



# MEA-5G-MIMO-GGG

## 5G NR MIMO AND GPS/GLONASS SCREW MOUNT

Part #: 100-00250-01

### Description

The MEA-5G-MIMO-GGG is a 3-in-1 antenna that combines high performance 5G, MIMO, GPS, GLONASS and Galileo standard. The antenna's excellent radiation pattern, exceptional out-of-band rejection, and low noise figure ensures optimal performance of GNSS systems. It features a 2m cable with an integrated SMA-Male, SMB, or MCX connector (customer choice). This low profile screw mount is ideal for public safety, utilities tracking, and IOT applications. This antenna offers a ultra-low profile design with easy mounting and customizable cables and connector options.

The antenna is designed with rugged ASA black housing and is ideal for the most demanding environmental challenges. The MEA-5G-MIMO-GGG is IP67 rated.

### Electrical Specifications

Cable 1 - 5G NR Antenna

Parameter	Specification			
Technologies	5G, 4G, 3G and 2G			
Standards	5G NR/4GLTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G			
Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925
Return Loss (dB)	~ -5.5	~ -12.2	~ -15.2	~ -14.2
VSWR	~ 3.7:1	~ 2.0:1	~ 1.5:1	~ 1.6:1
Efficiency (%)	~ 31.0	~ 41.6	~ 41.6	~ 36.9
Peak Gain (dBi)	~ 1.3	~ 3.4	~ 4.7	~ 4.0
Average Gain (dB)	~ -5.1	~ -3.9	~ -3.8	~ -4.4
Impedance ( $\Omega$ )	50			
Polarization	Linear			
Radiation Pattern	Omni-Directional			
Max Input Power (W)	35			
Connector Type	SMA-Male (other connectors available)			
Cable Length	200 cm (custom length available)			
Cable Type	LL195 (other cable type available)			



### Features

- 3 in1 antenna : 5G NR , MIMO, GPS/ GLONASS/QZSS/Galileo
- Easy mounting: Screw Mount
- Heavy Duty antenna
- High Performance
- Ground Plane Independent
- Anti-Rotation Mounting
- Customizable Cable and Connector
- IP67
- IP69
- IK09

### Applications

- IoT applications
- Transportation
- Tracking/ Mapping devices
- Asset Tracking
- Telematics
- Container & Logistics
- Automotive
- Industrial Applications

Cable 2 - 5GNR Antenna

Parameter	Specification			
Technologies	5G, 4G, 3G and 2G			
Standards	5GNR/4GLTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G			
Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925
Return Loss (dB)	~ -5.6	~ -12.7	~ -15.3	~ -16.0
VSWR	~ 3.7:1	~ 1.9:1	~ 1.5:1	~ 1.5:1
Efficiency (%)	~ 31.2	~ 41.4	~ 42.4	~ 33.1
Peak Gain (dBi)	~ 1.2	~ 3.6	~ 4.6	~ 3.2
Average Gain (dB)	~ -5.1	~ -3.9	~ -3.8	~ -4.8
Impedance ( $\Omega$ )	50			
Polarization	Linear			
Radiation Pattern	Omni-Directional			
Max Input Power (W)	35			
Connector Type	SMA-Male (other connectors available)			
Cable Length	200 cm (custom length available)			
Cable Type	LL195 (other cable type available)			

Cable 3 - GPS/GLONASS Antenna

Parameter	Specification	
Standards	GPS/QZSS/Galileo	GLONASS
Frequency (MHz)	1575.42	1598-1610
Return Loss (dB)	<= -14	
VSWR	<= 1.5:1	
Impedance ( $\Omega$ )	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	Post-Filter	
Active Gain (dB)	23 @ 3 V, 24 @ 5V	
Noise Figure (dB)	1.2	
Voltage (V)	2.7 - 5.5	
Current Consumption (mA)	15 - 25	
Power Consumption (mW)	40.5 - 137.5	
Connector Type	SMA-Male (other connectors available)	
Cable Length	200 cm (custom length available)	
Cable Type	LL100 (other cable type available)	

**Antenna Measurement Conditions:**

Mounted on 30 x 30 cm ground plane

100 cm of cable LMR195

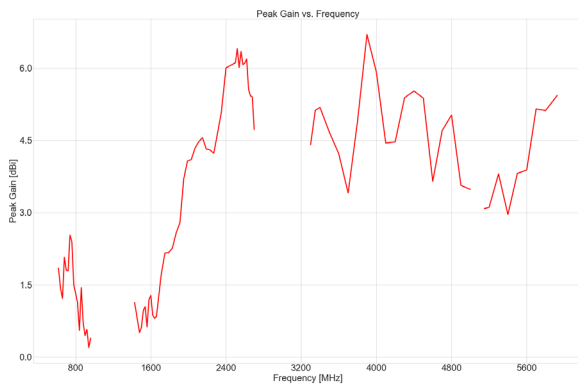
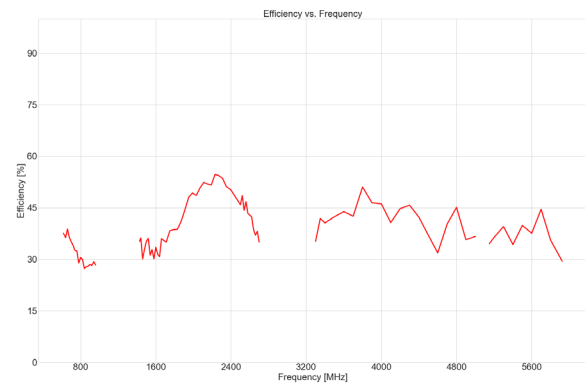
Measured in certified CTIA 3D anechoic chamber

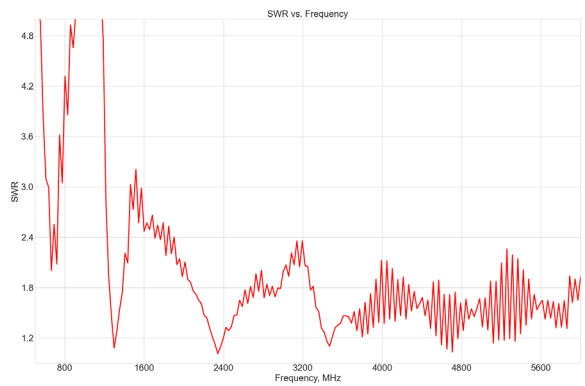
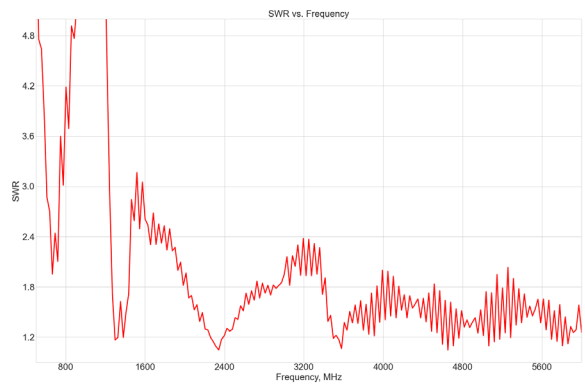
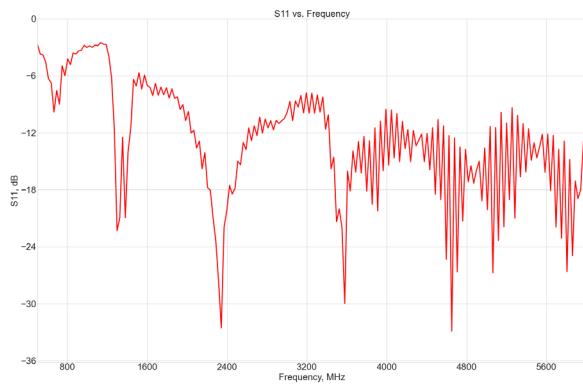
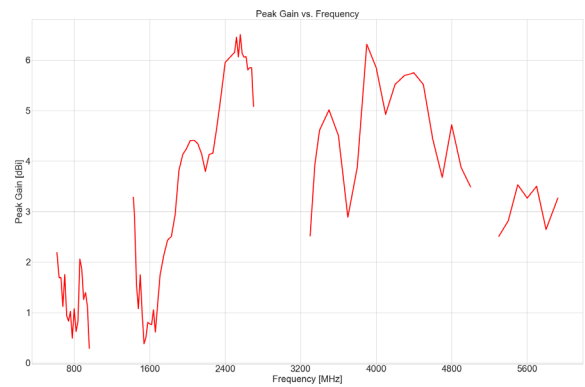
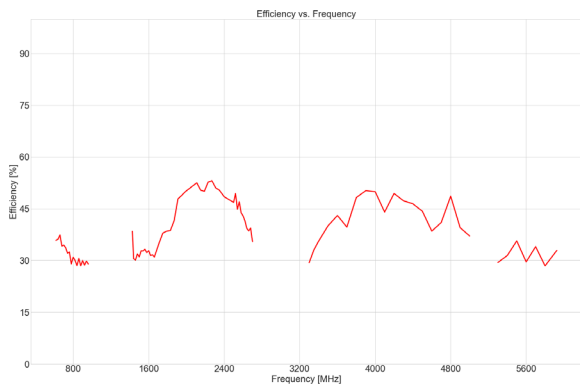
## Mechanical and Environmental Specifications

Parameter	Specification
Mounting Type	Screw Mount
Dimensions (mm)	Ø 96 X H 130
Weight (g)	450
Max. Tighten Torque (Nm)	15 Nm
Radome	ASA
Radome Color	White, Black
Antenna Base	Alluminium alloy
Operating Temperature (C)	-40 to +85°
Storage Temperature (C)	-40 to +85°
Protection	IP67, IP69, IK09
Substance Compliance	RoHS

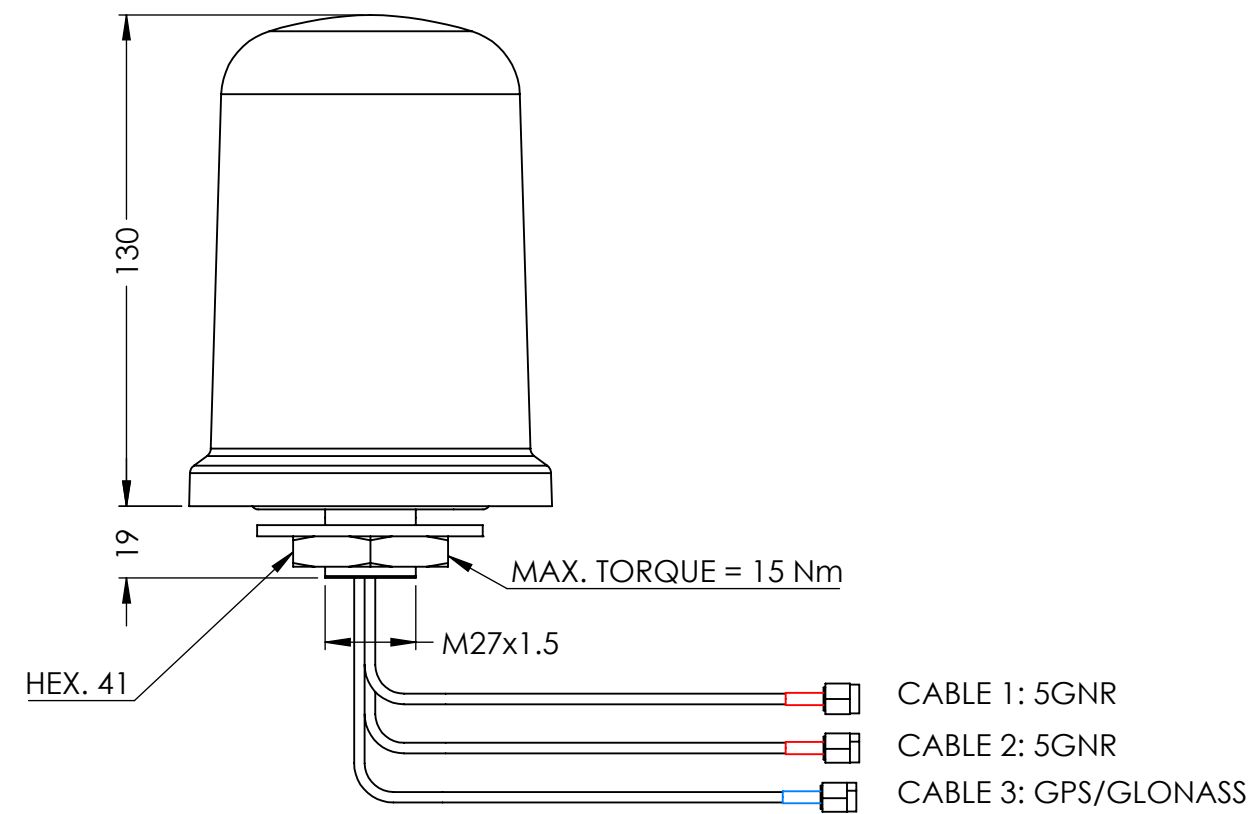
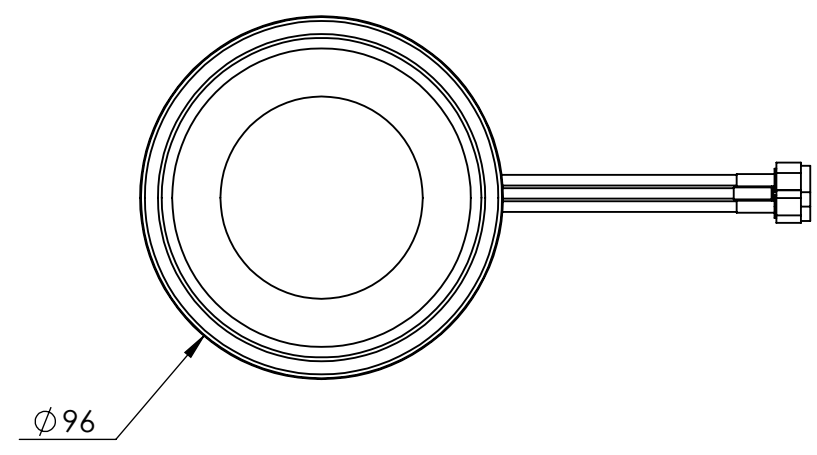
## Radiation Performance

### MEA-5G-MIMO-GGG

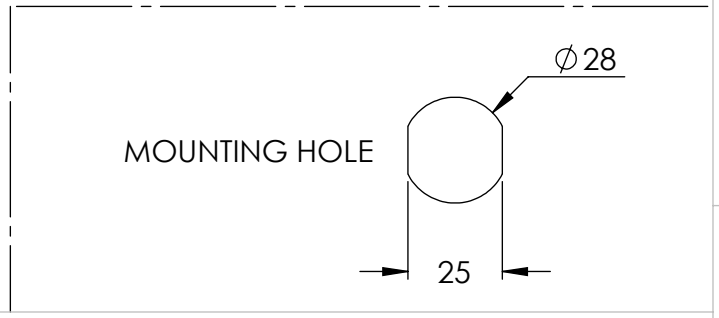




DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2022-02-18	JET



- NOTES:
- FREQUENCY:
    - CABLE 1 ( 5GNR ): 617-960 MHz, 1427-2690 MHz, 3300-5000 MHz, 5150-5925 MHz
    - CABLE 2 ( 5GNR ): 617-960 MHz, 1427-2690 MHz, 3300-5000 MHz, 5150-5925 MHz
    - CABLE 3 ( GPS/QZSS/GALILEO, GLONASS): 1575.42 MHz, 1598-1610 MHz
  - DIMENSIONS ARE AFTER MOUNTING
  - CUSTOMIZABLE CABLE AND CONNECTOR TYPE
  - MOUNTING TYPE: SCREW MOUNT
  - MAX. MOUNTING THICKNESS: 7 mm
  - MATERIALS:
    - RADOME: ASA
    - RADOME COLOR: BLACK or WHITE
    - ANTENNA BASE: ALUMINIUM ALLOY
  - OPERATING TEMPERATURE: -40° C ~ +85° C
  - STORAGE TEMPERATURE: -40° C ~ +85° C
  - CERTIFICATION: IP67, IP69, IK09



ITEM 100-00250 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2022-02-18	JET

100-00250 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1: LL195 CABLE 2: LL195 CABLE 3: LL100	200 CM 200 CM 200 CM	SMA-MALE GOLD SMA-MALE GOLD SMA-MALE GOLD	BLACK

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN MM	DRAWN	JET 2022-02-18
TOLERANCES:	CHECKED	ZX 2022-02-18
FRACTIONAL ±	ENG APPR.	NPC 2022-02-18
ANGULAR: MACH ± .5° BEND ±	MFG APPR.	
ONE PLACE DECIMAL ± 1.0	Q.A.	
TWO PLACE DECIMAL ± .50		
INTERPRET GEOMETRIC TOLERANCING PER:		
	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
DO NOT SCALE DRAWING		

MAXTENA, INC		
TITLE: 100-00250 MEA-5G-MIMO-GGG		
SIZE	DWG. NO.	REV
B	117-00589-01	A
CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1

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