



# MEA-5GG-SM

## 5G NR AND GNSS SCREW MOUNT

Part #: 100-00236-01

### Description

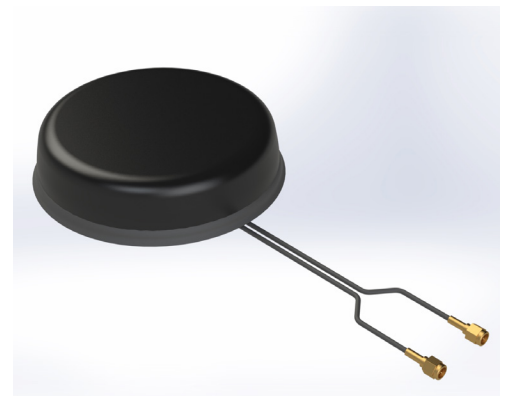
The MEA-5GG-SM Screw Mount Antenna is a 2-in-1 low profile antenna solution, with a very high-performance ideal for maintaining constant network connectivity. The MEA-5GG-SM covers all 5G NR, and GPS/GLONASS/QZSS/Galileo standard frequencies. This is an ideal antenna for telematics systems, remote surveillance, asset tracking and any IOT system applications. The high performance and low profile make this antenna ideal for the most challenging installations.

This screw mount antenna is easy to install with maximum durability offering IP67 rated housing and anti-rotation mounting. The MEA-5GG-SM has a two cables with a SMA-Male standard connectors, 2m standard cable length and is fully customizable by offering additional connector types, cable lengths and cable types.

### Electrical Specifications

Cable 1 - 5G NR Antenna

Parameter	Specification			
Technologies	5G, 4G, 3G and 2G			
Standards	5G NR/4GLTE/FirstNet/UCBRS/LPWNCAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G			
Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925
Return Loss (dB)	~ -7.4	~ -9.7	~ -11.2	~ -14.2
VSWR	~ 3.3:1	~ 2.3:1	~ 2.1:1	~ 1.7:1
Efficiency (%)	~ 20.7	~ 18.5	~ 15.3	~ 15.9
Peak Gain (dB)	~ -1.7	~ -1.7	~ -1.3	~ 0.6
Average Gain (dB)	~ -8.5	~ -8.6	~ -9.4	~ -8.2
Impedance ( $\Omega$ )	50			
Polarization	Linear			
Radiation Pattern	Omni-Directional			
Max Input Power (W)	25			
Connector Type	SMA-Male (other connectors available)			
Cable Length	200 cm (custom length available)			
Cable Type	LL100 (other cable type available)			



### Features

- 5G NR, GPS/GLONASS/QZSS/ Galileo frequency coverage
- Easy mounting: screw mount
- Anti-rotation mounting
- Customizable cable and connector
- Low profile  $\varnothing$  146 x 31.5 mm
- IK09, IP67, IP69K

### Applications

- IoT applications
- Telematic
- Navigation
- LTE applications

## Electrical Specifications

Cable 2 - GNSS Ceramic Active Antenna

Parameter	Specification	
Standards	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency (MHz)	1575.42	1598-1606
Patch Size (mm)	25 x 25 x 4	
Passive Gain (dBi)	~ 3.6	
Impedance ( $\Omega$ )	50	
Radiation Pattern	Hemispherical	
Voltage Range (V)	1.5 - 3.6	
Active Gain (dB)	28 @ 2.7 V	
Noise Figure (dB)	1.8 @ 2.7 V	
Current Consumption (mA)	9 @ 2.7 V	
Power Consumption (mW)	24.3 @ 2.7 V	
Saw Filter Type	Pre-Filter	
Connector Type	SMA-Male Standard (other connectors available)	
Cable Length	200 cm Standard (any cable length available)	
Cable Type	LL100 Standard (other cables available)	

## Antenna Measurement Conditions:

Mounted on metal plate of 30 x 30 cm

100 cm of cable LL100

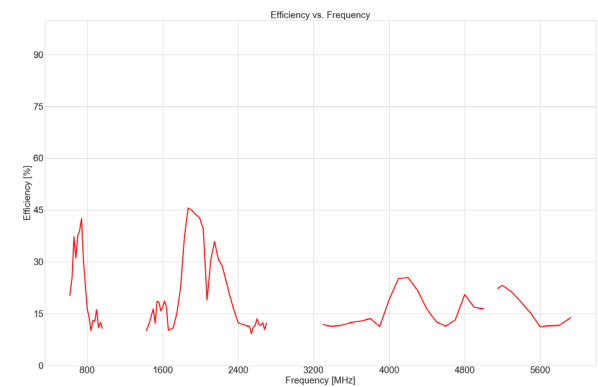
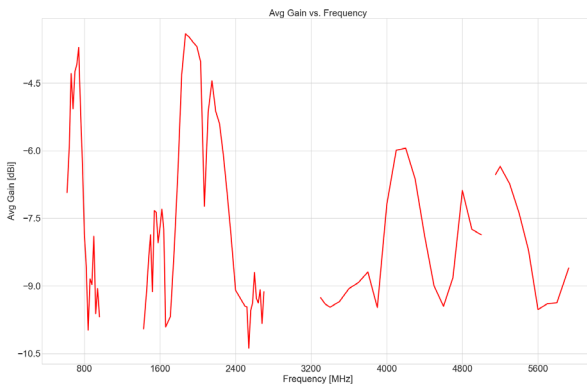
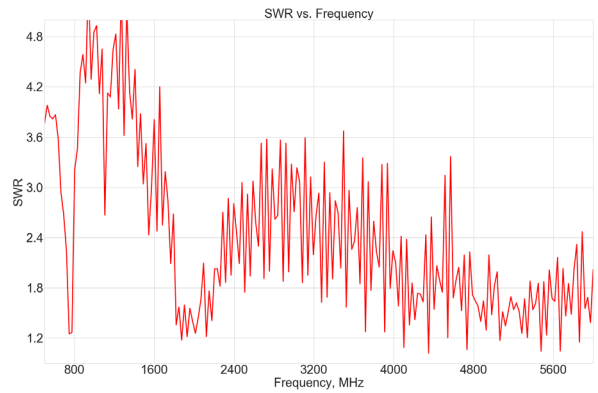
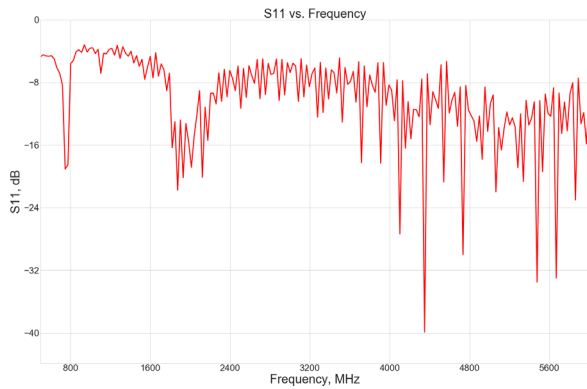
Measured in certified CTIA 3D anaechoic chamber

## Mechanical and Environmental Specifications

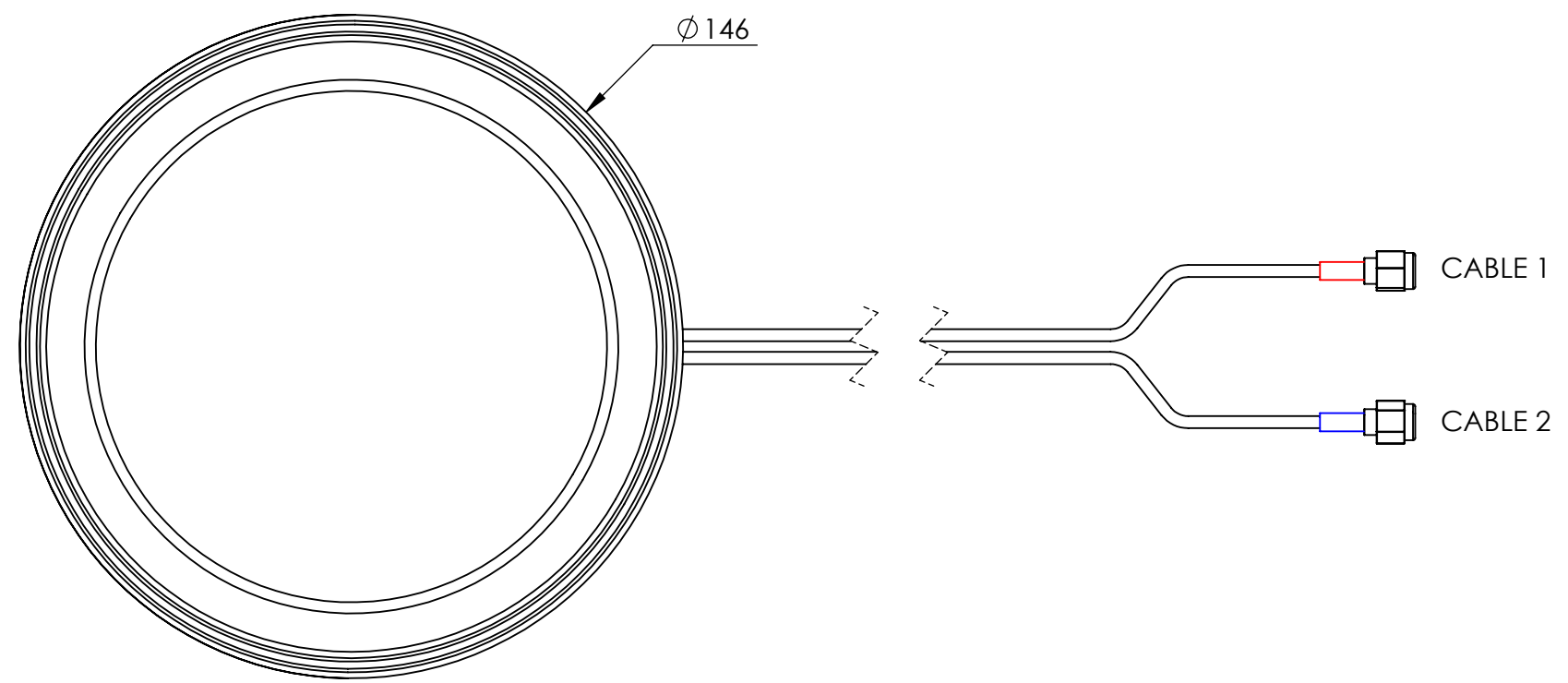
Parameter	Specification
Mounting Type	Screw Mount
Dimensions (mm)	$\varnothing$ 146 x 31.5
Weight (g)	520
Max. Tighten Torque (Nm)	6
Radome	ABS
Radome Color	Black
Antenna Base	Zamak
Gasket	TPE
Operating Temperature (C)	-40 to +85°
Storage Temperature (C)	-40 to +85°
Substance Compliance	RoHS
Certificates	IK09, IP67, IP69K

# Radiation Performance

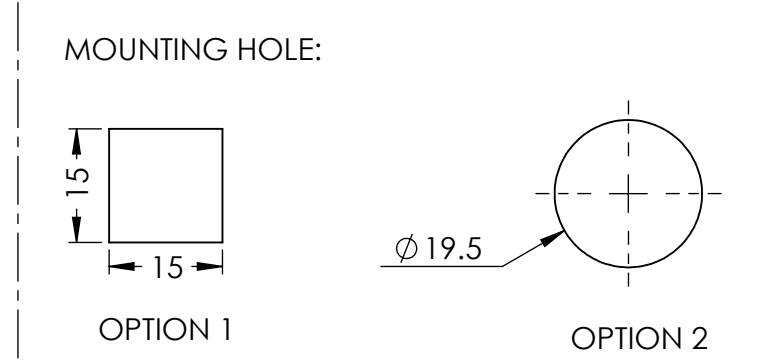
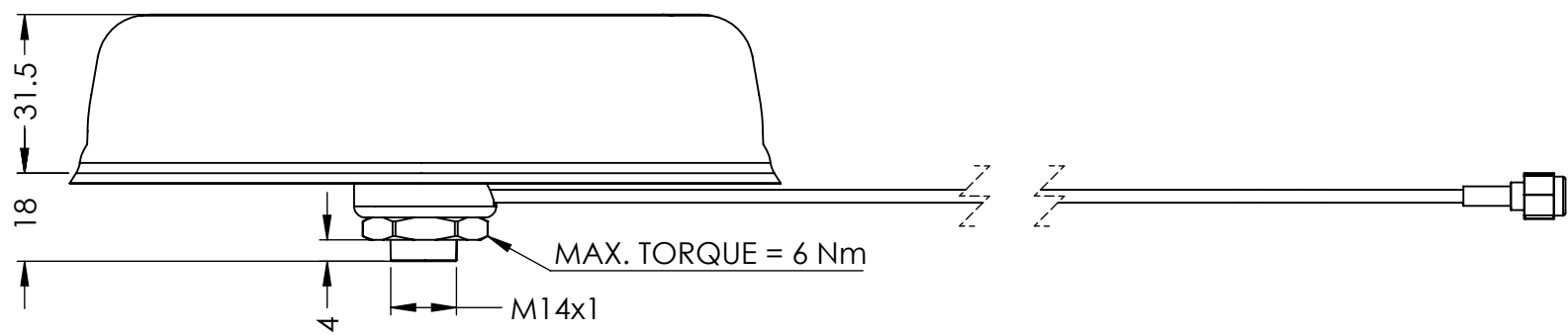
## MEA-5GG-SM



DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2022-01-28	JET



- NOTES:
- FREQUENCY:
    - CABLE 1(5G, 4G, 3G, 2G):
      - 617-960 MHz
      - 1427-2690 MHz
      - 3300-5000 MHz
      - 5150-5925 MHz
    - CABLE 2(GNSS):
      - 1575.42 MHz
      - 1598-1606 MHz
  - DIMENSIONS ARE AFTER MOUNTING
  - CUSTOMIZABLE CABLE AND CONNECTOR TYPE
  - MOUNTING TYPE: SCREW MOUNT
  - MAX. MOUNTING THICKNESS: 4mm
  - MATERIALS:
    - RADOME: ABS
    - RADOME COLOR: BLACK
    - ANTENNA BASE: ZAMAK
    - GASKET: TPE
  - OPERATING TEMPERATURE: -40° C ~ +85° C
  - STORAGE TEMPERATURE: -40° C ~ +85° C
  - CERTIFICATION: IK09, IP67, IP69K



ITEM 100-00236 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2022-01-28	JET

100-00236 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1: LL100 CABLE 2: LL100	200 CM 200 CM	SMA-MALE GOLD SMA-MALE GOLD	BLACK

UNLESS OTHERWISE SPECIFIED:

DIMENSIONS ARE IN MM  
TOLERANCES:  
FRACTIONAL: ±  
ANGULAR: MACH ± .5° BEND ±  
ONE PLACE DECIMAL ± 1.0  
TWO PLACE DECIMAL ± .50

INTERPRET GEOMETRIC TOLERANCING PER:

THIRD ANGLE PROJECTION

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	JET	2022-01-28
CHECKED	ZX	2022-01-28
ENG APPR.	NPC	2022-01-28
MFG APPR.		
Q.A.		

CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.

MAXTENA, INC

TITLE: 100-00236 MEA-5GG-SM

SIZE B DWG. NO. 117-00571-01 REV A

CAGE CODE: 5KQH7 SCALE: NONE SHEET 1 OF 1