



# MEA-1600-SM

GNSS and Iridium screw mount

Part #: 189-00059-01

## Description

The MEA-1600-SM Screw Mount Antenna is a 2-in-1 antenna solution, with high gain and efficiency ideal for maintaining constant global connectivity via Iridium. The MEA-1600-SM covers all GPS/GLONASS/Galileo and Iridium frequencies. This is an ideal antenna for Iridium SBD, navigation and telematics systems, IoT applications and remote connectivity. This screw mount antenna is easy to install with maximum durability. The MEA-1600-SM has a two cables with a SMA-Male standard connector, 3m standard cable length and is fully customizable by offering additional connector types, cable lengths and cable types. This antenna is low profile, rugged and IP67 rated.



Cable 1 - GNSS Ceramic Active Antenna		
Frequency Range	1575.42 MHz	1598-1606 MHz
Band	1575 MHz	1602 MHz
Return Loss	≤ -15.0 dB	
VSWR	≤ 1.4:1 dB	
Efficiency	68.1%	
Impedance	50 Ohms	
Active Gain	28 dB @ 2.7 V	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter Type	Pre-filter	
Noise Figure	1.5 dB Typ	
Voltage	1.5 – 3.6 V	
Current Consumption	9 mA Typ	
Power Consumption	24.3 mW Typ	
ESD Protection	2kV	
Patch Size	25 x 25 x 4 mm	

Cable 2 - Iridium Antenna	
Frequency Range	1616 - 1627 MHz
Band	1621 MHz
Return Loss	-12.5 dB
VSWR	1.6:1
Efficiency	68.1%
Peak Gain	5.2 dBic
Average Gain	-1.8 dB
Radiation Pattern	Hemispherical
Polarization	RHCP

## Features

- 2in1 antenna: GPS/GLONASS/Galileo and Iridium
- High performance
- Low Profile
- Cable 1: GPS/GLONASS /Galileo - 1575-1606 MHz
- Cable 2: Iridium - 1616-1627 MHz
- Iridium certified antenna
- Easy mounting: Screw Mount
- Anti-Rotation Mounting
- Customizable Cable and Connector
- Low profile 80 × 74 × 25.6 mm
- IP67
- IP69

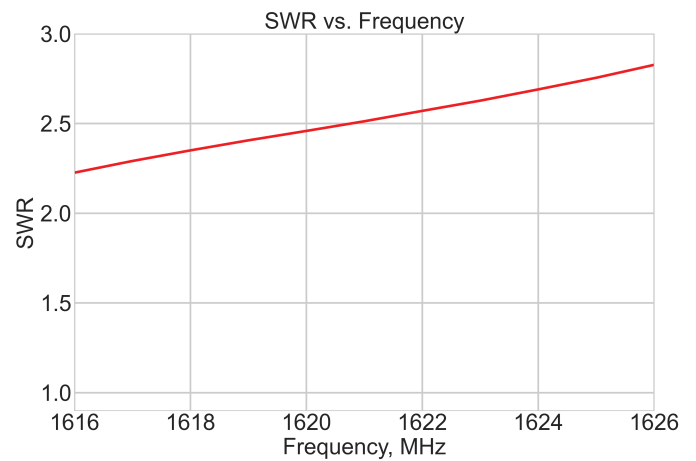
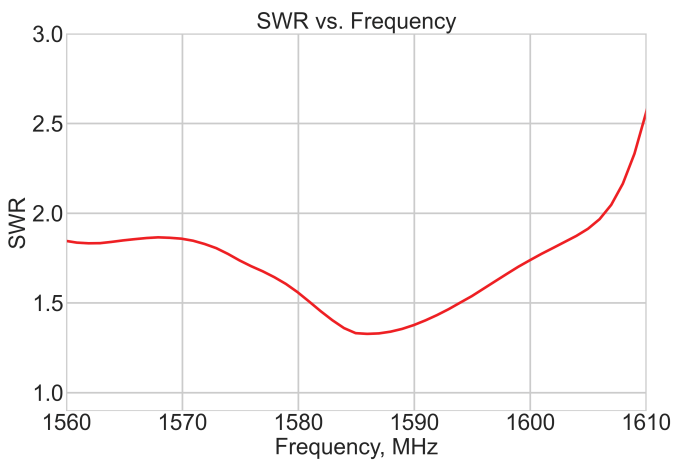
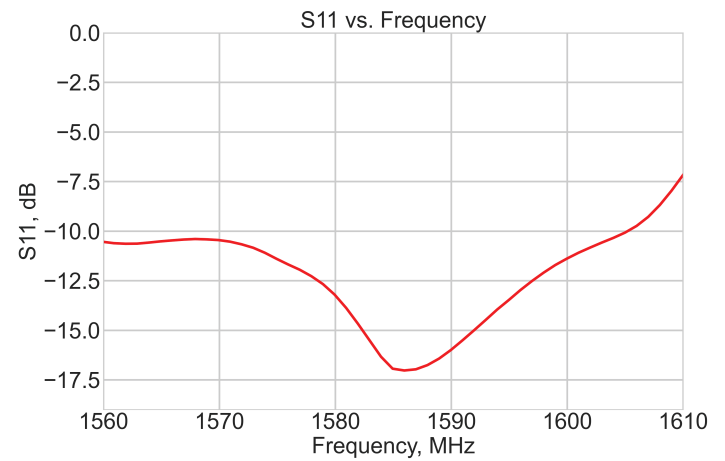
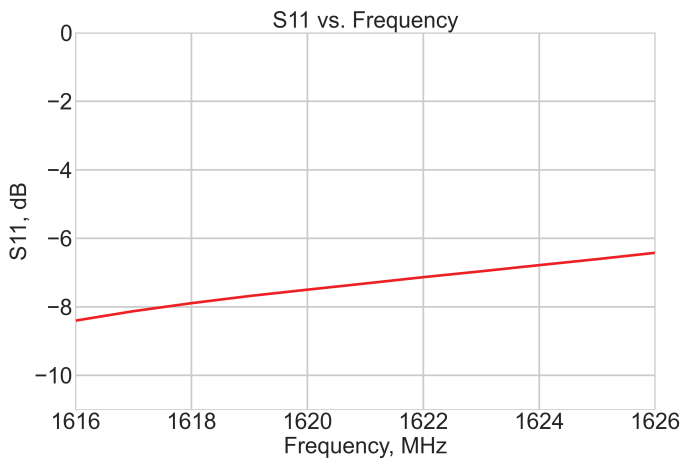
## Applications

- Iridium SBD
- Satellite IoT applications
- Telematic
- Navigation
- Satellite Communications
- Remote surveillance
- Monitoring

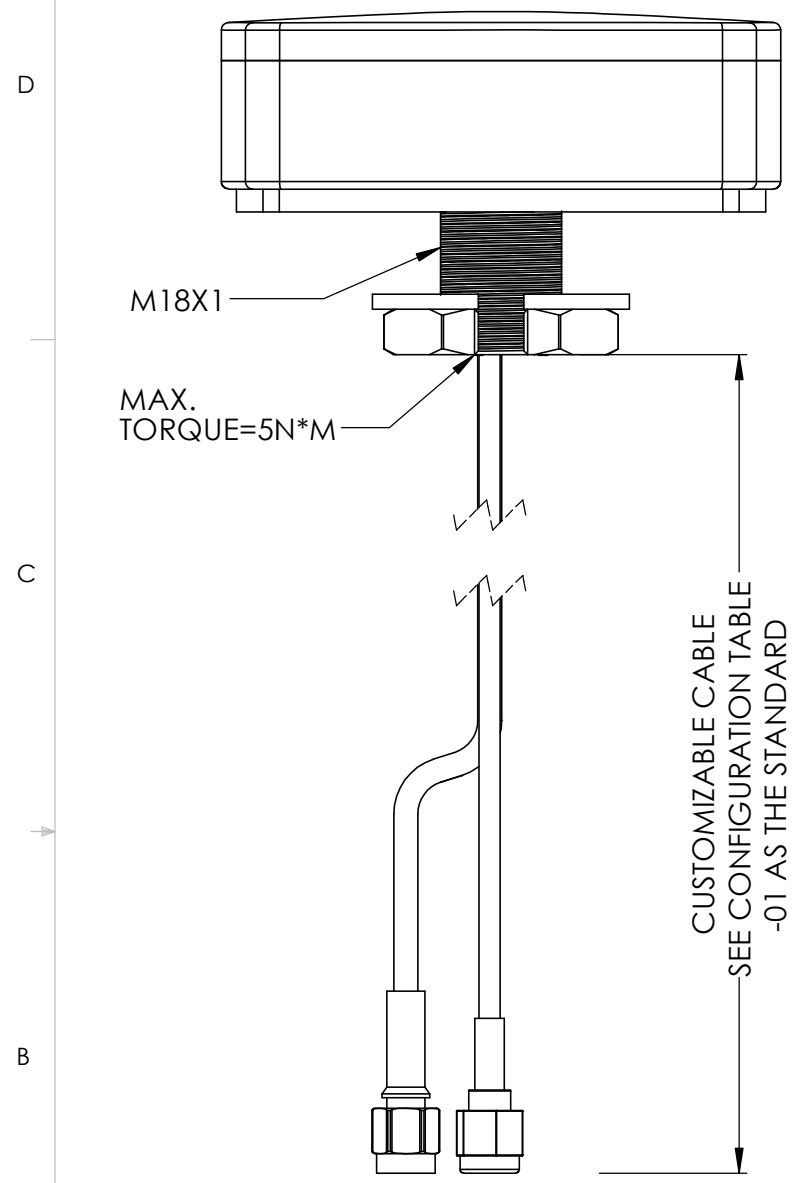
### Mechanical Specifications

Antenna Dimensions	80 x 74 x 25.6 mm
Operating Temperature	-40 °C to +85 °C
Certificates	Iridium Certified, IP67, IP69
Connector	SMA male
Antenna Color	Black, White
Radome Type	PC + ASA
Substance Compliance	RoHS
Cable Length	300 cm
Mounting style	Screw mount
Max. Tighten Torque	5 Nm

\*Antenna Measurement Conditions:  
Mounted on metal plate of 30x30cm

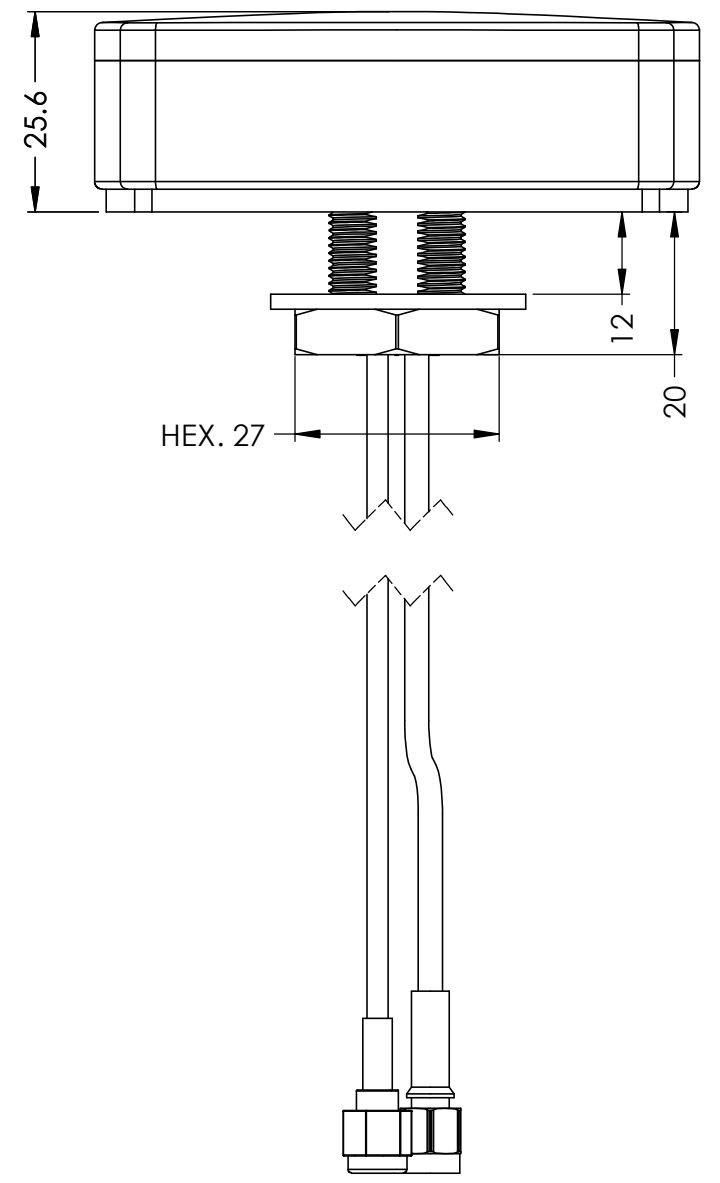


DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-03-19	QZ

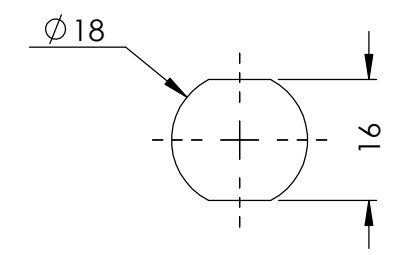
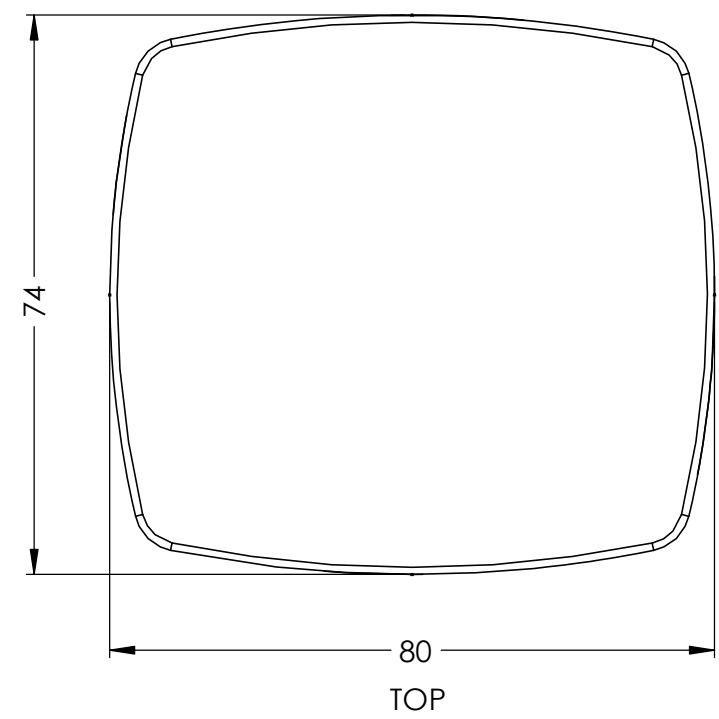


CUSTOMIZABLE CABLE  
SEE CONFIGURATION TABLE  
-01 AS THE STANDARD

FRONT



RIGHT



MOUNTING HOLE

NOTES:

- FREQUENCY:
  - CABLE1 (GPS/ GLONASS/ QZSS/ GALILEO): 1575 ~ 1606 MHz
  - CABLE2 (IRIDIUM): 1616 ~ 1627 MHz
- DIMENSIONS ARE AFTER MOUNTING
- MAX. MOUNTING THICKNESS: 12MM
- RADOME TYPE: ABS UV STABLE
- RADOME COLOR: BLACK, WHITE
- CUSTOMIZABLE CABLE AND CONNECTORS
- CERTIFICATES: IP67, IP69
- OPERATING TEMPERATURE: -40 °C ~ 85 °C
- STORAGE TEMPERATURE: -40 °C ~ 85 °C

ITEM 189-00059 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-03-19	QZ

189-00059 CONFIGURATION TABLE			
DASH NO	RADOME COLOR	CABLE & LENGTH	CONNECTOR TYPE
-01	BLACK	CABLE 1 : D100, 3M; CABLE 2 : D302, 3M	SMA MALE

UNLESS OTHERWISE SPECIFIED:  
DIMENSIONS ARE IN MM  
TOLERANCES:  
FRACTIONAL ±  
ANGULAR: MACH ± .5° BEND ±  
INTEGER ± 2  
ONE PLACE DECIMAL ± 1.0  
TWO PLACE DECIMAL ± .50  
INTERPRET GEOMETRIC TOLERANCING PER:

THIRD ANGLE PROJECTION  
DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	QZ	2021-03-19
CHECKED	ZX	2021-03-22
ENG APPR.	NPC	2021-04-23
MFG APPR.		
Q.A.		

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

MAXTENA, INC

TITLE: 189-00059  
MEA-1600-SM

SIZE B DWG. NO. 117-00426-01 REV A

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