



# MEA-LGI-SM

CELLULAR/LTE, ISM and GNSS Screw Mount

Part #: 189-00058-01



## Description

The MEA-LGI-SM Screw Mount Antenna is a 3-in-1 low profile antenna solution, with a very high-performance ideal for maintaining constant network connectivity. The MEA-LGI-SM covers all Cellular/LTE, 2.4/5.0GHz ISM and GPS/GLONASS/QZSS/Galileo 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-LW2-SM has a two cables with a SMA-Male standard connectors, 2m standard cable length and is fully customizable by offering additional connector types, cable lengths and cable types.

Cable 1 - CELLULAR / LTE Antenna	
Technology	5G, 4G, 3G and 2G
Frequency Range	698-960 MHz
Band	700/850/900 MHz
Return Loss	-9.3 dB
VSWR	2.1:1
Efficiency	45.9%
Peak Gain	2.7 dBi
Average Gain	-3.8 dB
Frequency Range	1710-2170 MHz
Band	1700/1800/1900/2100 MHz
Return Loss	-6.8 dB
VSWR	2.7:1
Efficiency	50.3%
Peak Gain	5.1 dBi
Average Gain	-3.2 dB
Frequency Range	2500-2700 MHz
Band	2600 MHz
Return Loss	-19.9 dB
VSWR	1.3:1
Efficiency	64.1%
Peak Gain	5.3 dBi
Average Gain	-1.9 dB
Impedance	50 Ohm
Polarization	Linear
Radiation Pattern	Omni-Directional
Max. Input Power	25 W

## Features

- 3in1 antenna: Cellular/LTE, 2.4/5.0 GHz ISM and GNSS
- Ultra-Wide band antenna
- High performance
- Easy mounting: Screw Mount
- Optimized for Iridium network
- Anti-Rotation Mounting
- Ground Plane Independent
- Customizable Cable and Connector
- Low profile 80 × 74 × 25.6 mm
- IP67
- IP69

## Applications

- IoT applications
- Telematic
- Navigation
- Satellite Communications
- LTE applications



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**Table 2 - 2.4/5.0 GHz ISM Antenna**

Frequency Range	2410-2490 MHz	4920-5925 MHz
Band	2400 MHz	5000 MHz
Return Loss	-13.5 dB	-12.8 dB
VSWR	1.6:1	1.8:1
Efficiency	35.4%	26.4%
Peak Gain	3.4 dBi	3.2 dBi
Average Gain	-4.5 dB	-5.8 dB
Impedance	50 Ohm	
Polarization	Linear	
Radiation Pattern	Omni-Directional	
Max. Input Power	25W	

**Table 3 - GPS/GLONASS Antenna**

Frequency Range	1575.42 MHz	1598-1606 MHz
Band	1575 MHz	1602 MHz
Return Loss	≤ -15.0 dB	
VSWR	≤ 1.4:1 dB	
Patch Size	25 x 25 x 4 mm	
Impedance	50 Ohm	
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	

**Mechanical Specifications**

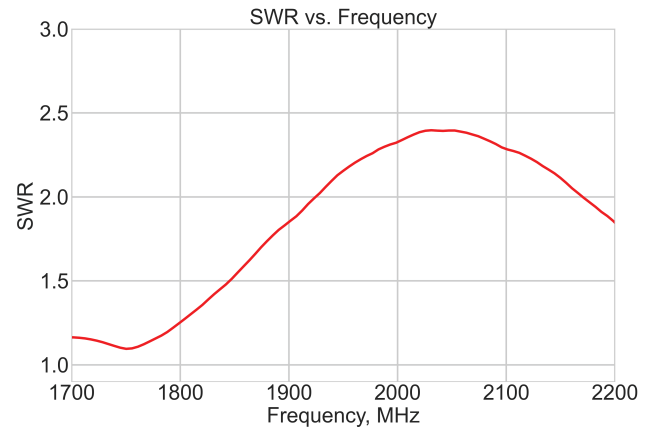
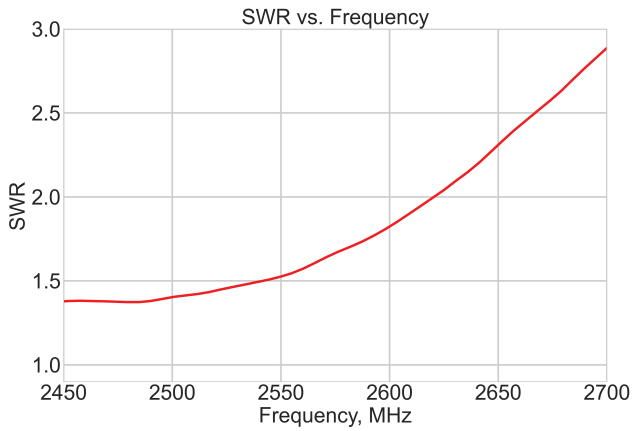
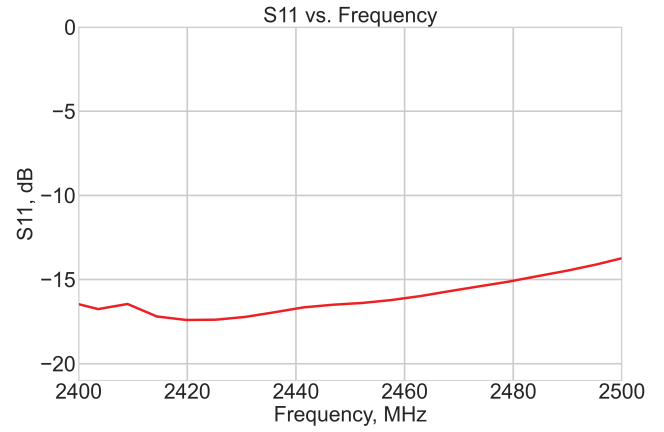
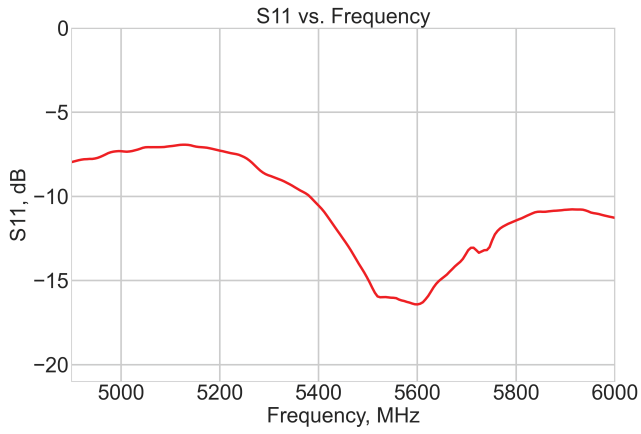
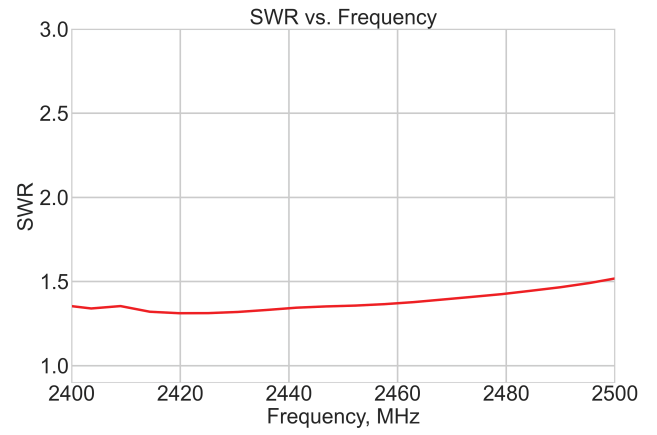
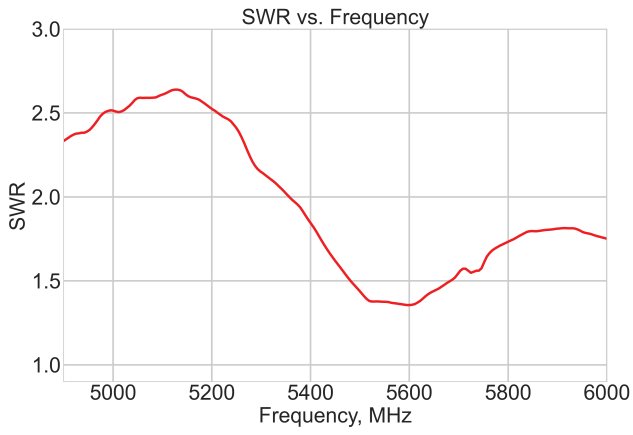
Antenna Dimensions	80 x 74 x 25.6 mm
Operating Temperature	-40 °C to +85 °C
Certificates	Iridium Certified, IP67, IP69
Connector	SMA male
Antenna Color	Black, White
Radome Type	PC + ASA
Substance Compliance	RoHS
Cable Length	200 cm
Mounting style	Screw mount
Max. Tighten Torque	5 Nm

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

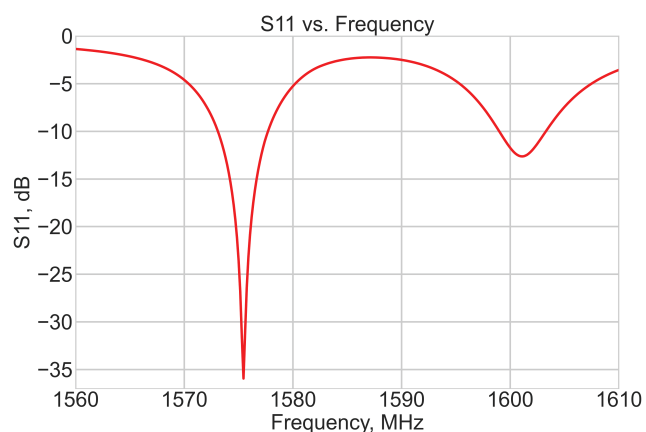
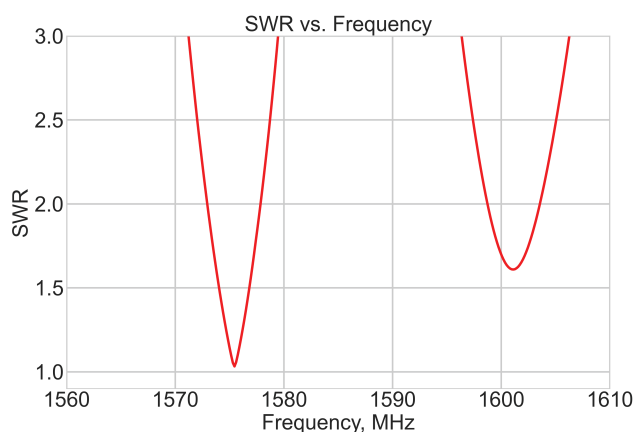
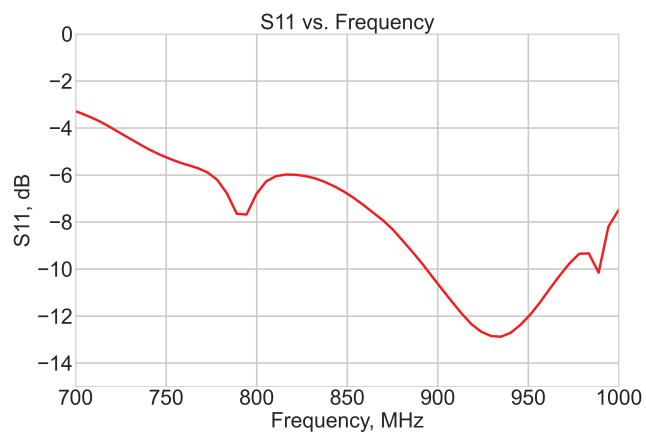
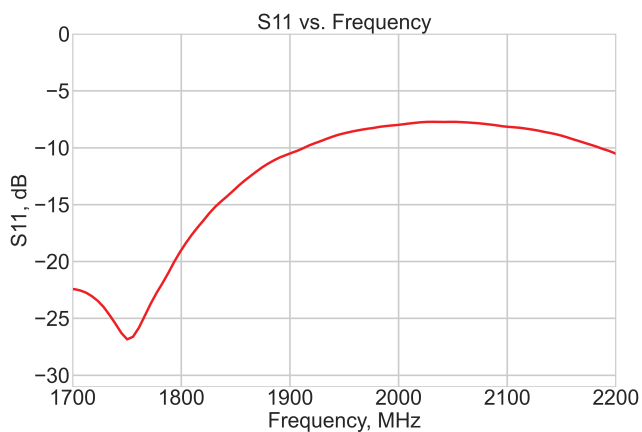
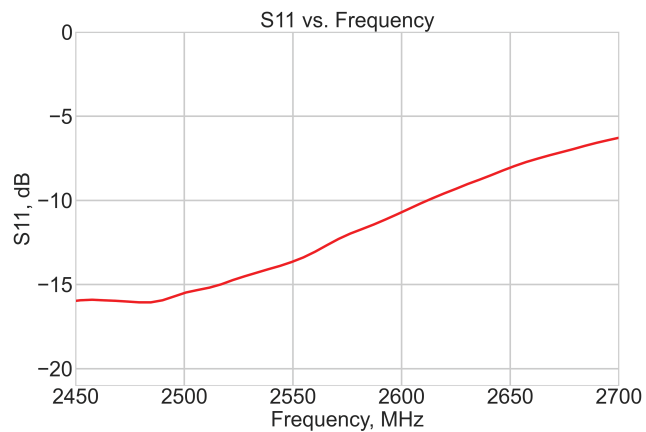
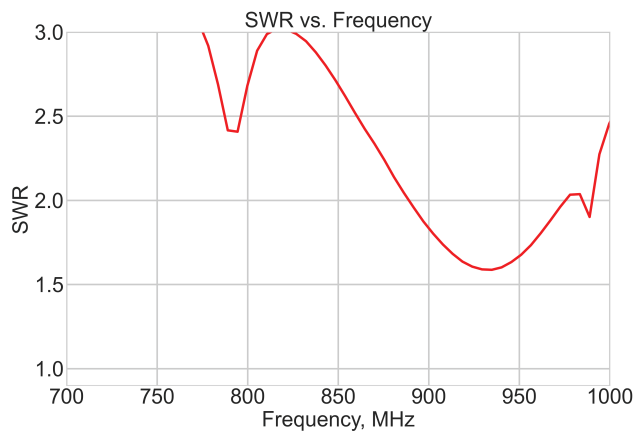


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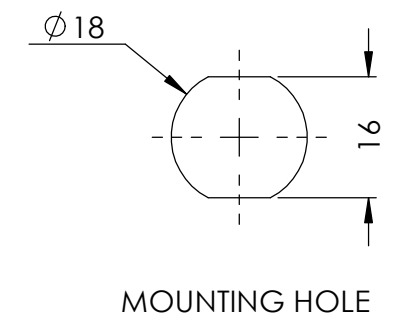
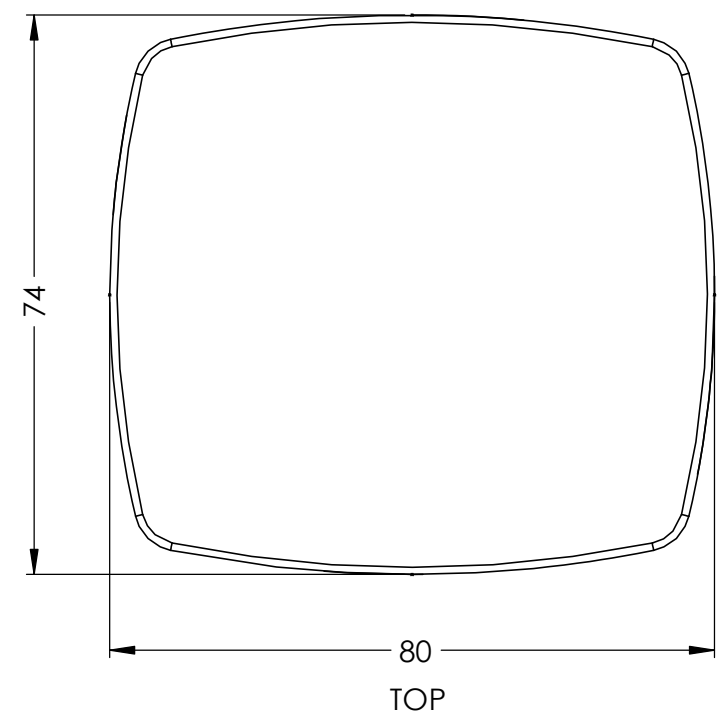
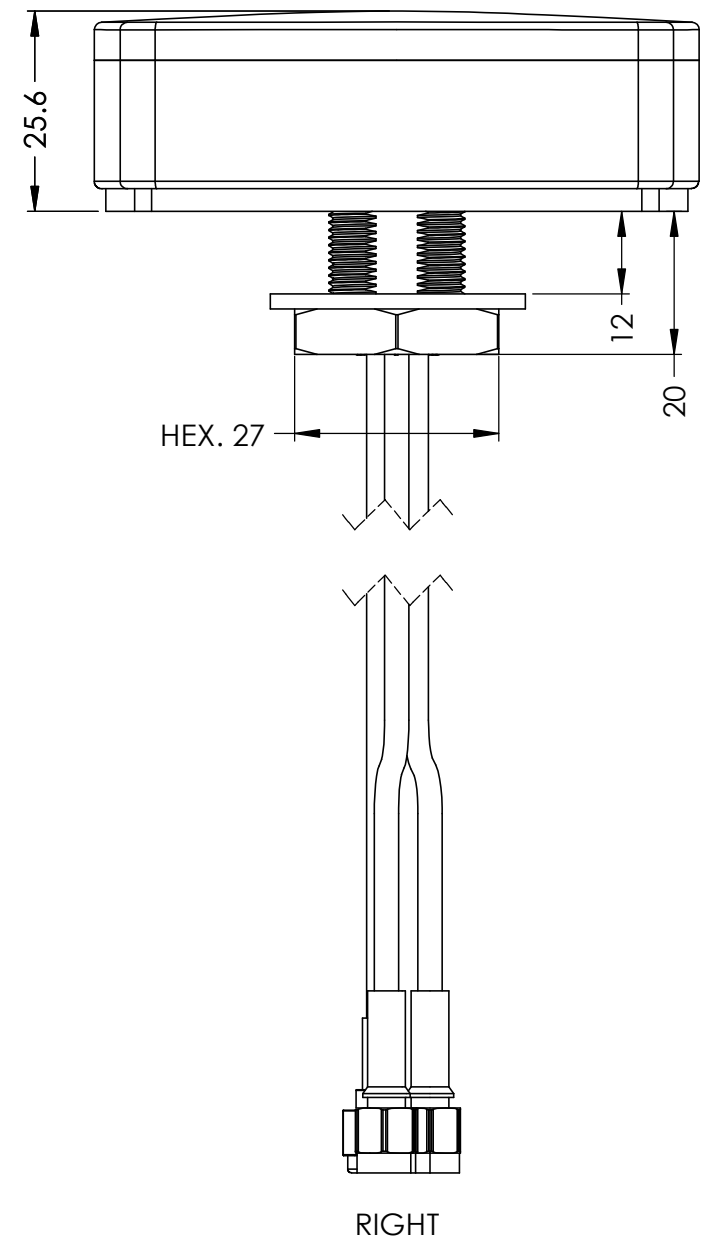
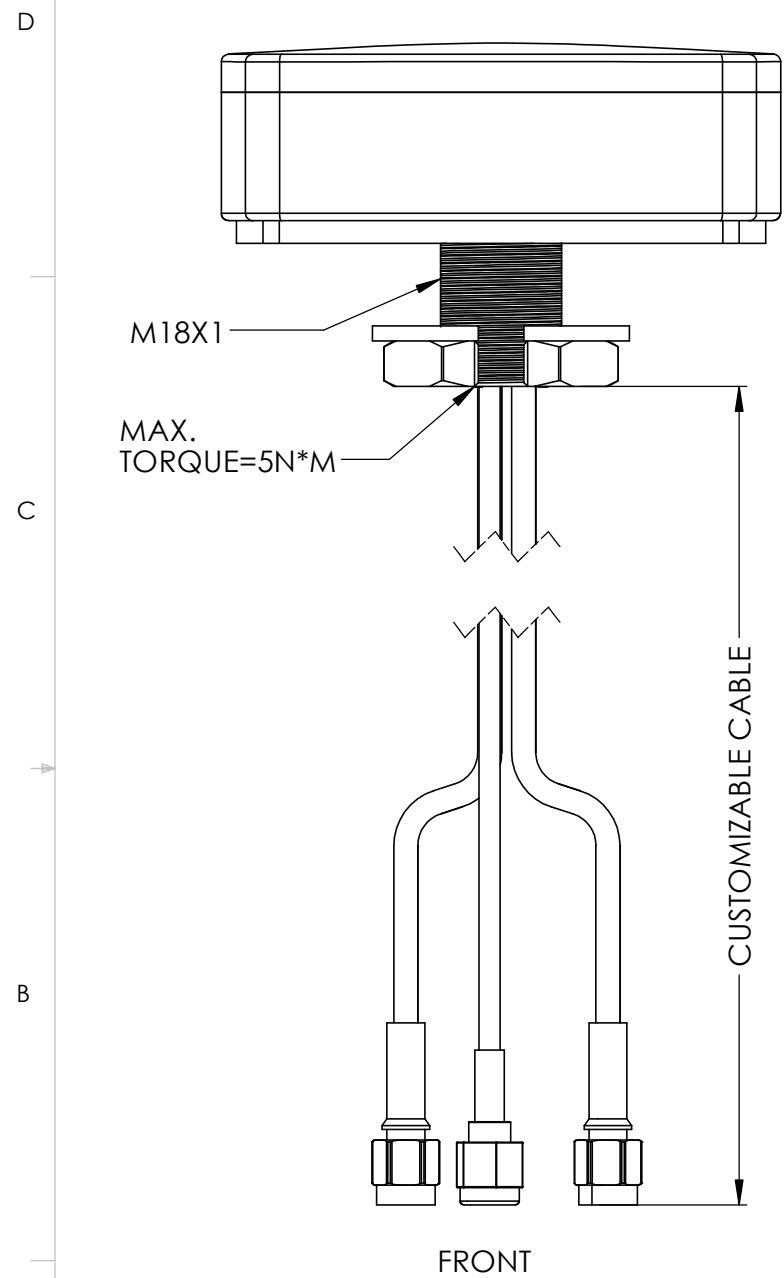


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DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-03-17	QZ



- NOTES:
- FREQUENCY:
    - CABLE 1 (CELLULAR/ LTE): 698-960 MHz; 1710-2170 MHz; 2500-2700 MHz
    - CABLE 2 (2.4/5.0 GHz ISM): 2410-2490 MHz; 4920-5925 MHz
    - CABLE 3 (GPS/ GLONASS/ QZSS/ GALILEO): 1575-1606 MHz
  - DIMENSIONS ARE AFTER MOUNTING
  - MAX. MOUNTING THICKNESS: 12MM
  - RADOME TYPE: ASA 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 189-00058 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-03-17	QZ

189-00058 CONFIGURATION TABLE			
DASH NO	RADOME COLOR	CABLE & LENGTH	CONNECTOR TYPE
-01	BLACK	CABLE 1 : D302,2M; CABLE 2 : D302,2M; CABLE 3 : D100,2M	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	2021-03-17
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: 189-00058 MEA-LGI-SM

SIZE B DWG. NO. 117-00425-01 REV A

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