



Part #: 100-00252-01

Description

The MEA-GGG-SM is a multi-frequency, high accuracy, GNSS antenna for the GPS & GLONASS. 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). Our low-profile screw mount is ideal for robotics, rail, UAV, industrial and IOT applications. This antenna offers a ultra-low profile design with easy mounting and customizable cables and connector options.



Electrical Specifications

| GPS/GLONASS Antenna - Passive Parameters | Parameter | Specifications | |
|--|-------------------|------------------|---------------|
| | Standards | GPS/QZSS/Galileo | GLONASS |
| | Band (MHz) | 1575 | 1602 |
| | Frequency Range | 1575.42 MHz | 1598-1610 MHz |
| | Return Loss (dB) | <= -20 | <= -15 |
| | VSWR | <= 1.2:1dB | <= 1.4dB |
| | Efficiency (%) | ~65 | ~68 |
| | Peak Gain (dBiC) | ~3.6 | ~3.9 |
| | Average Gain (dB) | ~1.8 | ~1.6 |
| | Impedance (Ohm) | 50 | |
| | Radiation Pattern | Hemispherical | |

| GPS/GLONASS Antenna - Active Parameters | Parameter | Specifications | |
|---|----------------------------|--|---------------|
| | Standards | GPS/QZSS/Galileo | GLONASS |
| | Band (MHz) | 1575 | 1602 |
| | Frequency Range | 1575.42 MHz | 1598-1610 MHz |
| | Return Loss (dB) | <= -15 dB | |
| | Patch Size (mm) | 25 x 25 x 4 | |
| | Impedance (Ohm) | 50 | |
| | VSWR | <= 1.4:1 dB | |
| | Radiation Pattern | Hemispherical | |
| | Polarization | RHCP | |
| | Saw Filter | Pre-Filter | |
| | Active Gain (dB) | 28 @ 2.7 V | |
| | Voltage (V) | 1.5 – 3.6 | |
| | Current (mA) | 9 @ 2.7V | |
| | Out of Band Rejection (dB) | ~43 | |
| | ESD Protection | 6 | |
| | Connector Type | SMA-Male Standard (Other Connectors Available) | |
| | Cable Length | 200cm Standard (Any Cable Length Available) | |
| | Cable Type | LMR100 Standard (Other Cables Available) | |

Features

- GPS /QZSS/Galileo - 1575 MHz
- Easy mounting: Screw Mount
- Ground Plane Independent
- Pre-Filter
- Customizable Cable and Connector
- IP69K

Applications

- Vehicle and fleet tracking
- Military & security
- Asset tracking
- Embedded applications
- Navigation devices
- Oil & gas industries
- Mining equipment
- LBS & M2M applications
- Law enforcement



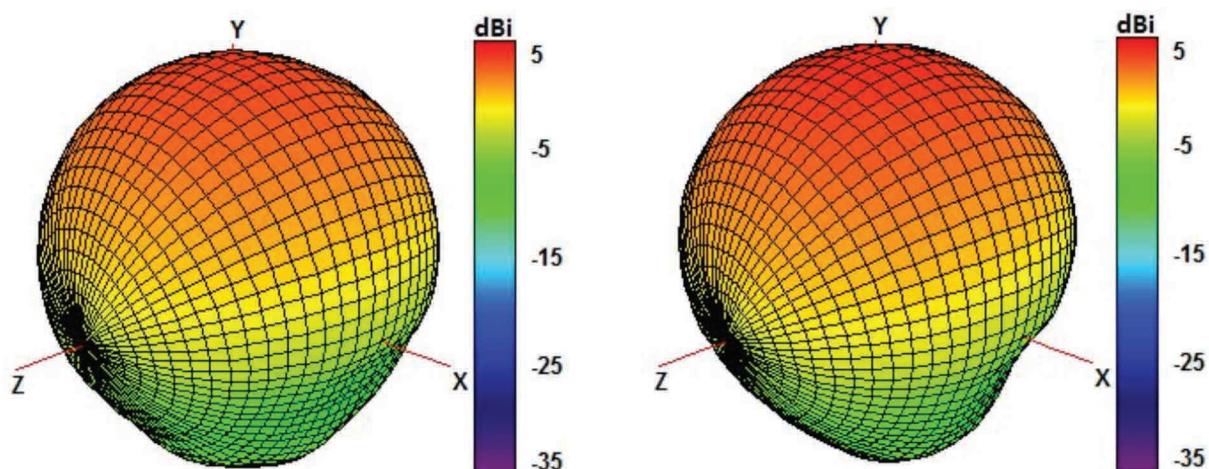
Maxtena Inc.
20310 Seneca Meadows Pkwy Suite A
Germantown, MD 20876
1-877-629-8362
info@maxtena.com

www.maxtena.com

Mechanical Specifications

| Parameter | Specifications |
|---------------------------|------------------------------|
| Antenna Dimensions (mm) | $\varnothing 52 \times 17.5$ |
| Operating Temperature (C) | -40 to +85 |
| Storage Temperature (C) | -40 to +85 |
| Mounting Type | Screw Mount |
| Radome Type/Color | ASA/ Black |
| Substance Compliance | RoHS |
| Antenna Base | ASA/ Black |
| Max. Tighten Torque (Nm) | 4 Nm |
| Certificates | IP69K |

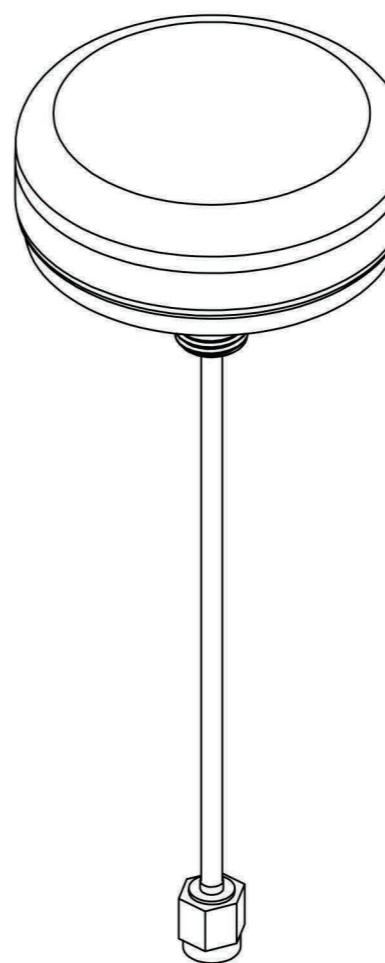
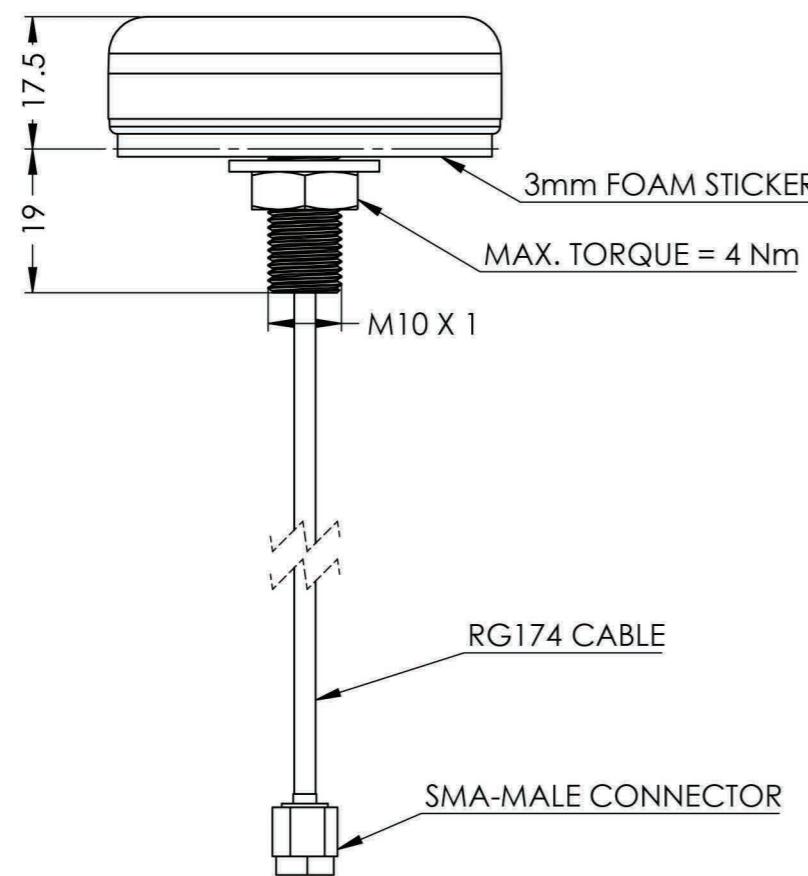
Radiation Pattern



1575 MHz and 1600 MHz Radiation pattern

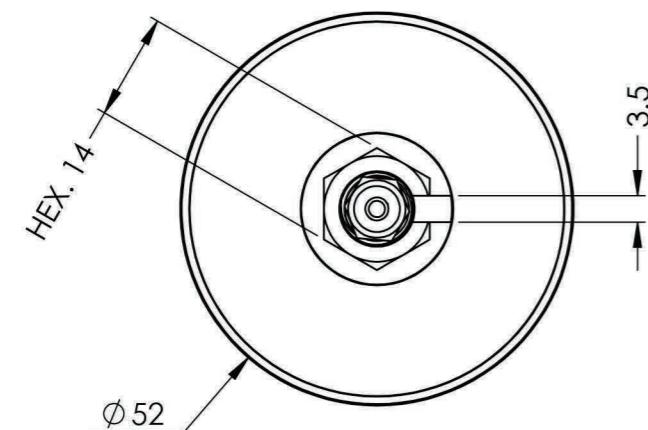
DRAWING REVISION HISTORY

| REV | DESCRIPTION | DATE | BY |
|-----|-----------------|------------|-----|
| A | INITIAL RELEASE | 2022-02-18 | JET |



NOTES:

1. FREQUENCY (GPS/QZSS/GALILEO, GLONASS): 1575.42 MHz, 1598-1606 MHz
2. DIMENSIONS ARE AFTER MOUNTING
3. CUSTOMIZABLE CABLE AND CONNECTOR TYPE
4. MOUNTING TYPE: SCREW MOUNT
5. MAX. MOUNTING THICKNESS: 11mm
6. MATERIALS:
 - RADOME: ASA
 - RADOME COLOR: BLACK
 - ANTENNA BASE: ASA
7. OPERATING TEMPERATURE: -40° C ~ +85° C
8. STORAGE TEMPERATURE: -40° C ~ +85° C
9. CERTIFICATION: IP69K



ITEM 100-00252 REVISION HISTORY

| REV | DESCRIPTION | DATE | BY |
|-----|-----------------|------------|-----|
| A | INITIAL RELEASE | 2022-02-18 | JET |

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100-00252 CONFIGURATION TABLE

| DASH NO | CABLE TYPE | CABLE LENGTH | CONNECTOR TYPE | RADOME COLOR |
|---------|------------|--------------|----------------|--------------|
| -01 | RG174 | 200 CM | 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 $\pm .5^\circ$ BEND \pm | MFG APPR. | |
| ONE PLACE DECIMAL ± 1.0 | Q.A. | |
| TWO PLACE DECIMAL $\pm .50$ | | |
| INTERPRET GEOMETRIC | | |
| TOLERANCING PER: | | |
|  | CAD MAINTAINED. | |
| THIRD ANGLE PROJECTION | CHANGES SHALL BE | |
| | INCORPORATED BY | |
| | THE DESIGN ACTIVITY. | |
| DO NOT SCALE DRAWING | | |

MAXTENA, INC

100-00252
MEA-GGG-SM

TITLE:

| SIZE | DWG. NO. | REV |
|------------------|--------------|--------------|
| B | 117-00591-01 | A |
| CAGE CODE: 5KQH7 | SCALE: NONE | SHEET 1 OF 1 |