



# MEA-3IN1-5G-AM

5G NR MIMO and 2.4/5.0/6.0 GHz ISM Adhesive Mount

Part #: 100-00408-01

## Description

The MEA-3IN1-5G-AM by Maxtena is a cutting-edge MIMO technology solution that integrates a 5G antenna and ISM into a single, robust unit. This 3-in-1 antenna is perfect for high data throughput, streaming, video, industrial, and IoT applications. It features a low-profile design with easy mounting and integrated SMA connectors, housed in durable PC +ABS black plastic to withstand the toughest environmental conditions. The adhesive mount design ensures quick and secure installation. The MEA-3IN1-5G-AM comes with three cables, each equipped with SMA-Male standard connectors and a standard cable length of 3 meters. It is also fully customizable, offering various connector types, cable lengths, and cable types to meet specific application needs. This antenna is ideal for demanding applications, providing reliable performance and flexibility in a variety of environments.



## Electrical Specifications

Parameter	Specifications			
Technologies	5G, 4G, 3G and 2G			
Standards	5G NR/4G LTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G2G			
Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925
Band (MHz)	600, 700, 850, 900	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800
5G NR Bands	n5, n8, 12, n20, n28, n71, n81, n82, n83,	n1, n2, n3, n7, n25, n34, n38, n39, n40, n41, n50, n51, n66, n70, n74, n75, n76, n80, n84, n86	n77, n78, n79	
4G LTE Bands	B5, B6, B8, B12, B13, B14, B17, B18, B19, B20, B26, B27, B28, B29, B44, B67, B68, B71, B85	B1, B2, B3, B4, B7, B9, B10, B11, B21, B23, B24, B25, B30, B32, B33, B34, B35, B36, B37, B38, B39, B40, B41, B45, B50, B51, B65, B66, B69, B70, B74, B75, B76	B22, B42, B43, B48, B49, B52	B46, B47, B252, B255
3G CELL Bands	B5, B6, B8, B12, B13, B14, B19, B20, B26	B1, B2, B3, B4, B7, B9, B10, B11, B21, B25, B32, B33, B34, B35, B36, B37, B38, B39, B40	B22	
2G CELL Bands	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS		
CDMA CELL Bands	BC0, BC2, BC3, BC7, BC9, BC10, BC12, BC18, BC19	BC1, BC4, BC6, BC8, BC13, BC14, BC15, BC16, BC20, BC21		

## Features

- Cable 1 and 2: 5G NR (617-960, 1427-2690, 3300-5000 and 5150-5925 MHz)
- Cable 3: 2.4/5.0/6.0 GHz ISM (2410-2490 MHz and 4920-7125 MHz)
- Easy mounting: Adhesive Mount
- High Gain
- Ground Plane Independent
- IP67, IP69
- 80 x 74 x 25.6 mm
- Customized Cable and Connector

## Applications

- LTE/WIFI
- IOT
- RAIL
- Smart meters



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Cable 1	Parameter	Specifications			
	Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925
	Return Loss (dB)	~-7.0	~-11.2	~-7.1	~-6.4
	VSWR	~3.1:1	~2.1:1	~3.1:1	~3.0:1
	Efficiency (%)	~50.2	~56.3	~30.4	~25.1
	Peak Gain (dBi)	~2.1	~4.5	~3.7	~2.8
	Average Gain (dB)	~-3.3	~-2.5	~-5.8	~-6.1
	Impedance (Ohm)	50			
	Polarization	Linear			
	Radiation Pattern	Omni-Directional			
Max Input Power (W)	35				
Connector Type	SMA-Male Standard (Other Connectors Available)				
Cable Length	300 cm Standard (Any Cable Length Available)				
Cable Type	D302 Standard (Other Cables Available)				

Cable 2	Parameter	Specifications			
	Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925
	Return Loss (dB)	~-7.3	~-10.8	~-7.6	~-8.4
	VSWR	~3.1:1	~2.1:1	~2.9:1	~2.3:1
	Efficiency (%)	~50.9	~58.7	~38.0	~36.7
	Peak Gain (dBi)	~1.6	~4.3	~4.5	~4.4
	Average Gain (dB)	~-3.2	~-2.3	~-4.4	~-4.4
	Impedance (Ohm)	50			
	Polarization	Linear			
	Radiation Pattern	Omni-Directional			
Max Input Power (W)	35				
Connector Type	SMA-Male Standard (Other Connectors Available)				
Cable Length	300 cm Standard (Any Cable Length Available)				
Cable Type	D302 Standard (Other Cables Available)				

Cable 3	Parameter	Specifications		
	Standards	WiFi,6E, BT, ZigBee, ISM, SigFox, LoRa, BLE		
	Band (MHz)	2.4 GHz	5.0 GHz	6.0 GHz
	Frequency (MHz)	2410-2490	4920-5925	5925-7125
	Return Loss (dB)	~-18.0	~-12.8	~-15.6
	VSWR	~1.3:1	~1.7:1	~1.4:1
	Efficiency (%)	~38.4	~25.6	~28.0
	Peak Gain (dBi)	~3.8	~2.8	~2.4
	Average Gain (dB)	~-4.2	~-6.0	~-5.5
	Impedance (Ohm)	50		
Polarization	Linear			
Radiation Pattern	Omni-Directional			
Max Input Power (W)	25			
Connector Type	RP-SMA-Male Standard (Other Connectors Available)			
Cable Length	300 cm Standard (Any Cable Length Available)			
Cable Type	D100 Standard (Other Cables Available)			



### Antenna Measurement Conditions

Mounted on 30 x 30 Metal Plate

100 cm of Cable D302

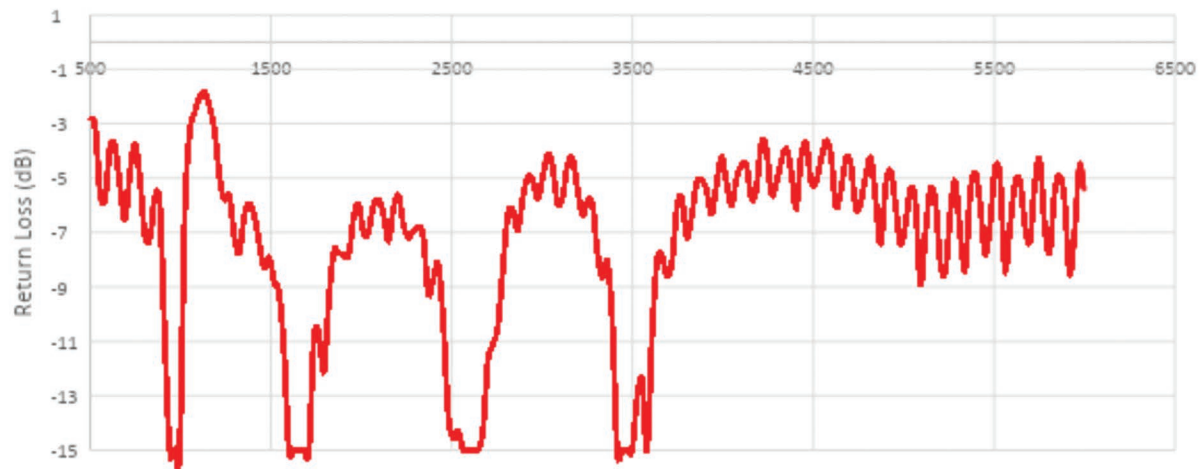
Measured in Certified CTIA 3D Anechoic Chamber

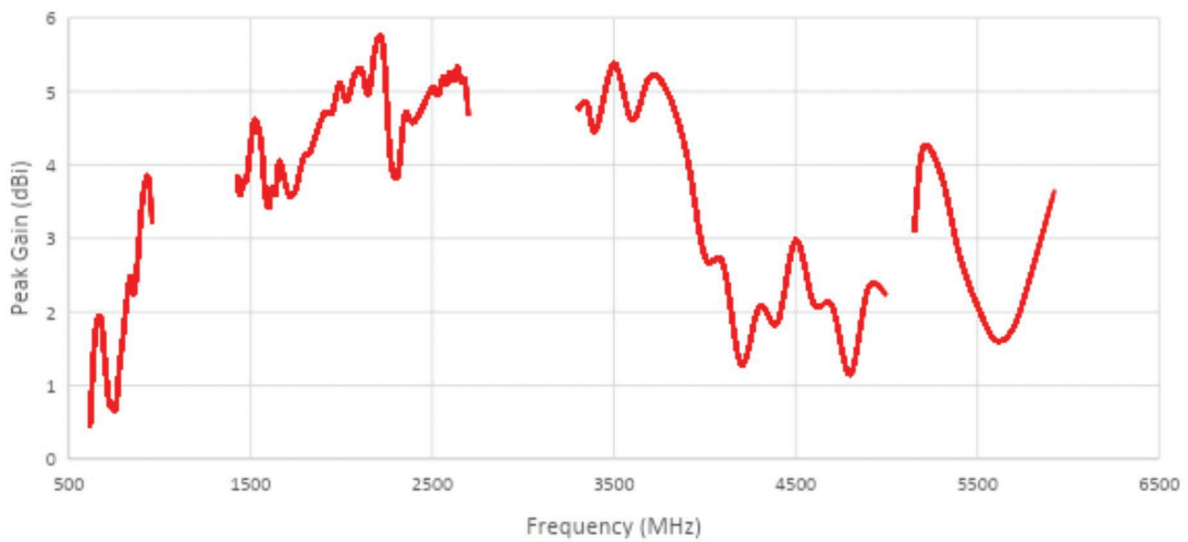
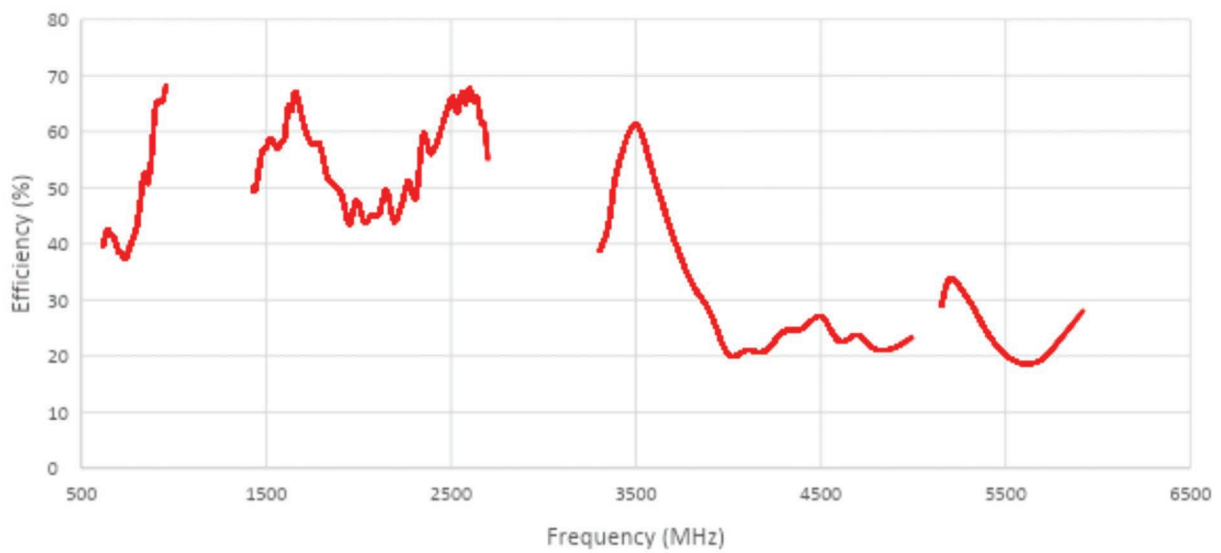
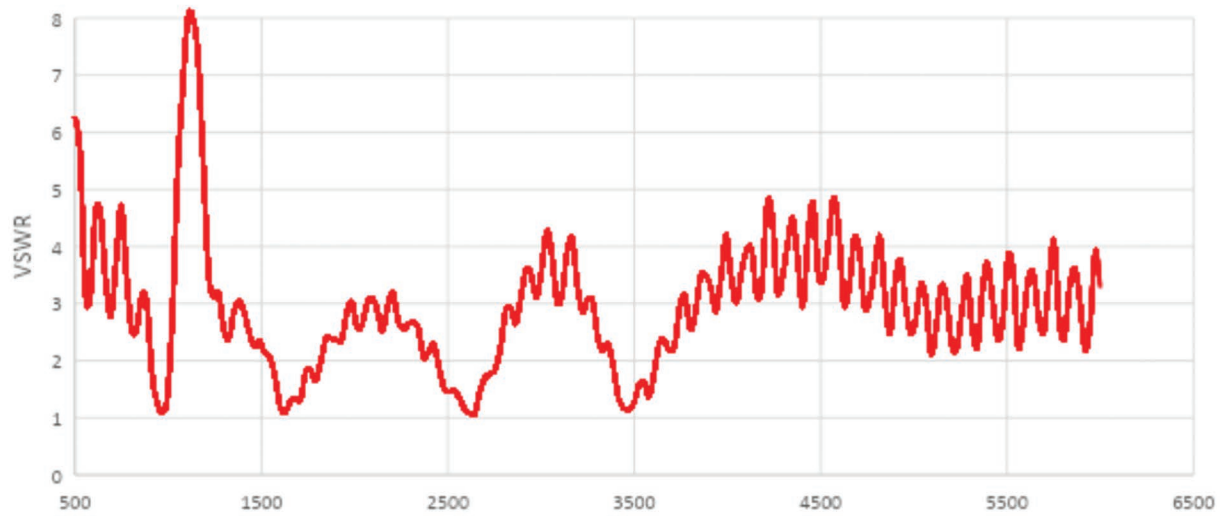
### Mechanical Specifications

Parameter	Specifications
Specification	2J6985Pa
Mounting Type	Magnetic Mount
Dimensions (mm)	80 x 74 x 25.6
Radome Type	ASA UV Stable
Radome Color	Black, White
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Ingress Protection	IP67, IP69
Substance Compliance	RoHS

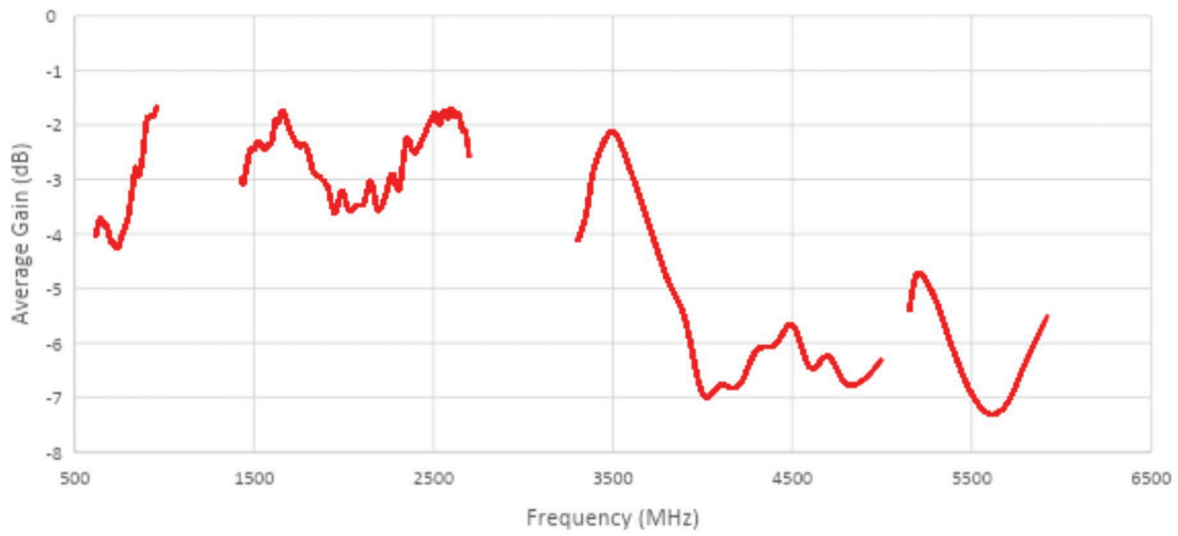
### Antenna Parameters

#### Cable 1

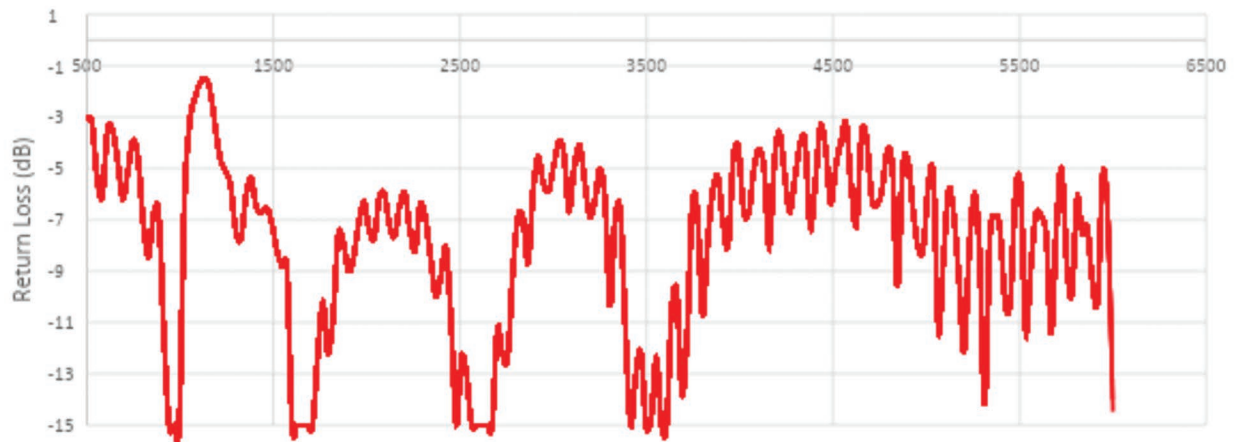


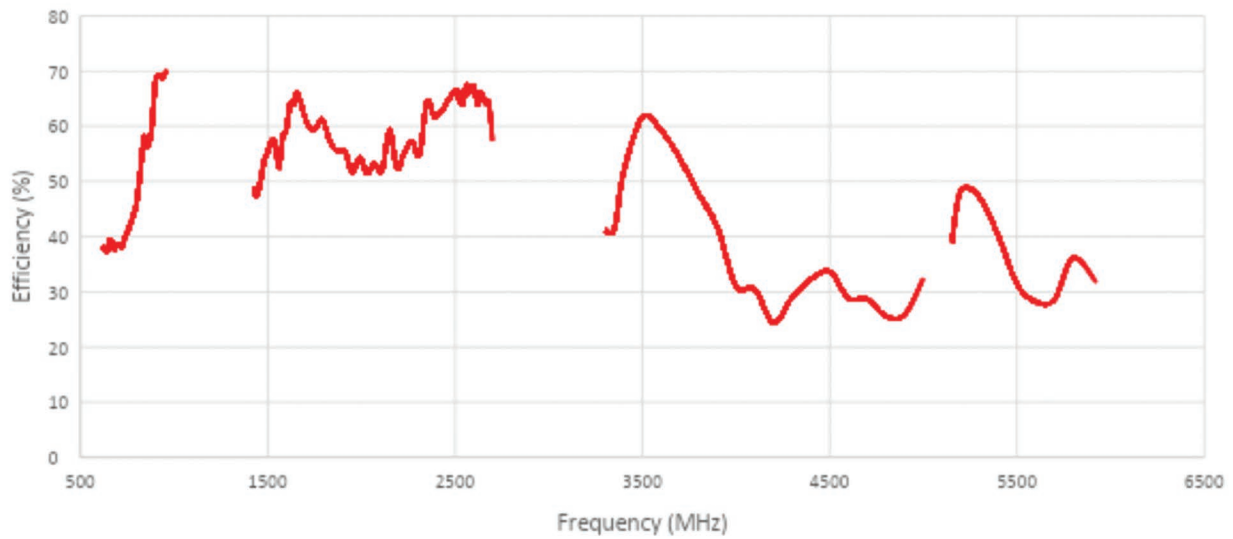
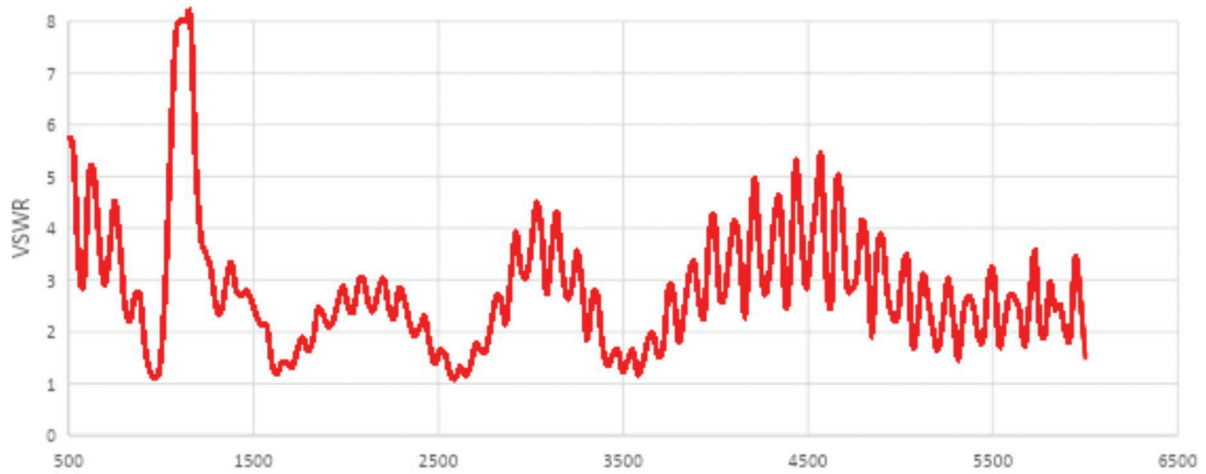


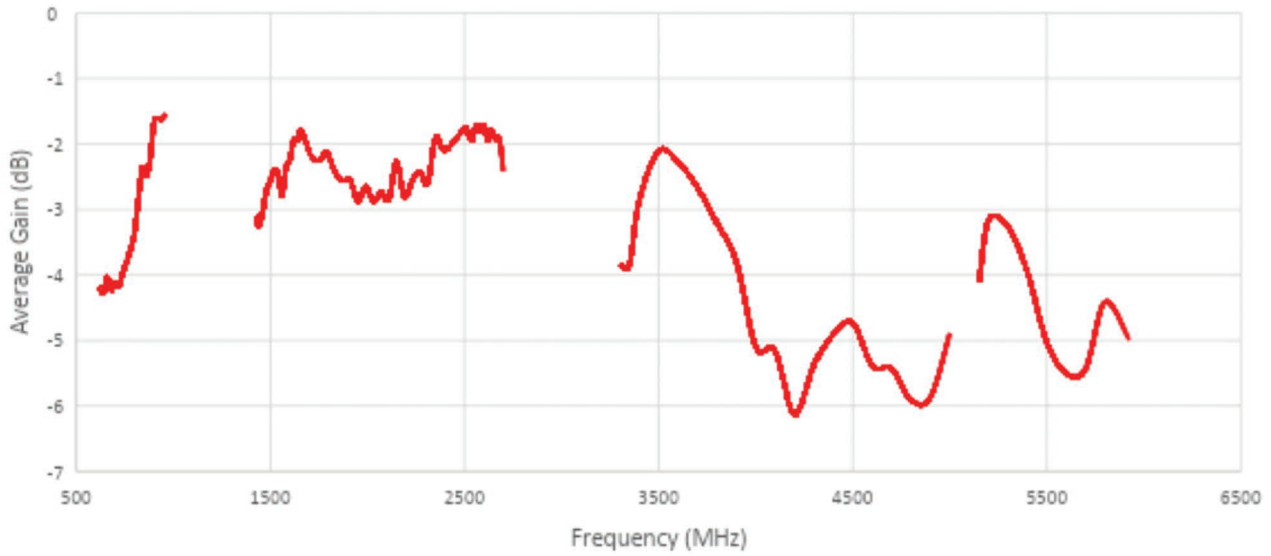
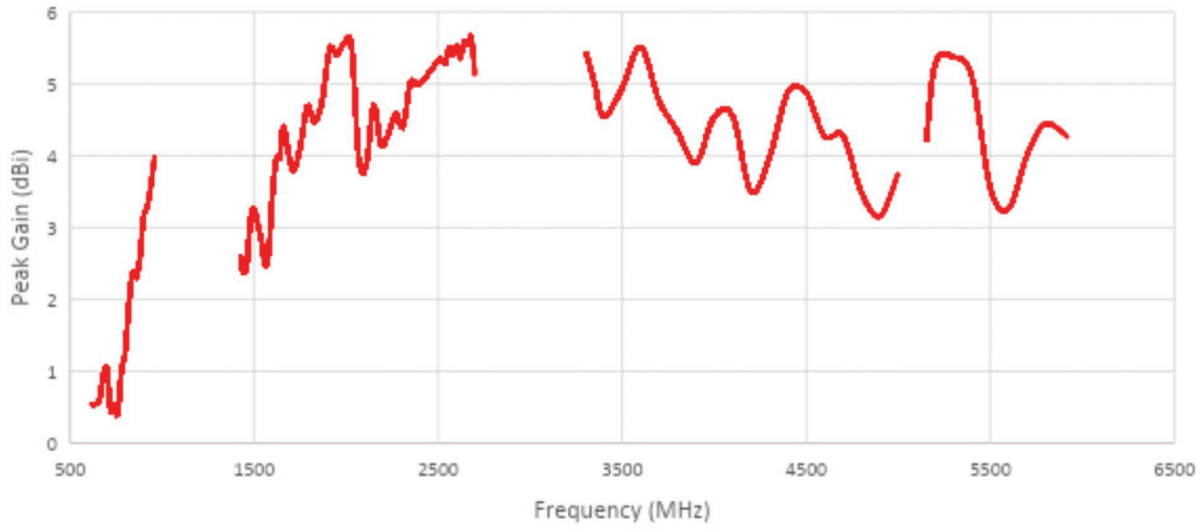




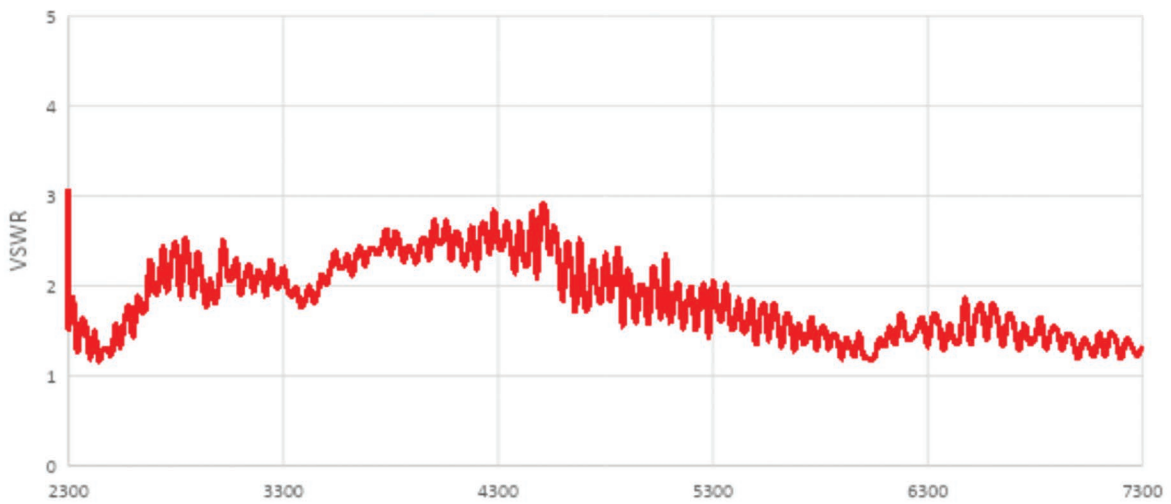
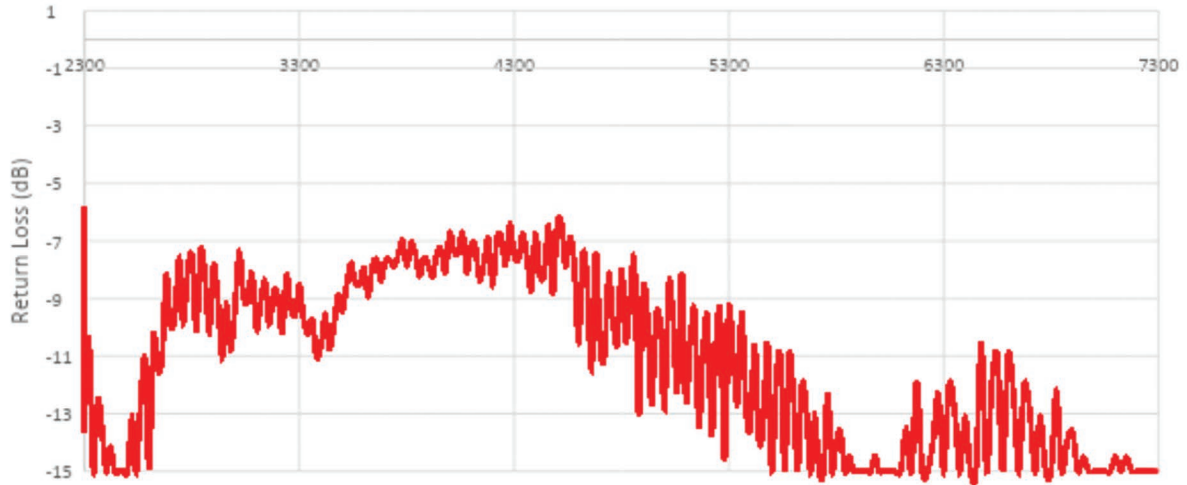
**Cable 2: 5GNR-2**



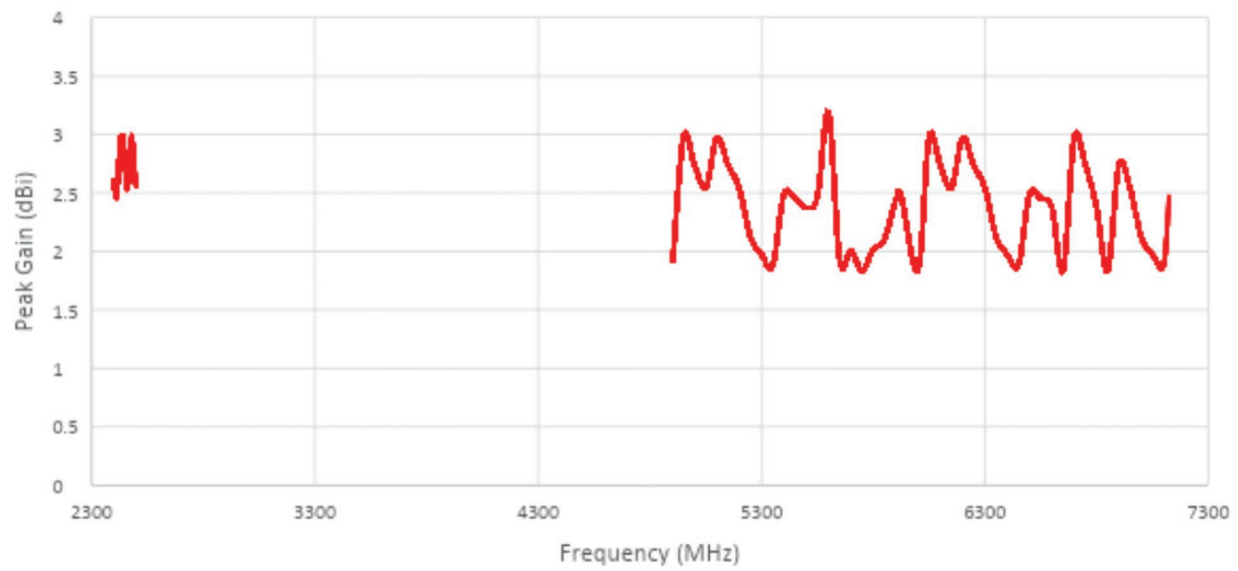
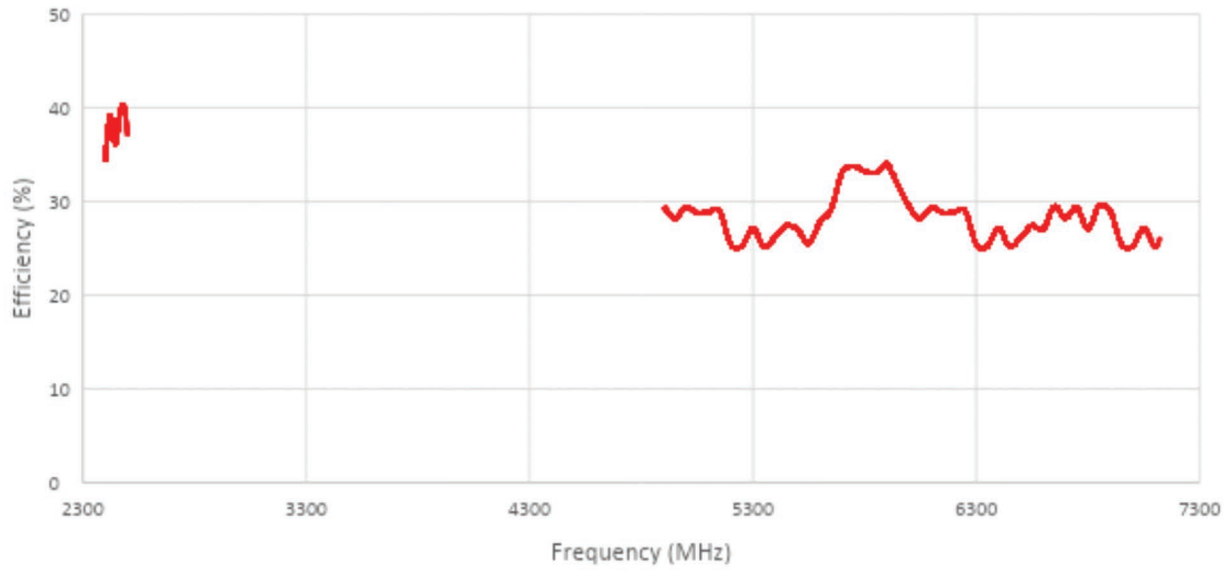


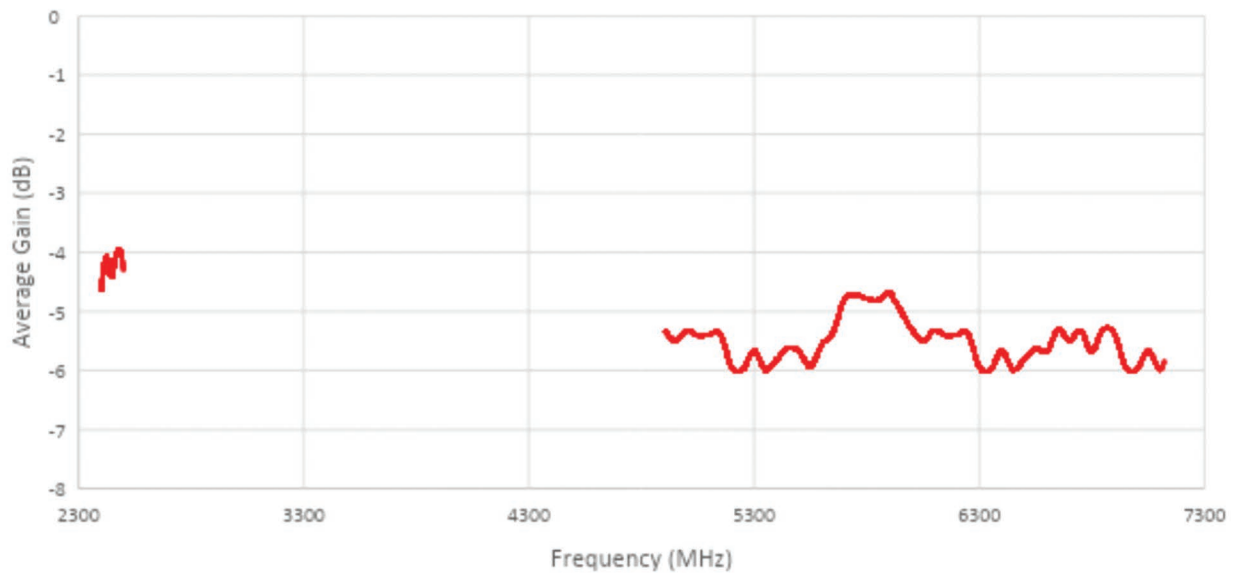


**CABLE 3: 2.4/5.0/6.0 GHz**





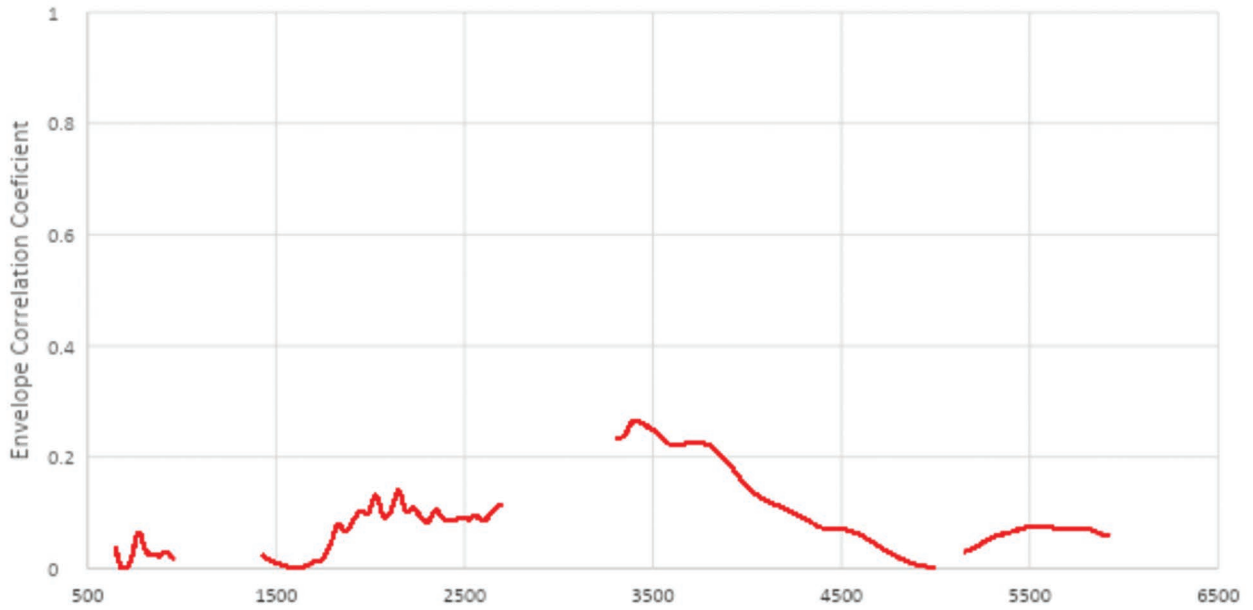




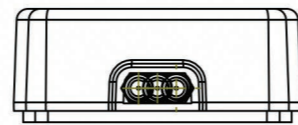
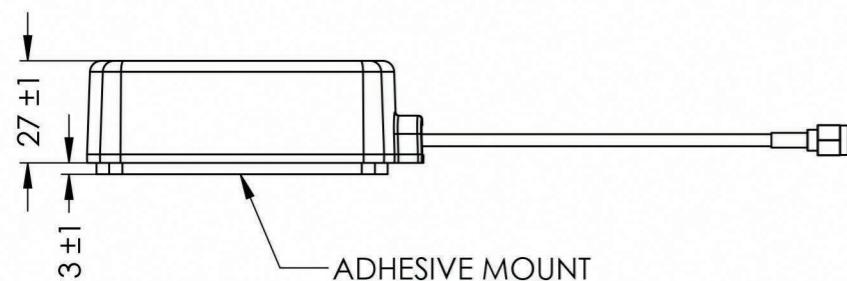
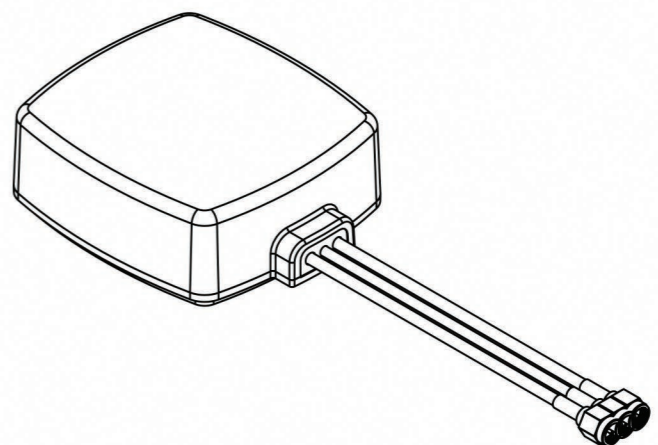
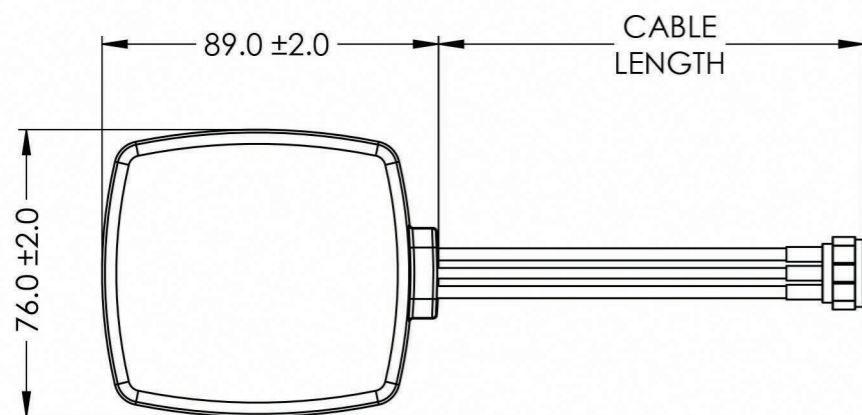
### ISOLATION FOR CABLES 1 AND 2



## ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2



DRAWING REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2024-07-01	MP



NOTES:

- FREQUENCY:
  - CABLE 1-2: 5G NR (617-960 MHz, 1427-2690 MHz, 3300-5000 MHz AND 5150-5925 MHz)
  - CABLE 3 : 2.4/5.0/6.0 GHz ISM ANTENNA (2410-2490 MHz, 4920-5925 MHz, 5925-7125 MHz)
- CUSTOMIZABLE CABLE AND CONNECTOR OPTIONS
- MOUNTING TYPE: ADHESIVE MOUNT
- DIMENSIONS ARE AFTER MOUNTING
- MATERIALS:
  - RADOME: ABS UV STABLE
  - RADOME COLOR: BLACK OR WHITE
- OPERATING TEMPERATURE: -40°C ~ +85°C
- STORAGE TEMPERATURE: -40°C ~ +85°C
- CERTIFICATIONS: IP67, IP69

ITEM 100-00408-01 REVISION HISTORY			
REV	DESCRIPTION	DATE	BY
A	INITIAL RELEASE	2024-07-01	MP

100-00408-01 CONFIGURATION TABLE				
DASH NO	CABLE TYPE	CABLE LENGTH	CONNECTOR TYPE	RADOME COLOR
-01	CABLE 1-2: D302 CABLE 3 : D100	300CM	SMA MALE	BLACK

UNLESS OTHERWISE SPECIFIED:	NAME	DATE
DIMENSIONS ARE IN MM	DRAWN MP	2024-07-01
TOLERANCES:	CHECKED BO	2024-07-01
FRACTIONAL ±	ENG APPR. AV	2024-07-01
ANGULAR: MACH ± .5° BEND ±	MFG APPR.	
ONE PLACE DECIMAL ± 1.0	Q.A.	
TWO PLACE DECIMAL ± .50		
INTERPRET GEOMETRIC TOLERANCING PER:		
	CAD MAINTAINED. CHANGES SHALL BE INCORPORATED BY THE DESIGN ACTIVITY.	
DO NOT SCALE DRAWING		

<b>MAXTENA, INC</b>		
TITLE: <b>100-00408-01 MEA-3IN1-5G-AM</b>		
SIZE <b>B</b>	DWG. NO. <b>117-00796-01</b>	REV <b>A</b>
CAGE CODE: 5KQH7	SCALE: NONE	SHEET 1 OF 1