



MEA-433-IGG

433 MHz ISM/GPS/GLONASS SCREW MOUNT

Part #: 100-00239-01

Description

The MEA-433-IGG 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-433-IGG covers all ISM, and GPS/GLONASS 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-433-IGG has a two 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.

Electrical Specifications

Cable 1 - 433 MHz ISM Antenna

Parameter	Specification
Standards	ISM, LoRa
Band (MHz)	433 MHz
Frequency (MHz)	433-435
Return Loss (dB)	~ -11.2
VSWR	~ 1.7:1
Efficiency (%)	~ 51
Peak Gain (dBi)	~ -0.4
Average Gain (dB)	~ -2.9
Impedance (Ω)	50
Polarization	Linear
Radiation Pattern	Omin-Directional
Max Input Power (W)	50
Connector Type	SMA-Male Standard (Other Connectors Available)
Cable Length	300 cm Standard (Any Cable Length Available)
Cable Type	RG174 Standard (Other Cables Available)



Features

- ISM and GPS/GLONASS frequency coverage
- Easy mounting: Screw Mount
- Customizable Cable and Connector
- Dimensions 186.5 x 63 mm
- IP67
- IP69K
- Low weight 166g

Applications

- IoT applications
- Telematic
- Navigation
- LTE applications

Electrical Specifications

Cable 1 - GPS/GLONASS Antenna

Parameter	Specification	
Standards	GPS	GLONASS
Band (MHz)	1575	1602
Frequency (MHz)	1575.42	1598-1610
Return Loss (dB)	< -20	
VSWR	< 1.2:1	
Impedance (Ω)	50	
Polarization	RHCP	
Radiation Pattern	Hemispherical	
Saw Filter	No Filter	
Active Gain (dB)	26 @ 3V / 27dB @ 5V	
Noise Figure (dB)	1.5	
Voltage (V)	2.7 - 5.5	
Current (mA)	15 - 25	
Power Consumption (mW)	40 - 137	
Connector Type	Most RF Connectors (SMA-Male Standard)	
Cable Length	Any Cable Length (200cm Standard)	
Cable Type	Other Cables Available (RG174 Standard)	

Antenna Measurement Conditions:

Mounted on metal plate of 30 x 30 cm

200 cm of cable RG174

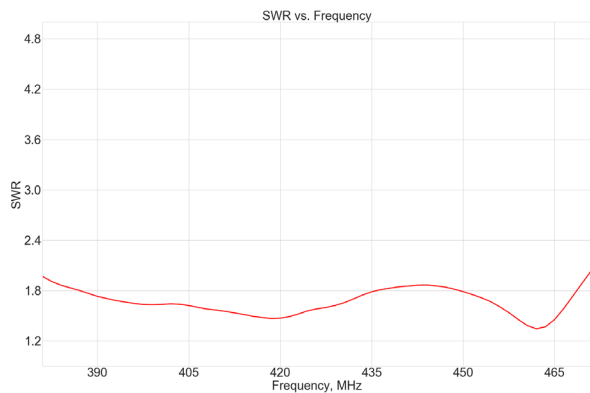
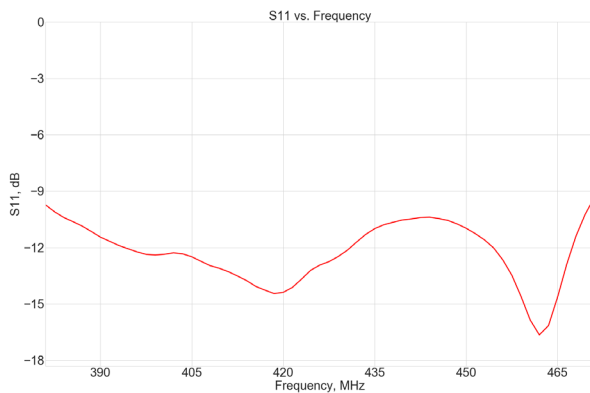
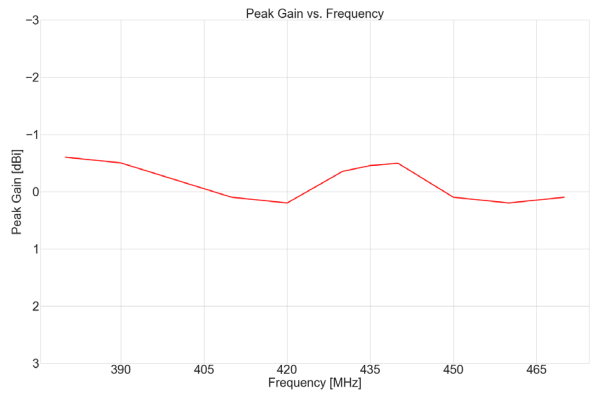
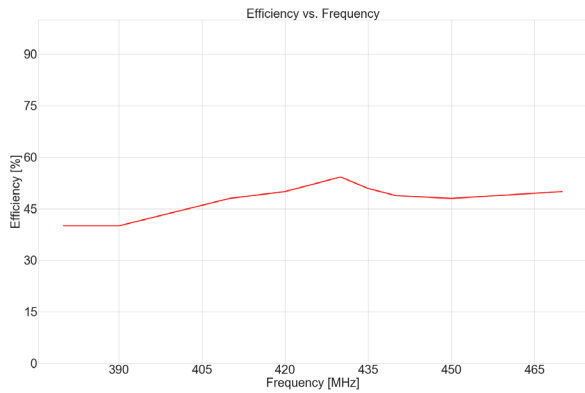
Measured in certified CTIA 3D anaechoic chamber

Mechanical and Environmental Specifications

Parameter	Specification
Mounting Type	Screw Mount
Dimensions (mm)	186.5 x 63
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	IP67, IP69K

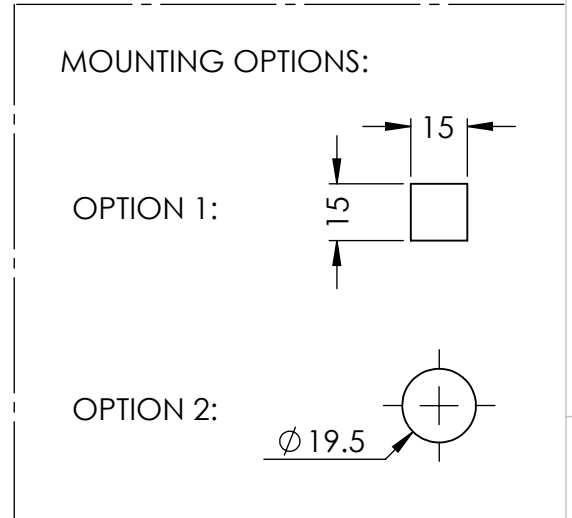
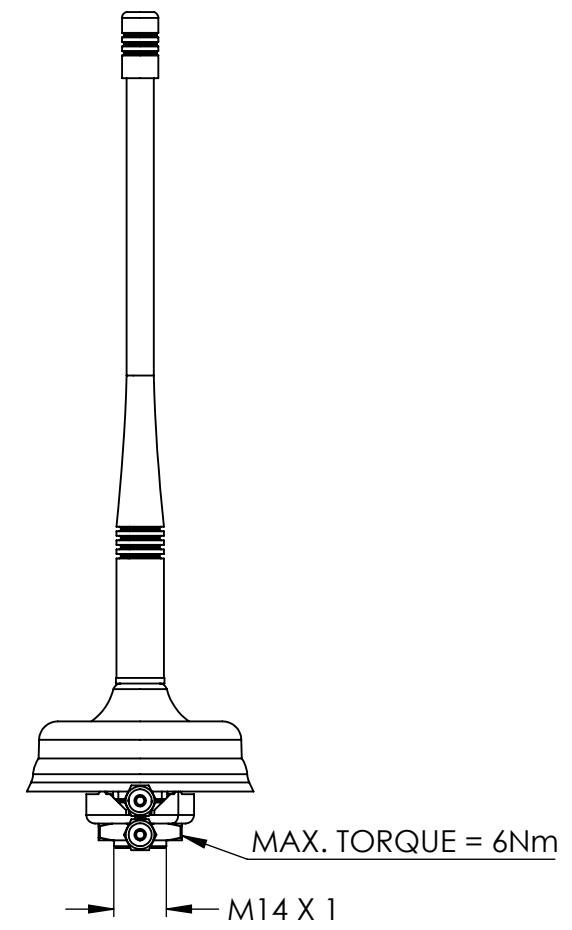
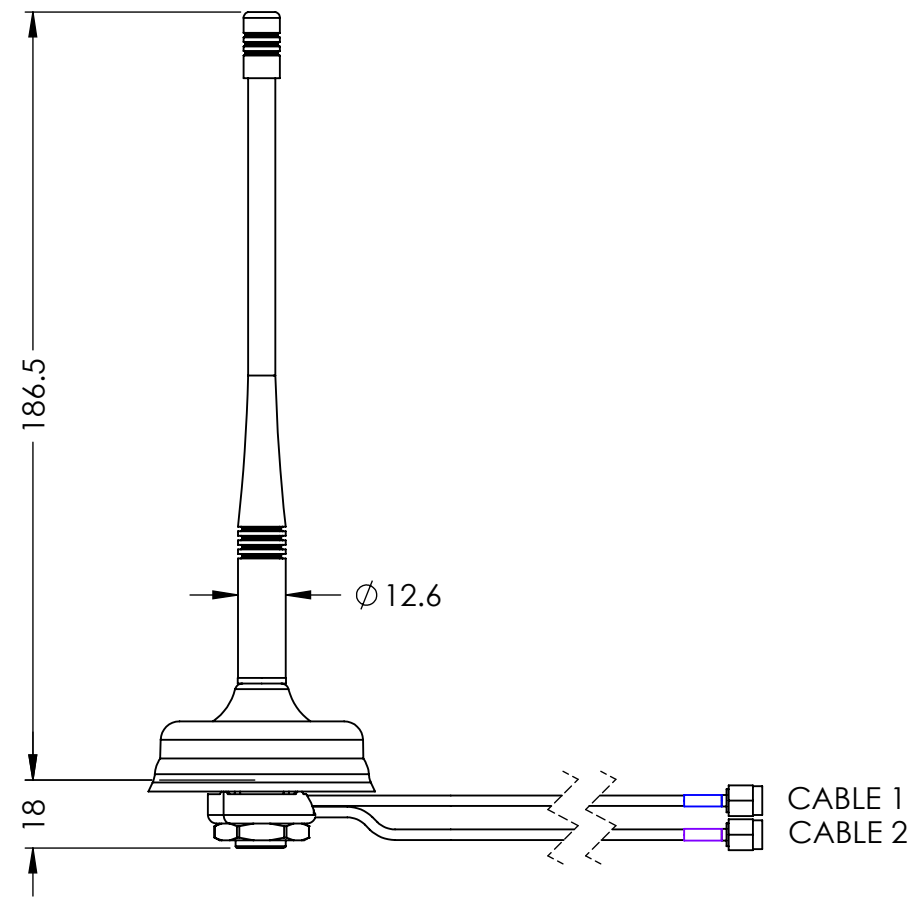
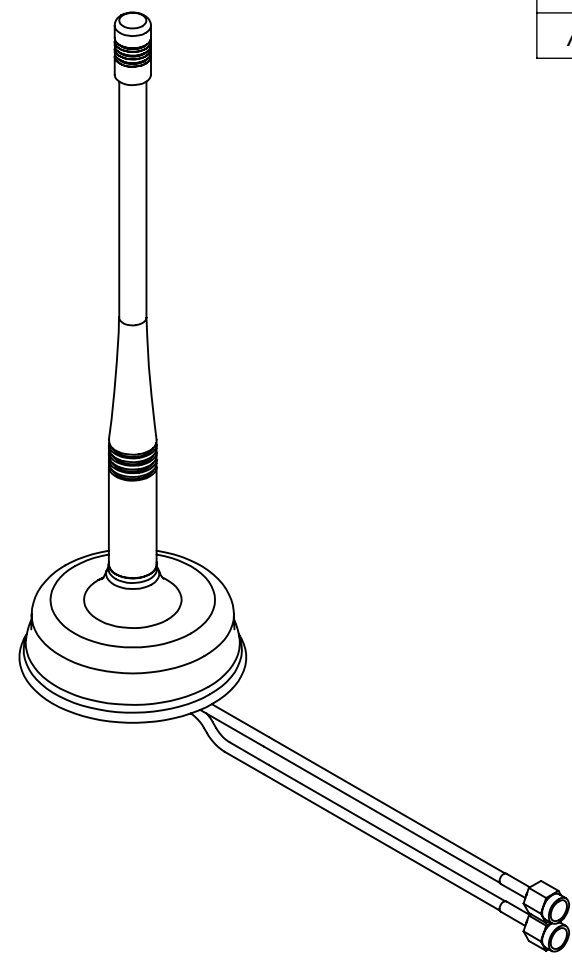
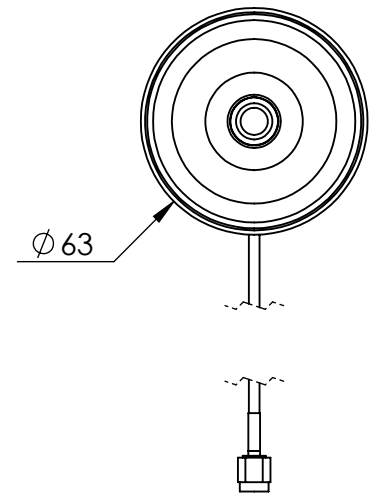
Radiation Performance

MEA-433-IGG



- NOTES:
- FREQUENCY:
 CABLE 1 (ISM, LoRa): 433-435 MHz
 CABLE 2 (GPS/GLONASS): 1575.42 MHz, 1598-1610 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: IP67, IP69K

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



100-00239 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1: RG174 CABLE 2: RG174	200 CM 200 CM	SMA-MALE GOLD SMA-MALE GOLD	BLACK

ITEM 100-00239 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2022-01-28	JET

UNLESS OTHERWISE SPECIFIED:

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

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

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

MAXTENA, INC

TITLE: 100-00239 MEA-433-IGG

SIZE B DWG. NO. 117-00575-01 REV A

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

Mouser Electronics

Authorized Distributor

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