MEA-5GGG-SM

5GNR and GPS/GLONASS Screw Mount

Part #: 100-00204-01



Description

The MEA-5GGG-SM Screw Mount Antenna is a 2-in-1 antenna solution, with high gain and efficiency ideal for maintaining constant global connectivity. The MEA-5GGG-SM covers all GPS/GLONASS and 5GNR 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. The MEA-5GGG-SM has 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.

Electrical Specification

	Parameter	Specification	
Cable 1 - 5GNR Antenna	Frequency	698-960 MHz	1427-2690 MHz
	Band	600, 700, 850, 900 MHz	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600 MHz
	Return Loss	-8.9 dB	-9.2 dB
	VSWR	2.6:1	2.4:1
	Efficiency	55%	51.2%
	Peak Gain	2.3 dBi	5.1 dBi
	Average Gain	-2.7 dB	-3.1 dB
	Frequency	3300-5000 MHz	5150-5925 MHz
	Band	3300, 3500, 3600, 3700, 4500 MHz	5200, 5500, 5800 MHz
	Return Loss	-8.2 dB	-7.5 dB
	VSWR	2.7:1	2.5:1
	Efficiency	25.7%	28.3%
	Peak Gain	2.6 dBi	2.7 dBi
	Average Gain	-6.0 dB	-5.5 dB
	Impendance	50 Ω	
	Polarization	Linear	
	Radiation Pattern	Omni-Directional	
	Max. Input Power	25 W	

Features

- 5GNR & GPS/GLONASS/QZSS/Galileo frequency coverage
- Easy Mounting: Screw Mount
- Anti-Rotation Mechanism
- Low Profile
- Ground Plane Independent
- Customizable Cable and Connector
- Dimensions 80 × 74 × 25.6 mm
- IP67, IP69

Applications

- Asset Tracking
- Telematics
- Container & Logistics
- Automotive
- Industrial Applications
- IOT Applications

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Parameter		Specification	
Cable 2 - GPS/GLONASS Antenna	Frequency Range	1575.42 MHz	1598-1610 MHz
	Band	1575 MHz	1602 MHz
	Return Loss	≤ -15 dB	
	VSWR	≤ 1.4:1	
	Impendance	50 Ω	
	Radiation Pattern	Hemispherical	
	Polarization	RHCP	
	Saw Filter	Pre-Filter	
	Active Gain	28dB @ 2.7 V	
	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	2 kV	

Mechanical Specification

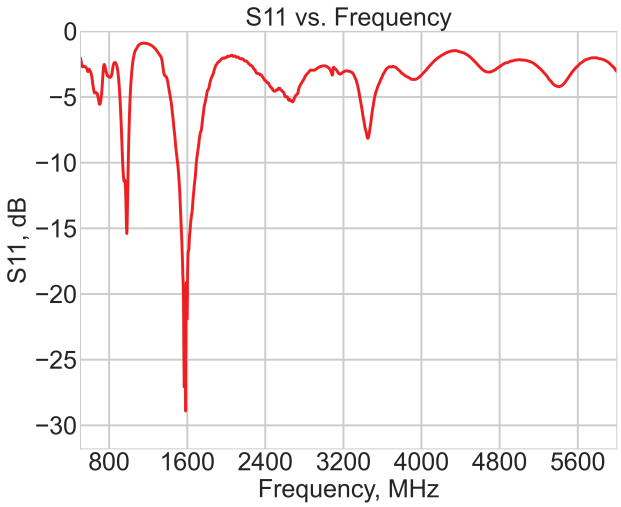
Parameter	Specification
Antenna Dimensions	80 × 74 × 25.6 mm
Operating Temperature	-40˚C to + 85˚C
Mounting Type	Screw Mount
Connector	SMA-Male
Cable	LL100/D302 Standard
Radome	ABS UV Stable / White, Black
Substance Compliance	RoHS
Certificates	IP67, IP69

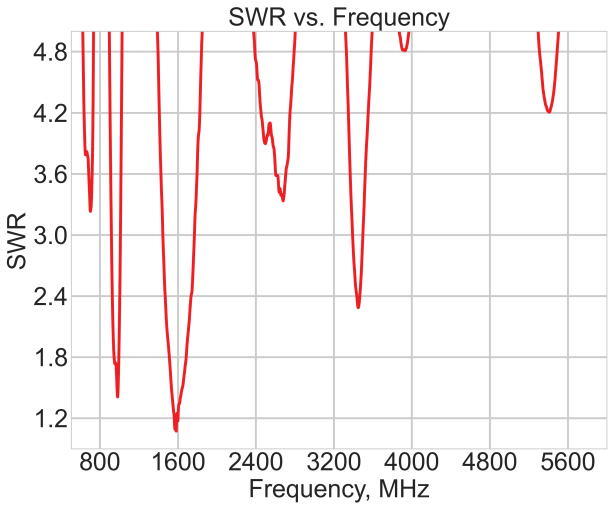
*Mounted on Metal Plate of 30 x 30 cm

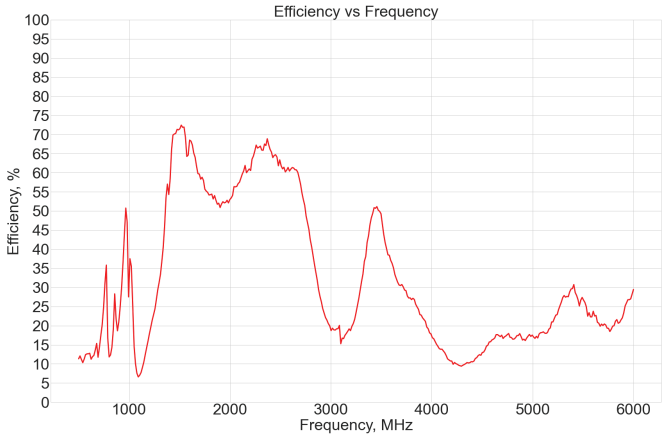
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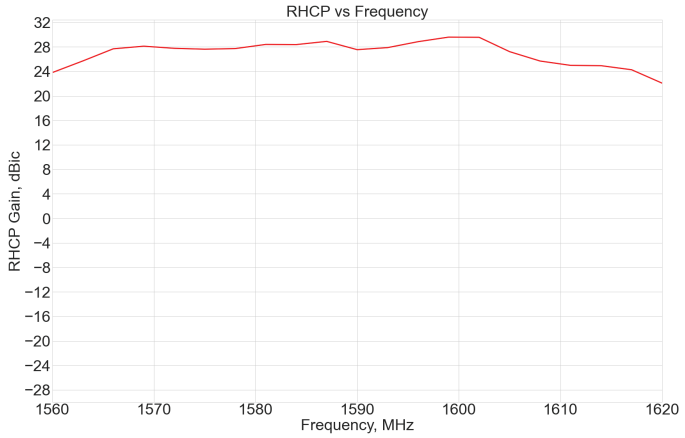
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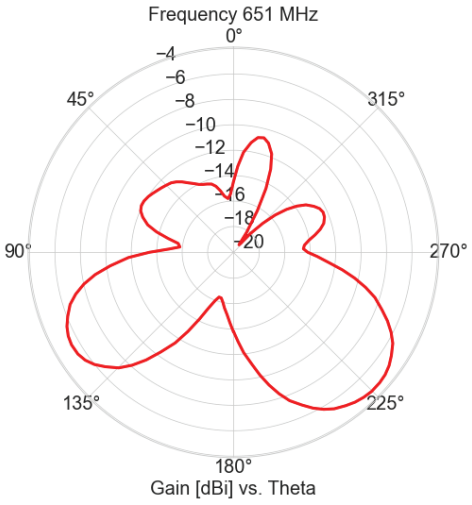
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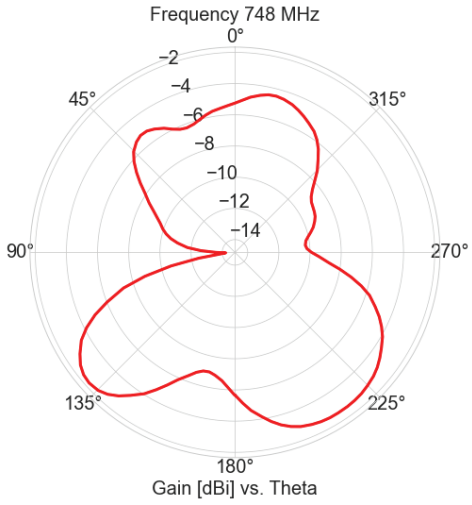


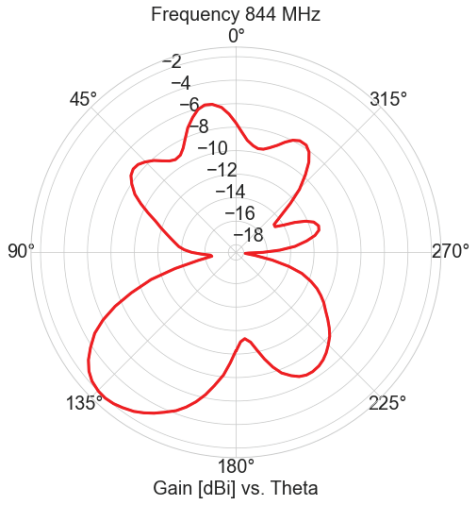






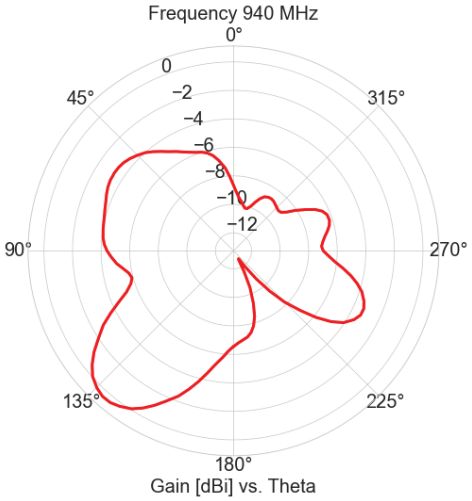


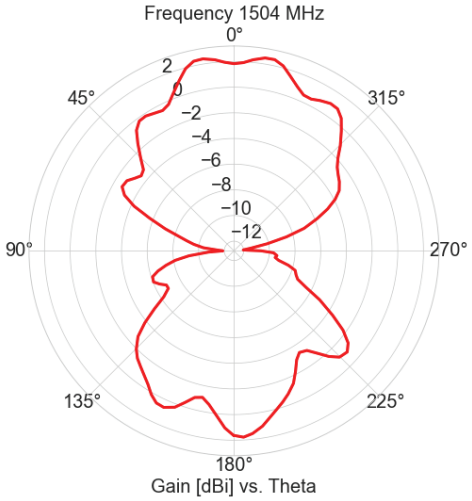


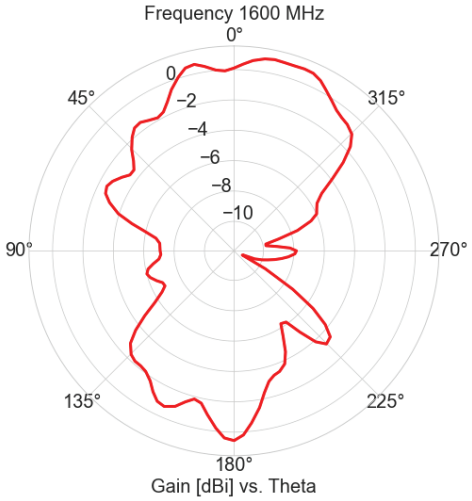


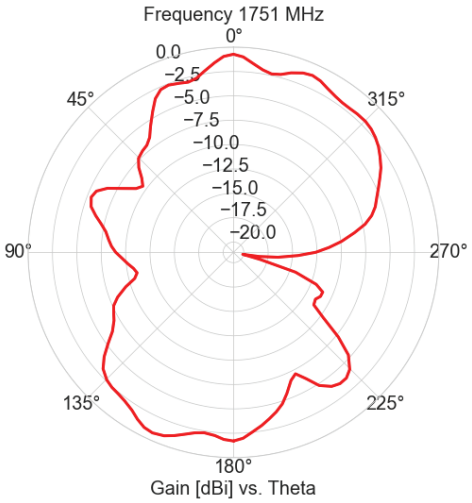
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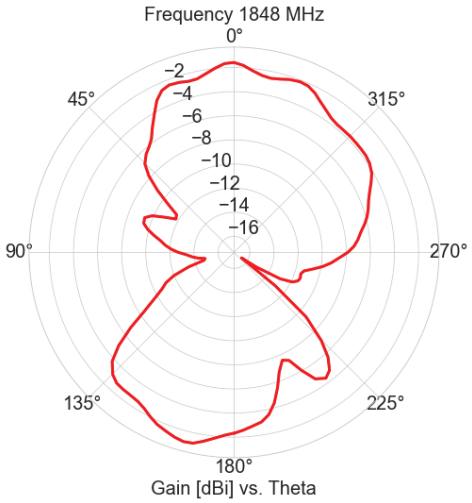
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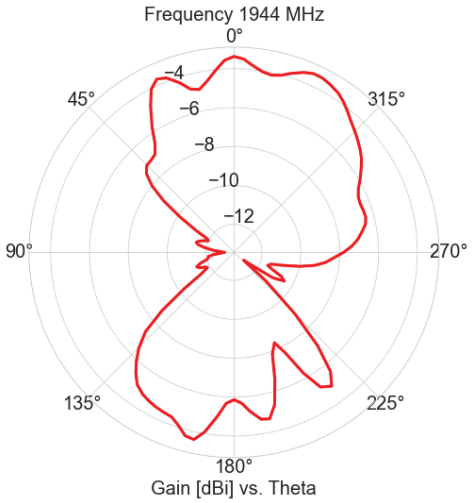


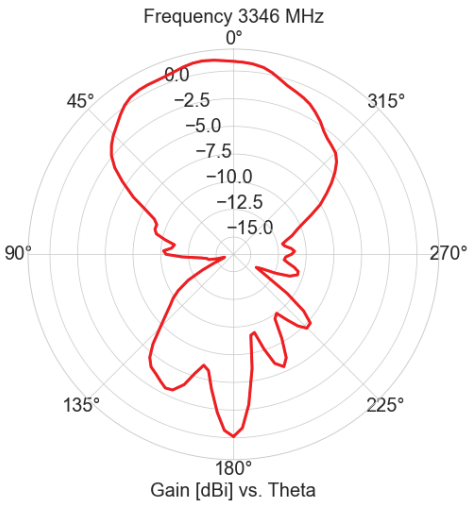


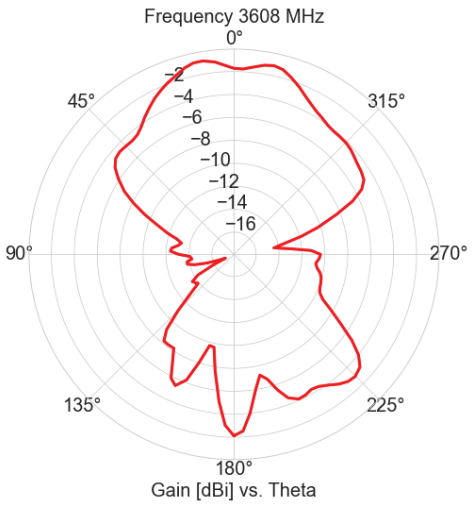


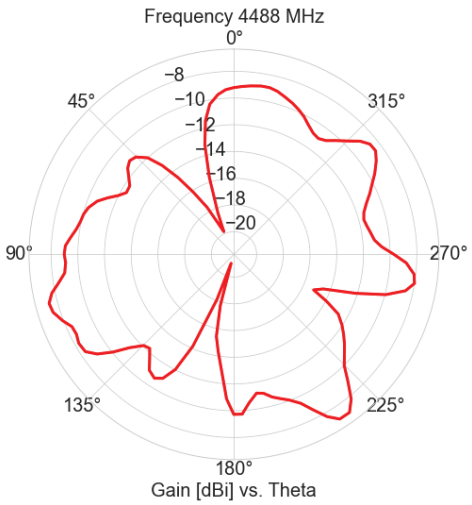






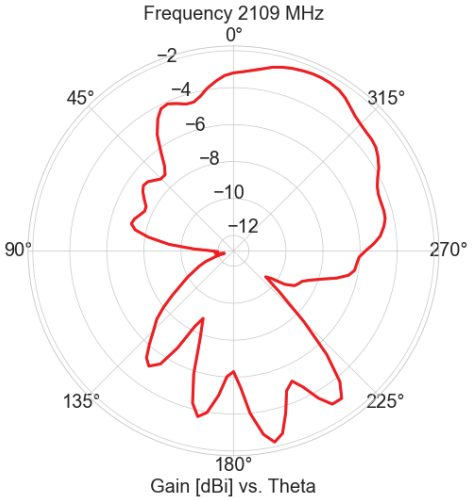




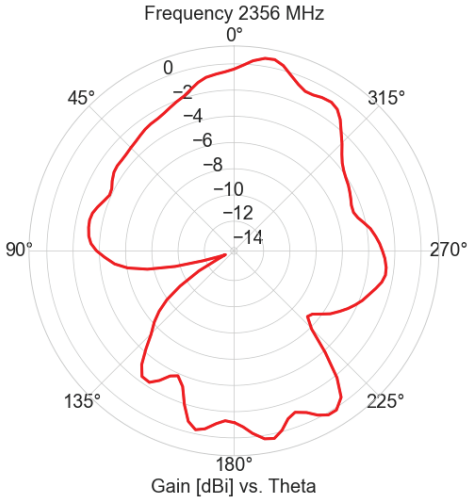


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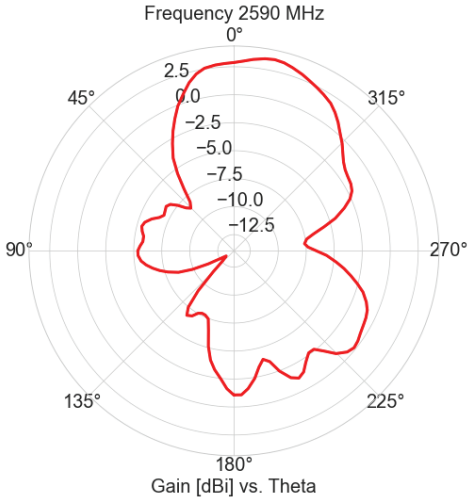
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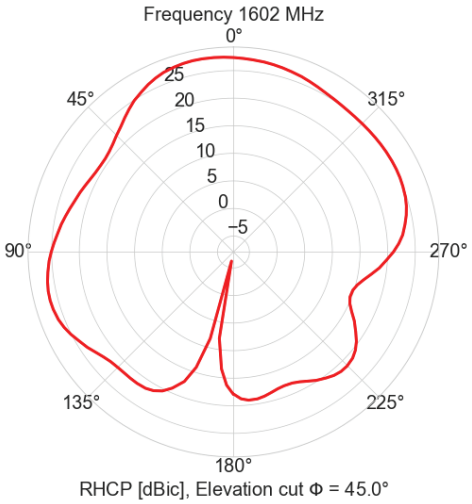
Gain [dBi] vs. Theta



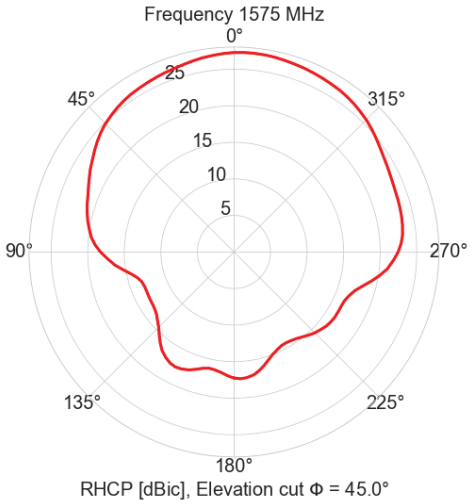
Gain [dBi] vs. Theta



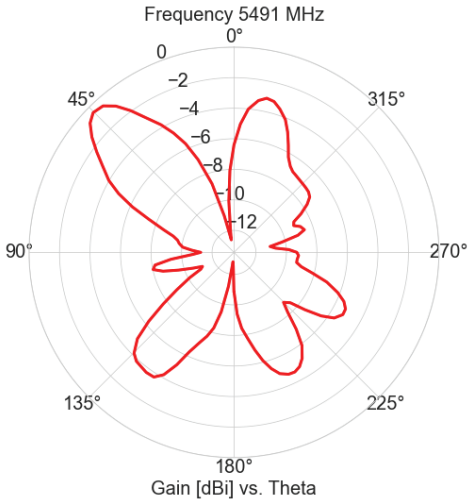
Gain [dBi] vs. Theta



RHCP [dBic], Elevation cut Φ = 45.0°



RHCP [dBic], Elevation cut Φ = 45.0°



Gain [dBi] vs. Theta

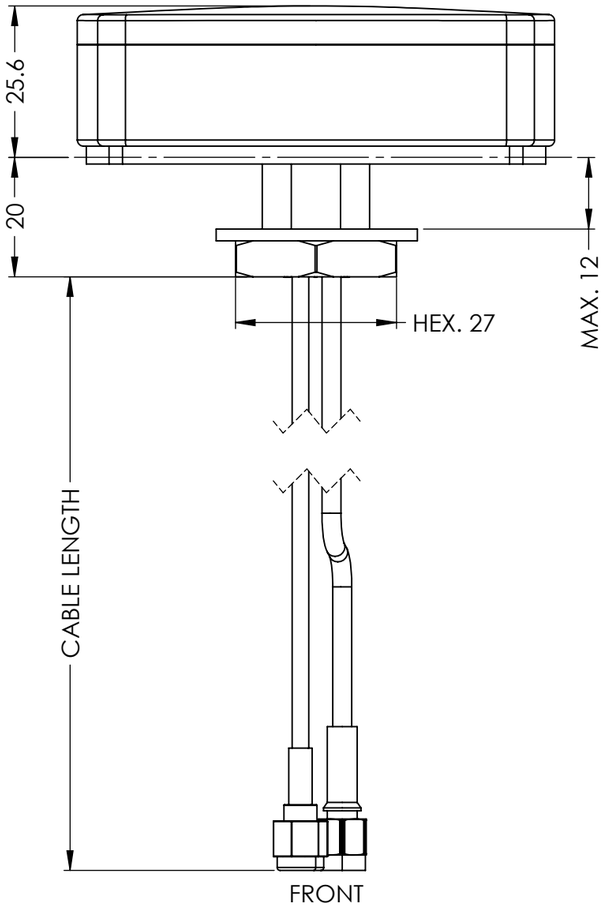
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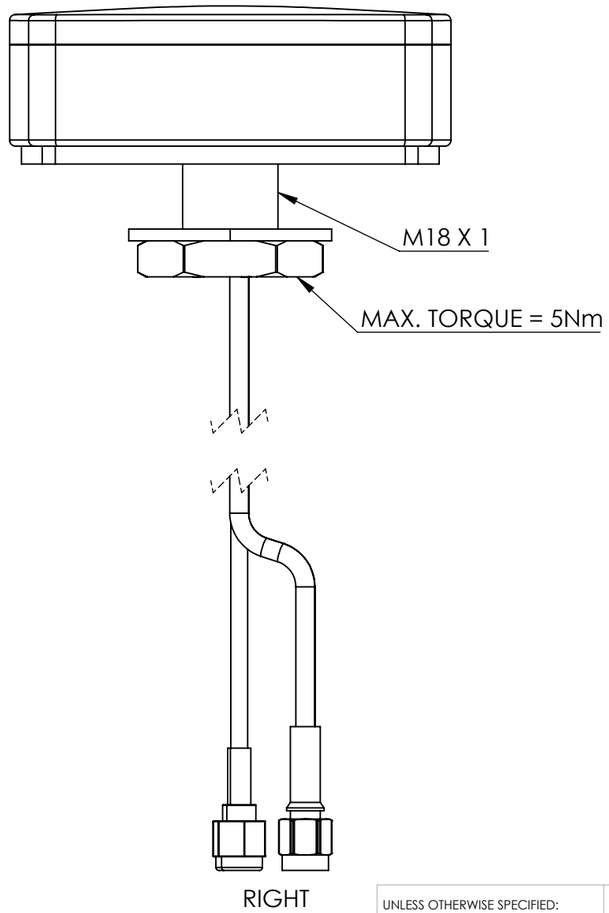
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NOTES:
1. FREQUENCY:
   CABLE 1 (5GNR): 617-960 MHz, 1427-2690 MHz, 3300-5000 MHz, 5150-5925 MHz
   CABLE 2 (GPS/GLONASS/QZSS/Galileo): 1575.42 MHz, 1598-1606 MHz
2. DIMENSIONS ARE AFTER MOUNTING
3. CUSTOMIZABLE CABLE AND CONNECTOR TYPE
4. MOUNTING TYPE: SCREW MOUNT
5. MAX MOUNTING THICKNESS: 12 mm
6. MATERIALS:
   - RADOME: ABS 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

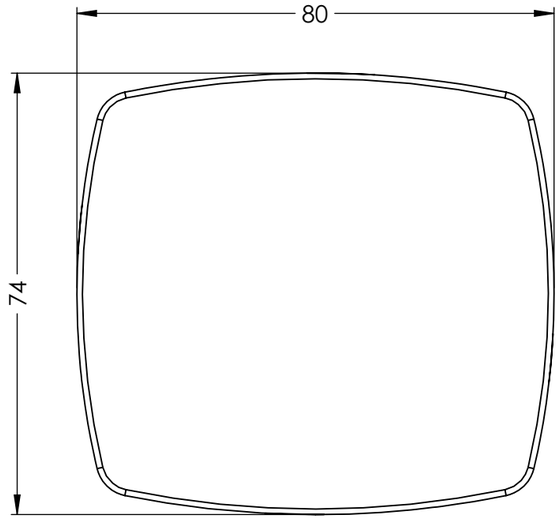
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A	INITIAL RELEASE	2021-10-01	JET



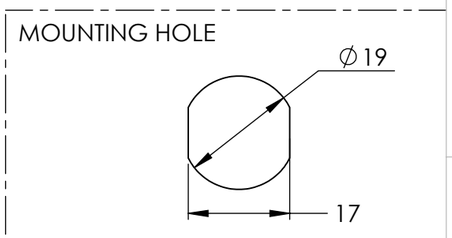
FRONT



RIGHT



TOP



ITEM 100-00204 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2021-10-01	JET

100-00204 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGHT	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1: D302 CABLE 2: LL100	300 CM 300 CM	SMA-MALE SMA-MALE	BLACK

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ANGULAR: MACH ± .5° BEND ±
ONE PLACE DECIMAL ± 1.0
TWO PLACE DECIMAL ± .50
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CHECKED	ZX	2021-10-01
ENG APPR.	NPC	2021-10-01
MFG APPR.		
Q.A.		

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

MAXTENA, INC

TITLE: 100-00204
MEA-5GGG-SM

SIZE	DWG. NO.	REV
B	117-00523-01	A

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