

MEA-1227-SM

GNSS/L1L2 Screw Mount

Part #: 189-00062-01

Description

The MEA-1227-SM Screw Mount Antenna is a GNSS/L1L2 low profile antenna solution, with a very high-performance ideal for maintaining constant network connectivity. The MEA-1227-SM covers all GPS/GLO/BEI/QZSS/Galileo/SBAS/L1L2 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-1227-SM has a one cable 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 Specification

Parameter	Specification	
Frequency Range	1215-1237 MHz	1561-1606 MHz
Bands	L2	L1
Bandwidth	22 MHz	45 MHz
Return Loss	-20.7 dB	-9.9 dB
VSWR	1.2:1	2.3:1
Efficiency	63.8%	63.8%
Passive Peak Gain	3.4 dBi	5.3 dBi
Average Gain	-1.9 dB	-2 dB
Impedance	50 Ω	
Radiation Pattern	Hemispherical	
Axial Ratio	≤ 3 dB	
Polarization	RHCP	
Voltage Range	2.3 – 6 V	
Active Gain	28 dB @ 3V	
Noise Figure	1.6 dB @ 3V	
Current Consumption	16 mA @ 3V	
Power Consumption	48 mW @ 3V	
Saw Filter Type	Pre-Filter	
Out of Band Rejection	40 dB	
ESD Protection	2 kV	



Features

- GPS/GLO/BEI/QZSS/Galileo/SBAS/L1L2 Frequency bands
- Pre-Filter
- Low Noise Figure
- Low Power Consumption
- Customizable Cable and Connector
- Dimension 80 x 74 x 25.6 mm
- Anti-Rotation Mechanism
- IP67, IP69

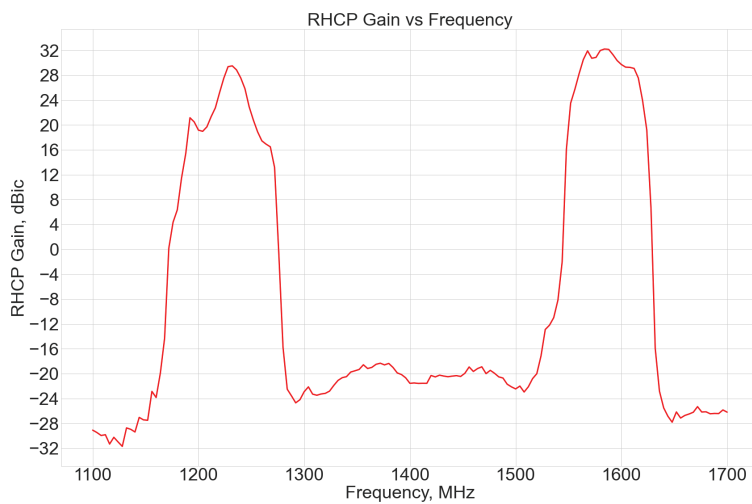
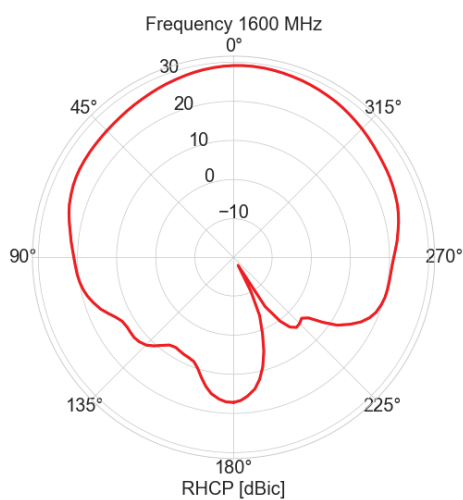
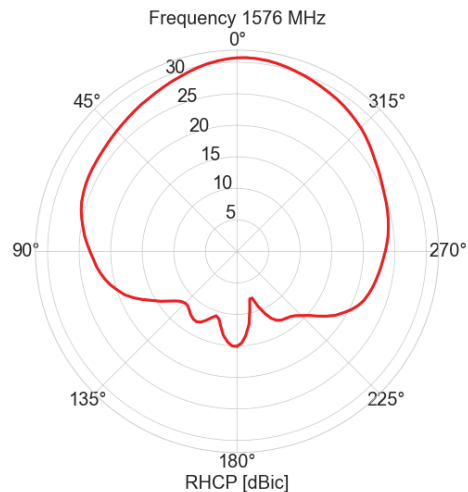
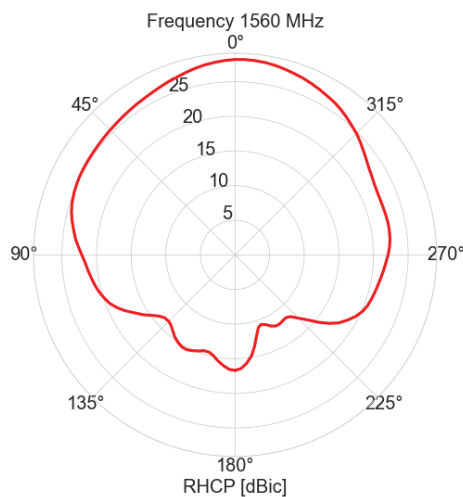
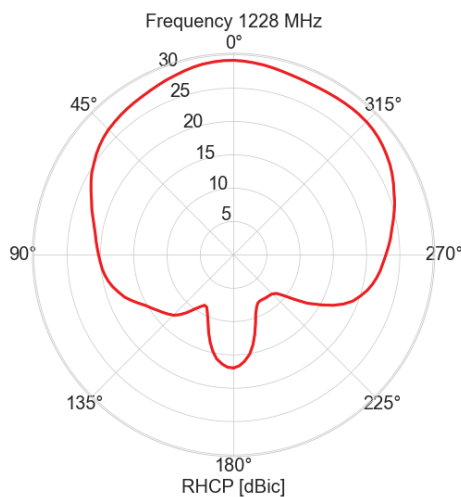
Applications

- Precision navigation
- Precision timing
- Military & security
- Asset tracking
- Oil & gas industries
- Navigation devices
- Mining equipment
- LBS & M2M applications
- Handheld devices
- Law enforcement

Mechanical Specification

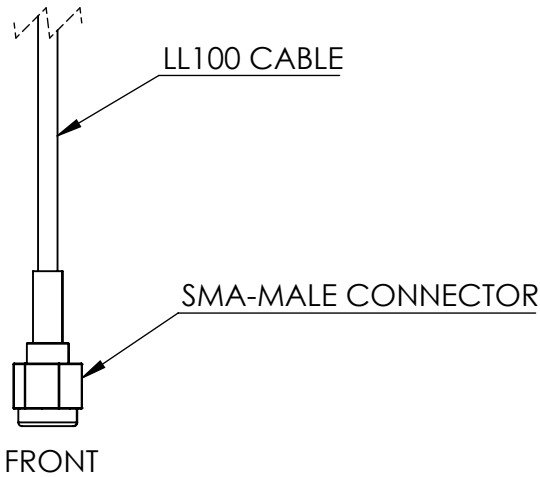
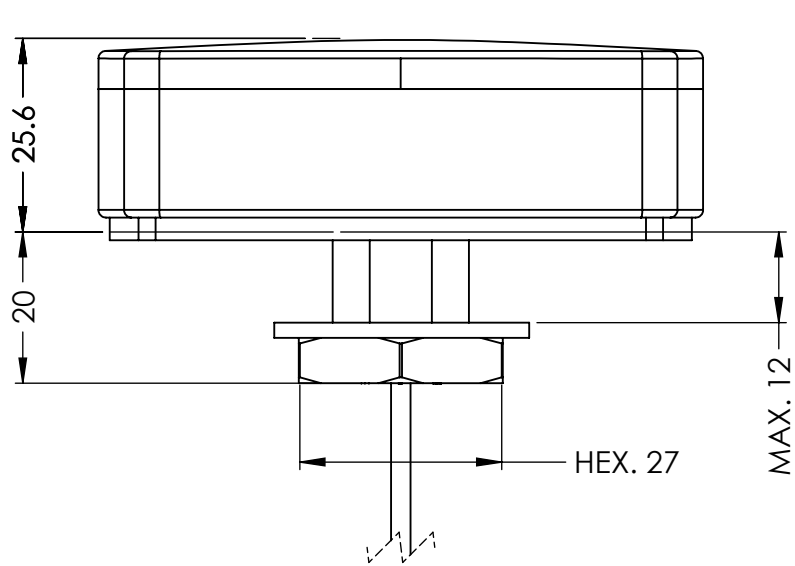
Parameter	Specification
Antenna Dimensions	80 x 74 x 25.6 mm
Mounting Type	Screw Mount
Operating Temperature	-40°C to 85°C
Connector	SMA-Male Standard
Cable Type	LL100 Standard
Radome	ABS/ASA UV Stable
Radome Color	Black, White
Substance Compliance	RoHS
Certificates	IP67, IP69

*Mounted on Ground Plane of 30 x 30 cm

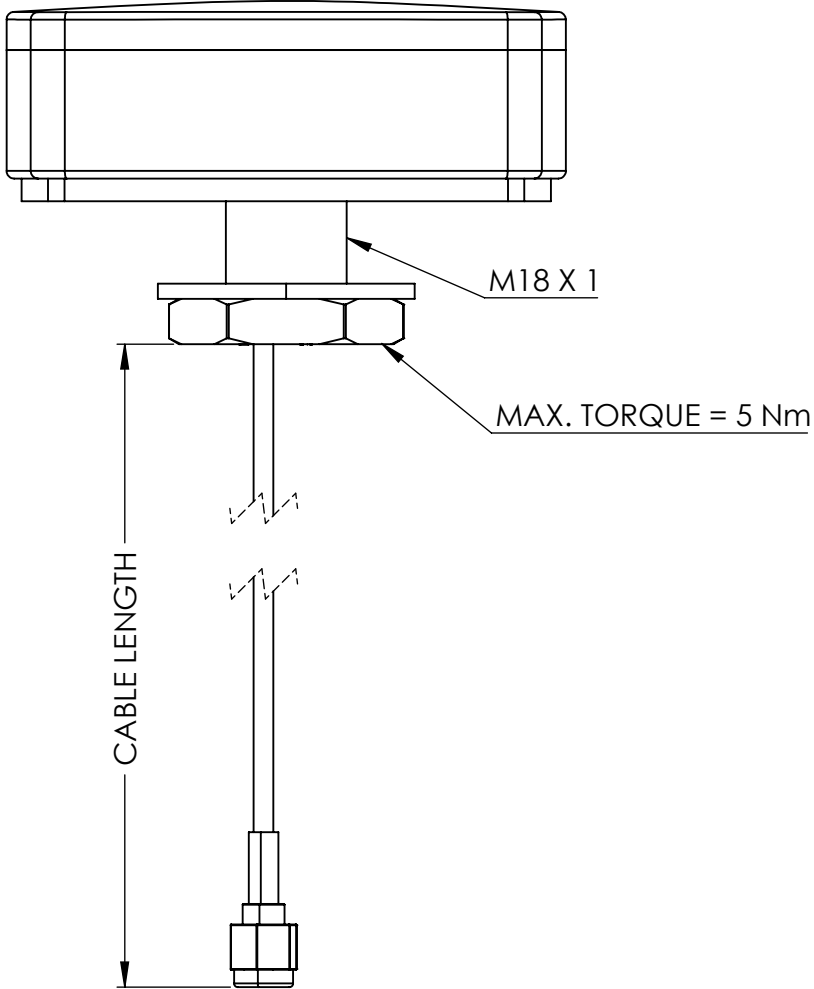


- NOTES:
1. FREQUENCY: 1227 MHz, 1561-1606 MHz
 2. DIMENSIONS ARE AFTER MOUNTING
 3. CUSTOMIZABLE CABLE AND CONNECTOR TYPE
 4. MOUNTING TYPE: SCREW MOUNT
 5. MAX MOUNTING THICKNESS: 12 mm
 6. MATERIALS:
 - RADOME: ASA UV STABLE
 - RADOME COLOR: BLACK or WHITE
 7. OPERATING TEMPERTATURE: -40 C ~ +85 C
 8. STORAGE TEMPERTATURE: -40 C ~ +85 C
 9. CERTIFICATION: IP67, IP69

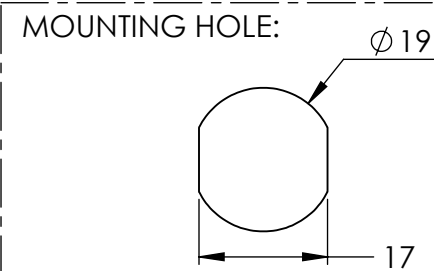
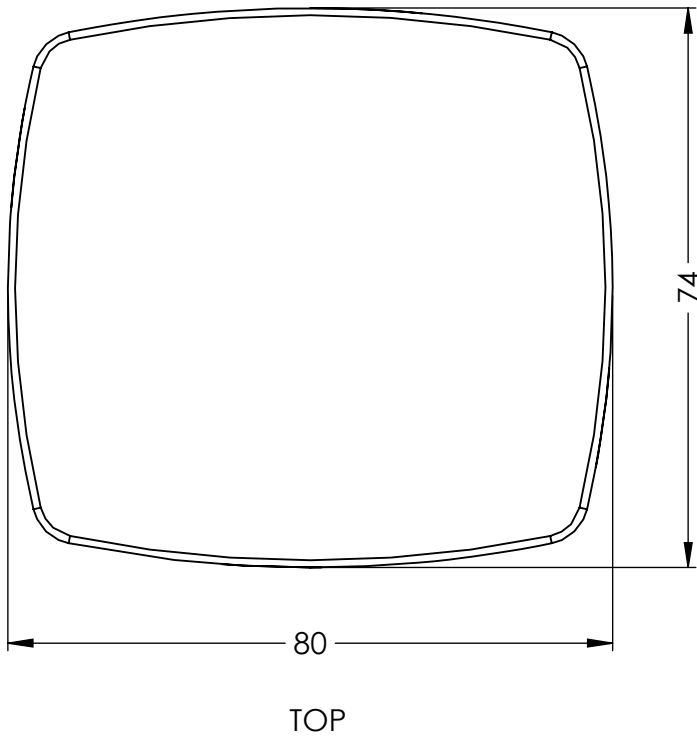
DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-09-24	JET



FRONT



RIGHT



189-00062 CONFIGURATION TABLE

DASH NO	CABLE TYPE	CABLE LENGHT	CONNECTOR TYPE	RADOME COLOR
-01	LL100	2 m	SMA-MALE	BLACK

ITEM 189-00062 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-09-24	JET

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UNLESS OTHERWISE SPECIFIED:		NAME	DATE
DIMENSIONS ARE IN MM TOLERANCES: FRACTIONAL ± ANGULAR: MACH ± .5° BEND ± ONE PLACE DECIMAL ± 1.0 TWO PLACE DECIMAL ± .50	DRAWN	JET	2021-09-24
	CHECKED	ZX	2021-09-24
	ENG APPR.	NPC	2021-09-24
	MFG APPR.		
INTERPRET GEOMETRIC TOLERANCING PER:		Q.A.	
		CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
THIRD ANGLE PROJECTION			
DO NOT SCALE DRAWING			

MAXTENA, INC			
TITLE: 189-00062 MEA-1227-SM			
SIZE B	DWG. NO. 117-00494-01		REV A
CAGE CODE: 5KQH7		SCALE: NONE	SHEET 1 OF 1