



# MEA-LTE-ISM-GNSS-TETRA

CELLULAR/LTE, 2.4/5.0 GHZ ISM, TETRA AND GNSS

Part #: 100-00249-01

## Description

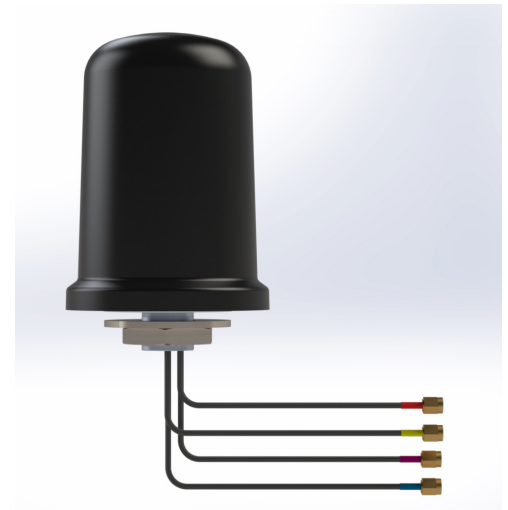
The MEA-LTE-ISM-GNSS-TETRA is a 4-in-1 antenna that combines high performance 4G LTE, 3G, 2G, Tetra/UHF, ISM, GPS, GLONASS and Galileo standard. The antenna's excellent radiation pattern, exceptional out-of-band rejection, and low noise figure ensures optimal performance of GNSS systems. It features 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-LTE-ISM-GNSS-TETRA is IP67 rated.

## Electrical Specifications

Cable 1 - Cellular/LTE Antenna

Parameter	Specification		
Standards	4G, 3G and 2G		
Frequency (MHz)	698-960	1710-2170	2500-2700
Return Loss (dB)	~ -6.1	~ -10.3	~ -10.6
VSWR	~ 3.0:1	~ 2.0:1	~ 1.9:1
Efficiency (%)	~ 41.3	~ 42.4	~ 43.0
Peak Gain (dB)	~ 1.9	~ 3.0	~ 2.9
Average Gain (dB)	~ -3.9	~ -3.8	~ -3.7
Impedance ( $\Omega$ )	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

- 4 in1 antenna : CELLULAR / LTE, TETRA/UHF, ISM, and GPS/ GLONASS/QZSS/Galileo
- Easy mounting: screw mount
- Heavy duty antenna
- High performance
- Anti-rotation mounting
- Customizable cable and connector
- IP67
- IP69
- IK09

## Applications

- Public safety
- IoT applications
- Critical Communication
- Public safety
- Transportation
- Tracking/ Mapping devices

Cable 2 - 2.4/5.0 GHz ISM Antenna

Parameter	Specification	
Standards	WiFi, BT, ZigBee, ISM	
Band (MHz)	2.4 GHz	5.0 GHz
Frequency (MHz)	2410-2490	4920-5925
Return Loss (dB)	~ -10.4	~ -13.6
VSWR	~ 1.9:1	~ 1.6:1
Efficiency (%)	~ 58	~ 64
Peak Gain (dB)	~ 5.6	~ 5.5
Average Gain (dB)	~ -2.3	~ -1.9
Impedance ( $\Omega$ )	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)	

Cable 3 - TETRA Antenna

Parameter	Specification
Standards	TETRA
Band (MHz)	390, 420, 460
Frequency (MHz)	380-470
Return Loss (dB)	~ -16.6
VSWR	~ 1.5:1
Efficiency (%)	~ 64.4
Peak Gain (dB)	~ 2.1
Average Gain (dB)	~ -1.9
Impedance ( $\Omega$ )	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)

Cable 4 - GPS/GLONASS Antenna

Parameter	Specification	
Standards	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency (MHz)	1575.42	1598-1606
Passive Gain (dBi)	~ 3.6	
Impedance ( $\Omega$ )	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 metal plate of 60 x 60 cm  
 200 cm of cable LL195  
 Measured in certified CTIA 3D anaechoic chamber

**Mechanical and Environmental Specifications**

Parameter	Specification
Mounting Type	Screw Mount
Dimensions (mm)	Ø 96 X H 130
Weight (g)	550
Max. Tighten Torque (Nm)	15 Nm
Radome	ASA
Radome Color	White, Black
Antenna Base	Alluminium alloy
Operating Temperature (C)	-40 to +85°
Storage Temperature (C)	-40 to +85°
Protection	IP67, IP69K, IK09
Substance Compliance	RoHS

# Radiation Performance

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