



MEA-169-ISM-GG

169 MHz ISM-ERMES AND GPS/GLONASS SCREW MOUNT

Part #: 100-00242-01

Description

The MEA-169-ISM-GG 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-169-ISM-GG covers all 5G NR, 169 MHz ISM-ERMES 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-169-ISM-GG 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 - 169 MHz ISM Antenna

| Parameter | Specification |
|------------------------|---------------------------------------|
| Standards | ERMES, ISM, VHF |
| Frequency (MHz) | 169.4-169.8 |
| Return Loss (dB) | ~ -13.0 |
| VSWR | ~ 1.6:1 |
| Peak Gain (dBi) | ~ 0 |
| 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 | RG174 (other cable type available) |



Features

- Cable 1: 169 MHz ISM-ERMES - 169.4-169.8 MHz
- Cable 2: GPS/GLONASS - 1575-1610 MHz
- Easy Mounting: Screw Mount
- High Performance
- Anti-Rotation Mounting
- Customizable Cable and Connector
- IP67
- IP69

Applications

- Asset tracking
- Telematics
- Container & logistics
- Automotive
- Industrial applications
- IoT applications

Electrical Specifications

Cable 2 - GPS GLONASS Antenna

| Parameter | Specification | |
|------------------------|---------------------------------------|-----------|
| Standards | GPS/QZSS/Galileo | GLONASS |
| Band (MHz) | 1575 | 1602 |
| Frequency (MHz) | 1575.42 | 1598-1610 |
| Return Loss (dB) | < -15 | |
| VSWR (dB) | < 1.4:1 | |
| Impedance (Ω) | 50 | |
| Radiation Pattern | Hemispherical | |
| Polarization | RHCP | |
| Saw Filter | No-filter | |
| Active Gain (dB) | 26 @ 3 V / 27 @ 5 V | |
| Noise Figure (dB) | 1.5 | |
| Voltage (V) | 2.7 - 5.5 | |
| Current (mA) | 15 - 25 | |
| Power Consumption (mW) | 40 - 137 | |
| Connector Type | SMA-Male (other connectors available) | |
| Cable Length (m) | 200 cm (custom length available) | |
| Cable Type | RG174 (other cable type available) | |

Antenna Measurement Conditions:

Mounted on metal plate of 30 x 30 cm

200 cm of cable RG174

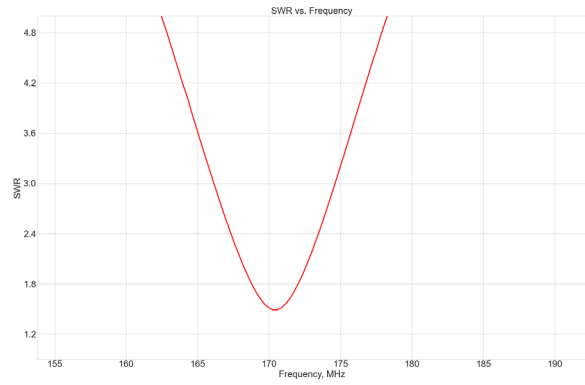
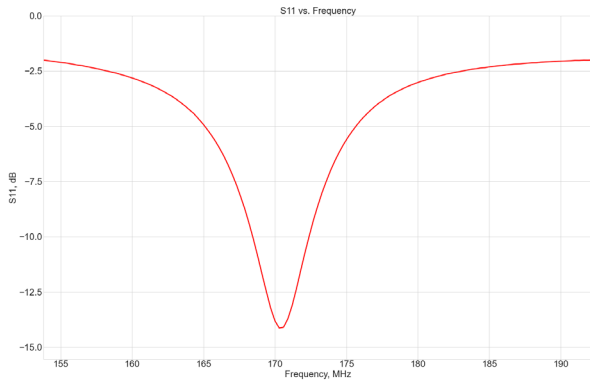
Measured in certified CTIA 3D anechoic chamber

Mechanical and Environmental Specifications

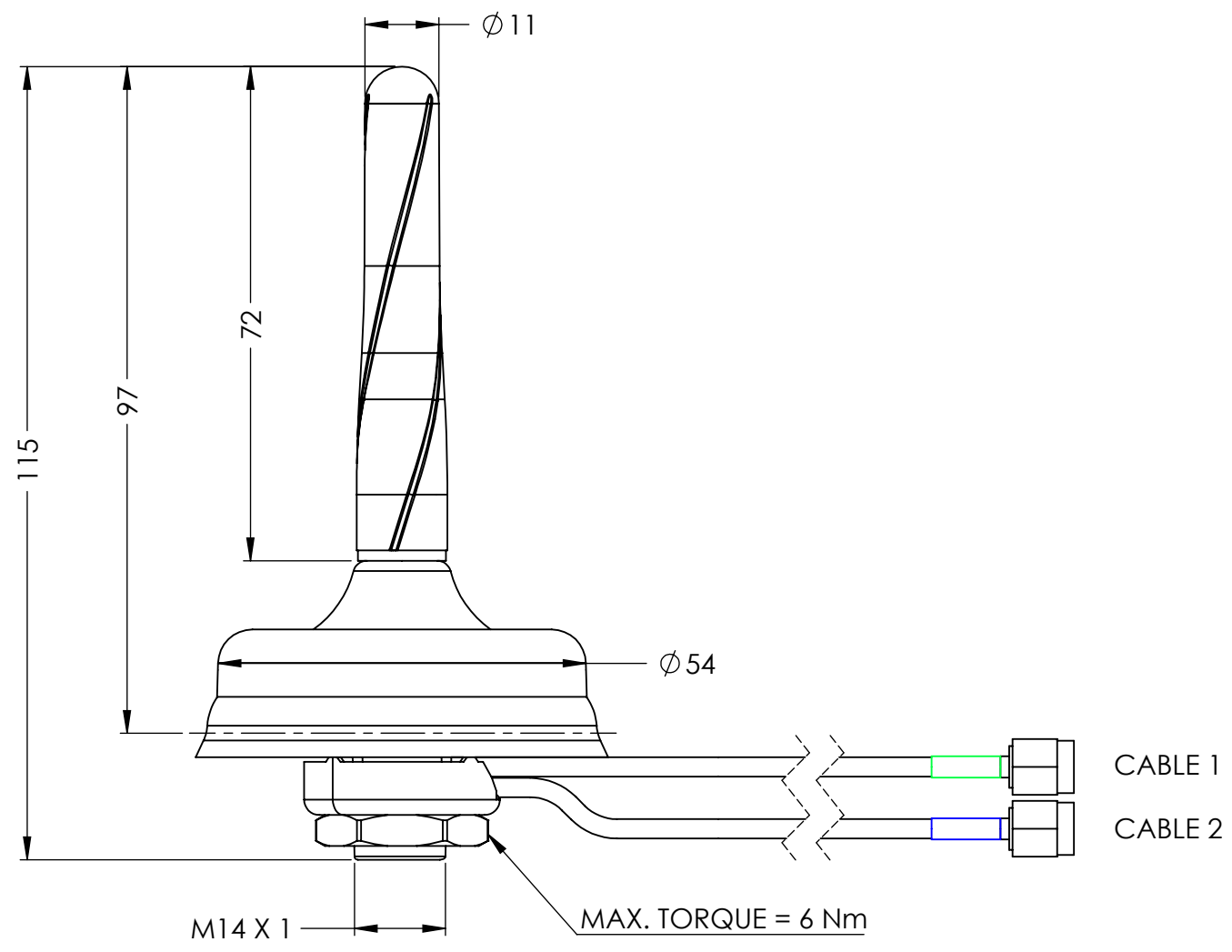
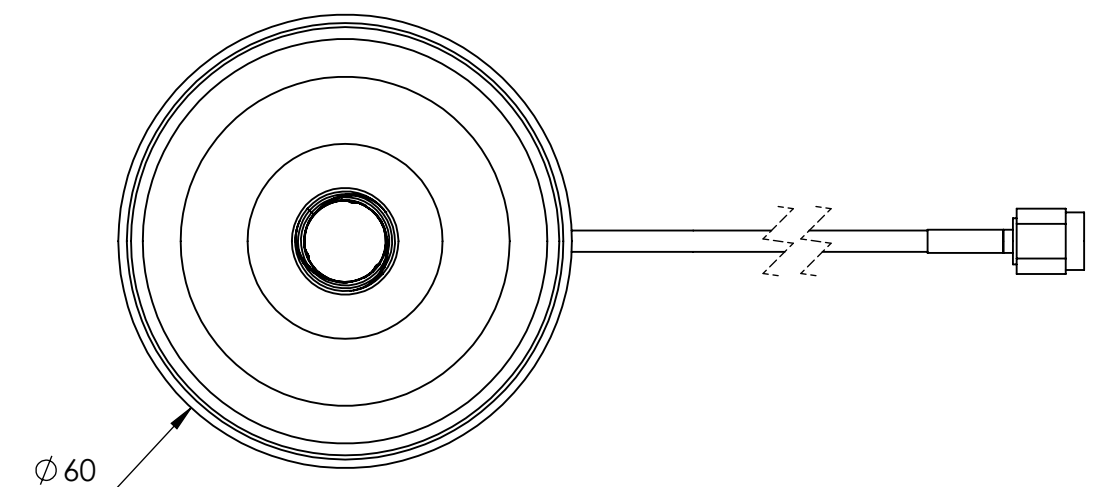
| Parameter | Specification |
|---------------------------|-----------------------|
| Mounting Type | Screw Mount |
| Dimensions (mm) | \varnothing 60 x 97 |
| Weight (g) | 105 |
| Max. Tighten Torque (Nm) | 6 Nm |
| Radome Type | ASA |
| Radome Color | Black |
| Antenna Base | Zamak |
| Gasket | TPE |
| Operating Temperature (C) | -40 to +85° |
| Storage Temperature (C) | -40 to +85° |
| Protection | IP67, IP69 |
| Substance Compliance | RoHS |

Radiation Performance

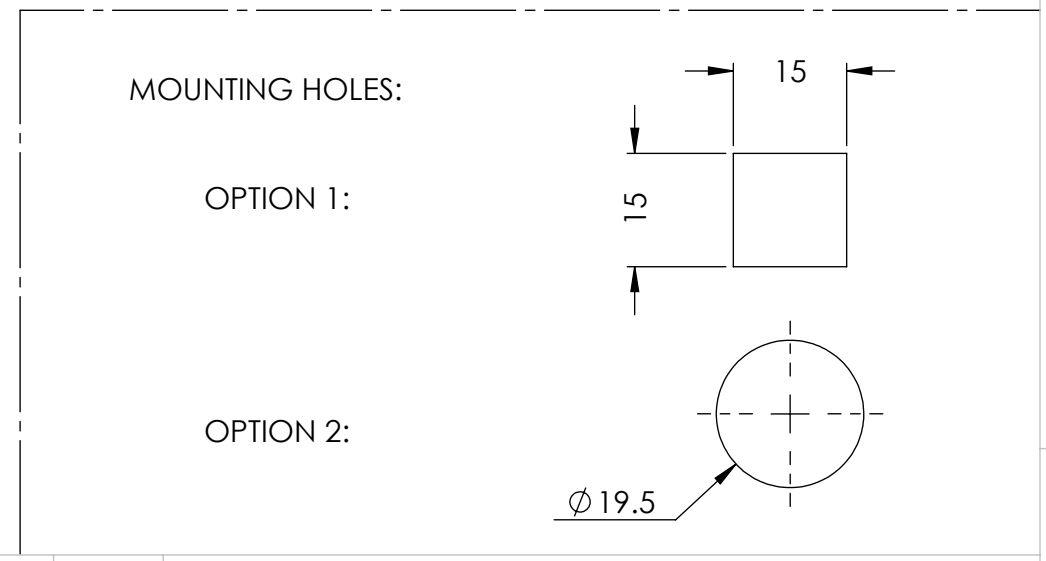
MEA-169-ISM-GG



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



- NOTES:
- FREQUENCY:
 CABLE 1 (ERMES, ISM, VHF): 169.4-169.8 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: ASA
 - RADOME COLOR: BLACK
 - ANTENNA BASE: ZAMAK
 - GASKET: TPE
 - OPERATING TEMPERATURE: -40° C ~ +85° C
 - STORAGE TEMPERATURE: -40° C ~ +85° C
 - CERTIFICATION: IP67, IP69



| ITEM 100-00242 REVISION HISTORY | | | |
|---------------------------------|-----------------|------------|-----|
| REV | DESCRIPTION | DATE | BY |
| A | INITIAL RELEASE | 2022-01-28 | JET |

| 100-00242 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 |

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:
 100-00242
 MEA-169-ISM-GG

| SIZE | DWG. NO. | REV |
|------|--------------|-----|
| B | 117-00578-01 | A |

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

PROPRIETARY AND CONFIDENTIAL
 THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF MAXTENA, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF MAXTENA, INC IS PROHIBITED.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[Maxtena:](#)

[MEA-169-ISM-GG](#)