



MEAX-868-IGG

868 MHz ISM/GPS/GLONASS SCREW MOUNT

Part #: 100-00251-01

Description

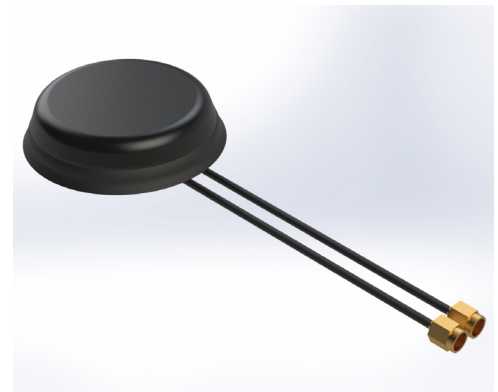
The MEA-868-IGG is a 2-in-1 antenna that combines high performance 868 MHz ISM, GPS, GLONASS and Galileo standard. The antenna's excellent radiation pattern, exceptional out-of-band rejection, and low noise figure ensures optimal performance of GNSS systems. It features a 2 m cable with an integrated SMA, 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-868-IGG is IP67 rated.

Electrical Specifications

Cable 1 - 868 MHz ISM Antenna

Parameter	Specification
Standards	ZigBee, ISM, SIGFOX, LoRa
Frequency (MHz)	863-870
Return Loss (dB)	~ -14.7
VSWR	~ 1.5:1
Efficiency (%)	~ 51.7
Peak Gain (dBi)	~ 3.2
Average Gain (dB)	~ -2.9
Impedance (Ω)	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	D302 (other cable type available)



Features

- 2 in1 antenna : 868 MHz ISM and GPS/GLONASS frequency standard
- Easy mounting: Screw Mount
- Anti-Rotation Mechanism
- Low Profile
- High Gain
- Customizable Cable and Connector
- IP67
- IP69
- IK09

Applications

- IoT applications
- Smart meters
- Tracking/mapping devices
- Asset tracking
- Telematics
- Container & logistics
- Public safety
- Industrial applications

Cable 2 - GPS/GLONASS Antenna

Parameter	Specification	
Standard	GPS/QZSS/Galileo	GLONASS
Frequency (MHz)	1575.42	1598-1606
Patch Size (mm)	25 x 25 x 4	
Return Loss (dB)	<= -15.0	
VSWR (dB)	<= 1.4:1	
Impedance (Ω)	50	
Polarization	RHCP	
Radiation Pattern	Hemispherical	
Saw Filter	Pre-filter	
Active Gain (dB)	28 @ 2.7 V	
Noise Figure (dB)	1.5 typ	
Voltage (V)	1.5 - 3.6	
Current (mA)	9 typ	
Power Consumption (mW)	24.3 typ	
ESD Protection (kV)	2kV	
Connector Type	SMA-Male (other connectors available)	
Cable Length	200 cm (custom length available)	
Cable Type	LL100 (other cable type available)	

Antenna Measurement Conditions:

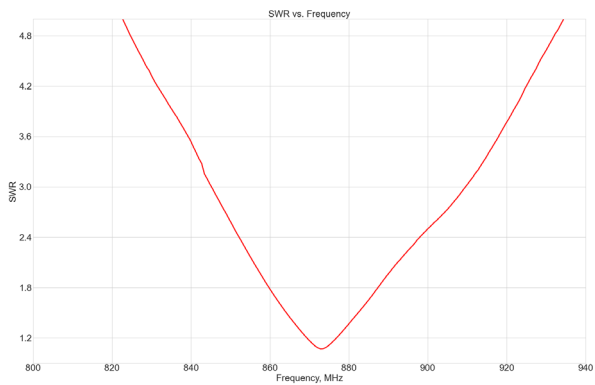
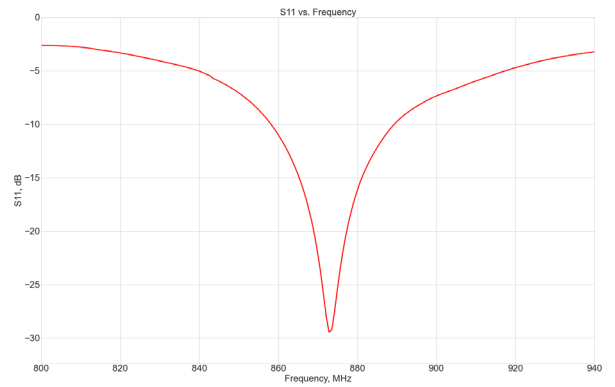
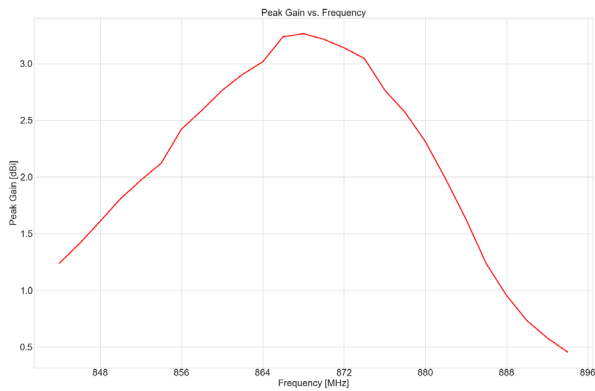
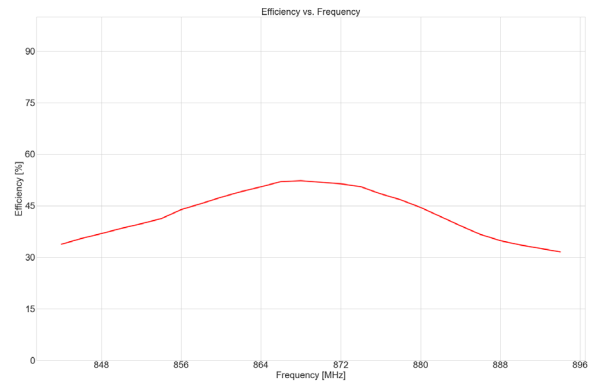
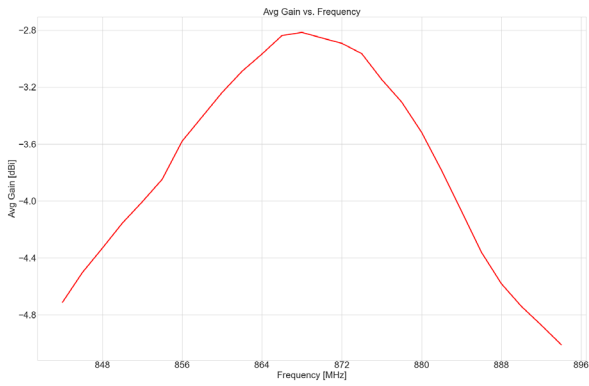
Mounted on 30 x 30 x 0.25 cm metal plate
 200 cm of cable D302
 Measured in certified CTIA 3D anechoic chamber

Mechanical and Environmental Specifications

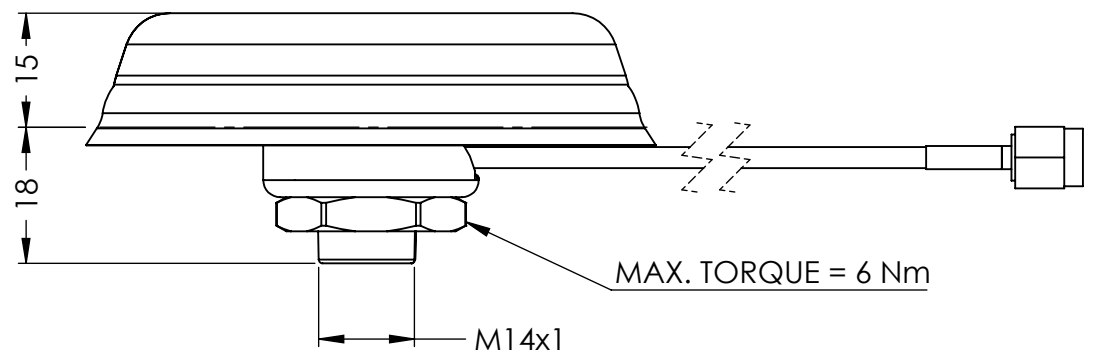
Parameter	Specification
Mounting Type	Screw Mount
Dimensions (mm)	\varnothing 77.3 x 15
Weight (g)	130
Max. Tighten Torque (Nm)	6 Nm
Radome	ASA
Radome Color	Black
Antenna Base	Zamak
Operating Temperature (C)	-40 to +85°
Storage Temperature (C)	-40 to +85°
Certificates	IP67, IP69
Substance Compliance	RoHS

Radiation Performance

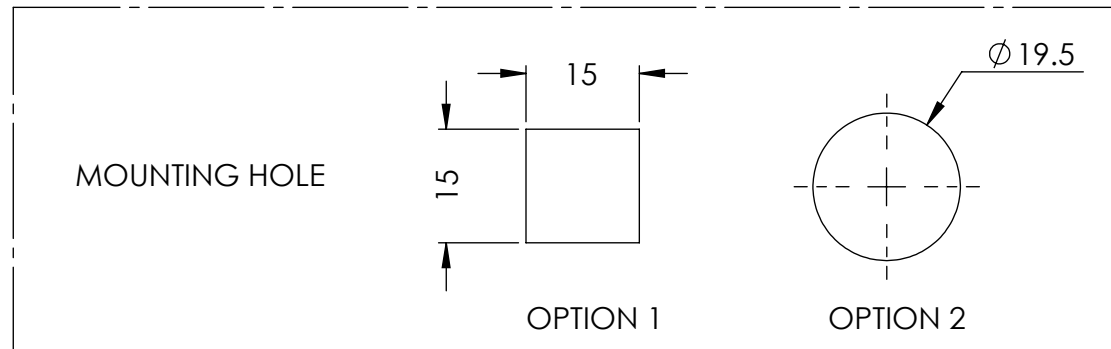
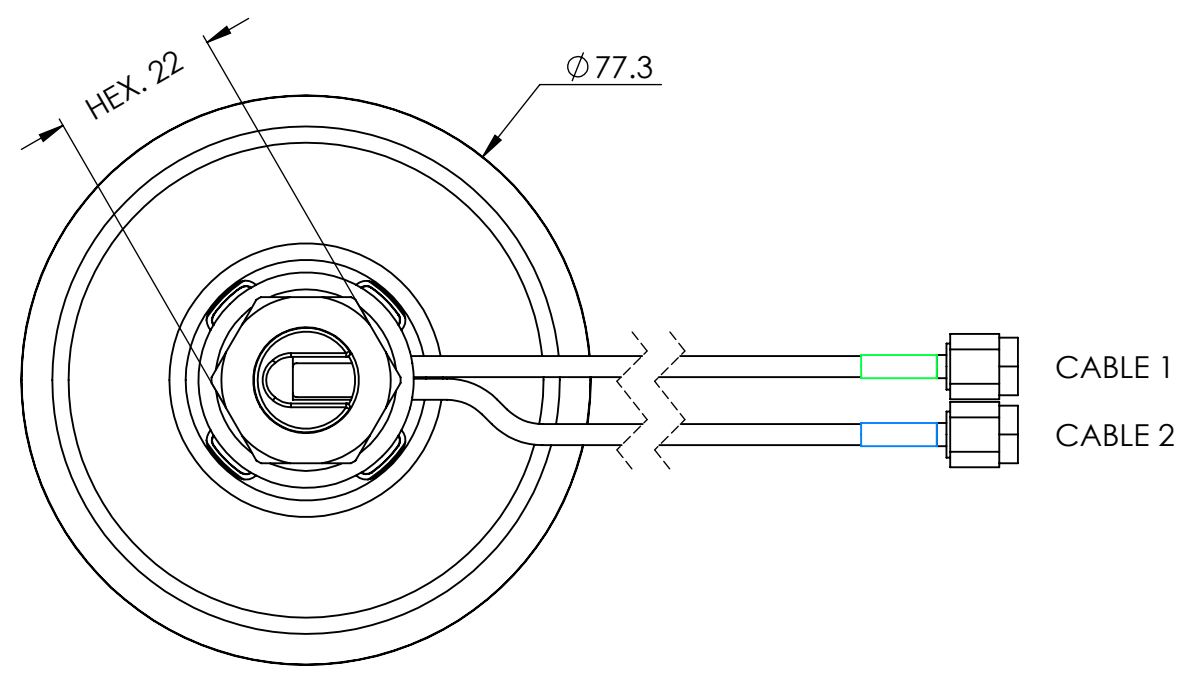
MEA-868-IGG



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



- NOTES:
- FREQUENCY:
 CABLE 1 (ISM): 868-870 MHz
 CABLE 2 (GPS/QZSS/GALILEO, GLONASS): 1575.42 MHz, 1598-1606 MHz
 - DIMENSIONS ARE AFTER MOUNTING
 - CUSTOMIZABLE CABLE AND CONNECTOR TYPE
 - MOUNTING TYPE: SCREW MOUNT
 - MAX. MOUNTING THICKNESS: 4 mm
 - MATERIALS:
 - RADOME: ASA
 - RADOME COLOR: BLACK
 - ANTENNA BASE: ZAMAK
 - GASKET: TPE
 - OPERATING TEMPERATURE: -40° C ~ +85° C
 - STORAGE TEMPERATURE: -40° C ~ +85° C
 - CERTIFICATION: IP67, IP69



100-00251 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1: D302 CABLE 2: RG174	200 CM 200 CM	SMA-MALE-RP GOLD SMA-MALE GOLD	BLACK

ITEM 100-00251 REVISION HISTORY			
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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	2022-02-18
CHECKED	ZX	2022-02-18
ENG APPR.	NPC	2022-02-18
MFG APPR.		
	Q.A.	

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

MAXTENA, INC

TITLE:
 100-00251
 MEA-868-IGG

SIZE	DWG. NO.	REV
B	117-00590-01	A

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