✓ Easy mounting: Magnetic/Adhesive Mount ✓ Iridium Certified ✓ Low Profile ✓ High Performance ✓ Pre-Filtered GNSS ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions 89 × 76 × 27/30 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter            | Specification                    |
|----------------------|----------------------------------|
| Frequency            | 617-960 MHz/1427-2690 MHz        |
| Antenna element peak | 3300-5000 MHz/5150-5925 MHz      |
| Frequency            | 1616-1627 MHz                    |
| Antenna element peak | 5.2 dBi                          |
| Frequency            | 1575.42 MHz/1602 MHz             |
| Antenna element peak | 28 dB @ 2.7 / 28 dB @ 2.7        |
| Radiation Pattern    | Omni-directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Magnetic/Adhesive Mount/ SMA Male |
| Dimensions                  | 89 × 76 × 27/30 mm                |



### MEA-LWIG-SM

5G NR, 2.4/5.0/6.0 GHz ISM, Iridium & GNSS Antenna – Screw Mount

Part #:100-00164-01

✓ 4in1 antenna (5G NR, 2.4/5.0/6.0 GHz ISM, Iridium and GPS/GLONASS/QZSS/Galileo) ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Customizable Cable and Connector ✓ Dimensions Ø 146 x 31.5 mm ✓ IK09, IP67, IP69K



#### Key electrical specifications:

| Parameter         | Specification                       |
|-------------------|-------------------------------------|
| Frequency         | 617-960 MHz / 1427-2690 MHz         |
| Peak gain         | 3300-5000 MHz / 5150-5925 MHz       |
| Efficiency        | -1.7 dBi/-1.7 dBi/-1.3 dBi/ 0.6 dBi |
| VSWR              | 19.7% / 17.5% / 13.3% / 15.9 %      |
| Frequency         | 3.3:1 / 2.3:1 / 2.1:1 / 1.7:1       |
| Frequency         | 2410-2490 MHz / 4920-5925 MHz       |
| Peak gain         | 5925-7125 MHz                       |
| Efficiency        | 1.2 dBi / 0.0 dBi / 5.2 dBi         |
| VSWR              | 30.5% / 13.8% / 52.1%               |
| Frequency         | 1.4:1 / 1.6:1 / 2.5:1               |
| Frequency         | 1616-1627 MHz                       |
| Peak gain         | 4.5 dBic                            |
| Efficiency        | 76%                                 |
| VSWR              | 1.2:1                               |
| Frequency         | 1575.42 MHz /1598-1606 MHz          |
| Active gain       | 28 dB @ 2.7 V                       |
| Noise figure      | 1.8 dB @ 2.7 V                      |
| Power consumption | 24.3 mW@2.7 V                       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 146 x 31.5 mm        |

# Multi-Frequency Active Microstrip Antenna

## External



### MEA-GGB-CM

#### GNSS Connector Mount Antenna

Part #: 100-00245-01

- ✓ GPS/GLONASS/BeiDou/QZSS/Galileo frequency coverage ✓ Easy mounting ✓ Connector mount low profile ✓ High efficiency



#### Key electrical specifications:

| Parameter         | Specification                                                           |
|-------------------|-------------------------------------------------------------------------|
| Frequency         | 1561.098 MHz<br>1575.42 MHz<br>1598-1606 MHz                            |
| Peak Gain         | 2.9 dBi @1561.098 MHz<br>2.8 dBi @1575.42 MHz<br>2.9 dBi @1598-1606 MHz |
| Radiation Pattern | Omin-Directional                                                        |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Connector Mount / SMA |
| Dimensions                  | Ø 10 x 71 mm          |



### MEA-169-ISM-GG

#### 169 MHz ISM-ERMES And GPS/GLONASS Screw Mount

Part #: 100-00242-01

- ✓ Easy mounting: Magnetic/Adhesive Mount ✓ Iridium Certified ✓ Low Profile ✓ High Performance ✓ Pre-Filtered GNSS ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions 89 x 76 x 27/30 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter            | Specification                    |
|----------------------|----------------------------------|
| Cable1 Frequency     | 169.4-169.8 MHz                  |
| Antenna element peak | 0 dBi                            |
| Cable2 Frequency     | 1575.42 MHz / 1598-1610 MHz      |
| Active Gain          | 26 dB @ 3 V / 27 dB @ 5 V        |
| Radiation Pattern    | Omni-directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 60 x 97 mm           |

# Multi-Frequency Active Microstrip Antenna

## External



### MEA-5GGG-SM

5G NR and GPS/GLONASS Screw Mount

Part #: 100-00204-01

- ✓ 5G NR & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy Mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Low Profile
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions 80 × 74 × 25.6 mm
- ✓ IP67, IP69

#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                                   |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 698-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz<br>1575.42 MHz 1602 MHz                                                                                |
| Antenna element peak gain | 2.3 dBi @ 698-960 MHz<br>2.6 dBi @ 3300-5000 MHz<br>28dB @ 2.7 V @ 1575.42 MHz<br>5.1 dBi @ 1427-2690 MHz<br>2.7 dBi @ 5150-5925 MHz<br>28dB @ 2.7 V @ 1602 MHz |
| Radiation pattern         | Omni-directional / Hemispherical                                                                                                                                |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 × 74 × 25.6 mm      |



### MEA-5in1-SMA

5G NR MIMO, 2.4/5.0/6.0 GHz ISM and GNSS - Screw mount antenna

Part #: 100-00243-01

- ✓ 5G NR, 2.4/5.0/6.0 GHz ISM & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

#### Key electrical specifications:

| Parameter                   | Specification                                            |
|-----------------------------|----------------------------------------------------------|
| Cable1 Frequency            | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz |
| Cable1 Antenna element peak | 1.3 dBi / 3.4 dBi / 4.7 dBi / 4.0 dBi                    |
| Cable2 Frequency            | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz |
| Cable2 Antenna element peak | 1.2 dBi / 3.6 dBi / 4.6 dBi / 3.2 dBi                    |
| Cable3 Frequency            | 2410-2490 MHz 4920-5925 MHz<br>5925-7125 MHz             |
| Cable3 Antenna element peak | 5.6 dBi / 5.5 dBi / 3.8 dBi                              |
| Cable4 Frequency            | 2410-2490 MHz 4920-5925 MHz<br>5925-7125 MHz             |
| Cable4 Antenna element peak | 5.6 dBi / 5.5 dBi / 3.6 dBi                              |
| Cable5 Frequency            | 1575.42 MHz 1598-1610 MHz                                |
| Cable5 Active Gain          | 23dB@3V; 24dB@5V                                         |
| Radiation pattern           | Omni-Directional / Hemispherical                         |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |





# Multi-Frequency Active Microstrip Antenna

## Embedded



### M9706CWT-UFL

#### L1/L2 GPS GLONASS Active Multi-Frequency Antenna – Embedded

Part #: 108-00060-02

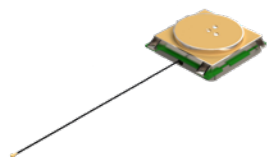
- ✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, GLONASS L30C, and L2 OF
- ✓ Low profile design
- ✓ Conformal materials
- ✓ Full active design with superb filtering
- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation

#### Key electrical specifications:

| Parameter     | Specification                                                               |
|---------------|-----------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Realized gain | 2.6 dB      3.3 dB                                                          |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith                        |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Embedded/ U.FL connector |
| Dimensions                  | 65mm x 65mm x 17 mm      |



### M9708CWT-UFL

#### L1/L2/L5 GPS GLONASS Active Multi-Frequency Antenna – Embedded

Part #: 108-00060-02

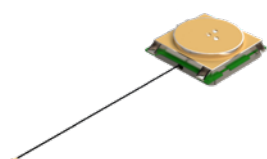
- ✓ Low profile design
- ✓ Concurrent GNSS reception on L1: GPS GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, and GLONASS L30C
- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS Applications
- ✓ Low power consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Custom tuned to applications enclosure

#### Key electrical specifications:

| Parameter     | Specification                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1)<br>1164-1189 MHz (L5, E5A) |
| Realized gain | 2.6 dB<br>3.3 dB<br>-2dB                                                                               |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith<br>Max 3 dB at the Zenith                         |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Embedded/ U.FL connector |
| Dimensions                  | 65mm x 65mm x 17 mm      |



# Multi-Frequency Active Microstrip Antenna Embedded



## M1593CWT-UFL

L1/L2/L5 GPS GLONASS + L-Band- Active Multi-Frequency Antenna – Embedded

Part #: 108-00083-01

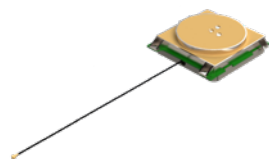
✔ Small form factor ✔ GIS, RTK and other high accuracy GNSS applications ✔ Low Power Consumption ✔ Minimal phase center variation over azimuth and elevation ✔ Negligible group delay variation ✔ Automotive grade housing

### Key electrical specifications:

| Parameter     | Specification                                     |
|---------------|---------------------------------------------------|
| Frequency     | 1197-1249 MHz<br>1559-1606 MHz<br>1539 - 1559 MHz |
| Realized gain | 2.6 dB<br>3.3 dB<br>1.5 dB                        |
| Noise figure  | ≤ 2 dB                                            |

### Key mechanical specifications:

| Parameter                   | Specification       |
|-----------------------------|---------------------|
| Mounting option / Connector | Embedded/ U.FL      |
| Dimensions                  | 65mm x 65mm x 17 mm |



## MIA-GNSS-1500-C

Active Multi-Frequency Antenna – Embedded

Part #: 189-00076-01

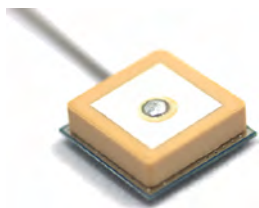
✔ GPS, GLONASS, Beidou frequencies ✔ Active LNA circuitry ✔ Compact size ✔ Custom tuning ✔ Custom connector / cable size

### Key electrical specifications:

| Parameter    | Specification                                 |
|--------------|-----------------------------------------------|
| Frequency    | 1561.098± 2.046 MHz<br>1575.42 MHz<br>1602MHz |
| Gain @zenith | -5.5dBi typ.<br>-4.5dBi typ<br>-2.5dBi typ.   |
| Polarization | RHCP                                          |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | Embedded         |
| Dimensions                  | 15 x 15 x 6.6 mm |



# Iridium Passive Microstrip Antenna

MAXTENA®



## MEA-1600-SM

External Iridium/GNSS Passive Antenna – Screw Mount

Part #: 189-00059-01

- ✓ 2in1 antenna: GPS/GLONASS ✓ Galileo and Iridium ✓ High performance ✓ Low Profile ✓ Cable1: GPS/GLONASS /Galileo -1575-1606 MHz
- ✓ Cable 2: Iridium - 1616-1627 MHz ✓ Easy mounting: Screw Mount ✓ Iridium certified antenna ✓ Anti-Rotation Mounting
- ✓ Customizable Cable and Connector ✓ Low profile 80 × 74 × 25.6 mm I ✓ P69



### Key electrical specifications:

| Parameter       | Specification               |
|-----------------|-----------------------------|
| Frequency       | 1575.42 MHz / 1598-1606 MHz |
| Active gain     | 28 dB@ 2.7 V                |
| Polarization    | RHCP                        |
| Frequency Range | 1616 – 1627 MHz             |
| Peak gain       | 5.2 dBic                    |
| Average Gain    | -1.8 dB                     |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | SMA male              |
| Dimensions                  | 80mm x 74mm x 25.6 mm |



## MEA-1621

External Iridium Certified Passive Antenna – Magnet Mount

Part #: 189-00024-01

- ✓ Optimized for Iridium Network ✓ Very low axial ratio ✓ Excellent performance at low orbit ✓ Easy mounting ✓ 150cm cable length
- ✓ LM4100 cable ✓ Rugged housing



### Key electrical specifications:

| Parameter    | Specification         |
|--------------|-----------------------|
| Frequency    | Iridium 1616-1626 MHz |
| Peak Gain    | 4.5 dBic              |
| Average Gain | -1.1 dB               |
| Axial Ratio  | 3 dB (max)            |

### Key mechanical specifications:

| Parameter                   | Specification                         |
|-----------------------------|---------------------------------------|
| Mounting option / Connector | SMA–Male (other connectors available) |
| Dimensions                  | 80 x 76 x 16 mm                       |



## MEA-1621-AM

Iridium Certified Antenna – Adhesive Mount

Part #: 189-00067-01

- ✓ Optimized for Iridium Network ✓ Very low axial ratio ✓ Excellent performance at low orbit ✓ Easy mounting ✓ Rugged housing



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 1616-1627 MHz |
| Peak Gain    | 4.5 dBic      |
| Average Gain | -1.1 dB       |
| Axial Ratio  | 3 dB (max)    |

### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA–Male        |
| Dimensions                  | 80 x 76 x 16 mm |

# Iridium Passive Microstrip Antenna

## MEA-1621-GGG

### External Iridium Passive Antenna – Screw Mount

Part #: 189-00060-01

- ✓ Optimized for GPS/GLONASS/IRIDIUM/ Cellular networks ✓ Easy mounting ✓ 1m cable length RG-174, CFD-200 cables ✓ Rugged housing ✓ Customer specification connectors ✓ IPX7 waterproof housing



#### Key electrical specifications:

| Parameter       | Specification                                               |
|-----------------|-------------------------------------------------------------|
| Frequency Range | 1575.42 / 1602 MHz                                          |
| Active gain     | 3 dBi Typ. @ 1575 MHz / 2.5 dBi Typ. @ 1602 MHz             |
| Polarization    | Linear                                                      |
| Frequency Range | 1575.42 / 1602 MHz                                          |
| Peak gain       | 28 dB Typ. / 25 dB Min                                      |
| VSWR            | 2.0 : 1 Max                                                 |
| Frequency Range | 824-960 / 1710-2170 MHz                                     |
| Active gain     | 0.56-2.69 dBi @ 824-960 MHz<br>1.69-5.2 dBi @ 1710-2170 MHz |
| Impedance       | 50 $\Omega$                                                 |
| Frequency Range | 1621 MHz                                                    |
| Peak gain       | 3.5 dBic Min. @ 1621 MHz                                    |
| Polarization    | RHCP                                                        |

#### Key mechanical specifications:

| Parameter                   | Specification                         |
|-----------------------------|---------------------------------------|
| Mounting option / Connector | SMA–Male (other connectors available) |
| Dimensions                  | 80mm x 74mm x 43 mm                   |

## MEA-1621-SM

### External Iridium Passive Antenna – Screw Mount

Part #: 189-00060-01

- ✓ Frequency coverage: 1616-1627 MHz ✓ Easy mounting: Screw Mount ✓ Optimized for Iridium network ✓ High Performance ✓ Ground Plane Independent ✓ Anti-Rotation Mechanism ✓ Customizable Cable and Connector ✓ ROHS Certified ✓ Small size: Dimensions 80 x 74 x 25.6 mm ✓ Rugged housing ✓ IP69, IP67



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 1616-1627 MHz |
| Peak Gain    | 4.5 dBic      |
| Average Gain | 1.2 dB        |

#### Key mechanical specifications:

| Parameter                   | Specification                         |
|-----------------------------|---------------------------------------|
| Mounting option / Connector | SMA–Male (other connectors available) |
| Dimensions                  | 80mm x 74mm x 43 mm                   |

# Iridium Passive Microstrip Antenna



## MPA-406-1612

Passive GPS Iridium Antenna – 40mm x 6.5mm

Part #: 189-00050-01

✔ Ultra High Performance ✔ Iridium & GPS Band Coverage ✔ Embedded Applications ✔ Pin Connector ✔ Custom Tuning and Matching



### Key electrical specifications:

| Parameter                 | Specification       |
|---------------------------|---------------------|
| Frequency                 | 1565 MHz - 1640 MHz |
| Antenna element peak gain | +2.0 dBi (typical)  |
| Axial Ratio               | 3 dB max            |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | Pin connector        |
| Dimensions                  | 40mm x 40 mm x 6.5mm |

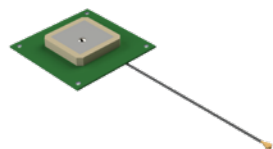


## MPA-D254-1621

Iridium Passive Antenna – 25mm

Part #: 100-00024-02

✔ Iridium frequency band ✔ U. FL connector or other ✔ Compact size ✔ Custom tuning



### Key electrical specifications:

| Parameter                 | Specification  |
|---------------------------|----------------|
| Frequency                 | 1616-1626 MHz  |
| Antenna element peak gain | 2.5 dBic       |
| Axial Ratio               | 4 dB (typical) |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | U. FL connector      |
| Dimensions                  | 25 mm x 25 mm x 4 mm |

# Globalstar Passive Microstrip Antenna



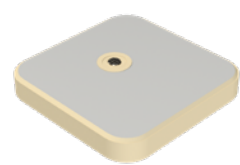


## MPA-1618-C

**Globalstar Passive Antenna – 25mm**

Part #: 189-00078-01

✔ Globalstar Simplex ✔ Adhesive mounting ✔ Pin connector ✔ Compact size ✔ Custom tuning



Key electrical specifications:

| Parameter     | Specification                 |
|---------------|-------------------------------|
| Frequency     | 1615-1645 MHz                 |
| Realized Gain | 5 dBic                        |
| Axial Ratio   | 2.5 dB (typical) / 5 dB (max) |

Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Embedded / Pin connector |
| Dimensions                  | 25.1 x 25.1 x 4.2 mm     |



# GPS/GLONASS Microstrip Antennas

MAXTENA®



## MIA-1516-C

GPS/GLONASS Active Antenna – 25mm

Part #: 189-00077-01

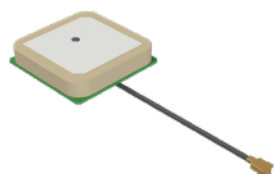
✓ GPS & GLONASS coverage ✓ Active LNA circuitry ✓ Custom cable-connector options ✓ Compact size ✓ Custom tuning

### Key electrical specifications:

| Parameter    | Specification                       |
|--------------|-------------------------------------|
| Frequency    | 1575.42 ± 1.023 MHz<br>1602 ± 8 MHz |
| Gain         | -1 dBi typ. +2 dBi typ.             |
| Polarization | RHCP                                |

### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | Embedded          |
| Dimensions                  | 25.1 x 25.1 x 7.4 |



## MPA-134-GPS

Passive GPS GLONASS Antenna – 13mm x 4mm

Part #: 189-00056-01

✓ GLONASS frequency ✓ Easy mounting ✓ Pin-Connector ✓ Compact size ✓ Advanced Ceramic Material ✓ Ground Plane Dependent  
✓ Dimensions 13 x 13 x 4 mm

### Key electrical specifications:

| Parameter      | Specification   |
|----------------|-----------------|
| Frequency      | 1595 - 1610 MHz |
| Gain at Zenith | -1.5 dBic typ   |
| Axial Ratio    | 5 dBi           |

### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | Pin - Connector |
| Dimensions                  | 13 x 13 x 4mm   |



## MPA-1516

GPS GLONASS Passive Antenna – 25mm

Part #: 189-00044-01

✓ GPS & GLONASS coverage ✓ Custom cable-connector options ✓ Compact size ✓ Custom tuning

### Key electrical specifications:

| Parameter              | Specification                        |
|------------------------|--------------------------------------|
| Frequency              | 1575 MHz (GPS)<br>1602 MHz (GLONASS) |
| Total system peak gain | 5 dBic                               |
| Axial Ratio            | 3 dB                                 |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | Pin solution         |
| Dimensions                  | 25 mm x 25 mm x 4 mm |



# GPS/GLONASS Microstrip Antennas

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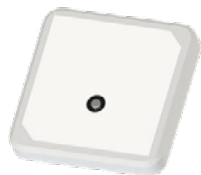


## MPA-356-1516

Passive GPS GLONASS Beidou Antenna – 35mm x 6mm

Part #: 189-00049-01

✓ GPS, GLONASS, Beidou frequency ✓ Adhesive mounting ✓ Pin connector ✓ Compact size ✓ Custom tuning



### Key electrical specifications:

| Parameter     | Specification                                                                                             |
|---------------|-----------------------------------------------------------------------------------------------------------|
| Frequency     | GPS: 1575.42 MHz $\pm$ 1.023 MHz<br>GLONASS: 1602 MHz $\pm$ 5 MHz<br>Beidou: 1561.098 MHz $\pm$ 2.046 MHz |
| Realized gain | GPS: +3.7 dBi typ.<br>GLONASS: +4.9 dBi typ.<br>Beidou: +5.2 dBi typ.                                     |
| Polarization  | RHCP                                                                                                      |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | Pin connector        |
| 18 mm x 18 mm x 4 mm        | 35 mm x 35 mm x 6 mm |

# WIFI Embedded Microstrip Antennas

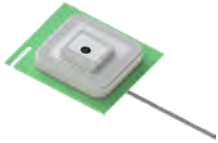


## MPA-254-WIFI

WIFI Embedded Antenna – 25mm x 4 mm

Part #: 189-00055-01

- ✓ 2.4GHz & 5.8 GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Terminator using IPEX connector



### Key electrical specifications:

| Parameter      | Specification                 |
|----------------|-------------------------------|
| Frequency      | 2400-2500 MHz<br>5700-5870MHz |
| Gain at Zenith | 1.0 dBi typ.                  |
| Polarization   | Linear                        |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I-PEX (U.FL)         |
| Dimensions                  | 25 mm x 25 mm x 4 mm |

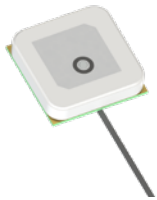


## MPA-258-WIFI

WIFI Embedded Antenna – 25mm x 4.5mm

Part #: 189-00051-01

- ✓ 2.4GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Ground Plane Dependent
- ✓ Terminator using IPEX connector
- ✓ Dimensions 25 x 25 x 4.5 mm



### Key electrical specifications:

| Parameter      | Specification |
|----------------|---------------|
| Frequency      | 2450 ± 50 MHz |
| Gain at Zenith | > 0.5 dBi     |
| Polarization   | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | I-PEX (MHF)      |
| Dimensions                  | 25 x 25 x 4.5 mm |

**MAXTENA®**





We offer high performing 5G antennas that provide coverage for all lower and mid 5G bands along with custom solutions for mm wave frequencies. By offering the most comprehensive portfolio of external antennas with different mounting options, omnidirectional radiation patterns for easy integration in wireless communication devices, we are the leaders of 5G antenna solutions. Our 5G antennas are great for telematics systems, remote surveillance, asset tracking and any IOT system applications. All of our 5G antenna solutions are fully customizable and optimized for the customers system.

## Applications



Our New Release **MEA-1400-SM**

our **GNSS L1 L5 Antenna Screw Mount**

## MEA-1400-SM

The MEA-1400-SM Screw Mount Antenna is a 2-in-1 antenna solution, with high gain and efficiency ideal for maintaining constant global connectivity. The MEA-1400-SM covers all GPS/GLONASS/Galileo and L1 L5 frequencies with low-profile antenna design and high-quality screw mount.

This is an ideal antenna for telematics systems, remote surveillance, asset tracking and any IOT system applications. The high performance and low profile make this antenna ideal for the most challenging installations.

This screw mount antenna is easy to install with maximum durability. The MEA-1400-SM has one cable with a SMA-Male standard connector, 3m standard cable length and is fully customizable by offering additional connector types, cable lengths and cable types. This antenna is low profile, rugged and IP67 rated.

### Features

- ✓ GNSS L1/L5
- ✓ High Precision Navigation
- ✓ Screw Mount
- ✓ Low Profile
- ✓ Low Noise Figure
- ✓ Low Power Consumption
- ✓ Anti-Rotation Mechanism
- ✓ Customizable Cable and Connector
- ✓ Dimensions 80 × 74 × 25.6 mm
- ✓ IP67, IP69

### Suggested Applications include

- ✓ Asset Tracking
- ✓ Telematics
- ✓ Container & Logistics
- ✓ Automotive
- ✓ Industrial Applications
- ✓ IOT Applications





# 5G Antennas

## Screw Mount



### MEA-698-3800-SM

#### Low Profile 5G LTE Antenna

Part #: 100-00132-01

- ✓ Low profile antenna
- ✓ Covers large frequencies 698-3800 MHz
- ✓ ROHS Compliant
- ✓ High gain for the antenna size
- ✓ PC + ABC housing
- ✓ Exceptional performance over the main 4G/5G bands



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 698-3800 MHz  |
| Antenna element peak gain | 5.5 dBi       |
| Return Loss               | -10 dBi       |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | SMA-Male      |
| Dimensions                  | 59 x 71mm     |



### MEA-LGI-SMA

#### 5G NR & Iridium GNSS Antenna – Screw Mount

Part #: 189-00059-01

- ✓ 3in1 antenna: 5G NR, Iridium and GNSS
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mounting
- ✓ Optimized for Iridium network
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile 80 × 74 × 25.6 mm
- ✓ IP69



#### Key electrical specifications:

| Parameter                 | Specification   |                 |
|---------------------------|-----------------|-----------------|
| Frequency                 | 617-960 MHz     | 1427-2690 MHz   |
|                           | 3300-5000 MHz   | 5150-5925 MHz   |
|                           | 1616 - 1627 MHz | 1559 - 1608 MHz |
|                           |                 |                 |
| Antenna element peak gain | 2.3 dBi         | 5.1 dBi         |
|                           | 2.6 dBi         | 2.7dBi          |
|                           | 5.2 dBi         | 28 dB @ 2.7 V   |
|                           |                 |                 |
| Polarization              | Linear          |                 |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 × 74 × 25.6 mm          |

# 5G Antennas

## Screw Mount



### MEA-LWIG-SM

5GNR, 2.4/5.0/6.0 GHz ISM, Iridium & GNSS Antenna – Screw Mount

Part #:100-00164-01

- ✓ 4in1 antenna (5GNR, 2.4/5.0/6.0 GHz ISM, Iridium and GPS/GLONASS/QZSS/Galileo) ✓ Screw Mount ✓ Anti-Rotation Mechanism
- ✓ Customizable Cable and Connector ✓ Dimensions Ø 146 x 31.5 mm ✓ IK09, IP67, IP69K

#### Key electrical specifications:

| Parameter         | Specification                                                |
|-------------------|--------------------------------------------------------------|
| Frequency         | 617-960 MHz / 1427-2690 MHz<br>3300-5000 MHz / 5150-5925 MHz |
| Peak gain         | -1.7 dBi/-1.7 dBi /-1.3 dBi/ 0.6 dBi                         |
| Efficiency        | 19.7% / 17.5% / 13.3% / 15.9 %                               |
| VSWR              | 3.3:1/ 2.3:1 / 2.1:1 / 1.7:1                                 |
| Frequency         | 2410-2490 MHz / 4920-5925 MHz<br>/ 5925-7125 MHz             |
| Peak gain         | 1.2 dBi / 0.0 dBi / 5.2 dBi                                  |
| Efficiency        | 30.5% / 13.8% / 52.1%                                        |
| VSWR              | 1.4:1 / 1.6:1 / 2.5:1                                        |
| Frequency         | 1616-1627 MHz                                                |
| Peak gain         | 4.5 dBic                                                     |
| Efficiency        | 76%                                                          |
| VSWR              | 1.2:1                                                        |
| Frequency         | 1575.42 MHz /1598-1606 MHz                                   |
| Active gain       | 28 dB @ 2.7 V                                                |
| Noise figure      | 1.8 dB @ 2.7 V                                               |
| Power consumption | 24.3 mW@2.7 V                                                |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 146 x 31.5 mm        |



### MEA-LWIG-SM

5GNR, 2.4/5.0/6.0 GHz ISM, Iridium & GNSS Antenna – Screw Mount

Part #:100-00164-01

- ✓ GNSS L1/L55 ✓ High Precision Navigation ✓ Screw Mount ✓ Low Profile ✓ Low Noise Figure ✓ Low Power Consumption
- ✓ Anti-Rotation Mechanism ✓ Customizable Cable and Connector ✓ IP67, IP69

#### Key electrical specifications:

| Parameter    | Specification                        |
|--------------|--------------------------------------|
| Frequency    | 1176.45 MHz /<br>1561,1575, 1602 MHz |
| Axial Ratio  | ≤ 3dB                                |
| Polarization | RHCP                                 |
| Bandwidth    | ≤ 1176 MHz /<br>1561-1606 MHz        |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



# 5G Antennas

## Screw Mount



### MEA-5GGG-SM

#### 5G NR and GPS/GLONASS Screw Mount

Part #: 100-00204-01

- ✓ 5G NR & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy Mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Low Profile
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions 80 × 74 × 25.6 mm
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                           |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 698-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz<br>1575.42 MHz 1602 MHz                                                                        |
| Antenna element peak gain | 2.3 dBi@698-960 MHz<br>5.1 dBi@1427-2690 MHz<br>2.6 dBi @3300-5000 MHz<br>2.7 dBi @5150-5925 MHz<br>28dB @ 2.7 V @1575.42 MHz<br>28dB @ 2.7 V @1602 MHz |
| Polarization              | Linear                                                                                                                                                  |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | 80 × 74 × 25.6 mm      |



### MEA-5G NR-SM

#### 5G NR Screw Mount

Part #: 100-00217-01

- ✓ Easy mounting: Screw Mount
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions Ø 60 x 81 mm
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification                                                                          |
|---------------------------|----------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                   |
| Antenna element peak gain | 3.3dBi@617-960MHz<br>2.0dBi@1427-2690MHz<br>0.5dBi@3300-5000MHz<br>0.6dBi@5150-5925MHz |
| Radiation pattern         | Omni-Directional                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 60 × 81 mm           |



### MEA-5G NR-LP-SM

#### 5G NR Screw Mount

Part #: 100-00222-01

- ✓ Easy mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile: Ø 50 x 50.8 mm
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification                                                                           |
|---------------------------|-----------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                    |
| Antenna element peak gain | 2.9dBi@617-960MHz<br>2.1dBi@1427-2690MHz<br>0.5dBi@3300-5000MHz<br>-1.0dBi@5150-5925MHz |
| Radiation pattern         | Omni-Directional                                                                        |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 50 x 50.8            |

# 5G Antennas

## Screw Mount

MAXTENA®



### MEA-5G-MIMO-GGG

5G NR, MIMO and GNSS GPS/GLONASS Screw Mount

Part #: 100-00250-01

- ✓ Easy mounting: Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Anti-Rotation Mounting
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter          | Specification                         |
|--------------------|---------------------------------------|
| Cable1 Frequency   | 617-960 MHz/1427-2690 MHz             |
| Cable1 Peak Gain   | 3300-5000 MHz/5150-5925 MHz           |
| Cable2 Frequency   | 1.3 dBi / 3.4 dBi / 4.7 dBi / 4.0 dBi |
| Cable2 Peak Gain   | 617-960 MHz/1427-2690 MHz             |
| Cable2 Frequency   | 3300-5000 MHz/5150-5925 MHz           |
| Cable2 Peak Gain   | 1.2 dBi / 3.6 dBi / 4.6 dBi / 3.2 dBi |
| Cable3 Frequency   | 1575.42 MHz / 1598-1610 MHz           |
| Cable3 Active Gain | 23 dB @ 3V / 24 dB @ 5V               |
| Radiation Pattern  | Omni-directional / Hemispherical      |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw Mount/ SMA Male |
| Dimensions                  | Ø 96 X 130 mm         |



### MEA-5GG-SM

5G NR and GNSS Screw Mount

Part #: 100-00248-01

- ✓ Easy mounting: screw mount
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IK09, IP67, IP69K



#### Key electrical specifications:

| Parameter          | Specification                           |
|--------------------|-----------------------------------------|
| Cable1 Frequency   | 617-960MHz 1427-2690MHz                 |
| Cable1 Peak Gain   | 3300-5000MHz 5150-5925MHz               |
| Cable2 Frequency   | -1.7dBi / -1.7 dBi / -1.3 dBi / 0.6 dBi |
| Cable2 Active Gain | 1575.42 MHz, 1598-1606 MHz              |
| Cable2 Active Gain | 28 dB @ 2.7 V                           |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 146 x 31.5 mm        |



### MEA-5G-1575-1606

5G NR GPS/GLONASS Screw Mount

Part #: 100-00238-01

- ✓ 5G NR & GPS/GLONASS/QZSS/Galileo
- ✓ Easy mounting: screw mount
- ✓ Ground plane independent
- ✓ Customizable cable and connector
- ✓ IP67 & IP69



#### Key electrical specifications:

| Parameter                   | Specification                         |
|-----------------------------|---------------------------------------|
| Cable1 Frequency            | 617-960 MHz 1427-2690 MHz             |
| Cable1 Antenna element peak | 3300-5000 MHz 5150-5925 MHz           |
| Cable2 Frequency            | 2.9 dBi / 2.1 dBi / 0.5 dBi / 1.0 dBi |
| Cable2 Active Gain          | 1575.42 MHz / 1598-1610 MHz           |
| Cable2 Active Gain          | 28 dB @ 2.7 V                         |
| Radiation Pattern           | Omni-directional / Hemispherical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 54 x 50 mm           |

# 5G Antennas

## Screw Mount



### MEA-5in1-SMA

5G NR MIMO, 2.4/5.0/6.0 GHz ISM and GNSS - Screw mount antenna

Part #: 100-00243-01

- ✓ 5G NR, 2.4/5.0/6.0 GHz ISM & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

#### Key electrical specifications:

| Parameter         | Specification        |                                  |
|-------------------|----------------------|----------------------------------|
| Cable1            | Frequency            | 617-960 MHz 1427-2690 MHz        |
|                   | Antenna element peak | 3300-5000 MHz 5150-5925 MHz      |
| Cable2            | Frequency            | 617-960 MHz 1427-2690 MHz        |
|                   | Antenna element peak | 3300-5000 MHz 5150-5925 MHz      |
| Cable3            | Frequency            | 2410-2490 MHz 4920-5925 MHz      |
|                   | Antenna element peak | 5925-7125 MHz                    |
| Cable4            | Frequency            | 2410-2490 MHz 4920-5925 MHz      |
|                   | Antenna element peak | 5925-7125 MHz                    |
| Cable5            | Frequency            | 1575.42 MHz 1598-1610 MHz        |
|                   | Active Gain          | 23dB@3V; 24dB@5V                 |
| Radiation pattern |                      | Omni-Directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



### MEA-5G-ISM-MIMO-GNSS

5G NR MIMO, 2.4/5.0 GHz ISM, and GNSS Screw Mount

Part #: 100-00240-01

- ✓ 5G NR, 2.4/5.0 GHz ISM /GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

#### Key electrical specifications:

| Parameter         | Specification        |                                  |
|-------------------|----------------------|----------------------------------|
| Cable1            | Frequency            | 617-960 MHz 1427-2690 MHz        |
|                   | Antenna element peak | 3300-5000 MHz 5150-5925 MHz      |
| Cable2            | Frequency            | 617-960 MHz 1427-2690 MHz        |
|                   | Antenna element peak | 3300-5000 MHz 5150-5925 MHz      |
| Cable3            | Frequency            | 2410-2490 MHz 4920-5925 MHz      |
|                   | Antenna element peak | 5.3 dBi / 1.5 dBi                |
| Cable4            | Frequency            | 2410-2490 MHz 4920-5925 MHz      |
|                   | Antenna element peak | 5.3 dBi / 2.3 dBi                |
| Cable5            | Frequency            | 1575.42 MHz 1598-1610 MHz        |
|                   | Active Gain          | 23dB@3V; 24dB@5V                 |
| Radiation pattern |                      | Omni-Directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



# 5G Antennas

## Magnet Mount



### MEA-5800-MM

#### 5G NR Magnetic Mount Antenna

Part #: 100-00200-01

- ✓ 5G NR Frequency range (617-960 MHz, 1427-2690 MHz, 3300-5000 MHz, 5150-5925 MHz) ✓ Easy mounting: Magnetic Mount ✓ High Performance ✓ Customizable Cable and Connector ✓ Low profile: Ø 31 x 109 mm



#### Key electrical specifications:

| Parameter                 | Specification                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                                   |
| Antenna element peak gain | 1.0 dBi @ 617-960 MHz<br>2.9 dBi @ 1427-2690 MHz<br>2.5 dBi @ 3300-5000 MHz<br>0.4 dBi @ 5150-5925 MHz |
| Radiation pattern         | Omni-Directional                                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | SMA-Male              |
| Dimensions                  | 105.1 x 30.1 x 6.7 mm |



### MEA-5IG-MA

#### 5G NR, Iridium and GNSS Magnetic/Adhesive Mount

Part #: 100-00206-01

- ✓ Easy mounting: Magnetic/Adhesive Mount ✓ Iridium Certified ✓ Low Profile ✓ High Performance ✓ Pre-Filtered GNSS ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions 89 x 76 x 27/30 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                   | Specification                                            |
|-----------------------------|----------------------------------------------------------|
| Cable1 Frequency            | 617-960 MHz/1427-2690 MHz<br>3300-5000 MHz/5150-5925 MHz |
| Cable1 Antenna element peak | 2.3 dBi / 5.1 dBi / 2.6 dBi / 2.7 dBi                    |
| Cable2 Frequency            | 1616-1627 MHz                                            |
| Cable2 Antenna element peak | 5.2 dBi                                                  |
| Cable3 Frequency            | 1575.42 MHz / 1602 MHz                                   |
| Cable3 Antenna element peak | 28 dB @ 2.7 / 28 dB @ 2.7                                |
| Radiation Pattern           | Omni-directional / Hemispherical                         |

#### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Magnetic/Adhesive Mount/ SMA Male |
| Dimensions                  | 89 x 76 x 27/30 mm                |



# 5G Antennas

## Adhesive Mount



### MEA-5IG-MA

#### 5G NR, Iridium and GNSS Magnetic/Adhesive Mount

Part #: 100-00206-01

- ✓ Easy mounting: Magnetic/Adhesive Mount ✓ Iridium Certified ✓ Low Profile ✓ High Performance ✓ Pre-Filtered GNSS ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions 89 × 76 × 27/30 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter            | Specification                                            |
|----------------------|----------------------------------------------------------|
| Cable1 Frequency     | 617-960 MHz/1427-2690 MHz<br>3300-5000 MHz/5150-5925 MHz |
| Antenna element peak | 2.3 dBi / 5.1 dBi / 2.6 dBi / 2.7 dBi                    |
| Cable2 Frequency     | 1616-1627 MHz                                            |
| Antenna element peak | 5.2 dBi                                                  |
| Cable3 Frequency     | 1575.42 MHz/1602 MHz                                     |
| Antenna element peak | 28 dB @ 2.7 / 28 dB @ 2.7                                |
| Radiation Pattern    | Omni-directional / Hemispherical                         |

#### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Magnetic/Adhesive Mount/ SMA Male |
| Dimensions                  | 89 × 76 × 27/30 mm                |

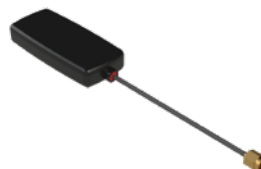


### MEA-5GNR-AM

#### 5G NR Adhesive Mount

Part #: 100-00221-01

- ✓ Easy mounting: Adhesive Mount ✓ High Performance ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions 83 × 35 × 13.3 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification                                                                          |
|---------------------------|----------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                   |
| Antenna element peak gain | 1.1dBi@617-960MHz<br>3.6dBi@1427-2690MHz<br>1.9dBi@3300-5000MHz<br>1.2dBi@5150-5925MHz |
| Radiation pattern         | Omni-Directional                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Adhesive Mount/ SMA-Male |
| Dimensions                  | 83 × 35 × 13.3 mm        |



### MEA-5GNR-UWB-AM

#### 5G NR Adhesive Mount Antenna

Part #: 100-00221-01

- ✓ Easy mounting: Adhesive Mount ✓ Ultra-wide band antenna ✓ Flexible housing ✓ High performance ✓ Ground plane independent ✓ Customizable cable and connector



#### Key electrical specifications:

| Parameter                 | Specification                                                                              |
|---------------------------|--------------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                       |
| Antenna element peak gain | 2.0 dBi@617-960MHz<br>2.4 dBi@1427-2690MHz<br>4.6 dBi@3300-5000MHz<br>5.8 dBi@5150-5925MHz |
| Radiation pattern         | Omni-Directional                                                                           |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Adhesive Mount/ SMA-Male |
| Dimensions                  | 117.4 x 12.5 x 6.5 mm    |

# 5G Antennas

## Adhesive Mount



### MEA-5000-AM

**5G NR Antenna Adhesive Mount**  
Part #: 100-00228-01

- ✔ 5G NR Frequency Range ✔ Easy mounting: Adhesive Mount ✔ Ground Plane Independent ✔ Customizable Cable and Connector



Key electrical specifications:

| Parameter                 | Specification                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Frequency                 | 617-960 MHz    1427-2690 MHz<br>3300-5000 MHz    5150-5925 MHz                                         |
| Antenna element peak gain | 3.2 dBi @ 617-960 MHz<br>3.6 dBi @ 1427-2690 MHz<br>1.0 dBi @ 3300-5000 MHz<br>1.6 dBi @ 5150-5925 MHz |
| Radiation pattern         | Omni-directional                                                                                       |

Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Adhesive Mount / SMA Male |
| Dimensions                  | 116 × 22 × 6.7 mm         |

# 5G Antennas

## Connector Mount



### MEA-2690-CM

#### 5G NR Connector Mount Antenna

Part #: 100-00205-01

✓ 5G NR frequency range (617-960 MHz - 1525-2690 MHz) ✓ Easy mounting: Connector Mount ✓ N-Male Standard Ground Plane Independent ✓ Dimensions 232 × Ø 20 (Ø 16) mm



#### Key electrical specifications:

| Parameter                 | Specification                                    |
|---------------------------|--------------------------------------------------|
| Frequency                 | 617-960 MHz<br>1525-2690 MHz                     |
| Antenna element peak gain | 0.5 dBi @ 617-960 MHz<br>2.0 dBi @ 1525-2690 MHz |
| Radiation pattern         | Omni-Directional                                 |

#### Key mechanical specifications:

| Parameter                   | Specification                      |
|-----------------------------|------------------------------------|
| Mounting option / Connector | Connector Mount / N-male connector |
| Dimensions                  | Ø 20 (Ø 16) × 232 mm               |



### MEA-2400-N

#### Ultra-Rugged Dipole Antenna

Part #: 100-00190-01/02

✓ High Performance ✓ Dual Band 2.4/5 GHz ✓ UV Protected ✓ IP 67 ✓ Low profile antenna ✓ N-Jack or N-Plug ✓ Easy installation: Pole / Wall Mount



#### Key electrical specifications:

| Parameter                 | Specification               |
|---------------------------|-----------------------------|
| Frequency                 | 2.4 - 2.5 GHz 4.8 - 6.0 GHz |
| Antenna element peak gain | 6 dBi 6 dBi                 |
| Radiation pattern         | Omni-Directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                                    |
|-----------------------------|--------------------------------------------------|
| Mounting option / Connector | Pole / Wall Mount / N-Jack or N-Plug             |
| Dimensions                  | Ø 30 x 280 mm (N-Jack)<br>Ø 23 x 255 mm (N-Plug) |



### MEA-5000-CM

#### 5G NR Connector Mount

Part #: 100-00215-01

✓ Easy mounting: Connector Mount ✓ Ultra-Wide band Antenna ✓ High Performance ✓ Ground Plane Independent ✓ Waterproof Dimensions 192 × 20 × 18 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification                                 |
|---------------------------|-----------------------------------------------|
| Frequency                 | 617-960 MHz<br>1427-2690 MHz<br>3300-3800 MHz |
| Antenna element peak gain | 2.3 dBi / 5.1 dBi / 2.6 dBi / 2.7 dBi         |
| Radiation pattern         | Omni-Directional                              |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Connector Mount/ SMA Male |
| Dimensions                  | 192 × 20 × 18 mm          |

# 5G Antennas

## Connector Mount



### MEA-5G NR-UWB-CM

#### 5G NR Connector Mount

Part #: 100-00218-01

- ✓ Easy mounting: Connector Mount ✓ Ground Plane Independent ✓ Ultra-Wide band Antenna ✓ High Performance ✓ Ground Plane Independent ✓ Hinged Connector ✓ Low profile 171 × 38 × 13.8 mm



#### Key electrical specifications:

| Parameter                 | Specification                                                                          |
|---------------------------|----------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                   |
| Antenna element peak gain | 0.0dBi@617-960MHz<br>1.7dBi@1427-2690MHz<br>1.1dBi@3300-5000MHz<br>1.6dBi@5150-5925MHz |
| Radiation pattern         | Omni-directional                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Connector Mount/ SMA Male |
| Dimensions                  | 171 × 38 × 13.8 mm        |



### MEA-5G NR-UWB-SMA

#### 5G NR/UHF Connector Mount

Part #: 100-00216-01

- ✓ Easy mounting: Connector Mount ✓ Ultra-Wide band Antenna ✓ High Performance ✓ Ground Plane Independent ✓ Hinged Connector ✓ Low profile 171 × 38 × 13.8 mm



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Frequency                 | 410-496 MHz 617-960 MHz<br>1427-2690 MHz 3300-5000 MHz<br>5150-5925 MHz                                      |
| Antenna element peak gain | -4.5dBi@410-496MHz<br>0.5dBi@617-960MHz<br>2.1dBi@1427-2690MHz<br>1.5dBi@3300-5000MHz<br>2.5dBi@5150-5925MHz |
| Radiation pattern         | Omni-directional                                                                                             |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Connector Mount/ SMA Male |
| Dimensions                  | 171 × 38 × 13.8 mm        |

# 5G Antennas

## Wall Mount



### MEA-5G NR-LP-WM

**5G NR antenna Wall Mount**

Part #: 100-00231-01

- ✔ 5G NR Frequency Range ✔ Wall Mount ✔ High Performance ✔ 4.0 dBi 5G NR Peak Gain ✔ Ground Plane Independent ✔ Customized Cable and Connector ✔ Antenna Bracket Included ✔ IP67



Key electrical specifications:

| Parameter                 | Specification                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Frequency                 | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz                                               |
| Antenna element peak gain | 3.9 dBi @ 617-960 MHz<br>4.0 dBi @ 1427-2690 MHz<br>3.9 dBi @ 3300-5000 MHz<br>3.9 dBi @ 5150-5925 MHz |
| Radiation pattern         | Omni-directional                                                                                       |

Key mechanical specifications:

| Parameter                   | Specification                  |
|-----------------------------|--------------------------------|
| Mounting option / Connector | Wall Mount/ SMA Male           |
| Dimensions                  | 272 × 30 × 115 (220 × Ø 16) mm |



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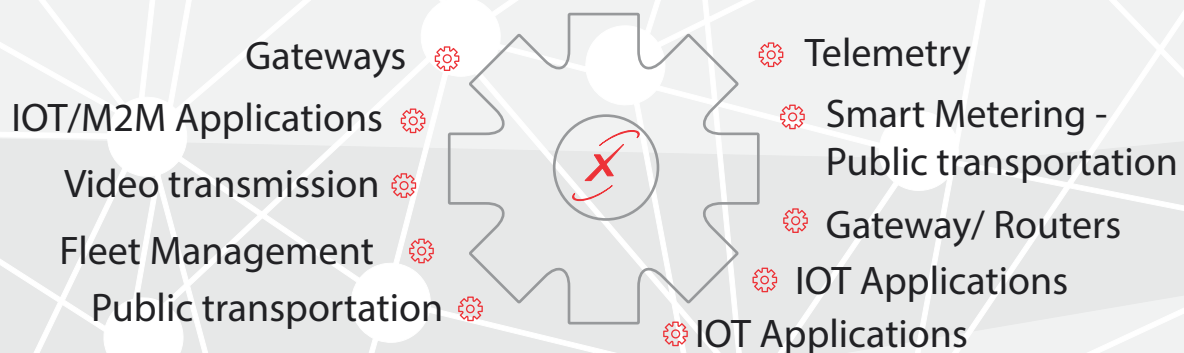






Maxtena offers a wide selection of antennas across a broad range of frequencies between 700- 960 MHz, 1710-2170 MHz and 2500-2700 MHz, dual-band 2.4GHz/5GHz, cellular, and Bluetooth antennas. It enhances connectivity for multiple devices in nearly any location. Our antennas are purpose-built to provide compact, high gain, and a constant worldwide connectivity for Wi-Fi, Bluetooth, and ZigBee. The antennas are available in several different sizes depending on customer requirements. We produce both external antennas that come in a range of rugged housings, as well as embedded antennas. These antennas can be customized with different cable lengths and connectors upon request. We have developed countless high-performance antennas, and they are currently being used in multiple IoT devices (Wearables, Routers, Smart Home, UAV/Drone, and Connected Vehicles).

## Applications



Our best seller **Netz 4in1**

**our LTE/Cellular/WIFI and MIMO 4in1 Antenna**

## Netz 4in1

The NETZ 4 in 1 is a Cellular/LTE/MIMO/WIFI technology solution by Maxtena. The antenna features Cellular/LTE (698-960, 1710-2170, 2500-2700 MHz) and 2.4/5.0 GHz WIFI (2410-2490, 4920-5925 MHz) reception.

The NETZ 4 in 1 antenna is an omnidirectional, heavy-duty, and waterproof external multi-antenna for use in fleet management, smart cities, and buses, train, and commercial transport.

This cutting-edge antenna provides powerful MIMO antenna technology for global coverage LTE and Wi-Fi for constant wireless communication.

The 4 in 1 solution is ideal for high data throughput and streaming, video, industrial and IOT applications. The antenna's advanced technology ensures constant reception and transmission. The underside of the antenna contains a foam adhesive for easy, reliable mounting.



### Features

- ✓ Screw Mount
- ✓ High Performance
- ✓ Rated IP67, IP69K and IK09 Compact
- ✓ Size: 96 x 96 x 94 mm
- ✓ Custom Cable and Connector

### Suggested Applications include

- ✓ Fleet Management
- ✓ Commercial Transport
- ✓ HD Video Monitoring
- ✓ Buses, Train & Commercial Applications
- ✓ Smart Cities

The standard NETZ 4 in 1 comes with 3 meters LL195, and SMA-Male connectors. It is available with an SMA, FAKRA or customer specified connector and cable length.



# 3G/4G/LTE Antennas

## Screw mount

MAXTENA®

### NETZ 4IN1

#### 4G LTE/Cellular/WIFI and MIMO 4in1 Antenna

Part #: 100-00142-01

✓ Screw Mount ✓ High Performance ✓ Rated IP67, IP69K and IK09 ✓ Compact Size: 96 x 96 x 94 mm ✓ Custom Cable and Connector



#### Key electrical specifications:

| Parameter                 | Specification                                |
|---------------------------|----------------------------------------------|
| Frequency                 | 698-960 MHz<br>1710-2170MHz<br>2500-2700 MHz |
| Antenna element peak gain | 0.9 dBi<br>3.3 dBi<br>4.4 dBi                |
| Radiation pattern         | Omni-directional                             |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA-Male        |
| Dimensions                  | 96 x 96 x 94 mm |

### MEA-SW-700-3800

#### 2G/3G/4G/ISM/WIFI GNSS Antenna

Part #: 189-00046-01

✓ 2G/3G/4G/ISM/Wi-Fi & GNSS frequency bands ✓ N Type connector & seal ring ✓ IP68 rated / UV protected ✓ Rugged industrial design  
✓ Ground plane Independent



#### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 698-3800 MHz     |
| Antenna element peak gain | 4.0 dB           |
| Radiation pattern         | Omni-directional |

#### Key mechanical specifications:

| Parameter                   | Specification                 |
|-----------------------------|-------------------------------|
| Mounting option / Connector | Screw Mount/ N Type connector |
| Dimensions                  | Ø 41 x 84 mm                  |

### MEA-900-L-SM

#### 868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

✓ 2 in 1 antenna: Cellular/LTE & ISM bands ✓ Ultra-Wide band antenna ✓ High performance ✓ Easy mounting: Screw Mount ✓ Low Profile: 80 x 76 x 13 mm ✓ Ground Plane Independent ✓ IP67 ✓ Customizable Cable and Connector



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Frequency                 | 698-960 MHz 1710-2170 MHz<br>2500-2700 MHz 868 MHz<br>915 MHz                                                |
| Antenna element peak gain | 0.7 dBi@698-960 MHz 2.7<br>dBi@1710-2170 MHz<br>4.3 dBi@2500-2700 MHz 1.2<br>dBi@ 868 MHz<br>1.7 dBi@915 MHz |
| Radiation pattern         | Omni-directional                                                                                             |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw Mount /SMA Male |
| Dimensions                  | 80 × 74 × 25.6 mm     |

# 3G/4G/LTE Antennas

## Screw mount



### NETZ 5IN1

LTE-MIMO/WIFI-MIMO/GNSS 5in1 Antenna

Part #: 100-00095-01

✓ LTE/Wifi/GNSS frequencies ✓ High performance ✓ MIMO technology solution ✓ A low profile design with easy mounting ✓ An integrated SMA connectors



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1561 MHz 1575.42 MHz<br>1602 MHz 698-960 MHz<br>1710-2170 MHz 2300-2690 MHz                                                                                       |
| Antenna element peak gain | 3 dBi Typ. @1561 MHz<br>3 dBi Typ. @1575 MHz<br>3.5 dBi Typ. @1602 MHz<br>4.0 dBi Typ. @698~960 MHz<br>6.0 dBi Typ. @1710~2170 MHz<br>5.0 dBi Typ. @2300~2690 MHz |
| Radiation pattern         | Linear                                                                                                                                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Permanent Mount/ SMA connectors |
| Dimensions                  | Ø 141.98 x 66.5 mm              |



### Netz 5in1-SM

CELLULAR/LTE MIMO, 2.4/5.0 GHz ISM MIMO and GNSS - Screw Mount

Part #: 100-00177-01

✓ LTE/Wifi/GNSS frequencies ✓ High performance ✓ MIMO technology solution ✓ A low profile design with easy mounting ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions: Ø 96 x H 90 mm ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter                   | Specification                              |
|-----------------------------|--------------------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz<br>2500-2700 MHz |
| Cable1 Antenna element peak | -0.9 dBi 3.3 dBi 4.3 dBi                   |
| Cable2 Frequency            | 698-960 MHz 1710-2170 MHz<br>2500-2700 MHz |
| Cable2 Antenna element peak | 1.4 dBi 3.0 dB 3.0 dBi                     |
| Cable3 Frequency            | 2410-2490 MHz 4920-5925 MHz                |
| Cable3 Antenna element peak | 4.8 dBi 3.0 dBi                            |
| Cable4 Frequency            | 2410-2490 MHz 4920-5925 MHz                |
| Cable4 Antenna element peak | 4.6 dBi 3.1 dBi                            |
| Cable5 Frequency            | 1575.42 MHz 1602 MHz                       |
| Cable5 Antenna element peak | 23 dB @ 3 V; 24dB @ 5 V                    |
| Radiation pattern           | Omni-directional / Hemispherical           |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male / SMA-Male RP |
| Dimensions                  | Ø 96 x 90 mm                         |

# 3G/4G/LTE Antennas

## Screw mount

MAXTENA®



### MEA-LW2-SM

External Cellular/LTE, ISM and GNSS Antenna – Screw Mount

Part #: 189-00061-01

- ✓ 2in1 antenna: Cellular/LTE and 2.4/5.0GHz ISM
- ✓ Wide band antenna
- ✓ Ground Plane Independent
- ✓ Rugged housing
- ✓ IP67 rated
- ✓ IP69 rated
- ✓ Low profile: 80 x 74 x 43 mm
- ✓ Anti-Rotation mounting
- ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification                                 |
|-------------------|-----------------------------------------------|
| Frequency         | 698-960 MHz<br>1710-2170 MHz<br>2500-2700 MHz |
| Peak gain         | 2.7 dBi<br>5.1 dBi<br>5.3 dBi                 |
| Radiation pattern | Linear                                        |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 43 mm                 |



### MEA-2700-UWB-SM

High Performance 4G LTE Antenna

Part #: 100-00141-01

- ✓ High Performance
- ✓ 4G LTE Ultra-Wideband Automotive Antenna
- ✓ ROHS Compliant
- ✓ Custom Cable and Connector
- ✓ Rated IP67



#### Key electrical specifications:

| Parameter         | Specification         |
|-------------------|-----------------------|
| Frequency         | 698-960/1710-2700 MHz |
| Peak gain         | 3 dBi                 |
| Radiation pattern | Vertical              |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Screw mount/ N-connector |
| Dimensions                  | Ø 48 x 82 mm             |



### MEA-698-3800-SM

Low Profile 5G LTE Antenna

Part #: 100-00132-01

- ✓ Low profile antenna
- ✓ Covers large frequencies 698-3800 MHz
- ✓ ROHS Compliant
- ✓ High gain for the antenna size
- ✓ PC + ABC housing
- ✓ Exceptional performance over the main 4G/5G bands



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 698-3800 MHz  |
| Peak gain         | 5.5 dBi       |
| Radiation pattern | -10 dBi       |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | SMA-Male      |
| Dimensions                  | 59 x 71mm     |

# 3G/4G/LTE Antennas

## Screw mount



### MEA-1400-SM

#### GNSS L1 L5 Antenna – Screw Mount

Part #: 100-00165-01

- ✓ GNSS L1/L55 ✓ High Precision Navigation ✓ Screw Mount ✓ Low Profile ✓ Low Noise Figure ✓ Low Power Consumption
- ✓ Anti-Rotation Mechanism ✓ Customizable Cable and Connector ✓ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification                     |
|--------------|-----------------------------------|
| Frequency    | 1176.45 MHz / 1561,1575, 1602 MHz |
| Axial Ratio  | ≤ 3dB                             |
| Polarization | RHCP                              |
| Bandwidth    | 1176 MHz / 1561-1606 MHz          |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



### MEA-LTE-MIMO-ISM-SM

#### Cellular/LTE MIMO and 915 MHz ISM Screw Mount

Part #: 100-00203-01

- ✓ High Performance ✓ Easy mounting: Screw Mount ✓ Ground Plane Independent ✓ Low profile: 96 x 96 x 90 mm ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter | Specification                                 |
|-----------|-----------------------------------------------|
| Cable1    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -1.5 dBi 3.2 dBi 6.5 dBi |
| Cable2    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -0.9 dBi 3.0 dBi 5.0 dBi |
| Cable3    | Frequency 902-928 MHz                         |
|           | Antenna element peak 0.2 dBi                  |
| Bandwidth | Omni-Directional                              |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 96 x 90 mm          |



# 3G/4G/LTE Antennas

## Screw mount



### Netz 5in1-MIMO

#### CELLULAR/LTE MIMO and GNSS - Screw mount antenna

Part #: 100-00177-01

- ✓ CELLULAR / LTE & GPS/GLONASS/QZSS/frequencies
- ✓ Galileo frequency range
- ✓ Easy mounting: Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable1 Antenna element peak | 0.2dBi 3.8dBi 6.0dBi             |
| Cable2 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable2 Antenna element peak | -0.1dBi 3.2dBi -5.6dBi           |
| Cable3 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable3 Antenna element peak | -0.5dBi 3.1dBi 5.0dBi            |
| Cable4 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable4 Antenna element peak | -0.7dBi 3.0dBi 4.8dBi            |
| Cable5 Frequency            | 1575.42 MHz 1602 MHz             |
| Cable5 Antenna element peak | 23dB@3V; 24dB@5V                 |
| Radiation pattern           | Omni-Directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 90 mm           |



### MEA-900-L-SM

#### 868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✓ 2 in 1 antenna: Cellular/LTE & ISM bands
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Low Profile: 80 x 76 x 13 mm
- ✓ Ground Plane Independent
- ✓ IP67
- ✓ Customizable Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification                                                                              |
|-------------------|--------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz                                                                    |
| Peak Gain         | 2500-2700MHz 868MHz 915MHz                                                                 |
| Radiation pattern | 0.7 dBi@698-960MHz 2.7dBi@1710-2170MHz 4.3 dBi@2500-2700MHz 1.2 dBi@ 868MHz 1.7 dBi@915MHz |
| Radiation pattern | Radiation pattern                                                                          |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |

# 3G/4G/LTE Antennas

## Screw mount

MAXTENA®



### MEA-2500-SM

#### CELLULAR/LTE MIMO Screw Mount

Part #: 100-00212-01

- ✓ CELLULAR / LTE (698-960 MHz, 1710-2170 MHz, and 2500-2700 MHz)
- ✓ Easy mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile : 80 x 74 x 14.7 mm
- ✓ IP67



#### Key electrical specifications:

| Parameter            | Specification                           |
|----------------------|-----------------------------------------|
| Frequency            | 698-960 MHz 1710-2170 MHz 2500-2700 MHz |
| Antenna element peak | -2.7 dB -3.0 dB -5.9 dB                 |
| Frequency            | 698-960 MHz 1710-2170 MHz 2500-2700 MHz |
| Antenna element peak | 1.4 dBi 2.2 dBi 4.4 dBi                 |
| Radiation pattern    | Omni-Directional                        |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | 80 x 74 x 14.7 mm      |



### COBRA-LTE700

#### LTE MIMO & Active GPS High-Performance Transportation Antenna

Part #: 100-00036-01

- ✓ Robust arrow shape housing for easy roof-top alignment
- ✓ MIMO technology
- ✓ One connector for each application; LTE 1, LTE 2 and GPS
- ✓ No ground plane requirements
- ✓ Single-hole mounting with screws on top for easy installation
- ✓ Use of only one multifunction solution



#### Key electrical specifications:

| Parameter                 | Specification                             |
|---------------------------|-------------------------------------------|
| Frequency                 | 690 - 960 MHz 1700 - 2200 MHz 1575.42 MHz |
| Antenna element peak gain | 4 dBi (typical)                           |
| Polarization              | Linear                                    |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |



### MAXWAVE

#### MAXWAVE™ 4x4 MIMO TRAIN ANTENNA

Part #: 100-00074-01

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrester
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant to EN50155 and fire retardant according to EN 45545:2013



#### Key electrical specifications:

| Parameter    | Specification      |
|--------------|--------------------|
| Frequency    | 4 x 698 – 6000 MHz |
| Pattern      | Omnidirectional    |
| Polarization | Linear             |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |

# 3G/4G/LTE Antennas

## Screw mount



### MEA-2170-GNSS-SM

#### CELLULAR/LTE & GNSS Screw Mount

Part #: 100-00256-01

- ✓ CELLULAR / LTE, and GPS/GLONASS/QZSS/Galileo
- ✓ Easy mounting: screw mount
- ✓ Anti-rotation mechanism
- ✓ Customizable cable and connector
- ✓ IP67, IK09, IP69K



#### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable1 Antenna element peak | 2.7 dBi 5.1 dBi 5.3 dBi          |
| Cable2 Frequency            | 1575.42 MHz 1598-1610 MHz        |
| Cable2 Active Gain          | 28 dB @ 2.7 V                    |
| Radiation Pattern           | Omni-directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



### MEA-LTE-ISM-GNSS-TETRA

#### CELLULAR/LTE, 2.4/5.0 GHZ ISM, TETRA and GNSS - Screw Mount Antenna

Part #: 100-00243-01

- ✓ CELLULAR / LTE, TETRA/UHF, ISM, and GPS/GLONASS/QZSS/Galileo frequency
- ✓ Easy mounting: Screw Mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable1 Antenna element peak | 1.9 dBi / 3.0 dBi / 2.9 dBi      |
| Cable2 Frequency            | 2410-2490 MHz 4920-5925 MHz      |
| Cable2 Antenna element peak | 5.6 dBi / 5.5 dBi                |
| Cable3 Frequency            | 380-470 MHz                      |
| Cable3 Antenna element peak | 2.1 dBi                          |
| Cable4 Frequency            | 1575.42 MHz 1598-1610 MHz        |
| Cable4 Active Gain          | 28 dB @ 2.7 V                    |
| Radiation pattern           | Omni-Directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |

# 3G/4G/LTE Antennas Magnet Mount



## MEA-GNSS-LTE-MM

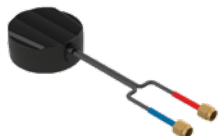
Active Multi-Frequency Antenna – External

Part #: 189-00103-03

- ✓ GNSS & LTE Bands ✓ 2 in 1 Low Profile Antenna ✓ Rugged IP67 ✓ Customizable Cables and Connectors ✓ Small Size ✓ Easy Mounting
- ✓ Quality Textured Covert Design ✓ Tape for Quick and Easy Mounting

### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1575.42 MHz/ 1602 MHz<br>698~960 MHz / 1710~2170 MHz /<br>2300~2690 MHz                                                                      |
| Antenna element peak gain | 1 dBi Typ. @ 1575 MHz<br>1 dBi Typ. @ 1602 MHz<br>1.0 dBi Typ. @ 698-960 MHz<br>2.0 dBi Typ. @ 1710-2170 MHz<br>2.0 dBi Typ. @ 2300-2690 MHz |
| Radiation                 | Omni-directional                                                                                                                             |



### Key mechanical specifications:

| Parameter                   | Specification               |
|-----------------------------|-----------------------------|
| Mounting option / Connector | Magnet Mount/ SMA connector |
| Dimensions                  | 51.4 x (h) 11.7 mm          |



## MEA-4-GGC

GPS/GLONASS & 2G 3G

Part #: 100-00119-01

- ✓ GSM/GPRS/CDMA/PCS/DCS/WCDMA/UMTS/HSPA/GPS/GLONASS ✓ Low profile antenna for easy installation ✓ High LNA Gain ✓ Low noise figure ✓ Ultra-low power consumption ✓ IP65 water resistant ✓ Customizable connector & cable length ✓ Foam Adhesive or Magnet ✓ ROHS Compliant

### Key electrical specifications:

| Parameter                 | Specification                                                                                                |
|---------------------------|--------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1575.42 MHz/ 1602 MHz<br>824-894 MHz / 1850-1990 MHz                                                         |
| Antenna element peak gain | 1 dBi Typ. @ 1575 MHz<br>1 dBi Typ. @ 1602 MHz<br>1.0 dBi Typ. @ 824~894 MHz<br>5.0 dBi Typ. @ 1850~1990 MHz |
| Radiation                 | Omni-directional                                                                                             |



### Key mechanical specifications:

| Parameter                   | Specification                              |
|-----------------------------|--------------------------------------------|
| Mounting option / Connector | Magnet or Adhesive Mount/<br>SMA connector |
| Dimensions                  | 58.15 x 56.2 x 16.8 mm                     |



## MEA-LTE3MM-SMA

CELLULAR / LTE Magnetic Mount

Part #: 100-00185-01

- ✓ CELLULAR / LTE - 698-960 MHz 1710-2170 MHz, 2500-2700 MHz ✓ Magnetic Mount ✓ Rugged design ✓ High Performance
- ✓ Customizable Cable and Connector ✓ Dimensions Ø 54 x 80 mm ✓ IP67, IP69K

### Key electrical specifications:

| Parameter                 | Specification                                 |
|---------------------------|-----------------------------------------------|
| Frequency                 | 698-960 MHz<br>1710-2170 MHz<br>2500-2700 MHz |
| Antenna element peak gain | -2.6 dB -2.9 dB -3.6 dB                       |
| Radiation                 | Omni-directional                              |



### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Magnetic Mount / SMA-Male |
| Dimensions                  | Ø 54 x 80                 |

# 3G/4G/LTE Antennas

## Magnet Mount

MAXTENA®



### MEA-1400-MM

#### GNSS L1 L5 Antenna – Magnet Mount

Part #: 100-00186-01

- ✓ Magnetic Mount
- ✓ 28 dB Gain
- ✓ Pre-Filter
- ✓ Low Noise Figure
- ✓ Low Power Consumption
- ✓ Customizable Cable and Connector
- ✓ GPS/ GLO/ BEI/ QZSS/ Galileo/ IRNSS/ SBAS/ L1L5 (1176 and 1561-1606 MHz)



#### Key electrical specifications:

| Parameter   | Specification                 |
|-------------|-------------------------------|
| Frequency   | 1164-1189 MHz / 1561-1606 MHz |
| Axial Ratio | ≤ 3dB                         |
| Radiation   | RHCP                          |
| Bandwidth   | 25 MHz / 45MHz                |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Magnetic Mount / SMA-Male |
| Dimensions                  | Ø 54 x 21.5 mm            |

# 3G/4G/LTE Antennas Adhesive Mount



## MEA-UWB-01-AM

### Low Profile LTE Antenna

Part #: 100-00106-01

- ✓ 2G/3G/4G Ultra-Wideband Automotive Antenna
- ✓ Fully customizable cable length and connector
- ✓ ROHS Compliant
- ✓ Low Profile
- ✓ IP67



#### Key electrical specifications:

| Parameter                 | Specification                              |
|---------------------------|--------------------------------------------|
| Frequency                 | 698-960 MHz 1710-2170 MHz<br>2300-2700 MHz |
| Antenna element peak gain | 3.8 dBi 2.9 dBi 4.4 dBi                    |
| Impedance                 | 50 Ω                                       |

#### Key mechanical specifications:

| Parameter                   | Specification               |
|-----------------------------|-----------------------------|
| Mounting option / Connector | SMA-Male                    |
| Dimensions                  | 105.1 mm x 30.1 mm x 6.7 mm |

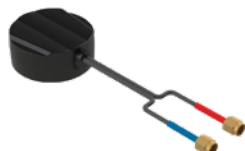


## MEA-GNSS-LTE

### Active Multi-Frequency Antenna – External Adhesive Mount

Part #: 189-00103-01

- ✓ GNSS & LTE Bands
- ✓ 2 in 1 Low Profile Antenna
- ✓ Rugged IP67
- ✓ Customizable Cables and Connectors
- ✓ Small Size
- ✓ Easy Mounting
- ✓ Quality Textured Covert Design
- ✓ Tape for Quick and Easy Mounting



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1575.42 MHz/ 1602 MHz<br>698-960 MHz / 1710-2170 MHz /<br>2300-2690 MHz                                                                      |
| Antenna element peak gain | 1 dBi Typ. @ 1575 MHz<br>1 dBi Typ. @ 1602 MHz<br>1.0 dBi Typ. @ 698-960 MHz<br>2.0 dBi Typ. @ 1710-2170 MHz<br>2.0 dBi Typ. @ 2300-2690 MHz |
| Polarization              | Linear                                                                                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Adhesive Mount/ SMA-Male |
| Dimensions                  | 51.4 x (h) 11.7 mm       |



## MEA-698-2700-AM

### Omni-Directional 4G LTE Antenna

Part #: 100-00143-01

- ✓ Dual-Port Multiband
- ✓ Omni-Directional LTE Antenna
- ✓ Covers Frequencies: 698 - 2700 MHz
- ✓ Low Profile
- ✓ Rugged Design



#### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 698-2700 MHz     |
| Antenna element peak gain | 4.5 dBi          |
| Radiation                 | Omni-directional |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | SMA-Male               |
| Dimensions                  | 101.5 x 77.6 x 15.8 mm |



# 3G/4G/LTE Antennas Adhesive Mount



## MEA-LG-AM

### CELLULAR/LTE and GPS/GLONASS Adhesive Mount

Part #: 100-00193-01

- ✓ Cable 1: CELLULAR/LTE - 698-960 MHz; 1710-2170 MHz; 2500-2700 MHz / Cable 2: GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- ✓ Adhesive Mount ✓ Ground Plane Independent ✓ Customizable Cable and Connector Dimensions ✓ Low profile: 83 x 35 x 13.3 mm
- ✓ IP67, IP69

#### Key electrical specifications:

| Parameter | Specification        |               |                 |
|-----------|----------------------|---------------|-----------------|
| Frequency | 698-960 MHz          | 1710-2170 MHz | 2500-2700 MHz   |
| Cable1    | Antenna element peak | -2.7 dB       | -3.0 dB -5.9 dB |
|           | Polarization         | Linear        |                 |
|           | VSWR                 | 1.8:1         | 1.3:1 2.0:1     |
| Cable2    | Frequency            | 1575.42 MHz   | 1598-1606 MHz   |
|           | Active gain          | 28 dB @ 2.7 V |                 |
|           | Polarization         | RHCP          |                 |
|           | VSWR                 | ≤ 1.4:1       |                 |

#### Key mechanical specifications:

| Parameter  | Specification                 |
|------------|-------------------------------|
| Connector  | Adhesive Mount/ SMA Connector |
| Cable Type | RG178                         |
| Dimensions | 82 x 80 x 6.6 mm              |



## MEA-LGG-AM

### Cellular/LTE and GPS/GLONASS Antenna – Adhesive Mount

Part #: 100-00163-01

- ✓ 2in 1 antenna (CELLULAR/LTE,GPS/GLONASS/QZSS/Galileo) ✓ Adhesive Mount ✓ High Performance ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector ✓ Dimensions 150.5 x 42 x 15.3 mm ✓ IP67, IP69

#### Key electrical specifications:

| Parameter | Specification        |               |                 |
|-----------|----------------------|---------------|-----------------|
| Frequency | 698-960 MHz          | 1710-2170 MHz | 2500-2700 MHz   |
| Cable1    | Antenna element peak | 3.4 dBi       | 3.5 dBi 3.9 dBi |
|           | Efficiency           | 76%           | 69% 76%         |
|           | VSWR                 | 1.7:1         | 1.4:1 1.5:1     |
| Cable2    | Frequency            | 1575.42 MHz   | 1598-1606 MHz   |
|           | Active gain          | 28 dB @ 2.7 V |                 |
|           | Polarization         | RHCP          |                 |
|           | VSWR                 | ≤ 1.4:1       |                 |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA-Male |
| Dimensions                  | 150.5 x 42 x 15.3 mm       |



# 3G/4G/LTE Antennas

## Adhesive Mount



### MEA-3-GGL

GPS/GLONASS/LTE Antenna & 2G/3G LTE SOLUTION

Part #: 189-00053-01

- ✓ Covers GNSS & LTE Bands ✓ 2 in 1 Low Profile Antenna ✓ Rugged IP67 ✓ Customizable Cables and Connectors ✓ Small Size ✓ Easy Magnet Mounting ✓ Quality Textured Covert Design



#### Key electrical specifications:

| Parameter | Specification        |                        |                 |
|-----------|----------------------|------------------------|-----------------|
| GNSS      | Frequency            | 1575.42 MHz            | 1602 MHz        |
|           | Polarization         | Linear                 |                 |
|           | Polarization         | 3.0 dBi Typ.           | 3.5 dBi Typ     |
|           | VSWR                 | ≤ 2.0:1                |                 |
| LNA       | Frequency            | 1575.42 MHz            | 1602 MHz        |
|           | Power Consumption    | 9 Typ. mA @3.3V        |                 |
|           | Antenna Gain         | 28 dB Typ. / 25 dB Min |                 |
|           | VSWR                 | ≤ 2.0:1                |                 |
| LTE       | Frequency            | 698-960 MHz            | 1710-2170 MHz   |
|           |                      | 2500-2700 MHz          |                 |
|           | Antenna element peak | 1.5 dBi                | 0.5 dBi 0.5 dBi |
|           | Efficiency           | 25%                    | 30% 30%         |
|           | VSWR                 | ≤ 5.5                  | ≤ 4.0 ≤ 4.0     |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Foam adhesive / SMA, FAKRA or custom |
| Dimensions                  | (L) 55 x (W) 55 x (H) 20 mm          |

# 3G/4G/LTE Antennas Connector Mount

MAXTENA®

## MEA-1700-LTE

### High Performance LTE Antenna

Part #: 100-00109-01

✓ 3G/4G/LTE modems ✓ Ultra-Wideband Automotive Antenna ✓ Low profile for easy installation ✓ Small size: 20 x 215 mm<sup>3</sup> ROHS Compliant ✓ IPX67



#### Key electrical specifications:

| Parameter                 | Specification               |
|---------------------------|-----------------------------|
| Frequency                 | 698-960 MHz<br>1710-2170MHz |
| Antenna element peak gain | 0~1 dBi                     |
| Radiation                 | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | N-Type        |
| Dimensions                  | Ø 20 x 215 mm |

## MEA-960-LTE

### 4G LTE Omni-Directional Antenna

Part #: 100-00140-01

✓ Robust arrow shape housing for easy roof-top alignment ✓ MIMO technology ✓ One connector for each application; LTE 1, LTE 2 and GPS ✓ No ground plane requirements ✓ Single-hole mounting with screws on top for easy installation ✓ Use of only one multifunction solution



#### Key electrical specifications:

| Parameter                 | Specification               |
|---------------------------|-----------------------------|
| Frequency                 | 698-960 MHz<br>1710-2170MHz |
| Antenna element peak gain | 3 dBi ± 1                   |
| Radiation                 | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification  |
|-----------------------------|----------------|
| Mounting option / Connector | SMA Male       |
| Dimensions                  | 82 x 12 x 6 mm |

## MEA-UWB-LTE-90

### Ultra-Wideband 4G LTE Antenna

Part #: 100-00139-01

✓ LTE / GSM / CDMA / DCS / PCS / WCDMA / UMTS / HSDPA / GPRS / EDGE / GPS / Wi-Fi ✓ Ultra-Wide Band Antenna ✓ Ground Plane Independent ✓ Hinged 90° termination with SMA(M) Connector



#### Key electrical specifications:

| Parameter                 | Specification               |
|---------------------------|-----------------------------|
| Frequency                 | 698-960 MHz<br>1710-2170MHz |
| Antenna element peak gain | 2.5 / 3.5 dBi               |
| Radiation                 | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA Male        |
| Dimensions                  | 163 x 22 x 7 mm |

# 3G/4G/LTE Antennas Connector Mount



## MEA-2700-LTE

### Low Profile LTE Antenna

Part #: 100-00126-01

- ✓ Low profile design for easy installation
- ✓ Heavy duty applications
- ✓ Can be used for mobile and fixed base applications
- ✓ Compact housing that makes the antenna ideal for indoor or outdoor applications
- ✓ 698-960/1710-2170/2500-2700 MHz
- ✓ Small size: 22 x 66mm
- ✓ ROHS compliant



#### Key electrical specifications:

| Parameter                 | Specification             |
|---------------------------|---------------------------|
| Frequency                 | 698-960 MHz 1710-2170 MHz |
| Antenna element peak gain | 3 dBi                     |
| Polarization              | Vertical                  |

#### Key mechanical specifications:

| Parameter                   | Specification      |
|-----------------------------|--------------------|
| Mounting option / Connector | N-Female connector |
| Dimensions                  | 22 x 66mm          |



## MEA-3L-SMA

### Cellular/LTE Antenna – Connector Mount

Part #: 100-00166-01

- ✓ CELLULAR / LTE frequency
- ✓ Connector Mount
- ✓ Low Profile
- ✓ Wide band Antenna Dimensions 48 x Ø 9 mm
- ✓ Easy integration
- ✓ High performance



#### Key electrical specifications:

| Parameter    | Specification                             |
|--------------|-------------------------------------------|
| Frequency    | 698-960 MHz 1710-2170 MHz                 |
| Efficiency   | 62.4% 62.4%                               |
| Polarization | Linear                                    |
| Average gain | -2.1 dB 2.1 dB                            |
| Bandwidth    | 700/850/900 MHz   1700/1800/1900/2100 MHz |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 38 mm                |

# 3G/4G/LTE Antennas

## Pole & Wall Mount



### MEA-2700-WIFI

**Omni Fiberglass WIFI Antenna**

Part #: 100-00188-01

- ✔ High Performance ✔ 698-960 MHz & 1710-2690 MHz frequency coverage ✔ Wi-Fi band ✔ Omni-directional antenna ✔ IP67 rating
- ✔ N-jack connector (N-Plug available) ✔ Easy mounting: Pole/ Wall mount



Key electrical specifications:

| Parameter                 | Specification    |               |
|---------------------------|------------------|---------------|
| Frequency                 | 698-960 MHz      | 1710-2170 MHz |
| Antenna element peak gain | 2 dBi            | 2 dBi         |
| Radiation                 | Omni-directional |               |

Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Pole / Wall Mount/ N-Jack or N-Plug |
| Dimensions                  | Ø 49 x 284 mm                       |

# 3G/4G/LTE Antennas

## Celling Mount

MAXTENA®



### MEA-698-3800-CM

#### Indoor Omnidirectional Antenna

Part #: 100-00187-01

✓ Wideband Omni antenna ✓ Compact and light weight ✓ Excellent performance ✓ Ceiling mounting ✓ N-female connector ✓ IP65



#### Key electrical specifications:

| Parameter                 | Specification                                       |
|---------------------------|-----------------------------------------------------|
| Frequency                 | 698-960 MHz<br>1427-2700MHz<br>3400-3800 MHz        |
| Antenna element peak gain | $2.0 \pm 0.5$ dBi<br>$5 \pm 1$ dBi<br>$5 \pm 1$ dBi |
| Radiation pattern         | Omni-directional                                    |

#### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Celling Mount /SMA Male |
| Dimensions                  | 80 × 76 × 13 mm         |



# 3G/4G/LTE Antennas Embedded

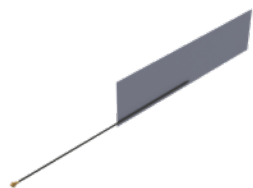


## MIA-HB-698-2700

Ultra-Wideband 4G LTE Antenna

Part #: 100-00160-01

✓ 4G LTE 690MHz – 960MHz | 1710MHz – 2700MHz ✓ Ground plane Independent ✓ High Efficiency across all bands ✓ Flexible embedded antenna



### Key electrical specifications:

| Parameter    | Specification                                                   |
|--------------|-----------------------------------------------------------------|
| Frequency    | 698 MHz ~ 960 MHz<br>1710 MHz ~ 2170 MHz<br>2500 MHz ~ 2700 MHz |
| VSWR         | < 3.5                                                           |
| Polarization | Linear                                                          |

### Key mechanical specifications:

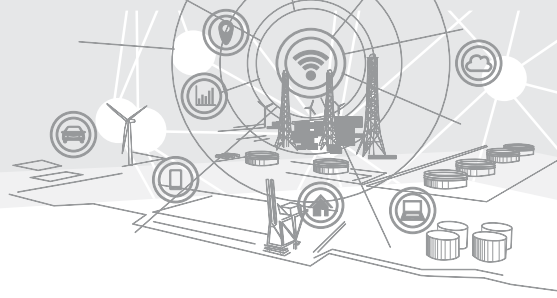
| Parameter                   | Specification  |
|-----------------------------|----------------|
| Mounting option / Connector | U.FL connector |
| Dimensions                  | 120mm x 30mm   |

# WIFI/ Bluetooth/ ZigBee Antennas

**MAXTENA®**



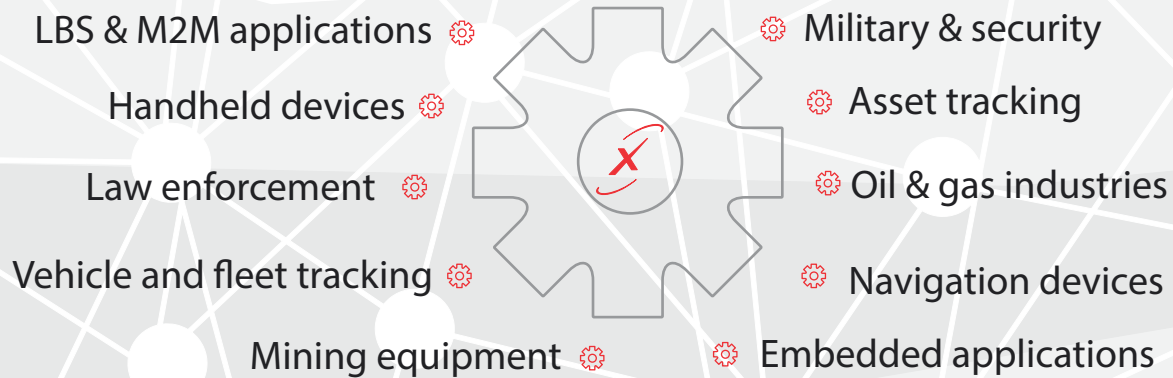
# WIFI/ Bluetooth/ ZigBee Antennas



We offer a wide selection of WiFi/ Bluetooth/ISM antennas that operate within the 902-928 MHz, 2.4 GHz and 5.7-5.8 bands and include a wide variety of indoor and outdoor antennas.

ISM antennas are ideal for various installations for IOT, smart metering, digital signage, and industrial monitoring. The antennas are available in several different sizes depending on customer requirements. These antennas can be customized with various cable lengths and connectors upon request. All of our external antennas are IP67 rate which allow for the most environmentally challenging installations.

## Applications



# WiFi Antennas External



## MEA-2700-WIFI

### Omni Fiberglass WIFI Antenna

Part #: 100-00188-01

- ✓ High Performance
- ✓ 698-960 MHz & 1710-2690 MHz frequency coverage
- ✓ Wi-Fi band
- ✓ Omni-directional antenna
- ✓ IP67 rating
- ✓ N-jack connector (N-Plug available)
- ✓ Easy mounting: Pole/ Wall mount



#### Key electrical specifications:

| Parameter                 | Specification    |               |
|---------------------------|------------------|---------------|
| Frequency                 | 698-960 MHz      | 1710-2170 MHz |
| Antenna element peak gain | 2 dBi            | 2 dBi         |
| Radiation                 | Omni-directional |               |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Pole / Wall Mount/ N-Jack or N-Plug |
| Dimensions                  | Ø 49 x 284 mm                       |



## MEA-2400-UWB-SM

### High Performance 2.4 GHz WIFI Antenna

Part #: 100-00155-01

- ✓ Wi-Fi/ISM/ZigBee/WLAN/Bluetooth 2.4GHz frequencies
- ✓ IP67 rated
- ✓ High gain & efficiency
- ✓ Custom cable & connector options



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 2400-2483MHz  |
| Peak gain    | 3 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 48 x 82 mm          |



## MAXWAVE

### MAXWAVE™ 4x4 MIMO TRAIN ANTENNA

Part #: 100-00074-01

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrester
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant to EN50155 and fire retardant according to EN 45545:2013



#### Key electrical specifications:

| Parameter    | Specification      |
|--------------|--------------------|
| Frequency    | 4 × 698 – 6000 MHz |
| Pattern      | Omnidirectional    |
| Polarization | Linear             |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |

# WiFi Antennas External



## NETZ 5IN1

LTE-MIMO/WIFI-MIMO/GNSS 5in1 Antenna

Part #: 100-00095-01

✓ LTE/Wifi/GNSS frequencies ✓ High performance ✓ MIMO technology solution ✓ A low profile design with easy mounting ✓ An integrated SMA connectors



### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1561 MHz 1575.42 MHz<br>1602 MHz 698-960 MHz<br>1710-2170 MHz 2300-2690 MHz                                                                                       |
| Antenna element peak gain | 3 dBi Typ. @1561 MHz<br>3 dBi Typ. @1575 MHz<br>3.5 dBi Typ. @1602 MHz<br>4.0 dBi Typ. @698~960 MHz<br>6.0 dBi Typ. @1710~2170 MHz<br>5.0 dBi Typ. @2300~2690 MHz |
| Radiation pattern         | Linear                                                                                                                                                            |

### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Permanent Mount/ SMA connectors |
| Dimensions                  | Ø 141.98 x 66.5 mm              |



## Netz 5in1-SM

CELLULAR/LTE MIMO, 2.4/5.0 GHz ISM MIMO and GNSS - Screw Mount

Part #: 100-00177-01

✓ LTE/Wifi/GNSS frequencies ✓ High performance ✓ MIMO technology solution ✓ A low profile design with easy mounting ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions: Ø 96 x H 90 mm ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter                   | Specification                              |
|-----------------------------|--------------------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz<br>2500-2700 MHz |
| Cable1 Antenna element peak | -0.9 dBi 3.3 dBi 4.3 dBi                   |
| Cable2 Frequency            | 698-960 MHz 1710-2170 MHz<br>2500-2700 MHz |
| Cable2 Antenna element peak | 1.4 dBi 3.0 dB 3.0 dBi                     |
| Cable3 Frequency            | 2410-2490 MHz 4920-5925 MHz                |
| Cable3 Antenna element peak | 4.8 dBi 3.0 dBi                            |
| Cable4 Frequency            | 2410-2490 MHz 4920-5925 MHz                |
| Cable4 Antenna element peak | 4.6 dBi 3.1 dBi                            |
| Cable5 Frequency            | 1575.42 MHz 1602 MHz                       |
| Cable5 Antenna element peak | 23 dB @ 3 V; 24dB @ 5 V                    |
| Radiation pattern           | Omni-directional / Hemispherical           |

### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male / SMA-Male RP |
| Dimensions                  | Ø 96 x 90 mm                         |



# WiFi Antennas External

## Netz 5in1-MIMO

### CELLULAR/LTE MIMO and GNSS - Screw mount antenna

Part #: 100-00177-01

- ✓ CELLULAR / LTE & GPS/GLONASS/QZSS/frequencies
- ✓ Galileo frequency range
- ✓ Easy mounting: Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter         | Specification        |                                  |                |
|-------------------|----------------------|----------------------------------|----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | 0.2dBi                           | 3.8dBi 6.0dBi  |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.1dBi                          | 3.2dBi -5.6dBi |
| Cable3            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.5dBi                          | 3.1dBi 5.0dBi  |
| Cable4            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.7dBi                          | 3.0dBi 4.8dBi  |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz       |
|                   | Antenna element peak | 23dB@3V; 24dB@5V                 |                |
| Radiation pattern |                      | Omni-Directional / Hemispherical |                |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 90 mm           |

## NETZ 4IN1

### 4G LTE/Cellular/WIFI and MIMO 4in1 Antenna

Part #: 100-00142-01

- ✓ Screw Mount
- ✓ High Performance
- ✓ Rated IP67, IP69K and IK09
- ✓ Compact Size: 96 x 96 x 94 mm
- ✓ Custom Cable and Connector



#### Key electrical specifications:

| Parameter                 | Specification |                  |         |
|---------------------------|---------------|------------------|---------|
| Frequency                 | 698-960 MHz   | 1710-2170MHz     |         |
|                           | 2500-2700 MHz |                  |         |
| Antenna element peak gain | 0.9 dBi       | 3.3 dBi          | 4.4 dBi |
| Radiation pattern         |               | Omni-directional |         |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA-Male        |
| Dimensions                  | 96 x 96 x 94 mm |

## MEA-698-3800-SM

### Low Profile 5G LTE Antenna

Part #: 100-00132-01

- ✓ Low profile antenna
- ✓ Covers large frequencies 698-3800 MHz
- ✓ ROHS Compliant
- ✓ High gain for the antenna size
- ✓ PC + ABC housing
- ✓ Exceptional performance over the main 4G/5G bands



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 698-3800 MHz  |
| Peak gain         | 5.5 dBi       |
| Radiation pattern | -10 dBi       |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | SMA-Male      |
| Dimensions                  | 59 x 71mm     |



# WiFi Antennas External

MAXTENA®



## MEA-UWB-LTE-90

### Ultra-Wideband 4G LTE Antenna

Part #: 100-00139-01

✓ LTE / GSM / CDMA / DCS / PCS / WCDMA / UMTS / HSDPA / GPRS / EDGE / GPS / Wi-Fi ✓ Ultra-Wide Band Antenna ✓ Ground Plane Independent ✓ Hinged 90° termination with SMA(M) Connector



#### Key electrical specifications:

| Parameter                 | Specification               |
|---------------------------|-----------------------------|
| Frequency                 | 698-960 MHz<br>1710-2170MHz |
| Antenna element peak gain | 2.5 / 3.5 dBi               |
| Radiation                 | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA Male        |
| Dimensions                  | 163 x 22 x 7 mm |



## MEA-2400-N

### 2.4 GHz WIFI/Bluetooth/ISM Antenna

Part #: 100-00152-01

✓ 2400-2500 GHz frequency coverage ✓ 2.4GHz Wi-Fi/Bluetooth/ISM band ✓ Omni-directional whip antenna ✓ IP66 rating ✓ SMA connector



#### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 2.4 ~ 2.5 GHz    |
| Antenna element peak gain | 2 ± 1 dBi        |
| Radiation pattern         | Omni-Directional |

#### Key mechanical specifications:

| Parameter                   | Specification      |
|-----------------------------|--------------------|
| Mounting option / Connector | SMA Male connector |
| Dimensions                  | 9.7 x 80 x 11.7 mm |



## MEA-2400-N

### Ultra-Rugged Dipole Antenna

Part #: 100-00190-01/02

✓ High Performance ✓ Dual Band 2.4/5 GHz ✓ UV Protected ✓ IP 67 ✓ Low profile antenna ✓ N-Jack or N-Plug ✓ Easy installation: Pole / Wall Mount



#### Key electrical specifications:

| Parameter                 | Specification             |
|---------------------------|---------------------------|
| Frequency                 | 2.4 - 2.5 GHz 4.8 - 6.0GH |
| Antenna element peak gain | 6 dBi 6 dBi               |
| Radiation pattern         | Omni-Directional          |

#### Key mechanical specifications:

| Parameter                   | Specification                                    |
|-----------------------------|--------------------------------------------------|
| Mounting option / Connector | Pole / Wall Mount / N-Jack or N-Plug             |
| Dimensions                  | Ø 30 x 280 mm (N-Jack)<br>Ø 23 x 255 mm (N-Plug) |

# WiFi Antennas

## External

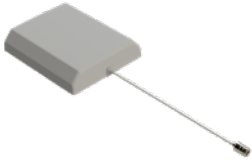


### MEA-1710-WM

#### Indoor Omnidirectional Wall mount Antenna

Part #: 100-00189-01

- ✓ Wideband Omni antenna
- ✓ Compact and light weight
- ✓ Excellent performance
- ✓ Wall mounting
- ✓ N-female connector
- ✓ IP65



#### Key electrical specifications:

| Parameter                 | Specification    |              |
|---------------------------|------------------|--------------|
| Frequency                 | 2.4 - 2.5 GHz    | 4.8 - 6.0GHz |
| Antenna element peak gain | 6 dBi            | 6 dBi        |
| Radiation pattern         | Omni-Directional |              |

#### Key mechanical specifications:

| Parameter                   | Specification                                    |
|-----------------------------|--------------------------------------------------|
| Mounting option / Connector | Pole / Wall Mount / N-Jack or N-Plug             |
| Dimensions                  | Ø 30 x 280 mm (N-Jack)<br>Ø 23 x 255 mm (N-Plug) |



### MEA-2500-LTE-MIMO

#### CELLULAR/LTE MIMO Screw Mount

Part #: 100-00211-01

- ✓ Wide-band antenna
- ✓ Easy mounting: Screw Mount
- ✓ Anti-rotation mounting
- ✓ High Performance
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 60 x 69 mm
- ✓ IP67, IP69, IK09
- ✓ Heavy duty antenna.



#### Key electrical specifications:

| Parameter         | Specification        |                  |                 |
|-------------------|----------------------|------------------|-----------------|
| Cable1            | Frequency            | 698-960 MHz      | 1710-2170 MHz   |
|                   | Antenna element peak | -0.8 dBi         | 3.6 dBi 4.1 dB  |
| Cable2            | Frequency            | 698-960 MHz      | 1710-2170 MHz   |
|                   | Antenna element peak | -0.6 dBi         | 2.8 dBi 3.0 dBi |
| Radiation pattern |                      | Omni-Directional |                 |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 60 x 69 mm           |



### MEA-2500-SM

#### CELLULAR/LTE MIMO Screw Mount

Part #: 100-00212-01

- ✓ CELLULAR / LTE (698-960 MHz, 1710-2170 MHz, and 2500-2700 MHz)
- ✓ Easy mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile : 80 x 74 x 14.7 mm
- ✓ IP67



#### Key electrical specifications:

| Parameter         | Specification        |                  |                 |
|-------------------|----------------------|------------------|-----------------|
| Cable1            | Frequency            | 698-960 MHz      | 1710-2170 MHz   |
|                   | Antenna element peak | -2.7 dB          | -3.0 dB -5.9 dB |
| Cable2            | Frequency            | 698-960 MHz      | 1710-2170 MHz   |
|                   | Antenna element peak | 1.4 dBi          | 2.2 dBi 4.4 dBi |
| Radiation pattern |                      | Omni-Directional |                 |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | 80 x 74 x 14.7 mm      |

# WiFi Antennas External



## MEA-2410-WIFI

### Dual Band Wifi ISM Antenna

Part #: 100-00280-01



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 2.8 dBi/ 2.4 dBi            |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Most RF Connectors |
| Dimensions                  | Ø15.7 x 58.2 mm                     |

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ IP67



## MEA-4920-ISM

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00279-01



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 3.1 dBi/ -0.2 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Connector Mount/ SMA Male |
| Dimensions                  | Ø12.5 x 34.7 mm           |

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ High Gain



## MEA-2410-FAKRA

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00279-01



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 2.6 dBi/ -0.3 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Fakra Beige Female |
| Dimensions                  | Ø12.5 x 44.5 mm                     |

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ High Gain

# WiFi Antennas Embedded

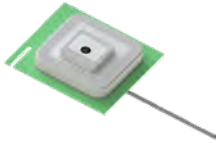


## MPA-254-WIFI

WiFi Embedded Antenna – 25mm x 4 mm

Part #: 189-00055-01

- ✓ 2.4GHz & 5.8 GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Terminator using IPEX connector



### Key electrical specifications:

| Parameter      | Specification                 |
|----------------|-------------------------------|
| Frequency      | 2400-2500 MHz<br>5700-5870MHz |
| Gain at Zenith | 1.0 dBi typ.                  |
| Polarization   | Linear                        |

### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I-PEX (U.FL)         |
| Dimensions                  | 25 mm x 25 mm x 4 mm |

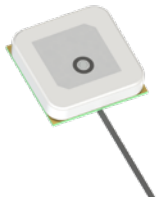


## MPA-258-WIFI

WiFi Embedded Antenna – 25mm x 4.5mm

Part #: 189-00051-01

- ✓ 2.4GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Ground Plane Dependent
- ✓ Terminator using IPEX connector
- ✓ Dimensions 25 x 25 x 4.5 mm



### Key electrical specifications:

| Parameter      | Specification |
|----------------|---------------|
| Frequency      | 2450 ± 50 MHz |
| Gain at Zenith | > 0.5 dBi     |
| Polarization   | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | I-PEX (MHF)      |
| Dimensions                  | 25 x 25 x 4.5 mm |

# Bluetooth Antennas External



## MEA-2400-UWB-SM

### High Performance 2.4 GHz WIFI Antenna

Part #: 100-00155-01

- ✓ Wi-Fi/ISM/ZigBee/WLAN/Bluetooth 2.4GHz frequencies ✓ IP67 rated ✓ High gain & efficiency ✓ Custom cable & connector options



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 2400-2483MHz  |
| Peak gain    | 3 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 48 x 82 mm          |



## MEA-2700-WIFI

### Omni Fiberglass WIFI Antenna

Part #: 100-00188-01

- ✓ High Performance ✓ 698-960 MHz & 1710-2690 MHz frequency coverage ✓ Wi-Fi band ✓ Omni-directional antenna ✓ IP67 rating  
✓ N-jack connector (N-Plug available) ✓ Easy mounting: Pole/ Wall mount



#### Key electrical specifications:

| Parameter                 | Specification    |               |
|---------------------------|------------------|---------------|
| Frequency                 | 698-960 MHz      | 1710-2170 MHz |
| Antenna element peak gain | 2 dBi            | 2 dBi         |
| Radiation                 | Omni-directional |               |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Pole / Wall Mount/ N-Jack or N-Plug |
| Dimensions                  | Ø 49 x 284 mm                       |



## NETZ 5IN1

### LTE-MIMO/WIFI-MIMO/GNSS 5in1 Antenna

Part #: 100-00095-01

- ✓ LTE/Wifi/GNSS frequencies ✓ High performance ✓ MIMO technology solution ✓ A low profile design with easy mounting ✓ An integrated SMA connectors



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1561 MHz 1575.42 MHz<br>1602 MHz 698-960 MHz<br>1710-2170 MHz 2300-2690 MHz                                                                                       |
| Antenna element peak gain | 3 dBi Typ. @1561 MHz<br>3 dBi Typ. @1575 MHz<br>3.5 dBi Typ. @1602 MHz<br>4.0 dBi Typ. @698~960 MHz<br>6.0 dBi Typ. @1710~2170 MHz<br>5.0 dBi Typ. @2300~2690 MHz |
| Radiation pattern         | Linear                                                                                                                                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Permanent Mount/ SMA connectors |
| Dimensions                  | Ø 141.98 x 66.5 mm              |

# Bluetooth Antennas External



## Netz 5in1-SM

CELLULAR/LTE MIMO, 2.4/5.0 GHz ISM MIMO and GNSS - Screw Mount

Part #: 100-00177-01

- ✓ LTE/Wifi/GNSS frequencies
- ✓ High performance
- ✓ MIMO technology solution
- ✓ A low profile design with easy mounting
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter         | Specification        |                                  |                 |
|-------------------|----------------------|----------------------------------|-----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz   |
|                   | Antenna element peak | -0.9 dBi                         | 3.3 dBi 4.3 dBi |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz   |
|                   | Antenna element peak | 1.4 dBi                          | 3.0 dBi 3.0 dBi |
| Cable3            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz   |
|                   | Antenna element peak | 4.8 dBi                          | 3.0 dBi         |
| Cable4            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz   |
|                   | Antenna element peak | 4.6 dBi                          | 3.1 dBi         |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz        |
|                   | Antenna element peak | 23 dB @ 3 V; 24dB @ 5 V          |                 |
| Radiation pattern |                      | Omni-directional / Hemispherical |                 |

### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male / SMA-Male RP |
| Dimensions                  | Ø 96 x 90 mm                         |



## MEA-2400-N

Ultra-Rugged Dipole Antenna

Part #: 100-00190-01/02

- ✓ High Performance
- ✓ Dual Band 2.4/5 GHz
- ✓ UV Protected
- ✓ IP 67
- ✓ Low profile antenna
- ✓ N-Jack or N-Plug
- ✓ Easy installation: Pole / Wall Mount



### Key electrical specifications:

| Parameter                 | Specification    |             |
|---------------------------|------------------|-------------|
| Frequency                 | 2.4 - 2.5 GHz    | 4.8 - 6.0GH |
| Antenna element peak gain | 6 dBi            | 6 dBi       |
| Radiation pattern         | Omni-Directional |             |

### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Pole / Wall Mount / N-Jack or N-Plug |
| Dimensions                  | Ø 30 x 280 mm (N-Jack)               |
|                             | Ø 23 x 255 mm (N-Plug)               |



# Bluetooth Antennas External

MAXTENA®



## MEA-2400-SMA

### 2.4 GHz WIFI/Bluetooth/ISM Antenna

Part #: 100-00152-01

- ✓ 2400-2500 GHz frequency coverage
- ✓ 2.4GHz Wi-Fi/Bluetooth/ISM band
- ✓ Omni-directional whip antenna
- ✓ IP66 rating
- ✓ SMA connector



#### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 2.4 ~ 2.5 GHz    |
| Antenna element peak gain | 2 ± 1 dBi        |
| Radiation pattern         | Omni-Directional |

#### Key mechanical specifications:

| Parameter                   | Specification      |
|-----------------------------|--------------------|
| Mounting option / Connector | SMA Male connector |
| Dimensions                  | 9.7 x 80 x 11.7 mm |



## MEA-2400-MM

### 2.4 GHz ISM Antenna – Magnetic Mount

Part #: 100-00173-01

- ✓ 2.4 GHz ISM Band
- ✓ Magnetic Mount
- ✓ 3.8 dBi WIFI Peak Gain
- ✓ Customizable Cable and Connector
- ✓ Ultra rugged housin
- ✓ Dimensions Ø 54 x 14.7 mm
- ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 2410-2490 MHz |
| Peak gain    | 3.8 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

#### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Magnet Mount / SMA-Male |
| Dimensions                  | Ø 54 x 14.7 mm          |



## MEA-2400-AM

### 2.4 GHz ISM Adhesive Mount

Part #: 100-00173-02

- ✓ 2.4 GHz ISM Band
- ✓ Adhesive Mount
- ✓ 3.8 dBi WIFI Peak Gain
- ✓ Customizable Cable and Connector
- ✓ Ultra rugged housin
- ✓ Dimensions Ø 54 x 14.7 mm
- ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 2410-2490 MHz |
| Peak gain    | 3.8 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Adhesive Mount / Fakra Beige Female |
| Dimensions                  | Ø 54 x 14.7 mm                      |

# Bluetooth Antennas Embedded

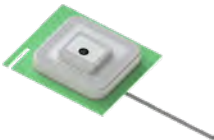


## MPA-254-WIFI

WIFI Embedded Antenna – 25mm x 4 mm

Part #: 189-00055-01

- ✓ 2.4GHz & 5.8 GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Terminator using IPEX connector



### Key electrical specifications:

| Parameter      | Specification                |
|----------------|------------------------------|
| Frequency      | 2400-2500 MHz<br>5700-5870MH |
| Gain at Zenith | 1.0 dBi typ.                 |
| Polarization   | Linear                       |

### Key mechanical specifications:

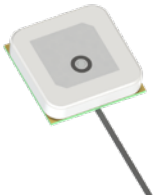
| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I-PEX (U.FL)         |
| Dimensions                  | 25 mm x 25 mm x 4 mm |

## MPA-258-WIFI

WIFI Embedded Antenna – 25mm x 4.5mm

Part #: 189-00051-01

- ✓ 2.4GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Ground Plane Dependent
- ✓ Terminator using IPEX connector
- ✓ Dimensions 25 x 25 x 4.5 mm



### Key electrical specifications:

| Parameter      | Specification |
|----------------|---------------|
| Frequency      | 2450 ± 50 MHz |
| Gain at Zenith | > 0.5 dBi     |
| Polarization   | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | I-PEX (MHF)      |
| Dimensions                  | 25 x 25 x 4.5 mm |

# WIFI Terminal Mount Antennas

## Screw Mount



### MAXWAVE

#### MAXWAVE™ 4x4 MIMO TRAIN ANTENNA

Part #: 100-00074-01

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrester
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant to EN50155 and fire retardant according to EN 45545:2013



#### Key electrical specifications:

| Parameter    | Specification      |
|--------------|--------------------|
| Frequency    | 4 × 698 – 6000 MHz |
| Pattern      | Omnidirectional    |
| Polarization | Linear             |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |



### NETZ 4IN1

#### 4G LTE/Cellular/WIFI and MIMO 4in1 Antenna

Part #: 100-00142-01

- ✓ Screw Mount
- ✓ High Performance
- ✓ Rated IP67, IP69K and IK09
- ✓ Compact Size: 96 x 96 x 94 mm
- ✓ Custom Cable and Connector



#### Key electrical specifications:

| Parameter                 | Specification                             |
|---------------------------|-------------------------------------------|
| Frequency                 | 698-960 MHz 1710-2170MHz<br>2500-2700 MHz |
| Antenna element peak gain | 0.9 dBi 3.3 dBi 4.4 dBi                   |
| Radiation pattern         | Omni-directional                          |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA-Male        |
| Dimensions                  | 96 x 96 x 94 mm |



### MEA-SW-700-3800

#### 2G/3G/4G/ISM/WIFI GNSS Antenna

Part #: 189-00046-01

- ✓ 2G/3G/4G/ISM/Wi-Fi & GNSS frequency bands
- ✓ N Type connector & seal ring
- ✓ IP68 rated / UV protected
- ✓ Rugged industrial design
- ✓ Ground plane Independent



#### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 698-3800 MHz     |
| Antenna element peak gain | 4.0 dB           |
| Radiation pattern         | Omni-directional |

#### Key mechanical specifications:

| Parameter                   | Specification                 |
|-----------------------------|-------------------------------|
| Mounting option / Connector | Screw Mount/ N Type connector |
| Dimensions                  | Ø 41 x 84 mm                  |

# WIFI Terminal Mount Antennas

## Screw Mount



### MEA-2400-SMA

2.4 GHz WIFI/Bluetooth/ISM Antenna

Part #: 100-00152-01

✔ 2400-2500 GHz frequency coverage ✔ 2.4GHz Wi-Fi/Bluetooth/ISM band ✔ Omni-directional whip antenna ✔ IP66 rating ✔ SMA connector



#### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 2.4 ~ 2.5 GHz    |
| Antenna element peak gain | 2 ± 1 dBi        |
| Radiation pattern         | Omni-Directional |

#### Key mechanical specifications:

| Parameter                   | Specification      |
|-----------------------------|--------------------|
| Mounting option / Connector | SMA Male connector |
| Dimensions                  | 9.7 x 80 x 11.7 mm |

# WIFI Terminal Mount Antennas

## Wall/ Pole Mount



### MEA-2700-WIFI

#### Omni Fiberglass WIFI Antenna

Part #: 100-00188-01

- ✓ High Performance
- ✓ 698-960 MHz & 1710-2690 MHz frequency coverage
- ✓ Wi-Fi band
- ✓ Omni-directional antenna
- ✓ IP67 rating
- ✓ N-jack connector (N-Plug available)
- ✓ Easy mounting: Pole/ Wall mount



#### Key electrical specifications:

| Parameter                 | Specification    |               |
|---------------------------|------------------|---------------|
| Frequency                 | 698-960 MHz      | 1710-2170 MHz |
| Antenna element peak gain | 2 dBi            | 2 dBi         |
| Radiation                 | Omni-directional |               |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Pole / Wall Mount/ N-Jack or N-Plug |
| Dimensions                  | Ø 49 x 284 mm                       |

# WIFI Terminal Mount Antennas

## Surface Mount



### MPA-254-WIFI

WIFI Embedded Antenna – 25mm x 4 mm

Part #: 189-00055-01

- ✓ 2.4GHz & 5.8 GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Terminator using IPEX connector



#### Key electrical specifications:

| Parameter      | Specification                 |
|----------------|-------------------------------|
| Frequency      | 2400-2500 MHz<br>5700-5870MHz |
| Gain at Zenith | 1.0 dBi typ.                  |
| Polarization   | Linear                        |

#### Key mechanical specifications:

| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I-PEX (U.FL)         |
| Dimensions                  | 25 mm x 25 mm x 4 mm |

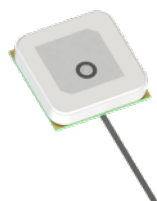


### MPA-258-WIFI

WIFI Embedded Antenna – 25mm x 4.5mm

Part #: 189-00051-01

- ✓ 2.4GHz Wi-Fi frequency
- ✓ Integrated Ground plane with cable
- ✓ Easy mounting
- ✓ Surface Mount
- ✓ Compact size
- ✓ Advanced Ceramic Material
- ✓ Ground Plane Dependent
- ✓ Terminator using IPEX connector
- ✓ Dimensions 25 x 25 x 4.5 mm



#### Key electrical specifications:

| Parameter      | Specification |
|----------------|---------------|
| Frequency      | 2450 ± 50 MHz |
| Gain at Zenith | > 0.5 dBi     |
| Polarization   | Linear        |

#### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | I-PEX (MHF)      |
| Dimensions                  | 25 x 25 x 4.5 mm |



# WIFI Terminal Mount Antennas

## Magnet Mount



### MEA-2400-MM

#### 2.4 GHz ISM Antenna – Magnetic Mount

Part #: 100-00173-01

- ✓ 2.4 GHz ISM Band
- ✓ Magnetic Mount
- ✓ 3.8 dBi WIFI Peak Gain
- ✓ Customizable Cable and Connector
- ✓ Ultra rugged housin
- ✓ Dimensions Ø 54 × 14.7 mm
- ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 2410-2490 MHz |
| Peak gain    | 3.8 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

#### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Magnet Mount / SMA-Male |
| Dimensions                  | Ø 54 × 14.7 mm          |

WIFI Terminal Mount Antennas

Adhesive Mount

MAXTENA®

 **MEA-2400-AM**

**2.4 GHz ISM Adhesive Mount**

Part #: 100-00173-02

- ☒ 2.4 GHz ISM Band
- ☒ Adhesive Mount
- ☒ 3.8 dBi WIFI Peak Gain
- ☒ Customizable Cable and Connector
- ☒ Ultra rugged housin
- ☒ Dimensions Ø 54 × 14.7 mm
- ☒ IP67, IP69K



Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 2410-2490 MHz |
| Peak gain    | 3.8 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Adhesive Mount / Fakra Beige Female |
| Dimensions                  | Ø 54 × 14.7 mm                      |

# WIFI ZigBee Antennas External



## MEA-2400-MM

### 2.4 GHz ISM Antenna – Magnetic Mount

Part #: 100-00173-01

- ✓ 2.4 GHz ISM Band
- ✓ Magnetic Mount
- ✓ 3.8 dBi WIFI Peak Gain
- ✓ Customizable Cable and Connector
- ✓ Ultra rugged housing
- ✓ Dimensions Ø 54 × 14.7 mm
- ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 2410-2490 MHz |
| Peak gain    | 3.8 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

#### Key mechanical specifications:

| Parameter                   | Specification           |
|-----------------------------|-------------------------|
| Mounting option / Connector | Magnet Mount / SMA-Male |
| Dimensions                  | Ø 54 × 14.7 mm          |

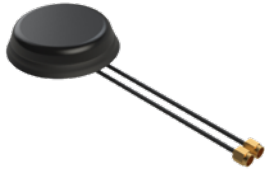


## MEA-868-IGG

### 868 MHz ISM/GPS/GLONASS Screw Mount

Part #: 100-00251-01

- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Low Profile
- ✓ High Gain
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter       | Specification              |
|-----------------|----------------------------|
| Frequency       | 863-870 MHz                |
| Peak Gain       | 3.2 dBi                    |
| Polarization    | Linear                     |
| Frequency Range | 1575.42 MHz, 1598-1606 MHz |
| Active Gain     | 28 dB @ 2.7 V              |
| Polarization    | RHCP                       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 77.3 x 15 mm         |

**MAXTENA<sup>®</sup>**





Our patented & fully EN 50155 Certified Rail 4x4 MIMO LTE antennas are the most advanced solutions available. They ensure the most optimal data aggregation connectivity by providing outstanding RF performances.

As technology capabilities increase, the world is becoming more connected and so does the demand for a smart, and fastest growing transportation market. Maxtena is the industry leader in developing new antenna technologies for vehicle – to – vehicle (V2V) and vehicle – to – anything (V2X) applications. We have developed cutting edge dedicated short-range communications (DSRC) antennas which are vehicle and DSRC transponder agnostic. All DSRC antennas are available for external and internal automotive applications.

At Maxtena, we offers the most advanced train and rail antennas in rugged, low profile form factors.

## Applications



# Discover

Our best seller

MAXTENA®

## Netz 5in1, our LTE-MIMO/WIFI MIMO/GNSS 5in1 Antenna

### Netz 5in1

The NETZ 5 in 1 is a MIMO technology solution by Maxtena that combines two LTE antennas, and two WiFi antennas with GNSS. Our 5 in 1 solution is ideal for high data throughput and streaming, video, industrial and IOT applications.

The NETZ 5 in 1 antenna is an omnidirectional, heavy-duty, and waterproof external multi-antenna for use in fleet management, smart cities, and buses, train and commercial transport.

This cutting-edge antenna provides powerful MIMO antenna technology for global coverage LTE and Wi-Fi, plus GPS/GLONASS for constant wireless communication.

It offers a low-profile design with easy mounting and integrated SMA connectors. The antenna is designed with rugged PC+ABS black plastic housing and is ideal for the most demanding environmental challenges.

The standard NETZ 5 in 1 comes with 3 meters RG-174 (GNSS) / CFD-200 (LTE) / CFD-200 (WIFI) and SMA-Male connectors. Cable and connectors are customizable upon request.



#### Features

- ✓ LTE/Wifi/GNSS frequencies
- ✓ High performance
- ✓ MIMO technology solution
- ✓ A low-profile design with easy mounting
- ✓ An integrated SMA connectors

#### Suggested Applications include

- ✓ Fleet management
- ✓ Commercial transport
- ✓ HD video monitoring
- ✓ Buses, train, and commercial application
- ✓ Smart city



## MAXWAVE

### MAXWAVE™ 4x4 MIMO TRAIN ANTENNA

Part #: 100-00074-01

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrester
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant to EN50155 and fire retardant according to EN 45545:2013



#### Key electrical specifications:

| Parameter    | Specification      |
|--------------|--------------------|
| Frequency    | 4 x 698 – 6000 MHz |
| Pattern      | Omnidirectional    |
| Polarization | Linear             |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |

## NETZ 5IN1

### LTE-MIMO/WIFI-MIMO/GNSS 5in1 Antenna

Part #: 100-00095-01

- ✓ LTE/Wifi/GNSS frequencies
- ✓ High performance
- ✓ MIMO technology solution
- ✓ A low profile design with easy mounting
- ✓ An integrated SMA connectors



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1561 MHz 1575.42 MHz<br>1602 MHz 698-960 MHz<br>1710-2170 MHz 2300-2690 MHz                                                                                       |
| Antenna element peak gain | 3 dBi Typ. @1561 MHz<br>3 dBi Typ. @1575 MHz<br>3.5 dBi Typ. @1602 MHz<br>4.0 dBi Typ. @698~960 MHz<br>6.0 dBi Typ. @1710~2170 MHz<br>5.0 dBi Typ. @2300~2690 MHz |
| Radiation pattern         | Linear                                                                                                                                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Permanent Mount/ SMA connectors |
| Dimensions                  | Ø 141.98 x 66.5 mm              |

## NETZ 4IN1

### 4G LTE/Cellular/WIFI and MIMO 4in1 Antenna

Part #: 100-00142-01

- ✓ Screw Mount
- ✓ High Performance
- ✓ Rated IP67, IP69K and IK09
- ✓ Compact Size: 96 x 96 x 94 mm
- ✓ Custom Cable and Connector



#### Key electrical specifications:

| Parameter                 | Specification                             |
|---------------------------|-------------------------------------------|
| Frequency                 | 698-960 MHz 1710-2170MHz<br>2500-2700 MHz |
| Antenna element peak gain | 0.9 dBi 3.3 dBi 4.4 dBi                   |
| Radiation pattern         | Omni-directional                          |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA-Male        |
| Dimensions                  | 96 x 96 x 94 mm |



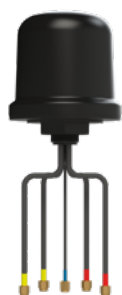


## Netz 5in1-SM

CELLULAR/LTE MIMO, 2.4/5.0 GHz ISM MIMO and GNSS - Screw Mount

Part #: 100-00177-01

- ✓ LTE/Wifi/GNSS frequencies
- ✓ High performance
- ✓ MIMO technology solution
- ✓ A low profile design with easy mounting
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter         | Specification        |                                  |                |
|-------------------|----------------------|----------------------------------|----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.9 dBi                         | 3.3 dBi 4.3 dB |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | 1.4 dBi                          | 3.0 dB 3.0 dBi |
| Cable3            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz  |
|                   | Antenna element peak | 4.8 dBi                          | 3.0 dBi        |
| Cable4            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz  |
|                   | Antenna element peak | 4.6 dBi                          | 3.1 dBi        |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz       |
|                   | Antenna element peak | 23 dB @ 3 V; 24dB @ 5 V          |                |
| Radiation pattern |                      | Omni-directional / Hemispherical |                |

### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male / SMA-Male RP |
| Dimensions                  | Ø 96 x 90 mm                         |



## Netz 5in1-MIMO

CELLULAR/LTE MIMO and GNSS - Screw mount antenna

Part #: 100-00177-01

- ✓ CELLULAR / LTE & GPS/GLONASS/QZSS/frequencies
- ✓ Galileo frequency range
- ✓ Easy mounting: Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter         | Specification        |                                  |                |
|-------------------|----------------------|----------------------------------|----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | 0.2dBi                           | 3.8dBi 6.0dBi  |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.1dBi                          | 3.2dBi -5.6dBi |
| Cable3            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.5dBi                          | 3.1dBi 5.0dBi  |
| Cable4            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.7dBi                          | 3.0dBi 4.8dBi  |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz       |
|                   | Antenna element peak | 23dB@3V; 24dB@5V                 |                |
| Radiation pattern |                      | Omni-Directional / Hemispherical |                |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 90 mm           |



## COBRA-LTE700

**LTE MIMO & Active GPS High-Performance Transportation Antenna**

Part #: 100-00036-01

- ✓ Robust arrow shape housing for easy roof-top alignment
- ✓ MIMO technology
- ✓ One connector for each application; LTE 1, LTE 2 and GPS
- ✓ No ground plane requirements
- ✓ Single-hole mounting with screws on top for easy installation
- ✓ Use of only one multifunction solution



### Key electrical specifications:

| Parameter                 | Specification                                   |
|---------------------------|-------------------------------------------------|
| Frequency                 | 690 - 960 MHz<br>1700 - 2200 MHz<br>1575.42 MHz |
| Antenna element peak gain | 4 dBi (typical)                                 |
| Polarization              | Linear                                          |

### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |



## MEA-LTE-MIMO-ISM-SM

**Cellular/LTE MIMO and 915 MHz ISM Screw Mount**

Part #: 100-00203-01

- ✓ High Performance
- ✓ Easy mounting; Screw Mount
- ✓ Ground Plane Independent
- ✓ Low profile: 96 x 96 x 90 mm
- ✓ Customized Cable and Connector



### Key electrical specifications:

| Parameter                   | Specification                              |
|-----------------------------|--------------------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz<br>2500-2700 MHz |
| Cable1 Antenna element peak | -1.5 dBi 3.2 dBi 6.5 dBi                   |
| Cable2 Frequency            | 698-960 MHz 1710-2170 MHz<br>2500-2700 MHz |
| Cable2 Antenna element peak | -0.9 dBi 3.0 dBi 5.0 dBi                   |
| Cable3 Frequency            | 902-928 MHz                                |
| Cable3 Antenna element peak | 0.2 dBi                                    |
| Bandwidth                   | Omni-Directional                           |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 96 x 90 mm          |



## MEA-5G-MIMO-GGG

**5G NR, MIMO and GNSS GPS/GLONASS Screw Mount**

Part #: 100-00250-01

- ✓ Easy mounting; Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Anti-Rotation Mounting
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter          | Specification                                            |
|--------------------|----------------------------------------------------------|
| Cable1 Frequency   | 617-960 MHz/1427-2690 MHz<br>3300-5000 MHz/5150-5925 MHz |
| Cable1 Peak Gain   | 1.3 dBi / 3.4 dBi / 4.7 dBi / 4.0 dBi                    |
| Cable2 Frequency   | 617-960 MHz/1427-2690 MHz<br>3300-5000 MHz/5150-5925 MHz |
| Cable2 Peak Gain   | 1.2 dBi / 3.6 dBi / 4.6 dBi / 3.2 dBi                    |
| Cable3 Frequency   | 1575.42 MHz / 1598-1610 MHz                              |
| Cable3 Active Gain | 23 dB @ 3V / 24 dB @ 5V                                  |
| Radiation Pattern  | Omni-directional / Hemispherical                         |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw Mount/ SMA Male |
| Dimensions                  | Ø 96 X 130 mm         |



## MEA-5in1-SMA

**5G NR MIMO, 2.4/5.0/6.0 GHz ISM and GNSS - Screw mount antenna**

Part #: 100-00243-01

- ✓ 5G NR, 2.4/5.0/6.0 GHz ISM & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

### Key electrical specifications:

| Parameter         | Specification        |                                                          |
|-------------------|----------------------|----------------------------------------------------------|
| Cable1            | Frequency            | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz |
|                   | Antenna element peak | 1.3 dBi / 3.4 dBi / 4.7 dBi / 4.0 dBi                    |
| Cable2            | Frequency            | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz |
|                   | Antenna element peak | 1.2 dBi / 3.6 dBi / 4.6 dBi / 3.2 dBi                    |
| Cable3            | Frequency            | 2410-2490 MHz 4920-5925 MHz<br>5925-7125 MHz             |
|                   | Antenna element peak | 5.6 dBi / 5.5 dBi / 3.8 dBi                              |
| Cable4            | Frequency            | 2410-2490 MHz 4920-5925 MHz<br>5925-7125 MHz             |
|                   | Antenna element peak | 5.6 dBi / 5.5 dBi / 3.6 dBi                              |
| Cable5            | Frequency            | 1575.42 MHz 1598-1610 MHz                                |
|                   | Active Gain          | 23dB@3V; 24dB@5V                                         |
| Radiation pattern |                      | Omni-Directional / Hemispherical                         |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



## MEA-5G-ISM-MIMO-GNSS

**5G NR MIMO, 2.4/5.0 GHz ISM, and GNSS Screw Mount**

Part #: 100-00240-01

- ✓ 5G NR, 2.4/5.0 GHz ISM /GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

### Key electrical specifications:

| Parameter         | Specification        |                                                          |
|-------------------|----------------------|----------------------------------------------------------|
| Cable1            | Frequency            | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz |
|                   | Antenna element peak | 0.3 dBi / 3.6 dBi / 4.7 dBi / 3.8 dBi                    |
| Cable2            | Frequency            | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz |
|                   | Antenna element peak | 0.7 dBi / 3.7 dBi / 4.6 dBi / 3.6 dBi                    |
| Cable3            | Frequency            | 2410-2490 MHz 4920-5925 MHz                              |
|                   | Antenna element peak | 5.3 dBi / 1.5 dBi                                        |
| Cable4            | Frequency            | 2410-2490 MHz 4920-5925 MHz                              |
|                   | Antenna element peak | 5.3 dBi / 2.3 dBi                                        |
| Cable5            | Frequency            | 1575.42 MHz 1598-1610 MHz                                |
|                   | Active Gain          | 23dB@3V; 24dB@5V                                         |
| Radiation pattern |                      | Omni-Directional / Hemispherical                         |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |

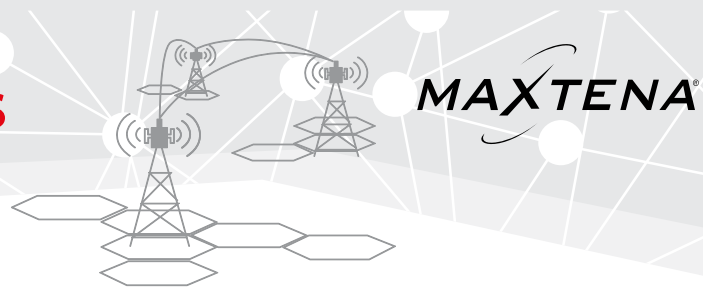


# Sigfox/LoRa/ISM Antennas

**MAXTENA®**



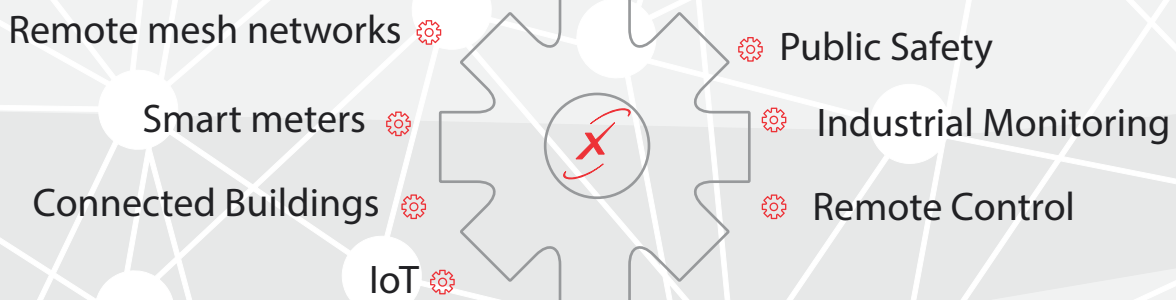
# Sigfox/LoRa/ISM Antennas



We offer a wide selection of SigFox/LoRA/ISM antennas that operate within the 902-928 MHz, 2.4 GHz and 5.7-5.8 bands and include a wide variety of indoor and outdoor antennas.

ISM antennas are ideal for various installations for IOT, smart metering, digital signage, and industrial monitoring. The antennas are available in several different sizes depending on customer requirements. These antennas can be customized with various cable lengths and connectors upon request. All of our external antennas are IP67 rate which allow for the most environmentally challenging installations.

## Applications





## MEA-868-915-N

### Ultra Rugged Dipole Antenna for SIGFOX/LORA/ISM

## MEA-868-915-N

Maxtena releases the MEA-868-915-N an Ultra Rugged Dipole Antenna for SIGFOX/LORA/ISM applications.

MEA-868-915-N is a heavy duty, omni-directional fiberglass base station antenna for outdoor applications operating at 868MHz – 915MHz ISM band. It is ideal for long-distance coverage. This antenna is fully compatible with Sigfox/LoRA/ISM standards. The MEA-868-915-N is a dipole antenna which is ideal for various installations for IOT, smart metering, digital signage, and industrial monitoring.

The antenna is supplied with a N-Type connector and is light weight. The UV resistant coated fiberglass housing makes this antenna suitable to be mounted in very challenging robust outdoor environments. It can be connected directly to the access point or can be mounted on the wall or customer device via the N-type connector and a pole-mount and wall-mount bracket is included.

The antenna is IP 65 rated.



#### Features

- ✓ Suitable to use in Robust Outdoor Environment
- ✓ High performance for increased coverage
- ✓ UV protected
- ✓ Wall & pole mount
- ✓ N-Type Connector
- ✓ IP 65 rated

#### Suggested Applications include

- ✓ Smart Metering
- ✓ Industrial Monitoring
- ✓ Remote Control
- ✓ IOT & M2M
- ✓ Connected Buildings

# ISM Antennas External



## MEA-900-L-SM

868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✓ 2 in 1 antenna: Cellular/LTE & ISM bands ✓ Ultra-Wide band antenna ✓ High performance ✓ Easy mounting: Screw Mount ✓ Low Profile: 80 x 76 x 13 mm ✓ Ground Plane Independent ✓ IP67 ✓ Customizable Cable and Connector



### Key electrical specifications:

| Parameter         | Specification                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz<br>2500-2700MHz 868MHz<br>915MHz                                               |
| Peak Gain         | 0.7 dBi@698-960MHz<br>2.7dBi@1710-2170MHz<br>4.3 dBi@2500-2700MHz<br>1.2 dBi@ 868MHz<br>1.7 dBi@915MHz |
| Radiation pattern | Omni-directional                                                                                       |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



## MEA-900-W2-SM

2.4/5.0 GHz & 868/915 MHz ISM - Screw Mount

Part #: 100-00194-01

- ✓ 2.4/5.0 GHz ISM ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector  
✓ IP67, IK09, IP69K ✓ Dimensions Ø 80 x 76 x 13 mm



### Key electrical specifications:

| Parameter         | Specification                                                                |
|-------------------|------------------------------------------------------------------------------|
| Frequency         | 868 MHz 915 MHz<br>2.4 GHz 5.0 GHz                                           |
| Peak Gain         | -0.6 dBi@ 868 MHz<br>-0.2 dBi@915 MHz<br>4.5 dBi@ 2.4 GHz<br>3.9 dBi@5.0 GHz |
| Radiation pattern | Omni-directional                                                             |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 76 x 13 mm        |



## MEA-868-01-SMA

868 MHz ISM- Connector Mount

Part #: 100-00201-01

- ✓ Small Form Factor ✓ High Performance ✓ Frequency range 863-870 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 863-870 MHz   |
| Antenna element peak gain | -1.2 dB       |
| Polarization              | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | 9 x 48.0mm                 |



# ISM Antennas

## External



### MEA-868-915-SMA

#### High Performance 868-915 MHz ISM Antenna

Part #: 100-00153-01

✓ Ultra High Performance ✓ LoRa/Sigfox/ ISM Band coverage ✓ ROHS Compliant ✓ Robust Housing IP67 Rated ✓ Custom Cable and Connector



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 3 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



### MEA-868-ISM

#### 868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

✓ 868 MHz ISM LoRa band antenna ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Low Profile ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Axial Ratio  | -1.4 dBi      |
| Polarization | Linear        |
| VSWR         | 1.1:1         |

#### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | SMA Male        |
| Cable Type | D302 Standard   |
| Dimensions | 80 x 76 x 13 mm |



### MEA-868-SM-LP

#### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00172-01

✓ 868 MHz ISM - 863-870 MHz ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions: Ø 50 x 50.8 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Peak gain    | -0.8 dBi      |
| Polarization | Linear        |
| VSWR         | ≤ 1.9:1       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 50 x 50.8 mm         |

# ISM Antennas

## External



### MEA-915-SM-LP

#### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00171-01

✓ 915 MHz ISM ✓ Screw Mount ✓ Ground Plane Dependent ✓ High Performance ✓ Low Profile ✓ Customizable Cable and Connector  
Dimensions 80 x 74 x 14.7 mm ✓ IP67



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Average gain | -3 dB         |
| Polarization | Linear        |
| VSWR         | 1.5:1         |

#### Key mechanical specifications:

| Parameter                   | Specification                            |
|-----------------------------|------------------------------------------|
| Mounting option / Connector | Screw Mount / SMA Male (other available) |
| Dimensions                  | 80 x 74 x 14.7 mm                        |



### MEA-698-3800-SM

#### Low Profile 5G LTE Antenna

Part #: 100-00132-01

✓ Low profile antenna ✓ Covers large frequencies 698-3800 MHz ✓ ROHS Compliant ✓ High gain for the antenna size ✓ PC + ABC housing ✓ Exceptional performance over the main 4G/5G bands



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 698-3800 MHz  |
| Peak gain         | 5.5 dBi       |
| Radiation pattern | -10 dBi       |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | SMA-Male      |
| Dimensions                  | 59 x 71 mm    |



### MEA-UWB-LTE-90

#### Ultra-Wideband 4G LTE Antenna

Part #: 100-00139-01

✓ LTE / GSM / CDMA / DCS / PCS / WCDMA / UMTS / HSDPA / GPRS / EDGE / GPS / Wi-Fi ✓ Ultra-Wide Band Antenna ✓ Ground Plane Independent ✓ Hinged 90° termination with SMA(M) Connector



#### Key electrical specifications:

| Parameter                 | Specification                |
|---------------------------|------------------------------|
| Frequency                 | 698-960 MHz<br>1710-2170 MHz |
| Antenna element peak gain | 2.5 / 3.5 dBi                |
| Radiation                 | Omni-directional             |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA Male        |
| Dimensions                  | 163 x 22 x 7 mm |

# ISM Antennas External

MAXTENA®



## Netz 5in1-SM

CELLULAR/LTE MIMO, 2.4/5.0 GHz ISM MIMO and GNSS - Screw Mount

Part #: 100-00177-01

- ✓ LTE/Wifi/GNSS frequencies
- ✓ High performance
- ✓ MIMO technology solution
- ✓ A low profile design with easy mounting
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter         | Specification        |                                  |                |
|-------------------|----------------------|----------------------------------|----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.9 dBi                         | 3.3 dBi 4.3 dB |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | 1.4 dBi                          | 3.0 dB 3.0 dBi |
| Cable3            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz  |
|                   | Antenna element peak | 4.8 dBi                          | 3.0 dBi        |
| Cable4            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz  |
|                   | Antenna element peak | 4.6 dBi                          | 3.1 dBi        |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz       |
|                   | Antenna element peak | 23 dB @ 3 V; 24dB @ 5 V          |                |
| Radiation pattern |                      | Omni-directional / Hemispherical |                |

### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male / SMA-Male RP |
| Dimensions                  | Ø 96 x 90 mm                         |



## Netz 5in1-MIMO

CELLULAR/LTE MIMO and GNSS - Screw mount antenna

Part #: 100-00177-01

- ✓ CELLULAR / LTE & GPS/GLONASS/QZSS/frequencies
- ✓ Galileo frequency range
- ✓ Easy mounting: Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter         | Specification        |                                  |                |
|-------------------|----------------------|----------------------------------|----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | 0.2dBi                           | 3.8dBi 6.0dBi  |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.1dBi                          | 3.2dBi -5.6dBi |
| Cable3            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.5dBi                          | 3.1dBi 5.0dBi  |
| Cable4            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.7dBi                          | 3.0dBi 4.8dBi  |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz       |
|                   | Antenna element peak | 23dB@3V; 24dB@5V                 |                |
| Radiation pattern |                      | Omni-Directional / Hemispherical |                |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 90 mm           |

# ISM Antennas External



## MEA-2700-LTE

### Low Profile LTE Antenna

Part #: 100-00126-01

- ✓ Low profile design for easy installation
- ✓ Heavy duty applications
- ✓ Can be used for mobile and fixed base applications
- ✓ Compact housing that makes the antenna ideal for indoor or outdoor applications
- ✓ 698-960/1710-2170/2500-2700 MHz
- ✓ Small size: 22 x 66mm
- ✓ ROHS compliant



#### Key electrical specifications:

| Parameter                 | Specification             |
|---------------------------|---------------------------|
| Frequency                 | 698-960 MHz 1710-2170 MHz |
| Antenna element peak gain | 3 dBi                     |
| Polarization              | Vertical                  |

#### Key mechanical specifications:

| Parameter                   | Specification      |
|-----------------------------|--------------------|
| Mounting option / Connector | N-Female connector |
| Dimensions                  | 22 x 66mm          |



## MAXWAVE

### MAXWAVE™ 4x4 MIMO TRAIN ANTENNA

Part #: 100-00074-01

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrester
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant to EN50155 and fire retardant according to EN 45545:2013



#### Key electrical specifications:

| Parameter    | Specification      |
|--------------|--------------------|
| Frequency    | 4 x 698 – 6000 MHz |
| Pattern      | Omnidirectional    |
| Polarization | Linear             |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |



## MEA-915-N-60

### Ultra-Rugged Dipole Antenna

Part #: 100-00263-01

- ✓ 915 MHz ISM LoRa band antenna
- ✓ High performance for increased coverage
- ✓ UV protected
- ✓ N-female Connector



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 915 MHz       |
| Peak Gain    | 5.5dBi        |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | N-Female        |
| Dimensions | Ø 24.5 x 636 mm |

# ISM Antennas

## External

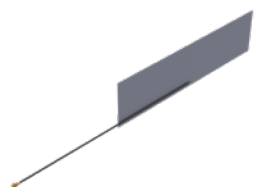


### MIA-HB-698-2700

#### Ultra-Wideband 4G LTE Antenna

Part #: 100-00160-01

✓ 4G LTE 690MHz – 960MHz | 1710MHz – 2700MHz ✓ Ground plane Independent ✓ High Efficiency across all bands ✓ Flexible embedded antenna



#### Key electrical specifications:

| Parameter    | Specification                                                   |
|--------------|-----------------------------------------------------------------|
| Frequency    | 698 MHz ~ 960 MHz<br>1710 MHz ~ 2170 MHz<br>2500 MHz ~ 2700 MHz |
| VSWR         | < 3.5                                                           |
| Polarization | Linear                                                          |

#### Key mechanical specifications:

| Parameter                   | Specification  |
|-----------------------------|----------------|
| Mounting option / Connector | U.FL connector |
| Dimensions                  | 120mm x 30mm   |



### MEA-LW2-SM

#### External Cellular/LTE, ISM and GNSS Antenna – Screw Mount

Part #: 189-00061-01

✓ 2in1 antenna: Cellular/LTE and 2.4/5.0GHz ISM ✓ Wide band antenna ✓ Ground Plane Independent ✓ Rugged housing ✓ IP67 rated  
✓ IP69 rated ✓ Low profile: 80 x 74 x 43 mm ✓ Anti-Rotation mounting ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification                                 |
|-------------------|-----------------------------------------------|
| Frequency         | 698-960 MHz<br>1710-2170 MHz<br>2500-2700 MHz |
| Peak gain         | 2.7 dBi<br>5.1 dBi<br>5.3 dBi                 |
| Radiation pattern | Linear                                        |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 43 mm                 |



### MEA-2700-UWB-SM

#### High Performance 4G LTE Antenna

Part #: 100-00141-01

✓ High Performance ✓ 4G LTE Ultra-Wideband Automotive Antenna ✓ ROHS Compliant ✓ Custom Cable and Connector ✓ Rated IP67



#### Key electrical specifications:

| Parameter         | Specification         |
|-------------------|-----------------------|
| Frequency         | 698-960/1710-2700 MHz |
| Peak gain         | 3 dBi                 |
| Radiation pattern | Vertical              |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Screw mount/ N-connector |
| Dimensions                  | Ø 48 x 82 mm             |

# ISM Antennas External



## MEA-LG-AM

### CELLULAR/LTE and GPS/GLONASS Adhesive Mount

Part #: 100-00193-01

- ✓ Cable 1: CELLULAR/LTE - 698-960 MHz; 1710-2170 MHz; 2500-2700 MHz / Cable 2: GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- ✓ Adhesive Mount ✓ Ground Plane Independent ✓ Customizable Cable and Connector Dimensions ✓ Low profile: 83 x 35 x 13.3 mm
- ✓ IP67, IP69

#### Key electrical specifications:

| Parameter            | Specification |               |               |
|----------------------|---------------|---------------|---------------|
| Frequency            | 698-960 MHz   | 1710-2170 MHz | 2500-2700 MHz |
| Antenna element peak | -2.7 dB       | -3.0 dB       | -5.9 dB       |
| Polarization         | Linear        |               |               |
| VSWR                 | 1.8:1         | 1.3:1         | 2.0:1         |
| Frequency            | 1575.42 MHz   | 1598-1606 MHz |               |
| Active gain          | 28 dB @ 2.7 V |               |               |
| Polarization         | RHCP          |               |               |
| VSWR                 | ≤ 1.4:1       |               |               |

#### Key mechanical specifications:

| Parameter  | Specification                 |
|------------|-------------------------------|
| Connector  | Adhesive Mount/ SMA Connector |
| Cable Type | RG178                         |
| Dimensions | 82 x 80 x 6.6 mm              |



## MEA-LTE3MM-SMA

### CELLULAR / LTE Magnetic Mount

Part #: 100-00185-01

- ✓ CELLULAR / LTE - 698-960 MHz 1710-2170 MHz, 2500-2700 MHz ✓ Magnetic Mount ✓ Rugged design ✓ High Performance
- ✓ Customizable Cable and Connector ✓ Dimensions Ø 54 x 80 mm ✓ IP67, IP69K

#### Key electrical specifications:

| Parameter                 | Specification    |               |               |
|---------------------------|------------------|---------------|---------------|
| Frequency                 | 698-960 MHz      | 1710-2170 MHz | 2500-2700 MHz |
| Antenna element peak gain | -2.6 dB          | -2.9 dB       | -3.6 dB       |
| Radiation                 | Omni-directional |               |               |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Magnetic Mount / SMA-Male |
| Dimensions                  | Ø 54 x 80                 |



## MEA-3L-SMA

### Cellular/LTE Antenna – Connector Mount

Part #: 100-00166-01

- ✓ CELLULAR / LTE frequency ✓ Connector Mount ✓ Low Profile ✓ Wide band Antenna Dimensions 48 x Ø 9 mm ✓ Easy integration
- ✓ High performance

#### Key electrical specifications:

| Parameter    | Specification                             |               |
|--------------|-------------------------------------------|---------------|
| Frequency    | 698-960 MHz                               | 1710-2170 MHz |
| Efficiency   | 62.4%                                     | 62.4%         |
| Polarization | Linear                                    |               |
| Average gain | -2.1 dB                                   | 2.1 dB        |
| Bandwidth    | 700/850/900 MHz   1700/1800/1900/2100 MHz |               |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 38 mm                |



# ISM Antennas External



## MEA-LGG-AM

Cellular/LTE and GPS/GLONASS Antenna – Adhesive Mount

Part #: 100-00163-01

- ✓ 2in 1 antenna (CELLULAR/LTE,GPS/GLONASS/QZSS/Galileo) ✓ Adhesive Mount ✓ High Performance ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector ✓ Dimensions 150.5 x 42 x 15.3 mm ✓ IP67, IP69

### Key electrical specifications:

| Parameter | Specification        |               |               |
|-----------|----------------------|---------------|---------------|
| Cable1    | Frequency            | 698-960 MHz   | 1710-2170 MHz |
|           |                      | 2500-2700 MHz |               |
|           | Antenna element peak | 3.4 dBi       | 3.5 dBi       |
|           | Efficiency           | 76%           | 69%           |
| Cable2    | VSWR                 | 1.7:1         | 1.4:1         |
|           | Frequency            | 1575.42 MHz   | 1598-1606 MHz |
|           | Active gain          | 28 dB @ 2.7 V |               |
|           | Polarization         | RHCP          |               |
|           | VSWR                 | ≤ 1.4:1       |               |

### Key mechanical specifications:

| Parameter                   | Specification                  |
|-----------------------------|--------------------------------|
| Mounting option / Connector | Adhesive Mount / SMA Connector |
| Dimensions                  | 150.5 x 42 x 15.3 mm           |



## MEA-3-GGL

GPS/GLONASS/LTE Antenna & 2G/3G LTE SOLUTION

Part #: 189-00053-01

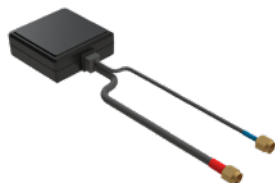
- ✓ Covers GNSS & LTE Bands ✓ 2 in 1 Low Profile Antenna ✓ Rugged IP67 ✓ Customizable Cables and Connectors ✓ Small Size ✓ Easy Magnet Mounting ✓ Quality Textured Covert Design

### Key electrical specifications:

| Parameter | Specification        |                        |               |
|-----------|----------------------|------------------------|---------------|
| GNSS      | Frequency            | 1575.42 MHz            | 1602 MHz      |
|           | Polarization         | Linear                 |               |
|           | Polarization         | 3.0 dBi Typ.           | 3.5 dBi Typ   |
|           | VSWR                 | ≤ 2.0:1                |               |
| LNA       | Frequency            | 1575.42 MHz            | 1602 MHz      |
|           | Power Consumption    | 9 Typ. mA @3.3V        |               |
|           | Antenna Gain         | 28 dB Typ. / 25 dB Min |               |
|           | VSWR                 | ≤ 2.0:1                |               |
| LTE       | Frequency            | 698-960 MHz            | 1710-2170 MHz |
|           |                      | 2500-2700 MHz          |               |
|           | Antenna element peak | 1.5 dBi                | 0.5 dBi       |
|           | Efficiency           | 25%                    | 30%           |
|           | VSWR                 | ≤ 5.5                  | ≤ 4.0         |

### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Foam adhesive / SMA, FAKRA or custom |
| Dimensions                  | (L) 55 x (W) 55 x (H) 20 mm          |



# ISM Antennas External



## MEA-LTE-MIMO-ISM-SM

Cellular/LTE MIMO and 915 MHz ISM Screw Mount

Part #: 100-00203-01

- ✓ High Performance ✓ Easy mounting: Screw Mount ✓ Ground Plane Independent ✓ Low profile: 96 x 96 x 90 mm ✓ Customized Cable and Connector



### Key electrical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz |
| Cable1 Antenna element peak | -1.5 dBi 3.2 dBi 6.5 dBi  |
| Cable2 Frequency            | 698-960 MHz 1710-2170 MHz |
| Cable2 Antenna element peak | -0.9 dBi 3.0 dBi 5.0 dBi  |
| Cable3 Frequency            | 902-928 MHz               |
| Cable3 Antenna element peak | 0.2 dBi                   |
| Bandwidth                   | Omni-Directional          |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 96 x 90 mm          |



## NETZ 4IN1

4G LTE/Cellular/WIFI and MIMO 4in1 Antenna

Part #: 100-00142-01

- ✓ Screw Mount ✓ High Performance ✓ Rated IP67, IP69K and IK09 ✓ Compact Size: 96 x 96 x 94 mm ✓ Custom Cable and Connector



### Key electrical specifications:

| Parameter                 | Specification            |
|---------------------------|--------------------------|
| Frequency                 | 698-960 MHz 1710-2170MHz |
| Antenna element peak gain | 0.9 dBi 3.3 dBi 4.4 dBi  |
| Radiation pattern         | Omni-directional         |

### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA-Male        |
| Dimensions                  | 96 x 96 x 94 mm |



## MEA-UWB-LTE-90

Ultra-Wideband 4G LTE Antenna

Part #: 100-00139-01

- ✓ LTE / GSM / CDMA / DCS / PCS / WCDMA / UMTS / HSDPA / GPRS / EDGE / GPS / Wi-Fi ✓ Ultra-Wide Band Antenna ✓ Ground Plane Independent ✓ Hinged 90° termination with SMA(M) Connector



### Key electrical specifications:

| Parameter                 | Specification            |
|---------------------------|--------------------------|
| Frequency                 | 698-960 MHz 1710-2170MHz |
| Antenna element peak gain | 2.5 / 3.5 dBi            |
| Radiation                 | Omni-directional         |

### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA Male        |
| Dimensions                  | 163 x 22 x 7 mm |

# ISM Antennas External

## MEA-2500-LTE-MIMO

### CELLULAR/LTE MIMO Screw Mount

Part #: 100-00211-01

- ✓ Wide-band antenna
- ✓ Easy mounting: Screw Mount
- ✓ Anti-rotation mounting
- ✓ High Performance
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 60 x 69 mm
- ✓ IP67, IP69, IK09
- ✓ Heavy duty antenna.

#### Key electrical specifications:

| Parameter            | Specification                                 |
|----------------------|-----------------------------------------------|
| Cable1               | Frequency 698-960 MHz 1710-2170 MHz           |
|                      | Antenna element peak -0.8 dBi 3.6 dBi 4.1 dBi |
| Cable2               | Frequency 698-960 MHz 1710-2170 MHz           |
|                      | 2500-2700 MHz                                 |
| Antenna element peak | -0.6 dBi 2.8 dBi 3.0 dBi                      |
|                      | Radiation pattern Omni-Directional            |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 60 x 69 mm           |



## MEA-2500-SM

### CELLULAR/LTE MIMO Screw Mount

Part #: 100-00212-01

- ✓ CELLULAR / LTE (698-960 MHz, 1710-2170 MHz, and 2500-2700 MHz)
- ✓ Easy mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile : 80 x 74 x 14.7 mm
- ✓ IP67

#### Key electrical specifications:

| Parameter            | Specification                                |
|----------------------|----------------------------------------------|
| Cable1               | Frequency 698-960 MHz 1710-2170 MHz          |
|                      | 2500-2700 MHz                                |
| Antenna element peak | -2.7 dBi -3.0 dBi -5.9 dBi                   |
|                      | Frequency 698-960 MHz 1710-2170 MHz          |
| Cable2               | 2500-2700 MHz                                |
|                      | Antenna element peak 1.4 dBi 2.2 dBi 4.4 dBi |
| Radiation pattern    | Omni-Directional                             |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | 80 x 74 x 14.7 mm      |



## COBRA-LTE700

### LTE MIMO & Active GPS High-Performance Transportation Antenna

Part #: 100-00036-01

- ✓ Robust arrow shape housing for easy roof-top alignment
- ✓ MIMO technology
- ✓ One connector for each application; LTE 1, LTE 2 and GPS
- ✓ No ground plane requirements
- ✓ Single-hole mounting with screws on top for easy installation
- ✓ Use of only one multifunction solution

#### Key electrical specifications:

| Parameter                 | Specification   |
|---------------------------|-----------------|
| Frequency                 | 690 - 960 MHz   |
|                           | 1700 - 2200 MHz |
| Antenna element peak gain | 1575.42 MHz     |
|                           | 4 dBi (typical) |
| Polarization              | Linear          |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |



# ISM Antennas

## External

### MEA-5800-MM

#### 5GNR Magnetic Mount Antenna

Part #: 100-00200-01

- ✓ 5GNR Frequency range (617-960 MHz, 1427-2690 MHz, 3300-5000 MHz, 5150-5925 MHz) ✓ Easy mounting: Magnetic Mount ✓ High Performance ✓ Customizable Cable and Connector ✓ Low profile: Ø 31 x 109 mm



#### Key electrical specifications:

| Parameter                 | Specification                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                                   |
| Antenna element peak gain | 1.0 dBi @ 617-960 MHz<br>2.9 dBi @ 1427-2690 MHz<br>2.5 dBi @ 3300-5000 MHz<br>0.4 dBi @ 5150-5925 MHz |
| Radiation pattern         | Omni-Directional                                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | SMA-Male              |
| Dimensions                  | 105.1 x 30.1 x 6.7 mm |

### MEA-DSRC-02Z

#### External Mount DSRC Antenna

Part #: 100-00089-01

- ✓ External mount DSRC antenna for 5850 - 5950MHz ✓ Different mounting options available ✓ IPX5 ✓ SMA & N-Type or customer specified connector



#### Key electrical specifications:

| Parameter                 | Specification                |
|---------------------------|------------------------------|
| Frequency                 | 5850 - 5950 MHz              |
| Antenna passive peak gain | 5.0 dBi Typ. @ 5850-5950 MHz |
| Impedence                 | 50Ω                          |

#### Key mechanical specifications:

| Parameter                   | Specification                |
|-----------------------------|------------------------------|
| Mounting option / Connector | N-Type or customer specified |
| Dimensions                  | 120 x 120 x 45 mm            |

### MEA-DSRC-01P

#### External Mount DSRC Antenna

Part #: Part #: 100-00087-01

- ✓ External mount DSRC antenna for 5850 - 5950MHz ✓ IPX7 ✓ SMA & N-Type or customer specified connector ✓ Foam Adhesive  
✓ 30 cm cable length RG-174



#### Key electrical specifications:

| Parameter                 | Specification                |
|---------------------------|------------------------------|
| Frequency                 | 5850 - 5950 MHz              |
| Antenna passive peak gain | 5.0 dBi Typ. @ 2300-2700 MHz |
| Impedence                 | 50Ω                          |

#### Key mechanical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Mounting option / Connector | SMA / N-Type or customer specied |
| Dimensions                  | 105.1 x 30.1 x 6.7 mm            |

# ISM Antennas External



## MEA-DSRC-03Z

External Mount DSRC Antenna

Part #: 100-00088-01

✓ External mount DSRC antenna for 5850 - 5950MHz ✓ IPX7 ✓ N-Type connector



### Key electrical specifications:

| Parameter                 | Specification                |
|---------------------------|------------------------------|
| Frequency                 | 5850 - 5950 MHz              |
| Antenna passive peak gain | 5.0 dBi Typ. @ 2300-2700 MHz |
| Impedence                 | 50Ω                          |

### Key mechanical specifications:

| Parameter                   | Specification                |
|-----------------------------|------------------------------|
| Mounting option / Connector | N-Type or customer specified |
| Dimensions                  | Ø 20 x 215 mm                |



## MEA-2410-ISM

2.4/5.0 GHz ISM Screw Mount Antenna

Part #: 100-00196-01

✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ IP67 ✓ IK09 ✓ IP69K



### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz 4920-5925 MHz |
| Peak Gain         | 2.6 dBi 4.4 dBi             |
| Radiation Pattern | Omni-directional            |

### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw Mount/ SMA connector |
| Dimensions                  | Ø 77.3 x 65.5 mm           |



## MEA-868-SM-50

868 MHz ISM Screw Mount

Part #: 189-00064-01

✓ Screw Mount ✓ Low Profile ✓ Customized Cable and Connector ✓ Dimensions 77.3 x 15 mm ✓ IP67, IP69



### Key electrical specifications:

| Parameter         | Specification    |
|-------------------|------------------|
| Frequency         | 863-870 MHz      |
| Peak Gain         | -0.8 dBi         |
| Radiation Pattern | Omni-directional |

### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw Mount/ SMA connector |
| Dimensions                  | Ø 77.3 x 15 mm             |

# ISM Antennas External



## MEA-868-IGG

868 MHz ISM/GPS/GLONASS Screw Mount

Part #: 100-00251-01

- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Low Profile
- ✓ High Gain
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter       | Specification              |
|-----------------|----------------------------|
| Frequency       | 863-870 MHz                |
| Peak Gain       | 3.2 dBi                    |
| Polarization    | Linear                     |
| Frequency Range | 1575.42 MHz, 1598-1606 MHz |
| Active Gain     | 28 dB @ 2.7 V              |
| Polarization    | RHCP                       |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 77.3 x 15 mm         |



## MEA-5in1-SMA

5G NR MIMO, 2.4/5.0/6.0 GHz ISM and GNSS - Screw mount antenna

Part #: 100-00243-01

- ✓ 5G NR, 2.4/5.0/6.0 GHz ISM & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter            | Specification                    |
|----------------------|----------------------------------|
| Frequency            | 617-960 MHz 1427-2690 MHz        |
| Antenna element peak | 3300-5000 MHz 5150-5925 MHz      |
| Frequency            | 617-960 MHz 1427-2690 MHz        |
| Antenna element peak | 3300-5000 MHz 5150-5925 MHz      |
| Frequency            | 617-960 MHz 1427-2690 MHz        |
| Antenna element peak | 3300-5000 MHz 5150-5925 MHz      |
| Frequency            | 2410-2490 MHz 4920-5925 MHz      |
| Antenna element peak | 5925-7125 MHz                    |
| Frequency            | 2410-2490 MHz 4920-5925 MHz      |
| Antenna element peak | 5925-7125 MHz                    |
| Frequency            | 1575.42 MHz 1598-1610 MHz        |
| Active Gain          | 23dB@3V; 24dB@5V                 |
| Radiation pattern    | Omni-Directional / Hemispherical |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |

# ISM Antennas External



## MEA-169-ISM-GG

169 MHz ISM-ERMES And GPS/GLONASS Screw Mount

Part #: 100-00242-01

- ✓ Easy mounting: Magnetic/Adhesive Mount ✓ Iridium Certified ✓ Low Profile ✓ High Performance ✓ Pre-Filtered GNSS ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions 89 x 76 x 27/30 mm ✓ IP67, IP69



### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 169.4-169.8 MHz                  |
| Cable1 Antenna element peak | 0 dBi                            |
| Cable2 Frequency            | 1575.42 MHz / 1598-1610 MHz      |
| Cable2 Active Gain          | 26 dB @ 3 V / 27 dB @ 5 V        |
| Radiation Pattern           | Omni-directional / Hemispherical |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 60 x 97 mm           |



## MEA-LTE-ISM-GNSS-TETRA

CELLULAR/LTE, 2.4/5.0 GHZ ISM, TETRA and GNSS - Screw Mount Antenna

Part #: 100-00243-01

- ✓ CELLULAR / LTE, TETRA/UHF, ISM, and GPS/GLONASS/QZSS/Galileo frequency ✓ Easy mounting: Screw Mount ✓ Heavy duty antenna ✓ High performance ✓ Anti-rotation mounting ✓ Customizable cable and connector ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable1 Antenna element peak | 1.9 dBi / 3.0 dBi / 2.9 dBi      |
| Cable2 Frequency            | 2410-2490 MHz 4920-5925 MHz      |
| Cable2 Antenna element peak | 5.6 dBi / 5.5 dBi                |
| Cable3 Frequency            | 380-470 MHz                      |
| Cable3 Antenna element peak | 2.1 dBi                          |
| Cable4 Frequency            | 1575.42 MHz 1598-1610 MHz        |
| Cable4 Active Gain          | 28 dB @ 2.7 V                    |
| Radiation pattern           | Omni-Directional / Hemispherical |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



## MEA-433-01-SMA

868 MHz ISM Connector Mount

Part #: 100-00229-01

- ✓ Small Form Factor ✓ High Performance ✓ Frequency range 433-435MHz ✓ RoHS Compliant



### Key electrical specifications:

| Parameter         | Specification    |
|-------------------|------------------|
| Frequency         | 433-435 MHz      |
| Peak Gain         | -0.6 dBi         |
| Radiation Pattern | Omni-directional |

### Key mechanical specifications:

| Parameter                   | Specification                  |
|-----------------------------|--------------------------------|
| Mounting option / Connector | Connector Mount/ SMA connector |
| Dimensions                  | Ø 9 x 48 mm                    |



# ISM Antennas External



## MEA-2410-CM

### 2.4 GHz ISM Ultra-Wideband Antenna

Part #: 100-00235-01

- ✓ Easy Mounting: Connector Mount ✓ Ground Plane Independent ✓ Hinged Connector ✓ High Efficiency



#### Key electrical specifications:

| Parameter         | Specification    |
|-------------------|------------------|
| Frequency         | 2410-2490 MHz    |
| Peak Gain         | 1.5 dBi          |
| Radiation Pattern | Omni-directional |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Connector Mount/ SMA Male |
| Dimensions                  | Ø 10 x 113 mm             |



## MEA-433-IGG

### 433 MHz ISM/GPS/GLONASS Screw Mount

Part #: 100-00239-01

- ✓ ISM and GPS/GLONASS ✓ Easy mounting: Screw Mount ✓ Customizable Cable and Connector ✓ IP67, IP69K ✓ Low weight 166g



#### Key electrical specifications:

| Parameter            | Specification                    |
|----------------------|----------------------------------|
| Cable1 Frequency     | 433-435 MHz                      |
| Antenna element peak | -0.4 dBi                         |
| Cable2 Frequency     | 1575.42 MHz / 1598-1610 MHz      |
| Active Gain          | 26 @ 3V / 27dB @ 5V              |
| Radiation Pattern    | Omni-directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 63 x 186.5 mm        |



## MEA-2410-FAKRA

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00279-01

- ✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ High Gain



#### Key electrical specifications:

| Parameter         | Specification                |
|-------------------|------------------------------|
| Frequency         | 2410-2490 MHz / 4920-5925MHz |
| Peak Gain         | 2.6 dBi/ -0.3 dBi            |
| Radiation Pattern | Omni-directional             |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Fakra Beige Female |
| Dimensions                  | Ø12.5 x 44.5 mm                     |

# ISM Antennas External



## MEA-5G-ISM-MIMO-GNSS

5G NR MIMO, 2.4/5.0 GHz ISM, and GNSS Screw Mount

Part #: 100-00240-01

- ✓ 5G NR, 2.4/5.0 GHz ISM /GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

### Key electrical specifications:

| Parameter                   | Specification                         |
|-----------------------------|---------------------------------------|
| Cable1 Frequency            | 617-960 MHz 1427-2690 MHz             |
| Cable1 Antenna element peak | 3300-5000 MHz 5150-5925 MHz           |
| Cable2 Frequency            | 0.3 dBi / 3.6 dBi / 4.7 dBi / 3.8 dBi |
| Cable2 Antenna element peak | 617-960 MHz 1427-2690 MHz             |
| Cable3 Frequency            | 3300-5000 MHz 5150-5925 MHz           |
| Cable3 Antenna element peak | 0.7 dBi / 3.7 dBi / 4.6 dBi / 3.6 dBi |
| Cable4 Frequency            | 2410-2490 MHz 4920-5925 MHz           |
| Cable4 Antenna element peak | 5.3 dBi / 1.5 dBi                     |
| Cable5 Frequency            | 2410-2490 MHz 4920-5925 MHz           |
| Cable5 Antenna element peak | 5.3 dBi / 2.3 dBi                     |
| Cable5 Frequency            | 1575.42 MHz 1598-1610 MHz             |
| Cable5 Active Gain          | 23dB@3V; 24dB@5V                      |
| Cable5 Radiation pattern    | Omni-Directional / Hemispherical      |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



## MEA-2410-WIFI

Dual Band Wifi ISM Antenna

Part #: 100-00280-01

- ✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz
- ✓ High performance antenna
- ✓ Easy mounting: Connector Mount
- ✓ IP67

### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 2.8 dBi/ 2.4 dBi            |
| Radiation Pattern | Omni-directional            |

### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Most RF Connectors |
| Dimensions                  | Ø15.7 x 58.2 mm                     |



## MEA-4920-ISM

2.4/5.0 GHz ISM Connector Mount

Part #: 100-00279-01

- ✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz
- ✓ High performance antenna
- ✓ Easy mounting: Connector Mount
- ✓ High Gain

### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 3.1 dBi / -0.2 dBi          |
| Radiation Pattern | Omni-directional            |

### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Connector Mount/ SMA Male |
| Dimensions                  | Ø12.5 x 34.7 mm           |



# ISM Antennas External



## MEA-4920-CM

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00276-01

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ High Gain



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 4.0 dBi / 5.2 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Most RF Connectors |
| Dimensions                  | 53 x 10 x 18 mm                     |



## MEA-2410-SMA

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00275-01

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ Easy mounting: Connector Mount ✓ High Gain



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 4.0 dBi / 5.2 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Most RF Connectors |
| Dimensions                  | Ø 10 x 56 mm                        |

# ISM Antennas Embedded

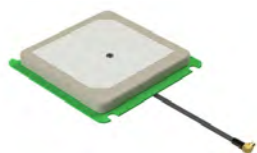


## MPA-716-868

### 868 MHz ISM PASSIVE PATCH

Part #: 189-00050-01

- ✓ 868 MHz ISM Band ✓ High antenna performance ✓ Low profile ✓ Adhesive mounting ✓ Pin connector ✓ Advanced Ceramic Material



#### Key electrical specifications:

| Parameter    | Specification    |
|--------------|------------------|
| Frequency    | 865 MHz - 867MHz |
| Polarization | RHCP             |
| Axial Ratio  | ≤ 5 dB           |
| VSWR         | ≤ 1.5            |

#### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |

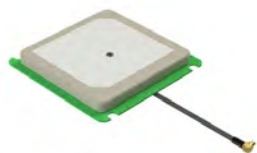


## MPA-716-915

### 915 MHz ISM PASSIVE PATCH

Part #: 189-00068-01

- ✓ 915 MHz ISM Band ✓ High antenna performance ✓ Low profile ✓ Adhesive mounting ✓ Pin connector ✓ Advanced Ceramic Material



#### Key electrical specifications:

| Parameter    | Specification   |
|--------------|-----------------|
| Frequency    | 915 MHz ± 1 MHz |
| Polarization | RHCP            |
| Axial Ratio  | ≤ 5 dB          |
| VSWR         | ≤ 1.5           |

#### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |



## MPA-254-WIFI

### WIFI Embedded Antenna – 25mm x 4 mm

Part #: 189-00055-01

- ✓ 2.4GHz & 5.8 GHz Wi-Fi frequency ✓ Integrated Ground plane with cable ✓ Easy mounting ✓ Surface Mount ✓ Compact size  
✓ Advanced Ceramic Material ✓ Terminator using IPEX connector



#### Key electrical specifications:

| Parameter      | Specification                 |
|----------------|-------------------------------|
| Frequency      | 2400-2500 MHz<br>5700-5870MHz |
| Gain at Zenith | 1.0 dBi typ.                  |
| Polarization   | Linear                        |

#### Key mechanical specifications:

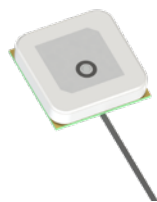
| Parameter                   | Specification        |
|-----------------------------|----------------------|
| Mounting option / Connector | I-PEX (U.FL)         |
| Dimensions                  | 25 mm x 25 mm x 4 mm |

## MPA-258-WIFI

WIFI Embedded Antenna – 25mm x 4.5mm

Part #: 189-00051-01

- ✔ 2.4GHz Wi-Fi frequency ✔ Integrated Ground plane with cable ✔ Easy mounting ✔ Surface Mount ✔ Compact size ✔ Advanced Ceramic Material ✔ Ground Plane Dependent ✔ Terminator using IPEX connector ✔ Dimensions 25 x 25 x 4.5 mm



### Key electrical specifications:

| Parameter      | Specification |
|----------------|---------------|
| Frequency      | 2450 ± 50 MHz |
| Gain at Zenith | > 0.5 dBi     |
| Polarization   | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | I-PEX (MHF)      |
| Dimensions                  | 25 x 25 x 4.5 mm |

# LoRa Antennas External

## MEA-868-01-SMA

868 MHz ISM- Connector Mount

Part #: 100-00201-01

✓ Small Form Factor ✓ High Performance ✓ Frequency range 863-870 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 863-870 MHz   |
| Antenna element peak gain | -1.2 dBi      |
| Polarization              | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm               |

## MEA-915-01-SMA

High Efficiency 915 MHz ISM Antenna

Part #: 100-00159-01

✓ Small Form Factor ✓ High Performance ✓ Frequency range 900 - 1000 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 915 MHz       |
| Antenna element peak gain | 3.3 dBi       |
| Polarization              | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm               |

## MEA-868-915-SMA

High Performance 868-915 MHz ISM Antenna

Part #: 100-00153-01

✓ Ultra High Performance ✓ LoRa/Sigfox/ ISM Band coverage ✓ ROHS Compliant ✓ Robust Housing IP67 Rated ✓ Custom Cable and Connector



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 3 dBi         |
| Polarization | Vertical      |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-868-SM

**High Performance 868 MHz ISM Antenna**

Part #: 100-00154-01

- ✓ 868MHz frequencies
- ✓ IP67 rated
- ✓ High gain & efficiency
- ✓ Custom cable & connector options



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 865-868MHz    |
| Peak gain    | 3-5 dBi       |
| Polarization | Vertical      |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-915-SM

**High Performance 915 MHz ISM Antenna**

Part #: 100-00156-01

- ✓ 915MHz frequencies
- ✓ IP67 rated
- ✓ High gain & efficiency
- ✓ Custom cable & connector options



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928MHz    |
| Peak gain    | 3-5 dBi       |
| Polarization | Vertical      |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-LGI-SMA

**5G NR & Iridium GNSS Antenna – Screw Mount**

Part #: 189-00059-01

- ✓ 3in1 antenna: 5G NR, Iridium and GNSS
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mounting
- ✓ Optimized for Iridium network
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile 80 × 74 × 25.6 mm
- ✓ IP69



### Key electrical specifications:

| Parameter                 | Specification                                   |
|---------------------------|-------------------------------------------------|
| Frequency                 | 617-960 MHz<br>3300-5000 MHz<br>1616 - 1627 MHz |
| Antenna element peak gain | 2.3 dBi<br>2.6 dBi<br>5.2 dBi                   |
| Polarization              | Linear                                          |

### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 × 74 × 25.6 mm          |



# LoRa Antennas External



## MEA-868-915-N

### Ultra-Rugged Dipole Antenna

Part #: 189-00045-01

✓ SigFox/LoRa/ISM (868MHz – 915MHz) ✓ High performance for increased coverage ✓ UV protected ✓ N-Type Connector Rated IP65



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 6 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | N - Connector |
| Dimensions                  | ø 23 x 795mm  |



## MEA-LW2-SM

### External Cellular/LTE, ISM and GNSS Antenna – Screw Mount

Part #: 189-00061-01

✓ 2in1 antenna: Cellular/LTE and 2.4/5.0GHz ISM ✓ Wide band antenna ✓ Ground Plane Independent ✓ Rugged housing ✓ IP67 rated  
✓ IP69 rated ✓ Low profile: 80 x 74 x 43 mm ✓ Anti-Rotation mounting ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification                                 |
|-------------------|-----------------------------------------------|
| Frequency         | 698-960 MHz<br>1710-2170 MHz<br>2500-2700 MHz |
| Peak gain         | 2.7 dBi<br>5.1 dBi<br>5.3 dBi                 |
| Radiation pattern | Linear                                        |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 43 mm                 |



## MEA-868-ISM

### 868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

✓ 868 MHz ISM LoRa band antenna ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Low Profile ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Axial Ratio  | -1.4 dB       |
| Polarization | Linear        |
| VSWR         | 1.1:1         |

#### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | SMA Male        |
| Cable Type | D302 Standard   |
| Dimensions | 80 x 76 x 13 mm |

# LoRa Antennas External



## MEA-915-ISM

### 915 MHz ISM Screw Mount

Part #: 100-00184-01

✓ 915 MHz ISM LoRa band antenna ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Low Profile ✓ Dimensions Ø 54 x 80 mm ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Axial Ratio  | RHCP          |
| Polarization | Vertical      |
| VSWR         | ≤ 1.5         |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 25.6 mm               |



## MEA-868-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00172-01

✓ 868 MHz ISM - 863-870 MHz ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions: Ø 50 x 50.8 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Peak gain    | -0.8 dBi      |
| Polarization | Linear        |
| VSWR         | ≤ 1.9:1       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 50 x 50.8 mm         |



## MEA-915-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00171-01

✓ 915 MHz ISM ✓ Screw Mount ✓ Ground Plane Dependent ✓ High Performance ✓ Low Profile ✓ Customizable Cable and Connector Dimensions 80 x 74 x 14.7 mm ✓ IP67



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Average gain | -3 dB         |
| Polarization | Linear        |
| VSWR         | 1.5:1         |

#### Key mechanical specifications:

| Parameter                   | Specification                            |
|-----------------------------|------------------------------------------|
| Mounting option / Connector | Screw Mount / SMA Male (other available) |
| Dimensions                  | 80 x 74 x 14.7 mm                        |

# LoRa Antennas External



## MEA-868-ISM

### 868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

- ✓ 915 MHz ISM - 902-928 MHz
- ✓ LoRa/ Sigfox/ NB-IOT
- ✓ Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low Profile Dimensions Ø 9 x 48 mm
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Peak gain    | 4.0 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm           |



## MEA-LTE-MIMO-ISM-SM

### Cellular/LTE MIMO and 915 MHz ISM Screw Mount

Part #: 100-00203-01

- ✓ High Performance
- ✓ Easy mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Low profile: 96 x 96 x 90 mm
- ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter | Specification                                 |
|-----------|-----------------------------------------------|
| Cable1    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -1.5 dBi 3.2 dBi 6.5 dBi |
| Cable2    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -0.9 dBi 3.0 dBi 5.0 dBi |
| Cable3    | Frequency 902-928 MHz                         |
|           | Antenna element peak 0.2 dBi                  |
| Bandwidth | Omni-Directional                              |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 96 x 90 mm          |



## MEA-868-IGG

### 868 MHz ISM/GPS/GLONASS Screw Mount

Part #: 100-00251-01

- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Low Profile
- ✓ High Gain
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter | Specification                              |
|-----------|--------------------------------------------|
| Cable1    | Frequency 863-870 MHz                      |
|           | Peak Gain 3.2 dBi                          |
|           | Polarization Linear                        |
| Cable2    | Frequency Range 1575.42 MHz, 1598-1606 MHz |
|           | Active Gain 28 dB @ 2.7 V                  |
|           | Polarization RHCP                          |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 77.3 x 15 mm         |

# LoRa Antennas External



## MEA-900-L-SM

868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✓ 2 in 1 antenna: Cellular/LTE & ISM bands ✓ Ultra-Wide band antenna ✓ High performance ✓ Easy mounting: Screw Mount ✓ Low Profile: 80 x 76 x 13 mm ✓ Ground Plane Independent ✓ IP67 ✓ Customizable Cable and Connector



### Key electrical specifications:

| Parameter         | Specification                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz<br>2500-2700MHz 868MHz<br>915MHz                                               |
| Peak Gain         | 0.7 dBi@698-960MHz<br>2.7dBi@1710-2170MHz<br>4.3 dBi@2500-2700MHz<br>1.2 dBi@ 868MHz<br>1.7 dBi@915MHz |
| Radiation pattern | Omni-directional                                                                                       |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



## MEA-900-W2-SM

2.4/5.0 GHz & 868/915 MHz ISM - Screw Mount

Part #: 100-00194-01

- ✓ 2.4/5.0 GHz ISM ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector  
✓ IP67, IK09, IP69K ✓ Dimensions Ø 80 x 76 x 13 mm



### Key electrical specifications:

| Parameter         | Specification                                                                |
|-------------------|------------------------------------------------------------------------------|
| Frequency         | 868 MHz 915 MHz<br>2.4 GHz 5.0 GHz                                           |
| Peak Gain         | -0.6 dBi@ 868 MHz<br>-0.2 dBi@915 MHz<br>4.5 dBi@ 2.4 GHz<br>3.9 dBi@5.0 GHz |
| Radiation pattern | Omni-directional                                                             |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 76 x 13 mm        |



## MEA-915-N-60

Ultra-Rugged Dipole Antenna

Part #: 100-00263-01

- ✓ 915 MHz ISM LoRa band antenna ✓ High performance for increased coverage ✓ UV protected ✓ N-female Connector



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 915 MHz       |
| Peak Gain    | 5.5dBi        |
| Polarization | Vertical      |

### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | N-Female        |
| Dimensions | Ø 24.5 x 636 mm |

# LoRa Antennas Embedded

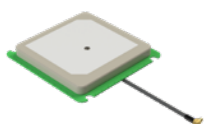


## MPA-716-868

### 868 MHz ISM PASSIVE PATCH

Part #: 189-00050-01

✓ 868 MHz ISM Band ✓ High antenna performance ✓ Low profile ✓ Adhesive mounting ✓ Pin connector ✓ Advanced Ceramic Material



#### Key electrical specifications:

| Parameter    | Specification    |
|--------------|------------------|
| Frequency    | 865 MHz - 867MHz |
| Polarization | RHCP             |
| Axial Ratio  | $\leq 5$ dB      |
| VSWR         | $\leq 1.5$       |

#### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |

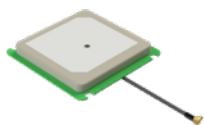


## MPA-716-915

### 915 MHz ISM PASSIVE PATCH

Part #: 189-00068-01

✓ 915 MHz ISM Band ✓ High antenna performance ✓ Low profile ✓ Adhesive mounting ✓ Pin connector ✓ Advanced Ceramic Material



#### Key electrical specifications:

| Parameter    | Specification       |
|--------------|---------------------|
| Frequency    | 915 MHz $\pm$ 1 MHz |
| Polarization | RHCP                |
| Axial Ratio  | $\leq 5$ dB         |
| VSWR         | $\leq 1.5$          |

#### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |

## ME A-868-01-SMA

### 868 MHz ISM- Connector Mount

Part #: 100-00201-01

✓ Small Form Factor ✓ High Performance ✓ Frequency range 863-870 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 863-870 MHz   |
| Antenna element peak gain | -1.2 dBi      |
| Polarization              | Linear        |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm               |

## ME A-915-01-SMA

### High Efficiency 915 MHz ISM Antenna

Part #: 100-00159-01

✓ Small Form Factor ✓ High Performance ✓ Frequency range 900 - 1000 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 915 MHz       |
| Antenna element peak gain | 3.3 dBi       |
| Polarization              | Linear        |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm               |

## ME A-868-915-SMA

### High Performance 868-915 MHz ISM Antenna

Part #: 100-00153-01

✓ Ultra High Performance ✓ LoRa/Sigfox/ ISM Band coverage ✓ ROHS Compliant ✓ Robust Housing IP67 Rated ✓ Custom Cable and Connector



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 3 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-868-SM

### High Performance 868 MHz ISM Antenna

Part #: 100-00154-01

- ✓ 868MHz frequencies
- ✓ IP67 rated
- ✓ High gain & efficiency
- ✓ Custom cable & connector options



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 865-868MHz    |
| Peak gain    | 3-5 dBi       |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-915-SM

### High Performance 915 MHz ISM Antenna

Part #: 100-00156-01

- ✓ 915MHz frequencies
- ✓ IP67 rated
- ✓ High gain & efficiency
- ✓ Custom cable & connector options



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928MHz    |
| Peak gain    | 3-5 dBi       |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-LGI-SMA

### 5GNR & Iridium GNSS Antenna – Screw Mount

Part #: 189-00059-01

- ✓ 3in1 antenna: 5GNR, Iridium and GNSS
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mounting
- ✓ Optimized for Iridium network
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile 80 × 74 × 25.6 mm
- ✓ IP69



#### Key electrical specifications:

| Parameter                 | Specification                                   |
|---------------------------|-------------------------------------------------|
| Frequency                 | 617-960 MHz<br>3300-5000 MHz<br>1616 - 1627 MHz |
| Antenna element peak gain | 2.3 dBi<br>2.6 dBi<br>5.2 dBic                  |
| Polarization              | Linear                                          |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 × 74 × 25.6 mm          |





## MEA-868-915-N

### Ultra-Rugged Dipole Antenna

Part #: 189-00045-01

✓ SigFox/LoRA/ISM (868MHz – 915MHz) ✓ High performance for increased coverage ✓ UV protected ✓ N-Type Connector Rated IP65



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 6 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | N - Connector |
| Dimensions                  | ø 23 x 795mm  |



## MEA-LW2-SM

### External Cellular/LTE, ISM and GNSS Antenna – Screw Mount

Part #: 189-00061-01

✓ 2in1 antenna: Cellular/LTE and 2.4/5.0GHz ISM ✓ Wide band antenna ✓ Ground Plane Independent ✓ Rugged housing ✓ IP67 rated ✓ IP69 rated ✓ Low profile: 80 x 74 x 43 mm ✓ Anti-Rotation mounting ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification                                 |
|-------------------|-----------------------------------------------|
| Frequency         | 698-960 MHz<br>1710-2170 MHz<br>2500-2700 MHz |
| Peak gain         | 2.7 dBi<br>5.1 dBi<br>5.3 dBi                 |
| Radiation pattern | Linear                                        |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 43 mm                 |



## MEA-868-ISM

### 868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

✓ 868 MHz ISM LoRa band antenna ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Low Profile ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Axial Ratio  | -1.4 dB       |
| Polarization | Linear        |
| VSWR         | 1.1:1         |

#### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | SMA Male        |
| Cable Type | D302 Standard   |
| Dimensions | 80 x 76 x 13 mm |



## MEA-915-ISM

### 915 MHz ISM Screw Mount

Part #: 100-00184-01

✓ 915 MHz ISM LoRa band antenna ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Low Profile ✓ Dimensions Ø 54 x 80 mm ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Axial Ratio  | RHCP          |
| Polarization | Vertical      |
| VSWR         | ≤ 1.5         |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 25.6 mm               |



## MEA-868-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00172-01

✓ 868 MHz ISM - 863-870 MHz ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions: Ø 50 x 50.8 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Peak gain    | -0.8 dBi      |
| Polarization | Linear        |
| VSWR         | ≤ 1.9:1       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 50 x 50.8 mm         |



## MEA-915-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00171-01

✓ 915 MHz ISM ✓ Screw Mount ✓ Ground Plane Dependent ✓ High Performance ✓ Low Profile ✓ Customizable Cable and Connector Dimensions 80 x 74 x 14.7 mm ✓ IP67



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Average gain | -3 dB         |
| Polarization | Linear        |
| VSWR         | 1.5:1         |

#### Key mechanical specifications:

| Parameter                   | Specification                            |
|-----------------------------|------------------------------------------|
| Mounting option / Connector | Screw Mount / SMA Male (other available) |
| Dimensions                  | 80 x 74 x 14.7 mm                        |



## MEA-868-ISM

868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

- ✓ 915 MHz ISM - 902-928 MHz
- ✓ LoRa/ Sigfox/ NB-IOT
- ✓ Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low Profile Dimensions Ø 9 x 48 mm
- ✓ IP67, IP69



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Peak gain    | 4.0 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm           |



## MEA-LTE-MIMO-ISM-SM

Cellular/LTE MIMO and 915 MHz ISM Screw Mount

Part #: 100-00203-01

- ✓ High Performance
- ✓ Easy mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Low profile: 96 x 96 x 90 mm
- ✓ Customized Cable and Connector



### Key electrical specifications:

| Parameter | Specification                                 |
|-----------|-----------------------------------------------|
| Cable1    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -1.5 dBi 3.2 dBi 6.5 dBi |
| Cable2    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -0.9 dBi 3.0 dBi 5.0 dBi |
| Cable3    | Frequency 902-928 MHz                         |
|           | Antenna element peak 0.2 dBi                  |
| Bandwidth | Omni-Directional                              |

### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 96 x 90 mm          |



## MEA-868-IGG

868 MHz ISM/GPS/GLONASS Screw Mount

Part #: 100-00251-01

- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Low Profile
- ✓ High Gain
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



### Key electrical specifications:

| Parameter | Specification                              |
|-----------|--------------------------------------------|
| Cable1    | Frequency 863-870 MHz                      |
|           | Peak Gain 3.2 dBi                          |
|           | Polarization Linear                        |
| Cable2    | Frequency Range 1575.42 MHz, 1598-1606 MHz |
|           | Active Gain 28 dB @ 2.7 V                  |
|           | Polarization RHCP                          |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 77.3 x 15 mm         |



## MEA-900-L-SM

868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✓ 2 in 1 antenna: Cellular/LTE & ISM bands ✓ Ultra-Wide band antenna ✓ High performance ✓ Easy mounting: Screw Mount ✓ Low Profile: 80 x 76 x 13 mm ✓ Ground Plane Independent ✓ IP67 ✓ Customizable Cable and Connector



### Key electrical specifications:

| Parameter         | Specification                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz<br>2500-2700MHz 868MHz<br>915MHz                                               |
| Peak Gain         | 0.7 dBi@698-960MHz<br>2.7dBi@1710-2170MHz<br>4.3 dBi@2500-2700MHz<br>1.2 dBi@ 868MHz<br>1.7 dBi@915MHz |
| Radiation pattern | Omni-directional                                                                                       |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



## MEA-900-W2-SM

2.4/5.0 GHz & 868/915 MHz ISM - Screw Mount

Part #: 100-00194-01

- ✓ 2.4/5.0 GHz ISM ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector  
✓ IP67, IK09, IP69K ✓ Dimensions Ø 80 x 76 x 13 mm



### Key electrical specifications:

| Parameter         | Specification                                                                |
|-------------------|------------------------------------------------------------------------------|
| Frequency         | 868 MHz 915 MHz<br>2.4 GHz 5.0 GHz                                           |
| Peak Gain         | -0.6 dBi@ 868 MHz<br>-0.2 dBi@915 MHz<br>4.5 dBi@ 2.4 GHz<br>3.9 dBi@5.0 GHz |
| Radiation pattern | Omni-directional                                                             |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 76 x 13 mm        |



## MEA-915-N-60

Ultra-Rugged Dipole Antenna

Part #: 100-00263-01

- ✓ 915 MHz ISM LoRa band antenna ✓ High performance for increased coverage ✓ UV protected ✓ N-female Connector



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 915 MHz       |
| Peak Gain    | 5.5dBi        |
| Polarization | Vertical      |

### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | N-Female        |
| Dimensions | Ø 24.5 x 636 mm |



# MPA-716-868

## 868 MHz ISM PASSIVE PATCH

Part #: 189-00050-01

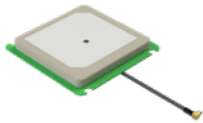
✔ 868 MHz ISM Band ✔ High antenna performance ✔ Low profile ✔ Adhesive mounting ✔ Pin connector ✔ Advanced Ceramic Material

Key electrical specifications:

| Parameter    | Specification    |
|--------------|------------------|
| Frequency    | 865 MHz - 867MHz |
| Polarization | RHCP             |
| Axial Ratio  | ≤ 5 dB           |
| VSWR         | ≤ 1.5            |

Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |





# MPA-716-915

## 915 MHz ISM PASSIVE PATCH

Part #: 189-00068-01

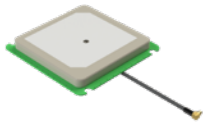
✔ 915 MHz ISM Band ✔ High antenna performance ✔ Low profile ✔ Adhesive mounting ✔ Pin connector ✔ Advanced Ceramic Material

Key electrical specifications:

| Parameter    | Specification   |
|--------------|-----------------|
| Frequency    | 915 MHz ± 1 MHz |
| Polarization | RHCP            |
| Axial Ratio  | ≤ 5 dB          |
| VSWR         | ≤ 1.5           |

Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |



# Narrowband IoT Antennas External

## MEA-868-01-SMA

### 868 MHz ISM- Connector Mount

Part #: 100-00201-01

✓ Small Form Factor ✓ High Performance ✓ Frequency range 863-870 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 863-870 MHz   |
| Antenna element peak gain | -1.2 dBi      |
| Polarization              | Linear        |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm               |

## MEA-915-01-SMA

### High Efficiency 915 MHz ISM Antenna

Part #: 100-00159-01

✓ Small Form Factor ✓ High Performance ✓ Frequency range 900 - 1000 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



#### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 915 MHz       |
| Antenna element peak gain | 3.3 dBi       |
| Polarization              | Linear        |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm               |

## MEA-868-915-SMA

### High Performance 868-915 MHz ISM Antenna

Part #: 100-00153-01

✓ Ultra High Performance ✓ LoRa/Sigfox/ ISM Band coverage ✓ ROHS Compliant ✓ Robust Housing IP67 Rated ✓ Custom Cable and Connector



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 3 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |

# Narrowband IoT Antennas External



## MEA-868-SM

### High Performance 868 MHz ISM Antenna

Part #: 100-00154-01

- ✓ 868MHz frequencies
- ✓ IP67 rated
- ✓ High gain & efficiency
- ✓ Custom cable & connector options



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 865-868MHz    |
| Peak gain    | 3-5 dBi       |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-915-SM

### High Performance 915 MHz ISM Antenna

Part #: 100-00156-01

- ✓ 915MHz frequencies
- ✓ IP67 rated
- ✓ High gain & efficiency
- ✓ Custom cable & connector options



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928MHz    |
| Peak gain    | 3-5 dBi       |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-LGI-SMA

### 5GNR & Iridium GNSS Antenna – Screw Mount

Part #: 189-00059-01

- ✓ 3in1 antenna: 5GNR, Iridium and GNSS
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mounting
- ✓ Optimized for Iridium network
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile 80 × 74 × 25.6 mm
- ✓ IP69



#### Key electrical specifications:

| Parameter                 | Specification                                   |
|---------------------------|-------------------------------------------------|
| Frequency                 | 617-960 MHz<br>3300-5000 MHz<br>1616 - 1627 MHz |
| Antenna element peak gain | 2.3 dBi<br>2.6 dBi<br>5.2 dBi                   |
| Polarization              | Linear                                          |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 × 74 × 25.6 mm          |



# Narrowband IoT Antennas External



## MEA-868-915-N

### Ultra-Rugged Dipole Antenna

Part #: 189-00045-01

✓ SigFox/LoRA/ISM (868MHz – 915MHz) ✓ High performance for increased coverage ✓ UV protected ✓ N-Type Connector Rated IP65



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 6 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | N - Connector |
| Dimensions                  | ø 23 x 795mm  |



## MEA-LW2-SM

### External Cellular/LTE, ISM and GNSS Antenna – Screw Mount

Part #: 189-00061-01

✓ 2in1 antenna: Cellular/LTE and 2.4/5.0GHz ISM ✓ Wide band antenna ✓ Ground Plane Independent ✓ Rugged housing ✓ IP67 rated ✓ IP69 rated ✓ Low profile: 80 x 74 x 43 mm ✓ Anti-Rotation mounting ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification                                 |
|-------------------|-----------------------------------------------|
| Frequency         | 698-960 MHz<br>1710-2170 MHz<br>2500-2700 MHz |
| Peak gain         | 2.7 dBi<br>5.1 dBi<br>5.3 dBi                 |
| Radiation pattern | Linear                                        |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 43 mm                 |



## MEA-868-ISM

### 868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

✓ 868 MHz ISM LoRa band antenna ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Low Profile ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Axial Ratio  | -1.4 dB       |
| Polarization | Linear        |
| VSWR         | 1.1:1         |

#### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | SMA Male        |
| Cable Type | D302 Standard   |
| Dimensions | 80 x 76 x 13 mm |

# Narrowband IoT Antennas External



## MEA-915-ISM

### 915 MHz ISM Screw Mount

Part #: 100-00184-01

✓ 915 MHz ISM LoRa band antenna ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Low Profile ✓ Dimensions Ø 54 x 80 mm ✓ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Axial Ratio  | RHCP          |
| Polarization | Vertical      |
| VSWR         | ≤ 1.5         |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 25.6 mm               |



## MEA-868-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00172-01

✓ 868 MHz ISM - 863-870 MHz ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions: Ø 50 x 50.8 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Peak gain    | -0.8 dBi      |
| Polarization | Linear        |
| VSWR         | ≤ 1.9:1       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 50 x 50.8 mm         |



## MEA-915-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00171-01

✓ 915 MHz ISM ✓ Screw Mount ✓ Ground Plane Dependent ✓ High Performance ✓ Low Profile ✓ Customizable Cable and Connector Dimensions 80 x 74 x 14.7 mm ✓ IP67



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Average gain | -3 dB         |
| Polarization | Linear        |
| VSWR         | 1.5:1         |

#### Key mechanical specifications:

| Parameter                   | Specification                            |
|-----------------------------|------------------------------------------|
| Mounting option / Connector | Screw Mount / SMA Male (other available) |
| Dimensions                  | 80 x 74 x 14.7 mm                        |

# Narrowband IoT Antennas External



## MEA-868-ISM

### 868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

- ✓ 915 MHz ISM - 902-928 MHz
- ✓ LoRa/ Sigfox/ NB-IOT
- ✓ Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low Profile Dimensions Ø 9 x 48 mm
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Peak gain    | 4.0 dBi       |
| Polarization | Linear        |
| VSWR         | 1.4:1         |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm           |



## MEA-LTE-MIMO-ISM-SM

### Cellular/LTE MIMO and 915 MHz ISM Screw Mount

Part #: 100-00203-01

- ✓ High Performance
- ✓ Easy mounting: Screw Mount
- ✓ Ground Plane Independent
- ✓ Low profile: 96 x 96 x 90 mm
- ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter | Specification                                 |
|-----------|-----------------------------------------------|
| Cable1    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -1.5 dBi 3.2 dBi 6.5 dBi |
| Cable2    | Frequency 698-960 MHz 1710-2170 MHz           |
|           | Antenna element peak -0.9 dBi 3.0 dBi 5.0 dBi |
| Cable3    | Frequency 902-928 MHz                         |
|           | Antenna element peak 0.2 dBi                  |
| Bandwidth | Omni-Directional                              |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 96 x 90 mm          |



## MEA-915-N-60

### Ultra-Rugged Dipole Antenna

Part #: 100-00263-01

- ✓ 915 MHz ISM LoRa band antenna
- ✓ High performance for increased coverage
- ✓ UV protected
- ✓ N-female Connector



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 915 MHz       |
| Peak Gain    | 5.5dBi        |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | N-Female        |
| Dimensions | Ø 24.5 x 636 mm |

# Narrowband IoT Antennas External



## MEA-900-L-SM

868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✓ 2 in 1 antenna: Cellular/LTE & ISM bands ✓ Ultra-Wide band antenna ✓ High performance ✓ Easy mounting: Screw Mount ✓ Low Profile: 80 x 76 x 13 mm ✓ Ground Plane Independent ✓ IP67 ✓ Customizable Cable and Connector



### Key electrical specifications:

| Parameter         | Specification                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz<br>2500-2700MHz 868MHz<br>915MHz                                               |
| Peak Gain         | 0.7 dBi@698-960MHz<br>2.7dBi@1710-2170MHz<br>4.3 dBi@2500-2700MHz<br>1.2 dBi@ 868MHz<br>1.7 dBi@915MHz |
| Radiation pattern | Omni-directional                                                                                       |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



## MEA-900-W2-SM

2.4/5.0 GHz & 868/915 MHz ISM - Screw Mount

Part #: 100-00194-01

- ✓ 2.4/5.0 GHz ISM ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector  
✓ IP67, IK09, IP69K ✓ Dimensions Ø 80 x 76 x 13 mm



### Key electrical specifications:

| Parameter         | Specification                                                                |
|-------------------|------------------------------------------------------------------------------|
| Frequency         | 868 MHz 915 MHz<br>2.4 GHz 5.0 GHz                                           |
| Peak Gain         | -0.6 dBi@ 868 MHz<br>-0.2 dBi@915 MHz<br>4.5 dBi@ 2.4 GHz<br>3.9 dBi@5.0 GHz |
| Radiation pattern | Omni-directional                                                             |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 76 x 13 mm        |

Narrowband IoT Antennas  
Embedded

MAXTENA®

MPA-716-868

868 MHz ISM PASSIVE PATCH

Part #: 189-00050-01

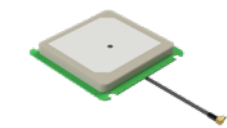
✔ 868 MHz ISM Band ✔ High antenna performance ✔ Low profile ✔ Adhesive mounting ✔ Pin connector ✔ Advanced Ceramic Material

Key electrical specifications:

| Parameter    | Specification    |
|--------------|------------------|
| Frequency    | 865 MHz - 867MHz |
| Polarization | RHCP             |
| Axial Ratio  | ≤ 5 dB           |
| VSWR         | ≤ 1.5            |

Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |



MPA-716-915

915 MHz ISM PASSIVE PATCH

Part #: 189-00068-01

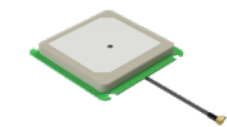
✔ 915 MHz ISM Band ✔ High antenna performance ✔ Low profile ✔ Adhesive mounting ✔ Pin connector ✔ Advanced Ceramic Material

Key electrical specifications:

| Parameter    | Specification   |
|--------------|-----------------|
| Frequency    | 915 MHz ± 1 MHz |
| Polarization | RHCP            |
| Axial Ratio  | ≤ 5 dB          |
| VSWR         | ≤ 1.5           |

Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |



# LPWA Antennas External

MAXTENA®



## MEA-900-L-SM

868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✓ 2 in 1 antenna: Cellular/LTE & ISM bands ✓ Ultra-Wide band antenna ✓ High performance ✓ Easy mounting: Screw Mount ✓ Low Profile: 80 x 76 x 13 mm ✓ Ground Plane Independent ✓ IP67 ✓ Customizable Cable and Connector



### Key electrical specifications:

| Parameter         | Specification                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz<br>2500-2700MHz 868MHz<br>915MHz                                              |
| Peak Gain         | 0.7 dBi@698-960MHz<br>2.7dBi@1710-2170MHz<br>4.3 dBi@2500-270MHz<br>1.2 dBi@ 868MHz<br>1.7 dBi@915MHz |
| Radiation pattern | Omni-directional                                                                                      |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



## MEA-900-W2-SM

2.4/5.0 GHz & 868/915 MHz ISM - Screw Mount

Part #: 100-00194-01

- ✓ 2.4/5.0 GHz ISM ✓ Screw Mount ✓ Anti-Rotation Mechanism ✓ Ground Plane Independent ✓ Customizable Cable and Connector  
✓ IP67, IK09, IP69K ✓ Dimensions Ø 80 x 76 x 13 mm



### Key electrical specifications:

| Parameter         | Specification                                                                |
|-------------------|------------------------------------------------------------------------------|
| Frequency         | 868 MHz 915 MHz<br>2.4 GHz 5.0 GHz                                           |
| Peak Gain         | -0.6 dBi@ 868 MHz<br>-0.2 dBi@915 MHz<br>4.5 dBi@ 2.4 GHz<br>3.9 dBi@5.0 GHz |
| Radiation pattern | Omni-directional                                                             |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 76 x 13 mm        |



## MEA-868-01-SMA

868 MHz ISM- Connector Mount

Part #: 100-00201-01

- ✓ Small Form Factor ✓ High Performance ✓ Frequency range 863-870 MHz ✓ Low profile: 9 x 48.0mm ✓ RoHS Compliant ✓ Connector Type: SMA Male



### Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 863-870 MHz   |
| Antenna element peak gain | -1.2 dB       |
| Polarization              | Linear        |

### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Connector Mount / SMA Male |
| Dimensions                  | Ø 9 x 48.0mm               |

# LPWA Antennas External



## MEA-868-915-SMA

### High Performance 868-915 MHz ISM Antenna

Part #: 100-00153-01

- ✔ Ultra High Performance ✔ LoRa/Sigfox/ ISM Band coverage ✔ ROHS Compliant ✔ Robust Housing IP67 Rated ✔ Custom Cable and Connector



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 3 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-868-SM

### High Performance 868 MHz ISM Antenna

Part #: 100-00154-01

- ✔ 868MHz frequencies ✔ IP67 rated ✔ High gain & efficiency ✔ Custom cable & connector options



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 865-868MHz    |
| Peak gain    | 3-5 dBi       |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 48 x 82 mm           |



## MEA-868-915-N

### Ultra-Rugged Dipole Antenna

Part #: 189-00045-01

- ✔ SigFox/LoRa/ISM (868MHz – 915MHz) ✔ High performance for increased coverage ✔ UV protected ✔ N-Type Connector Rated IP65



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 868-915 MHz   |
| Peak gain    | 6 dBi         |
| Polarization | Vertical      |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | N - Connector |
| Dimensions                  | ø 23 x 795mm  |



# LPWA Antennas External



## MEA-868-ISM

### 868 MHz ISM SCREW MOUNT

Part #: 100-00198-01

✔ 868 MHz ISM LoRa band antenna ✔ Screw Mount ✔ Anti-Rotation Mechanism ✔ Ground Plane Independent ✔ Customizable Cable and Connector ✔ Low Profile ✔ IP67, IP69K



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Axial Ratio  | -1.4 dB       |
| Polarization | Linear        |
| VSWR         | 1.1:1         |

#### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | SMA Male        |
| Cable Type | D302 Standard   |
| Dimensions | 80 x 76 x 13 mm |



## MEA-868-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00172-01

✔ 868 MHz ISM - 863-870 MHz ✔ Screw Mount ✔ Anti-Rotation Mechanism ✔ Ground Plane Independent ✔ Customizable Cable and Connector ✔ Dimensions: Ø 50 x 50.8 mm ✔ IP67, IP69



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 863-870 MHz   |
| Peak gain    | -0.8 dBi      |
| Polarization | Linear        |
| VSWR         | ≤ 1.9:1       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 50 x 50.8 mm         |



## MEA-915-SM-LP

### 868 MHz ISM Antenna – Screw Mount

Part #: 100-00171-01

✔ 915 MHz ISM ✔ Screw Mount ✔ Ground Plane Dependent ✔ High Performance ✔ Low Profile ✔ Customizable Cable and Connector Dimensions 80 x 74 x 14.7 mm ✔ IP67



#### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 902-928 MHz   |
| Average gain | -3 dB         |
| Polarization | Linear        |
| VSWR         | 1.5:1         |

#### Key mechanical specifications:

| Parameter                   | Specification                            |
|-----------------------------|------------------------------------------|
| Mounting option / Connector | Screw Mount / SMA Male (other available) |
| Dimensions                  | 80 x 74 x 14.7 mm                        |

# LPWA Antennas External



## MEA-900-L-SM

868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✔ 2 in 1 antenna: Cellular/LTE & ISM bands ✔ Ultra-Wide band antenna ✔ High performance ✔ Easy mounting: Screw Mount ✔ Low Profile: 80 x 76 x 13 mm ✔ Ground Plane Independent ✔ IP67 ✔ Customizable Cable and Connector



### Key electrical specifications:

| Parameter         | Specification                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz<br>2500-2700MHz 868MHz<br>915MHz                                             |
| Peak Gain         | 0.7 dBi@698-960MHz<br>2.7dBi@1710-2170MHz<br>4.3 dBi@2500-270MHz<br>1.2 dBi@ 868MHz<br>1.7 dBi@91MHz |
| Radiation pattern | Omni-directional                                                                                     |

### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



## MEA-915-N-60

Ultra-Rugged Dipole Antenna

Part #: 100-00263-01

- ✔ 915 MHz ISM LoRa band antenna ✔ High performance for increased coverage ✔ UV protected ✔ N-female Connector



### Key electrical specifications:

| Parameter    | Specification |
|--------------|---------------|
| Frequency    | 915 MHz       |
| Peak Gain    | 5.5dBi        |
| Polarization | Vertical      |

### Key mechanical specifications:

| Parameter  | Specification   |
|------------|-----------------|
| Connector  | N-Female        |
| Dimensions | Ø 24.5 x 636 mm |

# LPWA Antennas Embedded



## MPA-716-868

868 MHz ISM PASSIVE PATCH

Part #: 189-00050-01

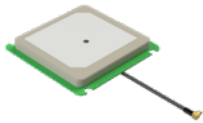
- ✔ 868 MHz ISM Band ✔ High antenna performance ✔ Low profile ✔ Adhesive mounting ✔ Pin connector ✔ Advanced Ceramic Material

### Key electrical specifications:

| Parameter    | Specification    |
|--------------|------------------|
| Frequency    | 865 MHz - 867MHz |
| Polarization | RHCP             |
| Axial Ratio  | ≤ 5 dB           |
| VSWR         | ≤ 1.5            |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |



## MPA-716-915

915 MHz ISM PASSIVE PATCH

Part #: 189-00068-01

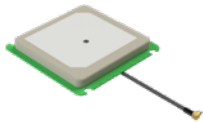
- ✔ 915 MHz ISM Band ✔ High antenna performance ✔ Low profile ✔ Adhesive mounting ✔ Pin connector ✔ Advanced Ceramic Material

### Key electrical specifications:

| Parameter    | Specification   |
|--------------|-----------------|
| Frequency    | 915 MHz ± 1 MHz |
| Polarization | RHCP            |
| Axial Ratio  | ≤ 5 dB          |
| VSWR         | ≤ 1.5           |

### Key mechanical specifications:

| Parameter                   | Specification    |
|-----------------------------|------------------|
| Mounting option / Connector | MMCX(MALE)       |
| Cable Type                  | RG178            |
| Dimensions                  | 82 x 80 x 6.6 mm |

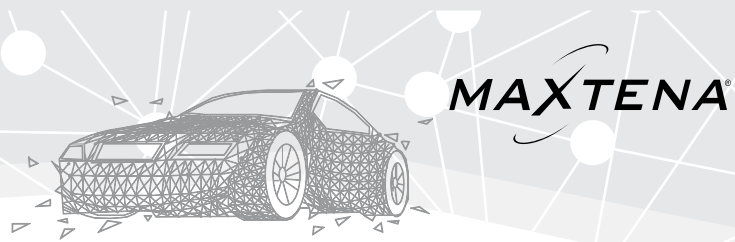


# Transportation Antennas

**MAXTENA®**



# Transportation Antennas



Our patented & fully EN 50155 Certified Rail 4x4 MIMO LTE antennas are the most advanced solutions available. They ensure the most optimal data aggregation connectivity by providing outstanding RF performances.

As technology capabilities increase, the world is becoming more connected and so does the demand for a smart, and fastest growing transportation market. Maxtena is the industry leader in developing new antenna technologies for vehicle – to – vehicle (V2V) and vehicle – to – anything (V2X) applications. We have developed cutting edge dedicated short-range communications (DSRC) antennas which are vehicle and DSRC transponder agnostic. All DSRC antennas are available for external and internal automotive applications.

At Maxtena, we offers the most advanced train and rail antennas in rugged, low profile form factors.

## Applications

LBS & M2M applications

Handheld devices

Law enforcement

Vehicle and fleet tracking

Mining equipment

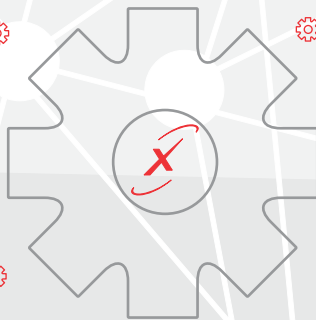
Military & security

Asset tracking

Oil & gas industries

Navigation devices

Embedded applications



## Maxwave, our exclusive LTE WIFI MIMO

### Antenna for Transportation

## MAXWAVE

#### Maxtena Launches Maxwave™ a LTE/WiFi MIMO Antenna for Transportation

Maxtena designed this antenna to scale in performance and evolve as the train's wireless systems advance, providing reliable high-speed wireless internet to onboard systems. Installing two of the 4x4 Maxwave antennas in the 8x8 configuration will provide high-performance 4x4 technology immediately, and scaling to 8x8 is as simple as installing the new onboard system modems. The antenna is mounted externally on the train's roof and provides a patented omnidirectional coverage that is unmatched by comparable antennas. The antenna's superior isolation maximizes the performance between Maxwave elements as well as other antennas on the train roof while retaining remarkable efficiency.

Maxwave is easy to maintain, install, and upgrade on any train rooftop, and it is designed to be compliant with all US, European, and International Railway Certification Standards. It is also intended to be among the lowest profile, high-performance antennas on the market. Additionally, a single 8x8 model is planned for release which can configure to 16x16 MIMO performance using the same installation methods. Maxwave is perfect for high-speed trains, commuter trains, metro trains, trolleys, and even buses and other mass transit cars, and can be used for freight cars and rail CCTV systems as well.



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#### Features

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Covers all cellular, LTE, WIFI and WiMAX frequency bands
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrestor
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines and passenger safety
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant design to EN50155 and re retardant design according to EN 45545:2013

#### Suggested applications include

- ✓ Fleet management
- ✓ Commercial transport
- ✓ HD video monitoring
- ✓ Buses, train, and commercial applications
- ✓ Smart city
- ✓ And also change products benets to features





## MEA-DSRC-02Z

### External Mount DSRC Antenna

Part #: 100-00089-01

- ✓ External mount DSRC antenna for 5850 - 5950MHz ✓ Different mounting options available ✓ IPX5 ✓ SMA & N-Type or customer specified connector



#### Key electrical specifications:

| Parameter                 | Specification                |
|---------------------------|------------------------------|
| Frequency                 | 5850 - 5950 MHz              |
| Antenna passive peak gain | 5.0 dBi Typ. @ 5850-5950 MHz |
| Impedence                 | 50Ω                          |

#### Key mechanical specifications:

| Parameter                   | Specification                      |
|-----------------------------|------------------------------------|
| Mounting option / Connector | SMA / N-Type or customer specified |
| Dimensions                  | 120 x 120 x 45 mm                  |



## MEA-DSRC-01P

### External Mount DSRC Antenna

Part #: Part #: 100-00087-01

- ✓ External mount DSRC antenna for 5850 - 5950MHz ✓ IPX7 ✓ SMA & N-Type or customer specified connector ✓ Foam Adhesive  
✓ 30 cm cable length RG-174



#### Key electrical specifications:

| Parameter                 | Specification                |
|---------------------------|------------------------------|
| Frequency                 | 5850 - 5950 MHz              |
| Antenna passive peak gain | 5.0 dBi Typ. @ 2300-2700 MHz |
| Impedence                 | 50Ω                          |

#### Key mechanical specifications:

| Parameter                   | Specification                      |
|-----------------------------|------------------------------------|
| Mounting option / Connector | SMA / N-Type or customer specified |
| Dimensions                  | 105.1 x 30.1 x 6.7 mm              |



## MEA-DSRC-03Z

### External Mount DSRC Antenna

Part #: 100-00088-01

- ✓ External mount DSRC antenna for 5850 - 5950MHz ✓ IPX7 ✓ N-Type connector



#### Key electrical specifications:

| Parameter                 | Specification                |
|---------------------------|------------------------------|
| Frequency                 | 5850 - 5950 MHz              |
| Antenna passive peak gain | 5.0 dBi Typ. @ 2300-2700 MHz |
| Impedence                 | 50Ω                          |

#### Key mechanical specifications:

| Parameter                   | Specification                |
|-----------------------------|------------------------------|
| Mounting option / Connector | N-Type or customer specified |
| Dimensions                  | Ø 20 x 215 mm                |





## MAXWAVE

### MAXWAVE™ 4x4 MIMO TRAIN ANTENNA

Part #: 100-00074-01

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrester
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant to EN50155 and fire retardant according to EN 45545:2013



#### Key electrical specifications:

| Parameter    | Specification      |
|--------------|--------------------|
| Frequency    | 4 × 698 – 6000 MHz |
| Pattern      | Omnidirectional    |
| Polarization | Linear             |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |



## MEA-5in1-SMA

### 5GNR MIMO, 2.4/5.0/6.0 GHZ ISM and GNSS - Screw mount antenna

Part #: 100-00243-01

- ✓ 5GNR, 2.4/5.0/6.0 GHz ISM & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter         | Specification                                              |
|-------------------|------------------------------------------------------------|
| Cable1            | Frequency 617-960 MHz 1427-2690 MHz                        |
|                   | Antenna element peak 1.3 dBi / 3.4 dBi / 4.7 dBi / 4.0 dBi |
| Cable2            | Frequency 617-960 MHz 1427-2690 MHz                        |
|                   | Antenna element peak 1.2 dBi / 3.6 dBi / 4.6 dBi / 3.2 dBi |
| Cable3            | Frequency 2410-2490 MHz 4920-5925 MHz                      |
|                   | Antenna element peak 5.6 dBi / 5.5 dBi / 3.8 dBi           |
| Cable4            | Frequency 2410-2490 MHz 4920-5925 MHz                      |
|                   | Antenna element peak 5.6 dBi / 5.5 dBi / 3.6 dBi           |
| Cable5            | Frequency 1575.42 MHz 1598-1610 MHz                        |
|                   | Active Gain 23dB@3V; 24dB@5V                               |
| Radiation pattern | Omni-Directional / Hemispherical                           |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



## MEA-TETRA-UHF-GNSS

### TETRA/UHF and GNSS Screw Mount

Part #: 100-00247-01

- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Heavy Duty antenna
- ✓ High Gain
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter         | Specification              |
|-------------------|----------------------------|
| Frequency         | 380-470 MHz                |
| Peak Gain         | 2.5 dBi                    |
| Polarization      | Linear                     |
| Frequency Range   | 1575.42 MHz, 1598-1606 MHz |
| Active Gain       | 28 dB @ 2.7 V              |
| Radiation Pattern | Hemispherical              |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 96 x 130 mm          |



## MEA-LTE-GNSS-UHF

### CELLULAR/LTE, TETRA/UHF and GNSS Screw Mount

Part #: 100-00248-01

- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Heavy Duty antenna
- ✓ High Gain
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter   | Specification              |
|-------------|----------------------------|
| Frequency   | 698-960 MHz 1710-2170 MHz  |
| Peak Gain   | 1.9 dBi 3.0 dBi 2.9 dBi    |
| Frequency   | 380 - 470 MHz              |
| Peak Gain   | 2.1 dBi                    |
| Frequency   | 1575.42 MHz, 1598-1606 MHz |
| Active Gain | 28 dB @ 2.7 V              |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 96 x 130 mm          |



## MEA-LTE-ISM-GNSS-TETRA

### CELLULAR/LTE, 2.4/5.0 GHZ ISM, TETRA and GNSS - Screw Mount Antenna

Part #: 100-00243-01

- ✓ CELLULAR / LTE, TETRA/UHF, ISM, and GPS/GLONASS/QZSS/Galileo frequency
- ✓ Easy mounting: Screw Mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter            | Specification                    |
|----------------------|----------------------------------|
| Frequency            | 698-960 MHz 1710-2170 MHz        |
| Antenna element peak | 1.9 dBi / 3.0 dBi / 2.9 dBi      |
| Frequency            | 2410-2490 MHz 4920-5925 MHz      |
| Antenna element peak | 5.6 dBi / 5.5 dBi                |
| Frequency            | 380-470 MHz                      |
| Antenna element peak | 2.1 dBi                          |
| Frequency            | 1575.42 MHz 1598-1610 MHz        |
| Active Gain          | 28 dB @ 2.7 V                    |
| Radiation pattern    | Omni-Directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |

**MAXTENA®**





Our GNSS Timing antennas are state of the art designed and developed rugged solutions which are IP69K rated and versatile for any installation necessary. The antennas are fully customizable and feature high gain LNA's along with superb filtering capabilities.

Precise time is crucial to a variety of economic activities around the world. Communication systems, electrical power grids, and financial networks all rely on precision timing for synchronization and operational efficiency. GNSS enables users to determine the time to within 100 billionths of a second, without the cost of owning and operating atomic clocks.

Maxtena has the latest antenna technology and products for professional precision timing applications.

## Applications





## MEA-1575-TM-TNC

For professional precision timing applications

### MEA-1575-TM-TNC

Precise time is crucial to a variety of economic activities around the world. Communication systems, electrical power grids, and financial networks all rely on precision timing for synchronization and operational efficiency. GPS enables users to determine the time to within 100 billionths of a second, without the cost of owning and operating atomic clocks. Maxtena has the latest antenna technology and products for professional precision timing applications. MEA-1575-TM-TNC is a very rugged GPS timing outdoor antenna solution by Maxtena covering GPS L1/GLONASS L1, Beidou B1, Galileo E1, AND QZSS L1 frequency bands. The antenna is ideal for professional precision timing applications. This antenna allows wideband coverage and achieves superior out of band rejection with a high gain of 40dB. The MEA-1575-TM-TNC provides exceptional circular polarized signal reception exceptional multipath rejection and a wide voltage input range of 2.5 to 10 VDC. It ideal for various outdoor GPS Timing installations.

The MEA-1575-TM-TNC is equipped with a TNC female connector and is ideal for any global GNSS time synchronization application that requires an externally mounted antenna. The antenna is designed with rugged waterproof housing (IP67 compliant) and is ideal for the most demanding environmental challenges. It can be mounted through a hole or L-Bracket.



#### Features

- ✓ High bandwidth for GNSS coverage
- ✓ Low VSWR
- ✓ High Gain Performance
- ✓ High out of band rejection
- ✓ Outdoor use
- ✓ Designed for harsh environment 40dB LNA Gain
- ✓ Wide voltage input range: 2.5 to 10 VDC
- ✓ IP67 Compliant
- ✓ Filtering RF Jamming environment

#### Suggested Applications include

- ✓ Timing applications
- ✓ Military and security
- ✓ Utility electric grid synchronization
- ✓ Positive train control (PTC) networks
- ✓ Public safety communications
- ✓ Fixed installations

**MEA-1575-TM-TNC**

**External Mount DSRC Antenna**

External Mount DSRC Antenna

✔ High bandwidth for GNSS coverage: GPS L1/GLONASS L1, Beidou B1, Galileo E1, AND QZSS L1 frequency bands ✔ Low VSWR ✔ High Gain Performance ✔ High out of band rejection ✔ Outdoor use Designed for harsh environment 40dB LNA Gain ✔ Wide voltage input range: 2.5 to 10 VDC ✔ IP67 Compliant ✔ Filtering RF Jamming environment



Key electrical specifications:

| Parameter                 | Specification |
|---------------------------|---------------|
| Frequency                 | 1559-1606 MHz |
| Antenna element peak gain | 40dBi         |
| Impedence                 | 50Ω           |

Key mechanical specifications:

| Parameter                   | Specification                                                                                                         |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------|
| Mounting option / Connector | A screw mount/<br>TNC female connector<br>Through hole/L-Bracket (not included)<br>Pole mounting via clamp (included) |
| Dimensions                  | ø 66.5mmx76.4 mm                                                                                                      |

**MAXTENA®**







Maxtena's combination antenna include advanced RF technologies all in one configuration like GNSS, LTE, WiFi and ISM. This allows the customers to have increased efficiencies, performances and advantages. The consolidation of antennas leads to more innovative products and excessive cost savings.

Maxtena provides a wide range of multiband antennas starting from 2-in-1 and 3-in-1, to 5-in-1 antennas combination to increase efficiency and coverage while maintaining outstanding isolation specifications.

## Applications

Fleet management 

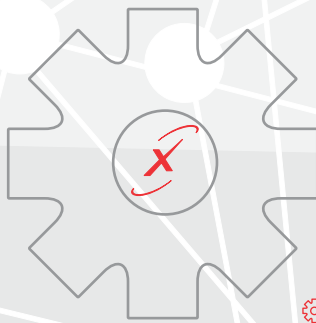
 Asset tracking

Telematics 

 Security and Surveillance

IOT 

 Vending Machines



Our new launch **MEA-LWIG-SM**

**5GNR, 2.4/5.0/6.0 GHz ISM, Iridium & GNSS Antenna**

## MEA-LWIG-SM

The MEA-LWIG-SM Screw Mount Antenna is a 4-in-1 low profile antenna solution, with a very high-performance ideal for maintaining constant network connectivity. The MEA-LWIG-SM covers all 5GNR, ISM, Iridium and GPS/GLONASS/QZSS/Galileo standard frequencies. This is an ideal antenna for telematics systems, remote surveillance, asset tracking and any IOT system applications.

The high performance and low profile make this antenna ideal for the most challenging installations.

The 5G NR Antenna (Cable 1) covers frequency range within 5G NR, 4G LTE, 2G, 3G standards. It operates within 617MHz-5925MHz frequency range. The antenna has an omni-directional radiation pattern, and it is ideal for maintaining constant network connectivity.

The 2.4/5.0/6.0 GHz ISM antenna (Cable 2) covers a complete ISM frequency coverage. It operates between 2410MHz-7125 MHz frequency range. The antenna has an omni-directional radiation pattern, and it is ideal for telematics systems, remote surveillance, and asset tracking.

The Iridium antenna (Cable 3) covers the Iridium standards. It operates within 1616MHz-1627MHz frequency range. The antenna provides exceptional pattern control, polarization purity and high efficiency. The antenna provides outstanding performance for any Iridium SBD telematics and IOT applications.

The GNSS active antenna (Cable 4) covers the GPS, QZSS, Galileo and GLONASS frequency standards. It operates within 1575.42MHz and 1598MHz-1606MHz frequency range. The antenna has a hemispherical radiation pattern, and it is ideal to provide accuracy, and constant connectivity.

This screw mount antenna is easy to install with maximum durability offering IP67 rated housing and anti-rotation mounting. The MEA-LWIG-SM has four cables with a SMA-Male standard connectors, 3m standard cable length and is fully customizable by offering additional connector types, cable lengths and cable types.



### Features

- ✓ 4in1 antenna
- ✓ Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Customizable Cable and Connector
- ✓ Dimensions Ø 146 x 31.5 mm
- ✓ IK09
- ✓ IP67
- ✓ IP69K

### Suggested Applications include

- ✓ IoT applications
- ✓ Telematic
- ✓ Navigation
- ✓ Satellite Communications
- ✓ LTE applications

# Combination antenna

## Screw mount



### NETZ 4IN1

#### 4G LTE/Cellular/WIFI and MIMO 4in1 Antenna

Part #: 100-00142-01

✔ Screw Mount ✔ High Performance ✔ Rated IP67, IP69K and IK09 ✔ Compact Size: 96 x 96 x 94 mm ✔ Custom Cable and Connector



#### Key electrical specifications:

| Parameter                 | Specification                             |
|---------------------------|-------------------------------------------|
| Frequency                 | 698-960 MHz 1710-2170MHz<br>2500-2700 MHz |
| Antenna element peak gain | 0.9 dBi 3.3 dBi 4.4 dBi                   |
| Radiation pattern         | Omni-directional                          |

#### Key mechanical specifications:

| Parameter                   | Specification   |
|-----------------------------|-----------------|
| Mounting option / Connector | SMA-Male        |
| Dimensions                  | 96 x 96 x 94 mm |



### NETZ 5IN1

#### LTE-MIMO/WIFI-MIMO/GNSS 5in1 Antenna

Part #: 100-00095-01

✔ LTE/Wifi/GNSS frequencies ✔ High performance ✔ MIMO technology solution ✔ A low profile design with easy mounting ✔ An integrated SMA connectors



#### Key electrical specifications:

| Parameter                 | Specification                                                                                                                                                     |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency                 | 1561 MHz 1575.42 MHz<br>1602 MHz 698-960 MHz<br>1710-2170 MHz 2300-2690 MHz                                                                                       |
| Antenna element peak gain | 3 dBi Typ. @1561 MHz<br>3 dBi Typ. @1575 MHz<br>3.5 dBi Typ. @1602 MHz<br>4.0 dBi Typ. @698~960 MHz<br>6.0 dBi Typ. @1710~2170 MHz<br>5.0 dBi Typ. @2300~2690 MHz |
| Radiation pattern         | Linear                                                                                                                                                            |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Permanent Mount/ SMA connectors |
| Dimensions                  | Ø 141.98 x 66.5 mm              |

# Combination antenna

## Screw mount

MAXTENA®



### Netz 5in1-SM

CELLULAR/LTE MIMO, 2.4/5.0 GHz ISM MIMO and GNSS - Screw Mount

Part #: 100-00177-01

- ✓ LTE/Wifi/GNSS frequencies
- ✓ High performance
- ✓ MIMO technology solution
- ✓ A low profile design with easy mounting
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter         | Specification        |                                  |                |
|-------------------|----------------------|----------------------------------|----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.9 dBi                         | 3.3 dBi 4.3 dB |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | 1.4 dBi                          | 3.0 dB 3.0 dBi |
| Cable3            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz  |
|                   | Antenna element peak | 4.8 dBi                          | 3.0 dBi        |
| Cable4            | Frequency            | 2410-2490 MHz                    | 4920-5925 MHz  |
|                   | Antenna element peak | 4.6 dBi                          | 3.1 dBi        |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz       |
|                   | Antenna element peak | 23 dB @ 3 V; 24dB @ 5 V          |                |
| Radiation pattern |                      | Omni-directional / Hemispherical |                |

#### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male / SMA-Male RP |
| Dimensions                  | Ø 96 x 90 mm                         |



### Netz 5in1-MIMO

CELLULAR/LTE MIMO and GNSS - Screw mount antenna

Part #: 100-00177-01

- ✓ CELLULAR / LTE & GPS/GLONASS/QZSS/frequencies
- ✓ Galileo frequency range
- ✓ Easy mounting: Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 96 x H 90 mm
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter         | Specification        |                                  |                |
|-------------------|----------------------|----------------------------------|----------------|
| Cable1            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | 0.2dBi                           | 3.8dBi 6.0dBi  |
| Cable2            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.1dBi                          | 3.2dBi -5.6dBi |
| Cable3            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.5dBi                          | 3.1dBi 5.0dBi  |
| Cable4            | Frequency            | 698-960 MHz                      | 1710-2170 MHz  |
|                   | Antenna element peak | -0.7dBi                          | 3.0dBi 4.8dBi  |
| Cable5            | Frequency            | 1575.42 MHz                      | 1602 MHz       |
|                   | Antenna element peak | 23dB@3V; 24dB@5V                 |                |
| Radiation pattern |                      | Omni-Directional / Hemispherical |                |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 90 mm           |

# Combination antenna

## Screw mount



### MEA-LGI-SMA

#### 5G NR & Iridium GNSS Antenna – Screw Mount

Part #: 189-00059-01

- ✓ 3in1 antenna: 5G NR, Iridium and GNSS
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Anti-Rotation Mounting
- ✓ Optimized for Iridium network
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Low profile 80 × 74 × 25.6 mm
- ✓ IP69



#### Key electrical specifications:

| Parameter                 | Specification   |                 |
|---------------------------|-----------------|-----------------|
| Frequency                 | 617-960 MHz     | 1427-2690 MHz   |
|                           | 3300-5000 MHz   | 5150-5925 MHz   |
|                           | 1616 - 1627 MHz | 1559 - 1608 MHz |
| Antenna element peak gain | 2.3 dBi         | 5.1 dBi         |
|                           | 2.6 dBi         | 2.7dBi          |
|                           | 5.2 dBi         | 28 dB @ 2.7 V   |
| Polarization              | Linear          |                 |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw on design / SMA male |
| Dimensions                  | 80 × 74 × 25.6 mm          |



### MEA-LW2-SM

#### External Cellular/LTE, ISM and GNSS Antenna – Screw Mount

Part #: 189-00061-01

- ✓ 2in1 antenna: Cellular/LTE and 2.4/5.0GHz ISM
- ✓ Wide band antenna
- ✓ Ground Plane Independent
- ✓ Rugged housing
- ✓ IP67 rated
- ✓ IP69 rated
- ✓ Low profile: 80 x 74 x 43 mm
- ✓ Anti-Rotation mounting
- ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 698-960 MHz   |
|                   | 1710-2170 MHz |
|                   | 2500-2700 MHz |
| Peak gain         | 2.7 dBi       |
|                   | 5.1 dBi       |
|                   | 5.3 dBi       |
| Radiation pattern | Linear        |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | Screw mount/ SMA Male connector |
| Dimensions                  | 80 x 74 x 43 mm                 |

# Combination antenna

## Screw mount



### MEA-LTE-MIMO-ISM-SM

Cellular/LTE MIMO and 915 MHz ISM Screw Mount

Part #: 100-00203-01

- ✓ High Performance ✓ Easy mounting: Screw Mount ✓ Ground Plane Independent ✓ Low profile: 96 x 96 x 90 mm ✓ Customized Cable and Connector



#### Key electrical specifications:

| Parameter            | Specification                       |
|----------------------|-------------------------------------|
| Cable1               | Frequency 698-960 MHz 1710-2170 MHz |
|                      | 2500-2700 MHz                       |
| Antenna element peak | -1.5 dBi 3.2 dBi 6.5 dBi            |
| Cable2               | Frequency 698-960 MHz 1710-2170 MHz |
|                      | 2500-2700 MHz                       |
| Antenna element peak | -0.9 dBi 3.0 dBi 5.0 dBi            |
| Cable3               | Frequency 902-928 MHz               |
|                      | Antenna element peak 0.2 dBi        |
| Bandwidth            | Omni-Directional                    |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw mount/ SMA Male |
| Dimensions                  | Ø 96 x 90 mm          |



### MEA-5GGG-SM

5G NR and GPS/GLONASS Screw Mount

Part #: 100-00204-01

- ✓ 5G NR & GPS/GLONASS/QZSS/Galileo frequency coverage ✓ Easy Mounting: Screw Mount ✓ Anti-Rotation Mechanism ✓ Low Profile  
✓ Ground Plane Independent ✓ Customizable Cable and Connector ✓ Dimensions 80 x 74 x 25.6 mm ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                 | Specification               |
|---------------------------|-----------------------------|
| Frequency                 | 698-960 MHz 1427-2690 MHz   |
|                           | 3300-5000 MHz 5150-5925 MHz |
| Antenna element peak gain | 1575.42 MHz 1602 MHz        |
|                           | 2.3 dBi@698-960 MHz         |
| Polarization              | 5.1 dBi@1427-2690 MHz       |
|                           | 2.6 dBi @3300-5000 MHz      |
|                           | 2.7 dBi @5150-5925 MHz      |
|                           | 28dB @ 2.7 V @1575.42 MHz   |
|                           | 28dB @ 2.7 V @1602 MHz      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |

# Combination antenna

## Screw mount



### MEA-698-3800-SM

#### Low Profile 5G LTE Antenna

Part #: 100-00132-01

- ✓ Low profile antenna
- ✓ Covers large frequencies 698-3800 MHz
- ✓ ROHS Compliant
- ✓ High gain for the antenna size
- ✓ PC + ABC housing
- ✓ Exceptional performance over the main 4G/5G bands



#### Key electrical specifications:

| Parameter         | Specification |
|-------------------|---------------|
| Frequency         | 698-3800 MHz  |
| Peak gain         | 5.5 dBi       |
| Radiation pattern | -10 dBi       |

#### Key mechanical specifications:

| Parameter                   | Specification |
|-----------------------------|---------------|
| Mounting option / Connector | SMA-Male      |
| Dimensions                  | 59 x 71mm     |



### MEA-SW-700-3800

#### 2G/3G/4G/ISM/WIFI GNSS Antenna

Part #: 189-00046-01

- ✓ 2G/3G/4G/ISM/Wi-Fi & GNSS frequency bands
- ✓ N Type connector & seal ring
- ✓ IP68 rated / UV protected
- ✓ Rugged industrial design
- ✓ Ground plane Independent



#### Key electrical specifications:

| Parameter                 | Specification    |
|---------------------------|------------------|
| Frequency                 | 698-3800 MHz     |
| Antenna element peak gain | 4.0 dB           |
| Radiation pattern         | Omni-directional |

#### Key mechanical specifications:

| Parameter                   | Specification                 |
|-----------------------------|-------------------------------|
| Mounting option / Connector | Screw Mount/ N Type connector |
| Dimensions                  | Ø 41 x 84 mm                  |



### MEA-900-L-SM

#### 868/915 MHz ISM/LTE - Screw Mount

Part #: 100-00197-01

- ✓ 2 in 1 antenna: Cellular/LTE & ISM bands
- ✓ Ultra-Wide band antenna
- ✓ High performance
- ✓ Easy mounting: Screw Mount
- ✓ Low Profile: 80 x 76 x 13 mm
- ✓ Ground Plane Independent
- ✓ IP67
- ✓ Customizable Cable and Connector



#### Key electrical specifications:

| Parameter         | Specification                                                                                          |
|-------------------|--------------------------------------------------------------------------------------------------------|
| Frequency         | 698-960MHz 1710-2170MHz<br>2500-2700MHz 868MHz<br>915MHz                                               |
| Peak Gain         | 0.7 dBi@698-960MHz<br>2.7dBi@1710-2170MHz<br>4.3 dBi@2500-2700MHz<br>1.2 dBi@ 868MHz<br>1.7 dBi@915MHz |
| Radiation pattern | Omni-directional                                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



# Combination antenna

## Screw mount



### MEA-900-W2-SM

2.4/5.0 GHz & 868/915 MHz ISM - Screw Mount

Part #: 100-00194-01

- ✓ 2.4/5.0 GHz ISM
- ✓ Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ IP67, IK09, IP69K
- ✓ Dimensions Ø 80 × 76 × 13 mm



#### Key electrical specifications:

| Parameter         | Specification                                                                |
|-------------------|------------------------------------------------------------------------------|
| Frequency         | 868 MHz 915 MHz<br>2.4 GHz 5.0 GHz                                           |
| Peak Gain         | -0.6 dBi@ 868 MHz<br>-0.2 dBi@915 MHz<br>4.5 dBi@ 2.4 GHz<br>3.9 dBi@5.0 GHz |
| Radiation pattern | Omni-directional                                                             |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA-Male |
| Dimensions                  | 80 × 76 × 13 mm        |



### COBRA-LTE700

LTE MIMO & Active GPS High-Performance Transportation Antenna

Part #: 100-00036-01

- ✓ Robust arrow shape housing for easy roof-top alignment
- ✓ MIMO technology
- ✓ One connector for each application; LTE 1, LTE 2 and GPS
- ✓ No ground plane requirements
- ✓ Single-hole mounting with screws on top for easy installation
- ✓ Use of only one multifunction solution



#### Key electrical specifications:

| Parameter                 | Specification                                   |
|---------------------------|-------------------------------------------------|
| Frequency                 | 690 - 960 MHz<br>1700 - 2200 MHz<br>1575.42 MHz |
| Antenna element peak gain | 4 dBi (typical)                                 |
| Polarization              | Linear                                          |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |



### MAXWAVE

MAXWAVE™ 4x4 MIMO TRAIN ANTENNA

Part #: 100-00074-01

- ✓ 4 antenna elements operating simultaneously from 698 MHz to 6000 MHz
- ✓ Optional active GPS/GLONASS antenna with integrated surge arrester
- ✓ DC grounded antenna elements for protection against lightning and high voltage power supply lines
- ✓ Versatile Design: Maintains performance when mounted on non-metallic surfaces
- ✓ Railway standard compliant to EN50155 and fire retardant according to EN 45545:2013



#### Key electrical specifications:

| Parameter    | Specification      |
|--------------|--------------------|
| Frequency    | 4 × 698 – 6000 MHz |
| Pattern      | Omnidirectional    |
| Polarization | Linear             |

#### Key mechanical specifications:

| Parameter                   | Specification     |
|-----------------------------|-------------------|
| Mounting option / Connector | N/A               |
| Dimensions                  | 166 x 200 x 88 mm |

# Combination antenna

## Screw mount



### MEA-2500-LTE-MIMO

#### CELLULAR/LTE MIMO Screw Mount

Part #: 100-00211-01

- ✓ Wide-band antenna
- ✓ Easy mounting: Screw Mount
- ✓ Anti-rotation mounting
- ✓ High Performance
- ✓ Customizable Cable and Connector
- ✓ Dimensions: Ø 60 x 69 mm
- ✓ IP67, IP69, IK09
- ✓ Heavy duty antenna.



#### Key electrical specifications:

| Parameter         | Specification                                 |
|-------------------|-----------------------------------------------|
| Cable1            | Frequency 698-960 MHz 1710-2170 MHz           |
|                   | Antenna element peak -0.8 dBi 3.6 dBi 4.1 dBi |
| Cable2            | Frequency 698-960 MHz 1710-2170 MHz           |
|                   | Antenna element peak -0.6 dBi 2.8 dBi 3.0 dBi |
| Radiation pattern | Omni-Directional                              |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 60 x 69 mm           |



### MEA-2410-ISM

#### 2.4/5.0 GHz ISM Screw Mount Antenna

Part #: 100-00196-01

- ✓ Screw Mount
- ✓ Anti-Rotation Mechanism
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ IP67
- ✓ IK09
- ✓ IP69K



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz 4920-5925 MHz |
| Peak Gain         | 2.6 dBi 4.4 dBi             |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification              |
|-----------------------------|----------------------------|
| Mounting option / Connector | Screw Mount/ SMA connector |
| Dimensions                  | Ø 77.3 x 65.5 mm           |



### MEA-5G-MIMO-GGG

#### 5G NR, MIMO and GNSS GPS/GLONASS Screw Mount

Part #: 100-00250-01

- ✓ Easy mounting: Screw Mount
- ✓ Heavy Duty antenna
- ✓ High Performance
- ✓ Ground Plane Independent
- ✓ Anti-Rotation Mounting
- ✓ Customizable Cable and Connector
- ✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter         | Specification                                   |
|-------------------|-------------------------------------------------|
| Cable1            | Frequency 617-960 MHz/1427-2690 MHz             |
|                   | Peak Gain 1.3 dBi / 3.4 dBi / 4.7 dBi / 4.0 dBi |
| Cable2            | Frequency 617-960 MHz/1427-2690 MHz             |
|                   | Peak Gain 1.2 dBi / 3.6 dBi / 4.6 dBi / 3.2 dBi |
| Cable3            | Frequency 1575.42 MHz /1598-1610 MHz            |
| Active Gain       | 23 dB @ 3V / 24 dB @ 5V                         |
| Radiation Pattern | Omni-directional / Hemispherical                |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | Screw Mount/ SMA Male |
| Dimensions                  | Ø 96 X 130 mm         |

# Combination antenna

## Screw mount

### MEA-868-IGG

868 MHz ISM/GPS/GLONASS Screw Mount

Part #: 100-00251-01

- ✓ Easy mounting: Screw Mount ✓ Anti-Rotation Mechanism ✓ Low Profile ✓ High Gain ✓ Customizable Cable and Connector  
✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter       | Specification              |
|-----------------|----------------------------|
| Frequency       | 863-870 MHz                |
| Peak Gain       | 3.2 dBi                    |
| Polarization    | Linear                     |
| Frequency Range | 1575.42 MHz, 1598-1606 MHz |
| Active Gain     | 28 dB @ 2.7 V              |
| Polarization    | RHCP                       |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 77.3 x 15 mm         |

### MEA-TETRA-UHF-GNSS

TETRA/UHF and GNSS Screw Mount

Part #: 100-00247-01

- ✓ Easy mounting: Screw Mount ✓ Anti-Rotation Mechanism ✓ Heavy Duty antenna ✓ High Gain ✓ Customizable Cable and Connector  
✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter         | Specification              |
|-------------------|----------------------------|
| Frequency         | 380-470 MHz                |
| Peak Gain         | 2.5 dBi                    |
| Polarization      | Linear                     |
| Frequency Range   | 1575.42 MHz, 1598-1606 MHz |
| Active Gain       | 28 dB @ 2.7 V              |
| Radiation Pattern | Hemispherical              |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 96 x 130 mm          |

### MEA-LTE-GNSS-UHF

CELLULAR/LTE, TETRA/UHF and GNSS Screw Mount

Part #: 100-00248-01

- ✓ Easy mounting: Screw Mount ✓ Anti-Rotation Mechanism ✓ Heavy Duty antenna ✓ High Gain ✓ Customizable Cable and Connector  
✓ IP67, IP69, IK09



#### Key electrical specifications:

| Parameter   | Specification              |
|-------------|----------------------------|
| Frequency   | 698-960 MHz 1710-2170 MHz  |
| Peak Gain   | 1.9 dBi 3.0 dBi 2.9 dBi    |
| Frequency   | 380 - 470 MHz              |
| Peak Gain   | 2.1 dBi                    |
| Frequency   | 1575.42 MHz, 1598-1606 MHz |
| Active Gain | 28 dB @ 2.7 V              |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 96 x 130 mm          |

# Combination antenna

## Screw mount



### MEA-5GG-SM

5G NR and GNSS Screw Mount

Part #: 100-00248-01

- ✓ Easy mounting: screw mount
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IK09, IP67, IP69K



#### Key electrical specifications:

| Parameter          | Specification                           |
|--------------------|-----------------------------------------|
| Cable1 Frequency   | 617-960MHz 1427-2690MHz                 |
| Cable1 Peak Gain   | 3300-5000MHz 5150-5925MHz               |
| Cable2 Frequency   | -1.7dBi / -1.7 dBi / -1.3 dBi / 0.6 dBi |
| Cable2 Active Gain | 1575.42 MHz, 1598-1606 MHz              |
|                    | 28 dB @ 2.7 V                           |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA male |
| Dimensions                  | Ø 146 x 31.5 mm        |



### MEA-2170-GNSS-SM

CELLULAR/LTE & GNSS Screw Mount

Part #: 100-00256-01

- ✓ CELLULAR / LTE, and GPS/GLONASS/QZSS/Galileo
- ✓ Easy mounting: screw mount
- ✓ Anti-rotation mechanism
- ✓ Customizable cable and connector
- ✓ IP67, IK09, IP69K



#### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 698-960 MHz 1710-2170 MHz        |
| Cable1 Antenna element peak | 2500-2700 MHz                    |
| Cable2 Frequency            | 2.7 dBi 5.1 dBi 5.3 dBi          |
| Cable2 Active Gain          | 1575.42 MHz 1598-1610 MHz        |
| Radiation Pattern           | 28 dB @ 2.7 V                    |
|                             | Omni-directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | 80 x 74 x 25.6 mm      |



### MEA-169-ISM-GG

169 MHz ISM-ERMES And GPS/GLONASS Screw Mount

Part #: 100-00242-01

- ✓ Easy mounting: Magnetic/Adhesive Mount
- ✓ Iridium Certified
- ✓ Low Profile
- ✓ High Performance
- ✓ Pre-Filtered GNSS
- ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector
- ✓ Dimensions 89 x 76 x 27/30 mm
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 169.4-169.8 MHz                  |
| Cable1 Antenna element peak | 0 dBi                            |
| Cable2 Frequency            | 1575.42 MHz / 1598-1610 MHz      |
| Cable2 Active Gain          | 26 dB @ 3 V / 27 dB @ 5 V        |
| Radiation Pattern           | Omni-directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 60 x 97 mm           |

# Combination antenna

## Screw mount

MAXTENA®



### MEA-433-IGG

433 MHz ISM/GPS/GLONASS Screw Mount

Part #: 100-00239-01

✓ ISM and GPS/GLONASS ✓ Easy mounting: Screw Mount ✓ Customizable Cable and Connector ✓ IP67, IP69K ✓ Low weight 166g



#### Key electrical specifications:

| Parameter                   | Specification                    |
|-----------------------------|----------------------------------|
| Cable1 Frequency            | 433-435 MHz                      |
| Cable1 Antenna element peak | -0.4 dBi                         |
| Cable2 Frequency            | 1575.42 MHz / 1598-1610 MHz      |
| Cable2 Active Gain          | 26 @ 3V / 27dB @ 5V              |
| Radiation Pattern           | Omni-directional / Hemispherical |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 63 x 186.5 mm        |



### MEA-5G-1575-1606

5G NR GPS/GLONASS Screw Mount

Part #: 100-00238-01

✓ 5G NR & GPS/GLONASS/QZSS/Galileo ✓ Easy mounting: screw mount ✓ Ground plane independent ✓ Customizable cable and connector ✓ IP67 & IP69



#### Key electrical specifications:

| Parameter                   | Specification                                            |
|-----------------------------|----------------------------------------------------------|
| Cable1 Frequency            | 617-960 MHz 1427-2690 MHz<br>3300-5000 MHz 5150-5925 MHz |
| Cable1 Antenna element peak | 2.9 dBi / 2.1 dBi / 0.5 dBi / 1.0 dBi                    |
| Cable2 Frequency            | 1575.42 MHz / 1598-1610 MHz                              |
| Cable2 Active Gain          | 28 dB @ 2.7 V                                            |
| Radiation Pattern           | Omni-directional / Hemispherical                         |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw Mount / SMA Male |
| Dimensions                  | Ø 54 x 50 mm           |

# Combination antenna

## Screw mount

MAXTENA®



### MEA-5in1-SMA

5G NR MIMO, 2.4/5.0/6.0 GHz ISM and GNSS - Screw mount antenna

Part #: 100-00243-01

- ✓ 5G NR, 2.4/5.0/6.0 GHz ISM & GPS/GLONASS/QZSS/Galileo frequency coverage
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

#### Key electrical specifications:

| Parameter         | Specification                    |                             |
|-------------------|----------------------------------|-----------------------------|
| Cable1            | Frequency                        | 617-960 MHz 1427-2690 MHz   |
|                   | Antenna element peak             | 3300-5000 MHz 5150-5925 MHz |
| Cable2            | Frequency                        | 617-960 MHz 1427-2690 MHz   |
|                   | Antenna element peak             | 3300-5000 MHz 5150-5925 MHz |
| Cable3            | Frequency                        | 2410-2490 MHz 4920-5925 MHz |
|                   | Antenna element peak             | 5925-7125 MHz               |
| Cable4            | Frequency                        | 2410-2490 MHz 4920-5925 MHz |
|                   | Antenna element peak             | 5925-7125 MHz               |
| Cable5            | Frequency                        | 1575.42 MHz 1598-1610 MHz   |
|                   | Active Gain                      | 23dB@3V; 24dB@5V            |
| Radiation pattern | Omni-Directional / Hemispherical |                             |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



### MEA-LTE-ISM-GNSS-TETRA

CELLULAR/LTE, 2.4/5.0 GHz ISM, TETRA and GNSS - Screw Mount Antenna

Part #: 100-00243-01

- ✓ CELLULAR / LTE, TETRA/UHF, ISM, and GPS/GLONASS/QZSS/Galileo frequency
- ✓ Easy mounting: Screw Mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

#### Key electrical specifications:

| Parameter         | Specification                    |                             |
|-------------------|----------------------------------|-----------------------------|
| Cable1            | Frequency                        | 698-960 MHz 1710-2170 MHz   |
|                   | Antenna element peak             | 2500-2700 MHz               |
| Cable2            | Frequency                        | 1.9 dBi / 3.0 dBi / 2.9 dBi |
|                   | Antenna element peak             | 2410-2490 MHz 4920-5925 MHz |
| Cable3            | Frequency                        | 5.6 dBi / 5.5 dBi           |
|                   | Antenna element peak             | 380-470 MHz                 |
| Cable4            | Frequency                        | 2.1 dBi                     |
|                   | Antenna element peak             | 1575.42 MHz 1598-1610 MHz   |
| Cable5            | Frequency                        | 28 dB @ 2.7 V               |
|                   | Active Gain                      |                             |
| Radiation pattern | Omni-Directional / Hemispherical |                             |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |



# Combination antenna

## Screw mount



### MEA-5G-ISM-MIMO-GNSS

5G NR MIMO, 2.4/5.0 GHz ISM, and GNSS Screw Mount

Part #: 100-00240-01

- ✓ 5G NR, 2.4/5.0 GHz ISM /GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- ✓ Easy mounting: screw mount
- ✓ Heavy duty antenna
- ✓ High performance
- ✓ Ground plane independent
- ✓ Anti-rotation mounting
- ✓ Customizable cable and connector
- ✓ IP67, IP69, IK09

#### Key electrical specifications:

| Parameter         | Specification        |                                       |
|-------------------|----------------------|---------------------------------------|
| Cable1            | Frequency            | 617-960 MHz 1427-2690 MHz             |
|                   | Antenna element peak | 3300-5000 MHz 5150-5925 MHz           |
| Cable2            | Frequency            | 617-960 MHz 1427-2690 MHz             |
|                   | Antenna element peak | 3300-5000 MHz 5150-5925 MHz           |
| Cable3            | Frequency            | 0.7 dBi / 3.7 dBi / 4.6 dBi / 3.6 dBi |
|                   | Antenna element peak | 2410-2490 MHz 4920-5925 MHz           |
| Cable4            | Frequency            | 5.3 dBi / 1.5 dBi                     |
|                   | Antenna element peak | 2410-2490 MHz 4920-5925 MHz           |
| Cable5            | Frequency            | 5.3 dBi / 2.3 dBi                     |
|                   | Antenna element peak | 1575.42 MHz 1598-1610 MHz             |
| Radiation pattern | Active Gain          | 23dB@3V; 24dB@5V                      |
|                   |                      | Omni-Directional / Hemispherical      |

#### Key mechanical specifications:

| Parameter                   | Specification          |
|-----------------------------|------------------------|
| Mounting option / Connector | Screw mount / SMA-Male |
| Dimensions                  | Ø 96 x 130 mm          |





# Combination antenna Connector Mount



## MEA-2410-WIFI

### Dual Band Wifi ISM Antenna

Part #: 100-00280-01



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 2.8 dBi/ 2.4 dBi            |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Most RF Connectors |
| Dimensions                  | Ø15.7 x 58.2 mm                     |

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ IP67



## MEA-4920-ISM

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00279-01



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 3.1 dBi/ -0.2 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | Connector Mount/ SMA Male |
| Dimensions                  | Ø12.5 x 34.7 mm           |

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ High Gain



## MEA-2410-FAKRA

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00279-01



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 2.6 dBi/ -0.3 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Fakra Beige Female |
| Dimensions                  | Ø12.5 x 44.5 mm                     |

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ High Gain

# Combination antenna Connector Mount



## MEA-4920-CM

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00276-01

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ High performance antenna ✓ Easy mounting: Connector Mount ✓ High Gain



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 4.0 dBi / 5.2 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Most RF Connectors |
| Dimensions                  | 53 x 10 x 18 mm                     |



## MEA-2410-SMA

### 2.4/5.0 GHz ISM Connector Mount

Part #: 100-00275-01

✓ 2.4/5.0 GHz ISM, 2410-2490MHz, 4920-5925MHz ✓ Easy mounting: Connector Mount ✓ High Gain



#### Key electrical specifications:

| Parameter         | Specification               |
|-------------------|-----------------------------|
| Frequency         | 2410-2490 MHz /4920-5925MHz |
| Peak Gain         | 4.0 dBi / 5.2 dBi           |
| Radiation Pattern | Omni-directional            |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | Connector Mount/ Most RF Connectors |
| Dimensions                  | Ø 10 x 56 mm                        |

# Combination antenna Magnetic Mount



## M9706CWT

### L1/L2 GPS GLONASS Active Multi-Frequency Antenna – External

Part #: 100-00090-01

- ✓ Low profile design
- ✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, and GLONASS L3OC
- ✓ Rugged IP67 rating
- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Automotive grade housing

#### Key electrical specifications:

| Parameter     | Specification                                                               |
|---------------|-----------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Realized gain | 2.6 dB      3.3 dB                                                          |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith                        |

#### Key mechanical specifications:

| Parameter                   | Specification                       |
|-----------------------------|-------------------------------------|
| Mounting option / Connector | SMA, SMB or MCX (customer's choice) |
| Dimensions                  | 75mm x 70mm x 23 mm                 |



## M9708CWT

### L1/L2/L5 GPS GLONASS Active Multi-Frequency Antenna – External

Part #: 108-00060-02

- ✓ Low profile design
- ✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, and GLONASS L3OC
- ✓ Rugged IP67 rating
- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low power consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Automotive grade housing

#### Key electrical specifications:

| Parameter     | Specification                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1)<br>1164-1189 MHz (L5, E5A) |
| Realized gain | 2.6 dB<br>3.3 dB<br>-2dB                                                                               |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith<br>Max 3 dB at the Zenith                         |

#### Key mechanical specifications:

| Parameter                   | Specification             |
|-----------------------------|---------------------------|
| Mounting option / Connector | SMA, SMB or MCX connector |
| Dimensions                  | 75mm x 70mm x 23 mm       |



## M1593CWT

### L1/L2/L5 GPS GLONASS + L-Band- Active Multi-Frequency Antenna – External

Part #: 100-00191-01

- ✓ Small form factor
- ✓ GIS, RTK and other high accuracy GNSS applications
- ✓ Low Power Consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Negligible group delay variation
- ✓ Automotive grade housing

#### Key electrical specifications:

| Parameter     | Specification                                                             |
|---------------|---------------------------------------------------------------------------|
| Frequency     | 197-1249 MHz<br>1559-1606 MHz<br>1539 - 1559 MHz                          |
| Realized gain | 2.6 dB @1197-1249 MHz<br>3.3 dB @1559-1606 MHz<br>1.5 dB @1539 - 1559 MHz |
| Polarization  | RHCP                                                                      |

#### Key mechanical specifications:

| Parameter                   | Specification                                              |
|-----------------------------|------------------------------------------------------------|
| Mounting option / Connector | Magnetic base, fixed installation option/<br>SMA, SMB, MCX |
| Dimensions                  | 75mm x 70mm x 23 mm                                        |



# Combination antenna Magnetic Mount



## M1559CWT

### L1 GPS GLONASS Active Multi-Frequency Antenna – External

Part #: 100-00118-01

- ✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou
- ✓ Low power consumption
- ✓ Minimal phase center variation over azimuth and elevation
- ✓ Automotive grade
- ✓ Low profile design
- ✓ Rugged IP67 rating
- ✓ Small form factor
- ✓ Negligible group delay variation



#### Key electrical specifications:

| Parameter     | Specification                           |
|---------------|-----------------------------------------|
| Frequency     | 1559-1610 MHz<br>(L1, E1, B1, B1-2, G1) |
| Realized gain | 3.3 dBi                                 |
| Axial Ratio   | Max 2.7 dB at the Zenith                |

#### Key mechanical specifications:

| Parameter                   | Specification                   |
|-----------------------------|---------------------------------|
| Mounting option / Connector | SMA, SMB, MCX (customer choice) |
| Dimensions                  | 75mm x 70mm x 23 mm             |



## MEA-5800-MM

### 5GNR Magnetic Mount Antenna

Part #: 100-00200-01

- ✓ 5GNR Frequency range (617-960 MHz, 1427-2690 MHz, 3300-5000 MHz, 5150-5925 MHz)
- ✓ Easy mounting: Magnetic Mount
- ✓ High Performance
- ✓ Customizable Cable and Connector
- ✓ Low profile: Ø 31 x 109 mm



#### Key electrical specifications:

| Parameter                 | Specification                                                                                          |
|---------------------------|--------------------------------------------------------------------------------------------------------|
| Frequency                 | 617-960MHz 1427-2690MHz<br>3300-5000MHz 5150-5925MHz                                                   |
| Antenna element peak gain | 1.0 dBi @ 617-960 MHz<br>2.9 dBi @ 1427-2690 MHz<br>2.5 dBi @ 3300-5000 MHz<br>0.4 dBi @ 5150-5925 MHz |
| Radiation pattern         | Omni-Directional                                                                                       |

#### Key mechanical specifications:

| Parameter                   | Specification         |
|-----------------------------|-----------------------|
| Mounting option / Connector | SMA-Male              |
| Dimensions                  | 105.1 x 30.1 x 6.7 mm |



## MEA-1600-AM

### IRIDIUM/GPS Magnetic/Adhesive Mount Antenna

Part #: 100-00237-01

- ✓ Easy mounting: magnetic/adhesive mount
- ✓ Low profile
- ✓ Customizable cable and connector
- ✓ IP67, IP69



#### Key electrical specifications:

| Parameter         | Specification             |
|-------------------|---------------------------|
| Frequency         | 1575.42 MHz 1616-1627 MHz |
| Peak Gain         | 2.5 dBi 2.6 dBi           |
| Radiation Pattern | Hemispherical             |

#### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Magnetic/Adhesive Mount/ SMA Male |
| Dimensions                  | Ø 54 x 14.7 mm                    |

# Combination antenna Adhesive Mount



## MEA-LG-AM

### CELLULAR/LTE and GPS/GLONASS Adhesive Mount

Part #: 100-00193-01

- ✓ Cable 1: CELLULAR/LTE - 698-960 MHz; 1710-2170 MHz; 2500-2700 MHz / Cable 2: GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- ✓ Adhesive Mount ✓ Ground Plane Independent ✓ Customizable Cable and Connector Dimensions ✓ Low profile: 83 x 35 x 13.3 mm
- ✓ IP67, IP69

#### Key electrical specifications:

| Parameter |                      | Specification |                                |         |
|-----------|----------------------|---------------|--------------------------------|---------|
| Cable1    | Frequency            | 698-960 MHz   | 1710-2170 MHz<br>2500-2700 MHz |         |
|           | Antenna element peak | -2.7 dB       | -3.0 dB                        | -5.9 dB |
|           | Polarization         | Linear        |                                |         |
|           | VSWR                 | 1.8:1         | 1.3:1                          | 2.0:1   |
| Cable2    | Frequency            | 1575.42 MHz   | 1598-1606 MHz                  |         |
|           | Active gain          | 28 dB @ 2.7 V |                                |         |
|           | Polarization         | RHCP          |                                |         |
|           | VSWR                 | ≤ 1.4:1       |                                |         |

#### Key mechanical specifications:

| Parameter  | Specification                 |
|------------|-------------------------------|
| Connector  | Adhesive Mount/ SMA Connector |
| Cable Type | RG178                         |
| Dimensions | 82 x 80 x 6.6 mm              |



## MEA-LGG-AM

### Cellular/LTE and GPS/GLONASS Antenna – Adhesive Mount

Part #: 100-00163-01

- ✓ 2in 1 antenna (CELLULAR/LTE,GPS/GLONASS/QZSS/Galileo) ✓ Adhesive Mount ✓ High Performance ✓ Ground Plane Independent
- ✓ Customizable Cable and Connector ✓ Dimensions 150.5 x 42 x 15.3 mm ✓ IP67, IP69

#### Key electrical specifications:

| Parameter |                      | Specification |         |               |
|-----------|----------------------|---------------|---------|---------------|
| Cable1    | Frequency            | 698-960 MHz   |         | 1710-2170 MHz |
|           |                      | 2500-2700 MHz |         |               |
|           | Antenna element peak | 3.4 dBi       | 3.5 dBi | 3.9 dBi       |
|           | Efficiency           | 76%           | 69%     | 76%           |
|           | VSWR                 | 1.7:1         | 1.4:1   | 1.5:1         |
| Cable2    | Frequency            | 1575.42 MHz   |         | 1598-1606 MHz |
|           | Active gain          | 28 dB @ 2.7 V |         |               |
|           | Polarization         | RHCP          |         |               |
|           | VSWR                 | ≤ 1.4:1       |         |               |

#### Key mechanical specifications:

| Parameter                   | Specification                  |
|-----------------------------|--------------------------------|
| Mounting option / Connector | Adhesive Mount / SMA Connector |
| Dimensions                  | 150.5 x 42 x 15.3 mm           |



# Combination antenna Adhesive Mount

MAXTENA®



## MEA-3-GGL

GPS/GLONASS/LTE Antenna & 2G/3G LTE SOLUTION

Part #: 189-00053-01

- ✓ Covers GNSS & LTE Bands ✓ 2 in 1 Low Profile Antenna ✓ Rugged IP67 ✓ Customizable Cables and Connectors ✓ Small Size ✓ Easy Magnet Mounting ✓ Quality Textured Covert Design



### Key electrical specifications:

| Parameter | Specification        |                        |               |
|-----------|----------------------|------------------------|---------------|
| GNSS      | Frequency            | 1575.42 MHz            | 1602 MHz      |
|           | Polarization         | Linear                 |               |
|           | Polarization         | 3.0 dBi Typ.           | 3.5 dBi Typ   |
|           | VSWR                 | ≤ 2.0:1                |               |
| LNA       | Frequency            | 1575.42 MHz            | 1602 MHz      |
|           | Power Consumption    | 9 Typ. mA @3.3V        |               |
|           | Antenna Gain         | 28 dB Typ. / 25 dB Min |               |
|           | VSWR                 | ≤ 2.0:1                |               |
| LTE       | Frequency            | 698-960 MHz            | 1710-2170 MHz |
|           |                      | 2500-2700 MHz          |               |
|           | Antenna element peak | 1.5 dBi                | 0.5 dBi       |
|           | Efficiency           | 25%                    | 30%           |
|           | VSWR                 | ≤ 5.5                  | ≤ 4.0         |

### Key mechanical specifications:

| Parameter                   | Specification                        |
|-----------------------------|--------------------------------------|
| Mounting option / Connector | Foam adhesive / SMA, FAKRA or custom |
| Dimensions                  | (L) 55 x (W) 55 x (H) 20 mm          |



## MEA-1600-AM

IRIDIUM/GPS Magnetic/Adhesive Mount Antenna

Part #: 100-00237-01

- ✓ Easy mounting: magnetic/adhesive mount ✓ Low profile ✓ Customizable cable and connector ✓ IP67, IP69



### Key electrical specifications:

| Parameter         | Specification |               |
|-------------------|---------------|---------------|
| Frequency         | 1575.42 MHz   | 1616-1627 MHz |
| Peak Gain         | 2.5 dBi       | 2.6 dBi       |
| Radiation Pattern | Hemispherical |               |

### Key mechanical specifications:

| Parameter                   | Specification                     |
|-----------------------------|-----------------------------------|
| Mounting option / Connector | Magnetic/Adhesive Mount/ SMA Male |
| Dimensions                  | Ø 54 x 14.7 mm                    |

# Combination antenna Embedded



## M9706CWT-UFL

### L1/L2 GPS GLONASS Active Multi-Frequency Antenna – Embedded

Part #: 108-00060-02

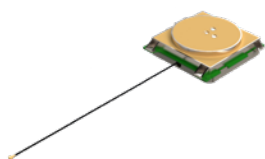
✓ Concurrent GNSS reception on L1: GPS, GLONASS, Galileo, Beidou and ✓ L2: GPS L2C, Galileo E5B, GLONASS L30C, and L2 OF ✓ Low profile design ✓ Conformal materials ✓ Full active design with superb filtering ✓ Small form factor ✓ GIS, RTK and other high accuracy GNSS applications ✓ Low power consumption ✓ Minimal phase center variation over azimuth and elevation ✓ Negligible group delay variation

#### Key electrical specifications:

| Parameter     | Specification                                                               |
|---------------|-----------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1) |
| Realized gain | 2.6 dB    3.3 dB                                                            |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith                        |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Embedded/ U.FL connector |
| Dimensions                  | 65mm x 65mm x 17 mm      |



## M9708CWT-UFL

### L1/L2/L5 GPS GLONASS Active Multi-Frequency Antenna – Embedded

Part #: 108-00060-02

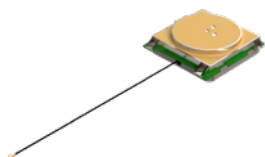
✓ Low profile design ✓ Concurrent GNSS reception on L1: GPS GLONASS, Galileo, Beidou and L2: GPS L2C, Galileo E5B, and GLONASS L30C ✓ Small form factor ✓ GIS, RTK and other high accuracy GNSS Applications ✓ Low power consumption ✓ Minimal phase center variation over azimuth and elevation ✓ Negligible group delay variation ✓ Custom tuned to applications enclosure

#### Key electrical specifications:

| Parameter     | Specification                                                                                          |
|---------------|--------------------------------------------------------------------------------------------------------|
| Frequency     | 1197-1249 MHz (L2, B2, G2, G3, E5B)<br>1559-1606 MHz (L1, E1, B1, B1-2, G1)<br>1164-1189 MHz (L5, E5A) |
| Realized gain | 2.6 dB<br>3.3 dB<br>-2dB                                                                               |
| Axial Ratio   | Max 1.5 dB at the Zenith<br>Max 2.7 dB at the Zenith<br>Max 3 dB at the Zenith                         |

#### Key mechanical specifications:

| Parameter                   | Specification            |
|-----------------------------|--------------------------|
| Mounting option / Connector | Embedded/ U.FL connector |
| Dimensions                  | 65mm x 65mm x 17 mm      |



## M1593CWT-UFL

### L1/L2/L5 GPS GLONASS + L-Band- Active Multi-Frequency Antenna – Embedded

Part #: 108-00083-01

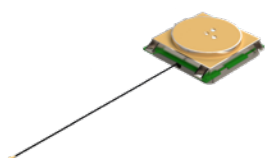
✓ Small form factor ✓ GIS, RTK and other high accuracy GNSS applications ✓ Low Power Consumption ✓ Minimal phase center variation over azimuth and elevation ✓ Negligible group delay variation ✓ Automotive grade housing

#### Key electrical specifications:

| Parameter     | Specification                                     |
|---------------|---------------------------------------------------|
| Frequency     | 1197-1249 MHz<br>1559-1606 MHz<br>1539 - 1559 MHz |
| Realized gain | 2.6 dB<br>3.3 dB<br>1.5 dB                        |
| Noise figure  | ≤ 2 dB                                            |

#### Key mechanical specifications:

| Parameter                   | Specification       |
|-----------------------------|---------------------|
| Mounting option / Connector | Embedded/ U.FL      |
| Dimensions                  | 65mm x 65mm x 17 mm |





## Our standard connectors

SMA-Male  
SMA-Female  
SMA-Male Right Angle  
SMA-Female Right Angle  
SMA-Male Reverse Polarity  
SMA-Female Reverse Polarity  
SMA-Male Reverse Polarity Right angle  
SMA-Female Bulkhead  
MCX-Male  
MCX-Female  
MCX-Male Right Angle  
MCX-Female Right Angle  
MMCX

F-Male  
F-Female  
N-Male  
N-Female  
N-Female Bulkhead  
SMB-Male  
SMB-Female  
TNC-Male  
TNC-Female  
TNC-Male RP  
TNC-Female Bulkhead

SMC-Male  
SMC-Female  
SMC-Male Right Angle  
SMC-Female Bulkhead  
BNC-Male  
BNC-Female  
FAKRA all types  
U.FL

## Cable list

RG174  
RX174  
RG174HF  
RG174LL  
RG174TWIN  
RG178  
RG223  
RG316  
RG58  
RG6  
LL100  
LL195

Enviroflex 316  
D  
H155  
D100  
D302  
Microcoax 0.81  
Microcoax 1.13  
Microcoax 1.32  
Microcoax 1.37

### SMA Male



SMA Male with LMR 100



### U.FL connector



U.FL with Microcoax 1.13



### TNC connector



TNC straight with LMR 100



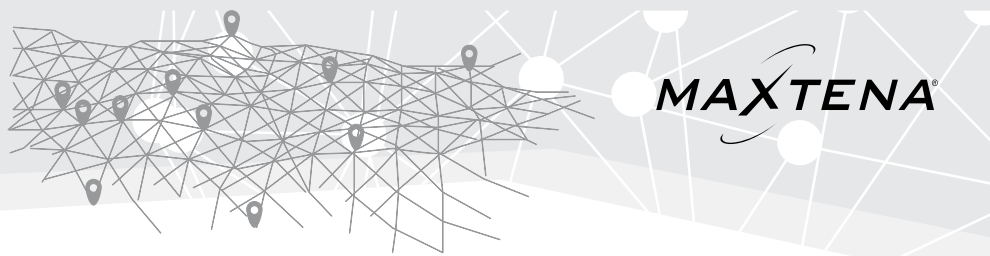
### MCX Right angle connector



MCX Right angle with RG 174



**MAXTENA®**



Maxtena offers a high variety of antenna accessories including mounting brackets, RF cables and connectors. Custom solutions are available upon request.

## Applications

Magnet mounting antenna



Screw mounting antenna



Adhesive mounting antenna

Wall mounting antenna



Pole mounting antenna



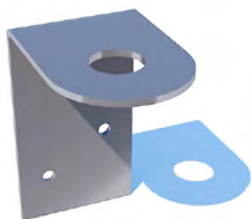


## MMB-01-11-P

### Wall Mount Bracket

Part #: 311-00052-01

- ✓ Easy to mount
- ✓ Wall mount Antenna
- ✓ Very light: 30g
- ✓ ROHS Compliant
- ✓ Screws included
- ✓ Robust design



#### Key mechanical specifications:

| Parameter             | Specification    |
|-----------------------|------------------|
| Material              | Aluminum         |
| M4 Screw Material     | Zn - Fe          |
| Weight                | 30g              |
| Operating environment | -40 °C to +85 °C |

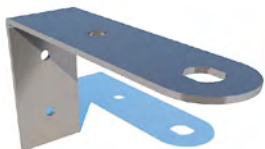


## MMB-01-12-P

### Wall Mount Bracket

Part #: 311-00052-01

- ✓ Easy to mount
- ✓ Wall mount Antenna
- ✓ Very light: 30g
- ✓ ROHS Compliant
- ✓ Screws included
- ✓ Robust design



#### Key mechanical specifications:

| Parameter             | Specification    |
|-----------------------|------------------|
| Material              | Aluminum         |
| M4 Screw Material     | Zn - Fe          |
| Weight                | 30g              |
| Operating environment | -40 °C to +85 °C |



## MMB-04-17-SM

### Magnetic/Adhesive Mount Bracket With SMA (Female) Connector

Part #: 105-00008-01

- ✓ Screw mount bracket with cable and SMA F connector
- ✓ Gasket suitable for all types of flat surface
- ✓ Suitable for various connector types
- ✓ Equipped with RG174 or LL100 cable
- ✓ Possible frequency transfer up to 6 GHz
- ✓ Robust construction
- ✓ Mounting hole 19 mm/square 15x15 mm



#### Key mechanical specifications:

| Parameter             | Specification        |
|-----------------------|----------------------|
| Material              | ASA - UV stable      |
| Dimensions            | Ø 60 x 25 mm         |
| Weight                | 103g                 |
| Cable type            | RG174 or LL100 cable |
| Operating environment | -40 °C to +85 °C     |





## MMB-04-18-SM

### Screw mount bracket with cable and SMA F connector

Part #: 105-00012-01

- ✓ Screw mount bracket with cable and SMA F connector
- ✓ Gasket suitable for all types of flat surface
- ✓ Suitable for various connector types
- ✓ Equipped with D302 cable
- ✓ High efficiency
- ✓ Possible frequency transfer up to 6 GHz
- ✓ Robust construction
- ✓ Mounting hole 19 mm/square 15x15 mm



#### Key mechanical specifications:

| Parameter             | Specification    |
|-----------------------|------------------|
| Material              | ASA - UV stable  |
| Dimensions            | Ø 60 x 25 mm     |
| Weight                | 115g             |
| Cable type            | D302 cable       |
| Operating environment | -40 °C to +85 °C |

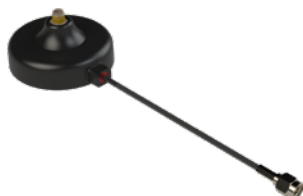


## MMB-04-19-MM

### Magnetic/Adhesive Mount Bracket With SMA (Female) Connector

Part #: 105-00009-01

- ✓ Screw mount bracket with cable and SMA F connector
- ✓ Gasket suitable for all types of flat surface
- ✓ Suitable for various connector types
- ✓ Equipped with D302 cable
- ✓ High efficiency
- ✓ Possible frequency transfer up to 6 GHz
- ✓ Robust construction
- ✓ Mounting hole 19 mm/square 15x15 mm



#### Key mechanical specifications:

| Parameter  | Specification        |
|------------|----------------------|
| Dimensions | Ø 59 x 24 mm         |
| Cable type | RG174 or LL100 cable |

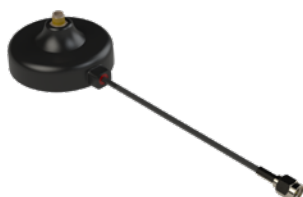


## MMB-04-20-AM

### Magnetic/Adhesive Mount Bracket with SMA (Female) Connector

Part #: 105-00013-01

- ✓ Gasket suitable for all types of flat surface
- ✓ Suitable for various connector mount antenna
- ✓ Equipped with D302 cable
- ✓ Possible frequency transfer up to 6 GHz
- ✓ Robust construction
- ✓ Strong magnet for metal surface
- ✓ Mounting hole 19 mm/square 15x15 mm



#### Key mechanical specifications:

| Parameter  | Specification |
|------------|---------------|
| Dimensions | Ø 54 x 24 mm  |
| Cable type | D302 cable    |



## MMB-04-21-AM

Magnetic/Adhesive Mount Bracket with SMA (Female) Connector

Part #: 105-00010-01

- ✔ Suitable for connector mount antenna
- ✔ Equipped with RG174 or LL100 cable
- ✔ Possible frequency transfer up to 6 GHz
- ✔ Robust construction
- ✔ Strong magnet for metal surface
- ✔ Mounting hole 19 mm / square 15x15 mm
- ✔ Double side adhesive sticker included



Key mechanical specifications:

| Parameter  | Specification  |
|------------|----------------|
| Dimensions | Ø 54 x 24 mm   |
| Cable type | RG174 or LL100 |



## MB-04-23-AM

Magnetic/Adhesive Mount Bracket with SMA (Female) Connector

Part #: 105-00014-01

- ✔ Suitable for magnetic/Adhesive surface
- ✔ Suitable for connector mount antenna
- ✔ Equipped with D302 cable
- ✔ Possible frequency transfer up to 6 GHz
- ✔ Robust construction
- ✔ Strong magnet for metal surface
- ✔ Double side adhesive sticker included
- ✔ Mounting hole 19 mm/square 15x15 mm



Key mechanical specifications:

| Parameter  | Specification  |
|------------|----------------|
| Dimensions | Ø 54 x 24 mm   |
| Cable type | RG174 or LL100 |

# Maxtena's Three-Phase Process for Embedded Antennas



Maxtena is the leader in the design and manufacturing of high performance, light weight antennas for use in a variety of portable wireless applications including satellite phones, military radios, handheld navigation, GPS tracking, recreational devices and laptop computers. Maxtena produces both external antennas that come in a range of plastic housings as well as embedded antennas. The embedded antennas are custom built to sit perfectly in the application's own housing.



## Phase 1

Upon agreement between Maxtena and the customer that an embedded antenna is the best solution a two-way Non-Disclosure Agreement is executed so both parties can share design information. After the NDA is executed, a Maxtena Program Manager will schedule a call between Maxtena's engineering team and the Customer.

Prior to the meeting the customer should provide CAD data in a suitable exchange format (such as STEP) for review by the Maxtena engineering team.

The purpose of the meeting is for Maxtena to understand the customer's requirements and to provide the customer with design guidance for their housing to ensure the final design will achieve the best overall antenna performance. A wide range of housing design elements can and will affect the performance of an embedded antenna and addressing these items early in the design phase can reduce the overall time required for development. Antenna placement, PCB spacing, material thickness, resin selection and resin additives are just some of the design elements where Maxtena will provide guidance.

At the conclusion of the meeting Maxtena will develop and submit a proposal detailing the breakdown of tasks, the schedule, Maxtena and customer deliverables, required engineering resources, and the total project cost. Upon review and acceptance of this proposal by the customer, and submission of a Non-Recurring Engineering (NRE) Purchase Order, Maxtena will assign resources to undertake the project.

## Phase 2

After the customer has incorporated Maxtena's design guidelines into the mechanical design, a new CAD database is sent to Maxtena. Maxtena's engineers will import this design into simulation software and conduct an analysis of the design to identify the expected antenna performance and provide feedback to the customer on changes they can make to the housing to ensure optimal antenna performance.

Once the customer incorporates any modifications into its design, Maxtena orders a small quantity (usually 2 to 4) of machined prototypes using the latest design. At the same time, Maxtena manufactures an equal number of antennas to be used with the new housing prototypes. The prototype assemblies are then tested by Maxtena's engineers using Maxtena's in-house near field anechoic chamber to verify the design achieves the expected results. Typically, the chamber testing confirms the results of the simulation and the customer can have tooling made for the fabrication of production parts. In rare cases, minor changes are required to the housing design before the tooling can be ordered.

Once initial chamber testing is completed Maxtena will provide a written report documenting the results. Maxtena will also schedule the manufacture of a small number of antennas, usually 20 to 30, to be used for testing when the final housings are available.

## Phase 3

When the first parts are made from the tooling, the customer sends a small number of parts to Maxtena (typically 20 to 30) for final testing in the anechoic chamber. Maxtena's engineering team will test all of the units to get a broader sample and to confirm the performance will be repeatedly achieved across a production lot. Once the testing is complete Maxtena will provide the customer a final written report documenting the test results.

Maxtena will then begin production of the antennas in accordance with the customer's orders and/or forecast.

## The Business Result

*As a result of Maxtena's embedded antenna design process, companies are rapidly deploying products with consistent and reliable performance. This process involves substantial communication and collaboration between Maxtena and the customer and serves to cement a strong working relationship on both a business and technical basis. This interchange also serves to educate the customer on key characteristics that affect antenna performance and avoid making future design changes. Maxtena's Program Manager continues to be the customers advocate within Maxtena to ensure a smooth transition to manufacturing and to respond to any issues that may arise.*



## Quality

We work hard to provide customers with the very best products. We strive to provide best-in-class quality and reliability in each and every product we manufacture. We have developed a systematic approach to assure the quality of our products from development to prototyping to product qualification to manufacturing. We have selected strategic partners who meet the ISO management system standards to ensure we deliver the best quality products to our customers. Every product manufactured is individually tested on the production line using proprietary software developed by Maxtena for quality assurance.

## Shipping

We sell our products globally and use strategically picked distribution partners to shorten lead times, as well as to provide excellent on-time customer support. Shipping of sample products Sample quantities for all of Maxtena's products are available for purchase and will ship from our headquarters in Rockville, Maryland, USA or from an authorized distributor. For a complete list of Maxtena authorized distributors please visit: <http://www.maxtena.com/distributors>.

## Lead time

The lead time for all Maxtena products is 8-10 weeks ARO, unless the product is in-stock and available o-the-shelf, in which case product(s) will ship immediately. Customers placing purchase orders (PO) will be quoted a lead time based on product availability before the PO is accepted and processed. Any custom tuned or custom-built antenna requires the sale of service ahead of the sale of antennas, such as feasibility studies, prototyping, and chamber measurement.



To serve our customers internationally, Maxtena has established trusted distribution partners who are able to assist with product recommendations and purchases..

## Global Distributors

### Mouser Electronics

Selling Territory: Global  
Website: [www.mouser.com](http://www.mouser.com)



### Farnell – Electronic Component Distributor

Selling Territory: Global  
Website: [www.farnell.com](http://www.farnell.com)



### Richardson RFPD

Selling Territory: Global  
Address:  
40W267 Keslinger Road LaFox, IL 60147 – USA



## North America

### Braemac USA

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43134 Osgood Road Fremont, CA  
94539 – USA  
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### Mouser Electronics

Selling Territory: Global  
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## Europe

### Innovelec Solutions Limited

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### PPM GmbH

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Website: <http://www.ppmgmbh.com>



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Selling Territory: Australia, New Zealand

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Website: <http://www.amtechs.co.jp>



### Mouser Electronics

Selling Territory: Global

Website: [www.mouser.com](http://www.mouser.com)



### Richardson RFPD

Selling Territory: Global

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40W267 Keslinger Road LaFox, IL 60147 – USA



### Farnell – Electronic Component Distributor

Selling Territory: Global

Website: [www.farnell.com](http://www.farnell.com)



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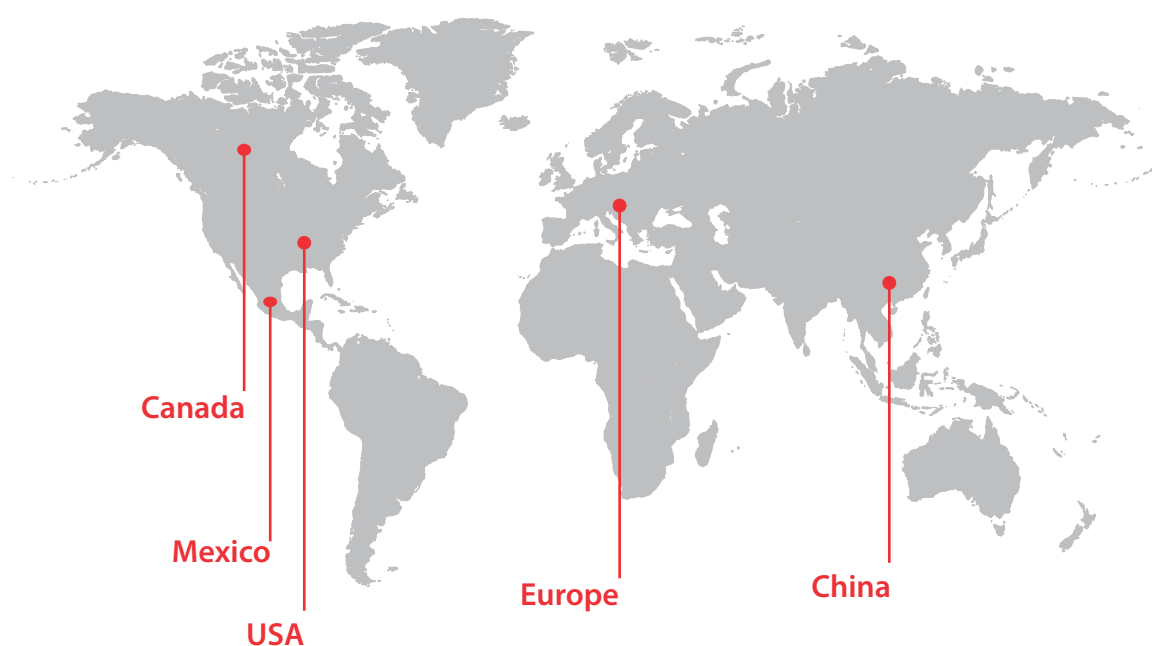
## 7 offices worldwide



**100+**  
Employees



**15**  
years in Business



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