



MEA-TETRA-UHF-GNSS

TETRA/UHF AND GNSS SCREW MOUNT

Part #: 100-00247-01

Description

The MEA-TETRA-UHF-GNSS is a multi-frequency, high accuracy, antenna designed for critical communication that cover on 390 MHz, 420 MHz, and 460 MHz bands, and GPS, QZSS, Galileo and GLONASS 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-TETRA-UHF-GNSS is IP67 rated.

Electrical Specifications

Cable 1 - TETRA/UHF Antenna

Parameter	Specification
Standards	TATRA/UHF
Frequency (MHz)	380-470
Return Loss (dB)	~ -14.7
VSWR	~ 1.5:1
Efficiency (%)	~ 73
Peak Gain (dBi)	~ 2.5
Average Gain (dB)	~ -1.4
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	LL195 (other cable type available)



Features

- Cable 1: TETRA/UHF - 380-470 MHz
- Cable 2: GPS/GLONASS/QZSS/Galileo - 1575-1606 MHz
- Easy mounting: Screw Mount
- Heavy Duty antenna
- High Gain
- Anti-Rotation Mounting
- Customizable Cable and Connector
- IP67
- IP69
- IK09

Applications

- Public safety
- IoT applications
- Critical communication
- Public safety
- Precision navigation
- Tracking/ Mapping devices

Cable 2 - GPS/GLONASS Antenna

Parameter	Specification	
Standard	GPS/QZSS/Galileo	GLONASS
Frequency (MHz)	1575.42	1598-1606
Passive Gain (dBi)	~ 3.6	
Impedance (Ω)	50	
Radiation Pattern	Hemispherical	
Voltage Range (V)	1.5 - 3.6	
Active Gain (dB)	28 @ 2.7 V	
Noise Figure (dB)	1.8 @ 2.7 V	
Current Consumption (mA)	9 @ 2.7 V	
Power Consumption (mW)	24.3 @ 2.7 V	
Saw Filter Type	Pre-Filter	
Out of Band Rejection (dB)	~ 43	
ESD Protection (kV)	6	
Connector Type	SMA-Male (other connectors available)	
Cable Length	200 cm (custom length available)	
Cable Type	LL100 (other cable type available)	

Antenna Measurement Conditions:

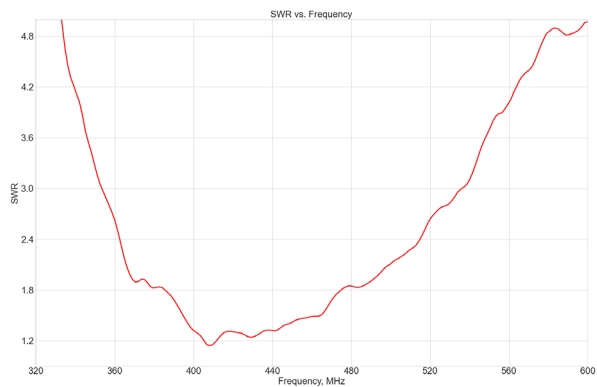
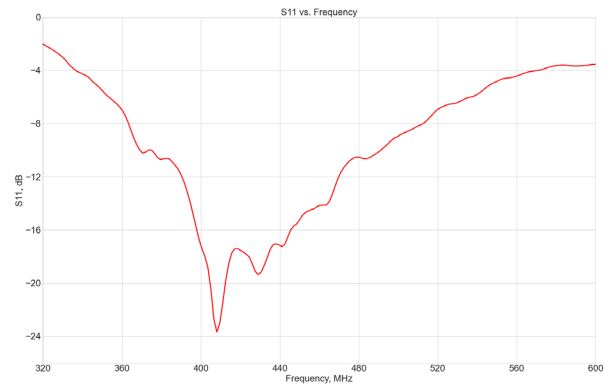
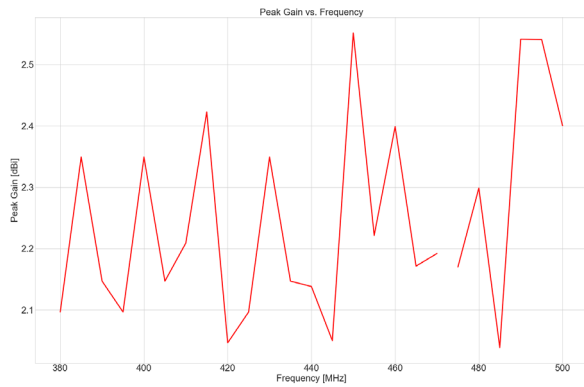
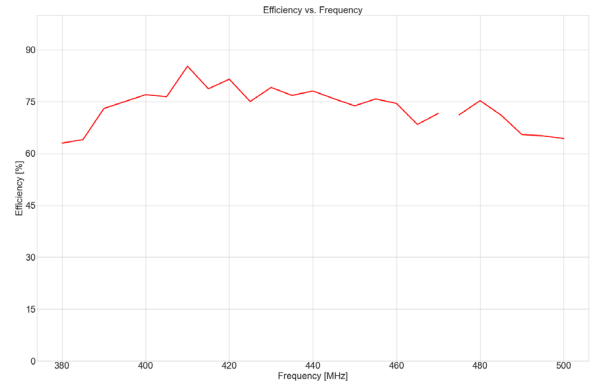
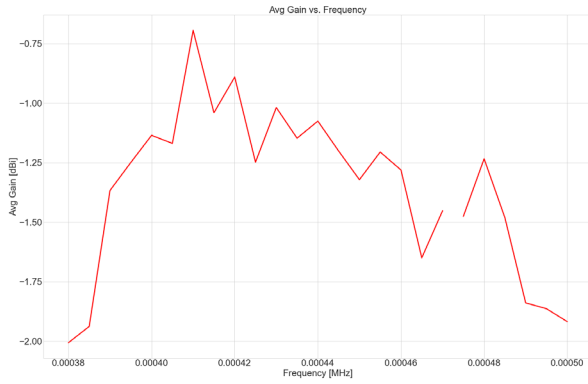
Mounted on 30 x 30 cm metal plate
 200 cm of cable LL195
 Measured in certified CTIA 3D anaechoic chamber

Mechanical and Environmental Specifications

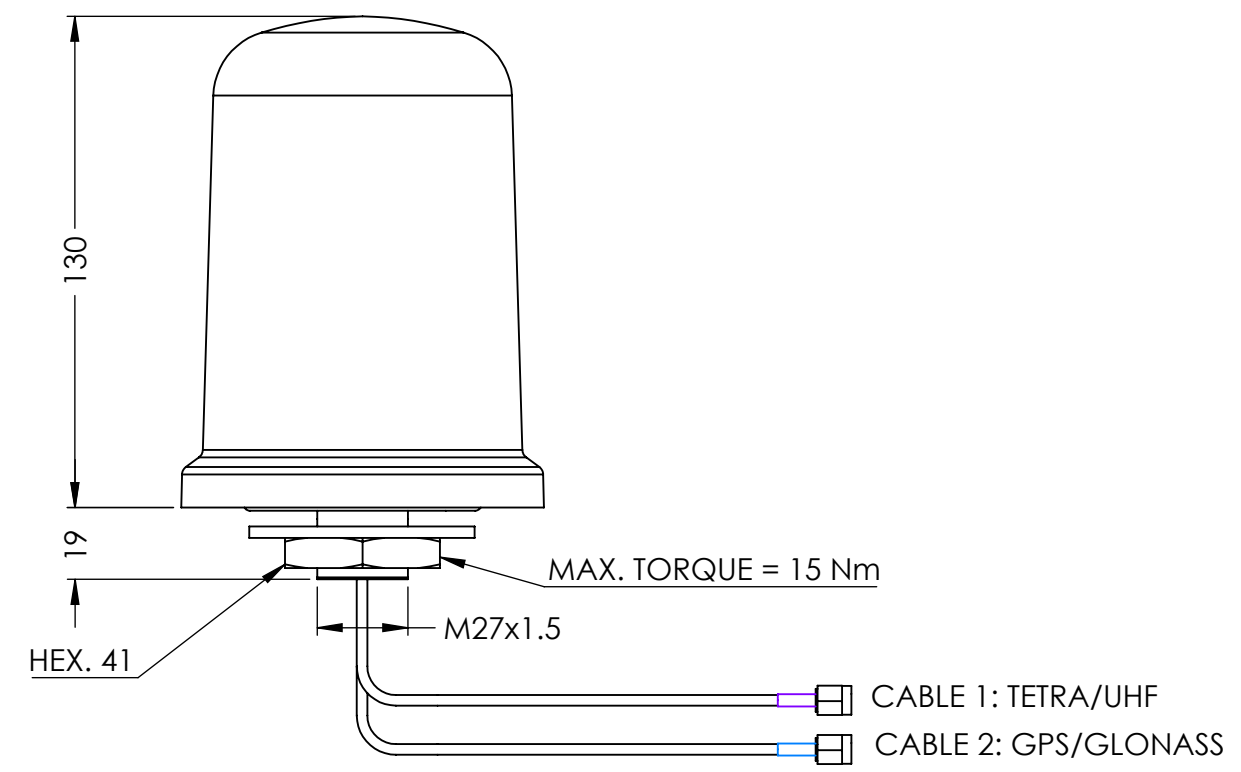
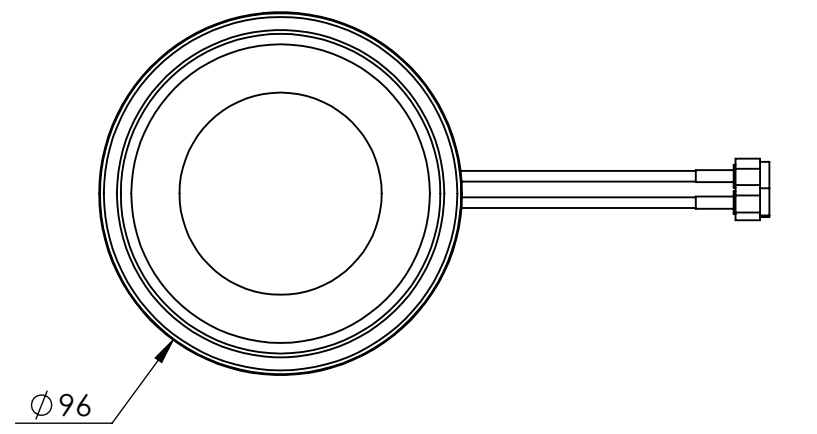
Parameter	Specification
Mounting Type	Screw Mount
Dimensions (mm)	\varnothing 96 x H 130
Weight (g)	500
Max. Tighten Torque (Nm)	15 Nm
Radome	ASA
Radome Color	White, Black
Antenna Base	Aluminium Alloy
Operating Temperature (C)	-40 to +85°
Storage Temperature (C)	-40 to +85°
Certificates	IP67, IP69, IK09
Substance Compliance	RoHS

Radiation Performance

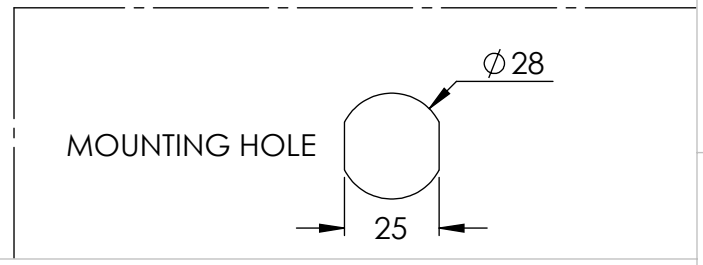
MEA-TETRA-UHF-GNSS



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



- NOTES:
- FREQUENCY:
 - CABLE 1 (TETRA/UHF): 380 - 470 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: 7mm
 - MATERIALS:
 - RADOME: ASA
 - RADOME COLOR: BLACK or WHITE
 - ANTENNA BASE: ALUMINIUM ALLOY
 - OPERATING TEMPERATURE: -40° C ~ +85° C
 - STORAGE TEMPERATURE: -40° C ~ +85° C
 - CERTIFICATION: IP67, IP69, IK09



ITEM 100-00247 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2022-02-18	JET

100-00247 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1: LL195 CABLE 2: LL100	200 CM 200 CM	SMA-MALE GOLD 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 ± .5° BEND ±		MFG APPR.	
ONE PLACE DECIMAL ± 1.0		Q.A.	
TWO PLACE DECIMAL ± .50			
INTERPRET GEOMETRIC TOLERANCING PER:			
 THIRD ANGLE PROJECTION		CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
DO NOT SCALE DRAWING			

MAXTENA, INC			
TITLE: 100-00247 MEA-TETRA-UHF-GNSS			
SIZE	DWG. NO.	REV	
B	117-00585-01	A	
CAGE CODE: 5KQH7		SCALE: NONE	SHEET 1 OF 1

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