

# 2J6C83Ba

2× 5G NR MIMO Screw Mount

## Key Features

### Cable 1-2: 5G NR

- 617-960 MHz
- 1427-2690 MHz
- 3300-5000 MHz
- 5150-5925 MHz

Screw Mount

High Performance

Ground Plane Independent

Anti-Rotation Mounting

Customizable Cable and Connector

Dimensions: 193 × 76.3 × 52.4 mm

Certificates: IP67, IP69



## 1. Antenna and electrical specifications

Cable 1

Parameters	5GNR Antenna			
<b>Technologies</b>	5G, 4G, 3G and 2G			
<b>Standards</b>	5GNR/4GLTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G			
<b>Frequency (MHz)</b>	617-960	1427-2690	3300-5000	5150-5925
<b>Band (MHz)</b>	600, 700, 850, 900	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800
<b>5GNR Bands</b>	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	
<b>4GLTE Bands</b>	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
<b>3GCELL Bands</b>	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	
<b>2GCELL Bands</b>	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS		
<b>CDMACELL Bands</b>	BC0, BC2, BC3, BC7, BC9, BC10, BC12, BC18, BC19	BC1, BC4, BC6, BC8, BC13, BC14, BC15, BC16, BC20, BC21		
<b>Return Loss (dB)</b>	~-6.9	~-15.9	~-15.0	~-6.7
<b>VSWR</b>	~2.7:1	~1.5:1	~1.6:1	~2.8:1
<b>Efficiency (%)</b>	~40.2	~47.3	~35.3	~22.1
<b>Peak Gain (dBi)</b>	~2.5	~5.0	~4.8	~3.3
<b>Average Gain (dB)</b>	~-4.0	~-3.3	~-4.8	~-6.7
<b>Impedance (Ohm)</b>	50			
<b>Polarisation</b>	Linear			
<b>Radiation Pattern</b>	Omni-Directional			
<b>Max. Input Power (W)</b>	25			
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)			
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)			
<b>Cable Type</b>	D302 Standard (Other Cables Available)			

**Cable 2**

Parameters	5GNR Antenna			
<b>Technologies</b>	5G, 4G, 3G and 2G			
<b>Standards</b>	5GNR/4GLTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G			
<b>Frequency (MHz)</b>	617-960	1427-2690	3300-5000	5150-5925
<b>Band (MHz)</b>	600, 700, 850, 900	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800
<b>5GNR Bands</b>	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	
<b>4GLTE Bands</b>	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
<b>3GCELL Bands</b>	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	
<b>2GCELL Bands</b>	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS		
<b>CDMACELL Bands</b>	BC0, BC2, BC3, BC7, BC9, BC10, BC12, BC18, BC19	BC1, BC4, BC6, BC8, BC13, BC14, BC15, BC16, BC20, BC21		
<b>Return Loss (dB)</b>	~-7.1	~-15.4	~-18.1	~-9.2
<b>VSWR</b>	~2.7:1	~1.5:1	~1.4:1	~2.1:1
<b>Efficiency (%)</b>	~39.7	~46.9	~39.8	~33.8
<b>Peak Gain (dBi)</b>	~2.5	~5.0	~5.4	~4.4
<b>Average Gain (dB)</b>	~-4.0	~-3.3	~-4.1	~-4.8
<b>Impedance (Ohm)</b>	50			
<b>Polarisation</b>	Linear			
<b>Radiation Pattern</b>	Omni-Directional			
<b>Max. Input Power (W)</b>	25			
<b>Connector Type</b>	SMA-Male Standard (Other Connectors Available)			
<b>Cable Length</b>	300 cm Standard (Any Cable Length Available)			
<b>Cable Type</b>	D302 Standard (Other Cables Available)			

**Antenna Measurement Conditions:**

Mounted on Metal Plate of 30 x 30 cm

100 cm of Cable D302

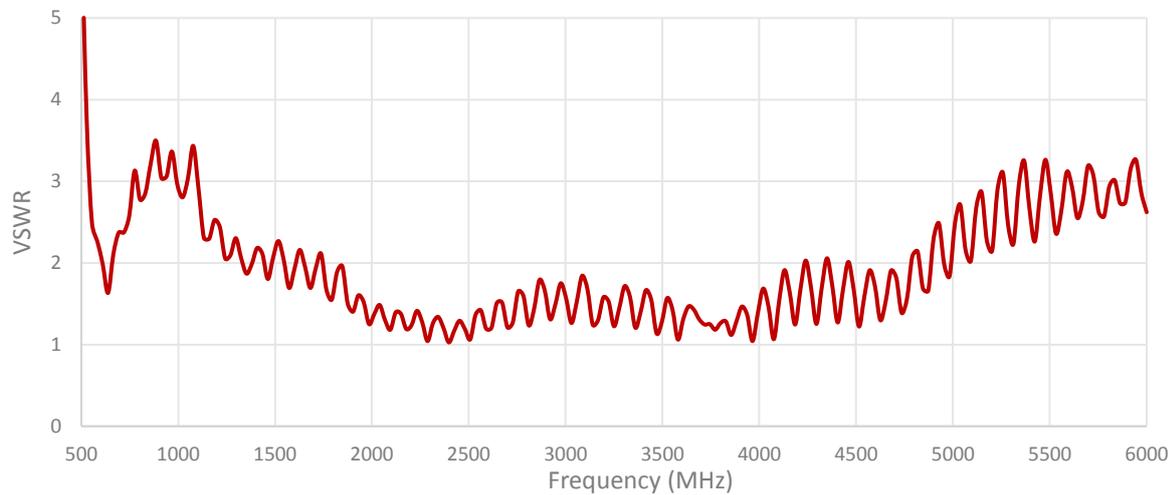
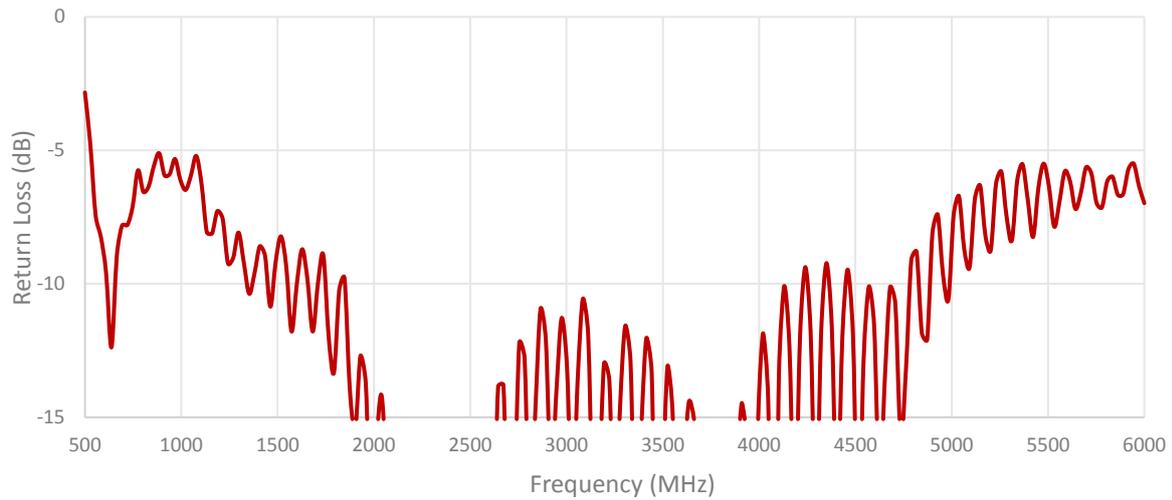
Measured in Certified CTIA 3D Anechoic Chamber

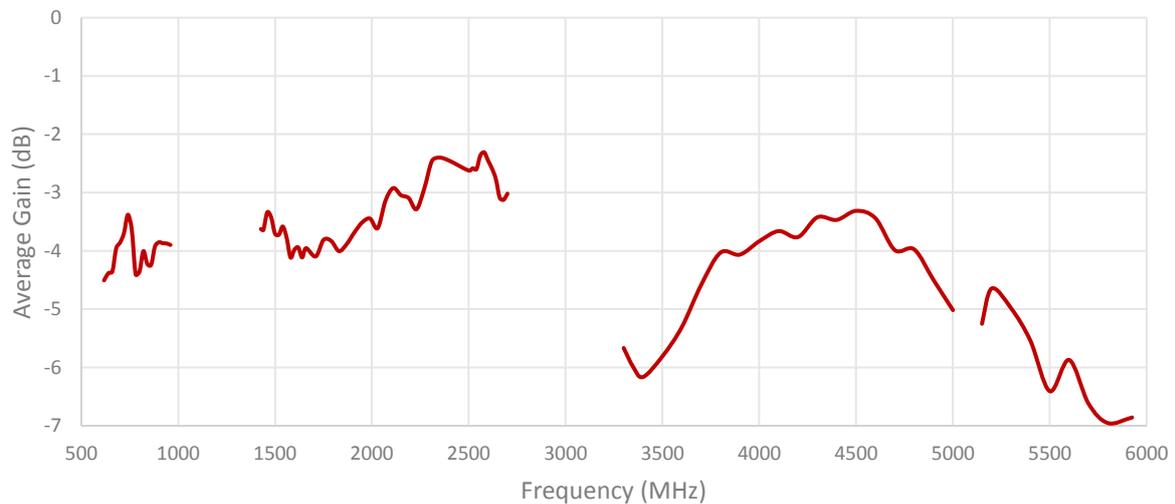
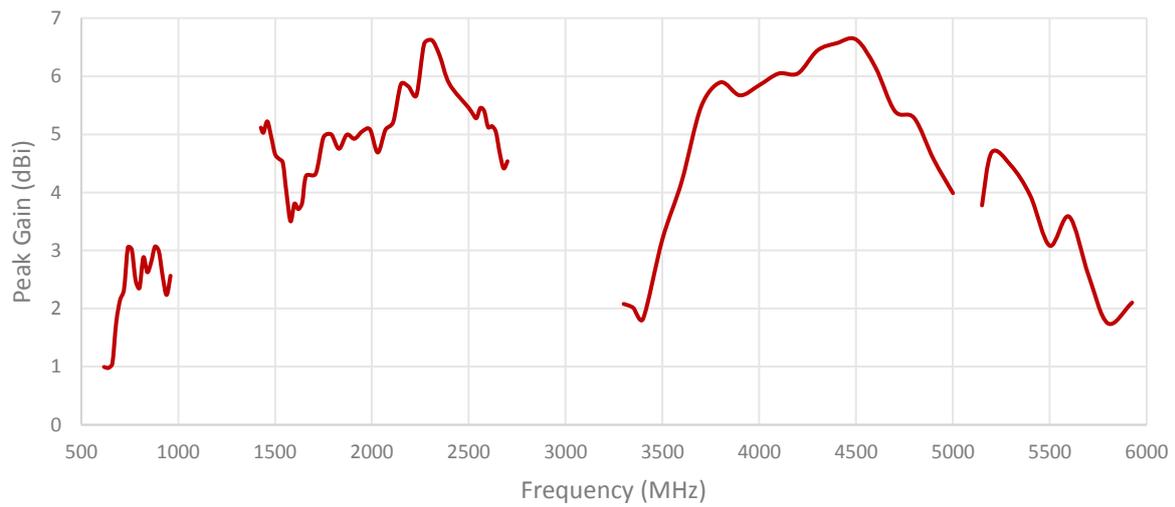
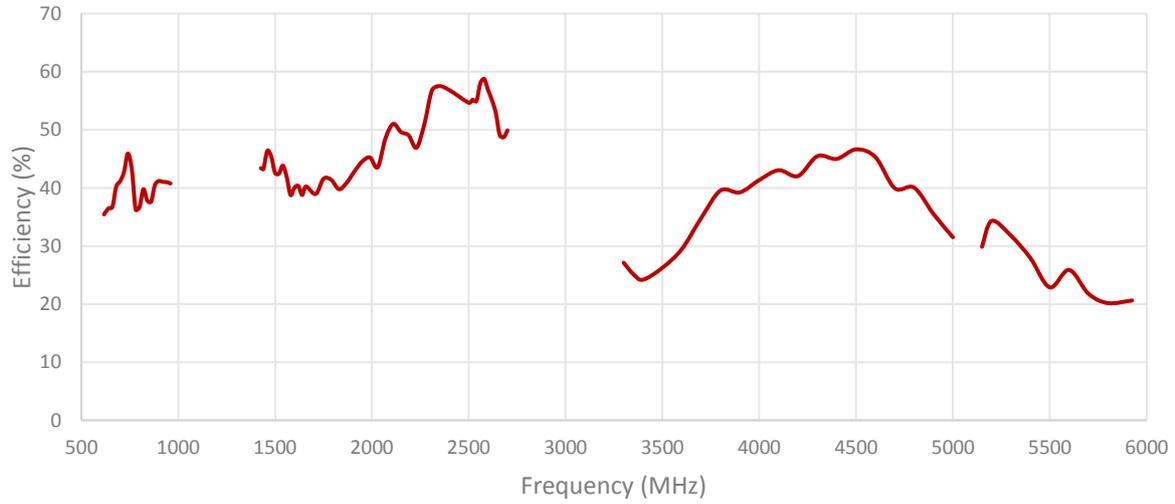
## 2. Mechanical and environmental specifications

Specifications	2J6C83Ba
<b>Mounting Type</b>	Screw Mount
<b>Dimensions (mm)</b>	193 × 76.3 × 52.4
<b>Recommended Torque (Nm)</b>	6 Nm
<b>Radome Type</b>	ASA
<b>Radome color</b>	Black
<b>Operating Temperature (C)</b>	-40 to +85
<b>Storage Temperature (C)</b>	-40 to +85
<b>Substance Compliance</b>	RoHS
<b>Certificates</b>	IP67, IP69

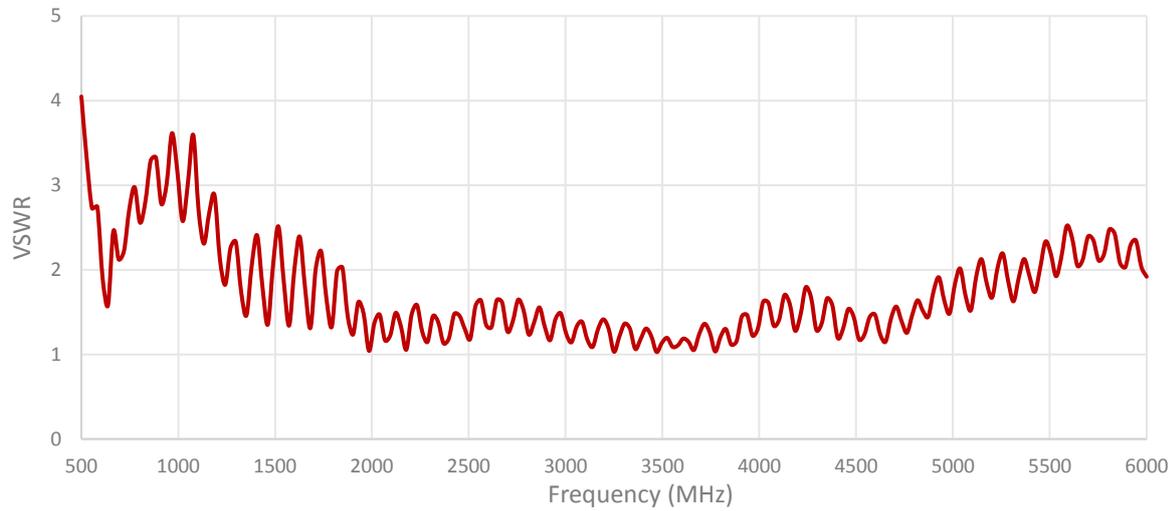
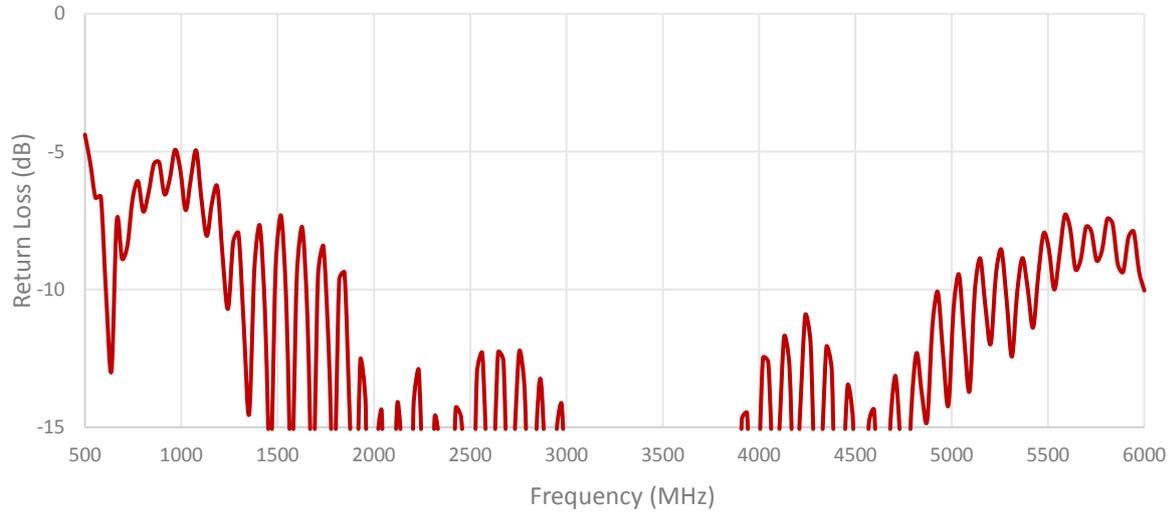
## 3. Antenna parameters

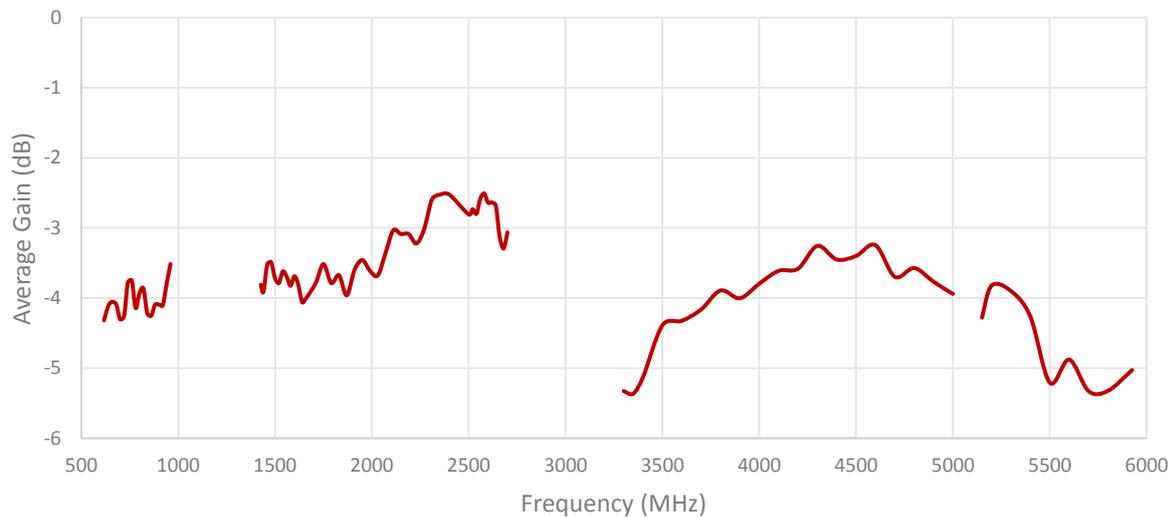
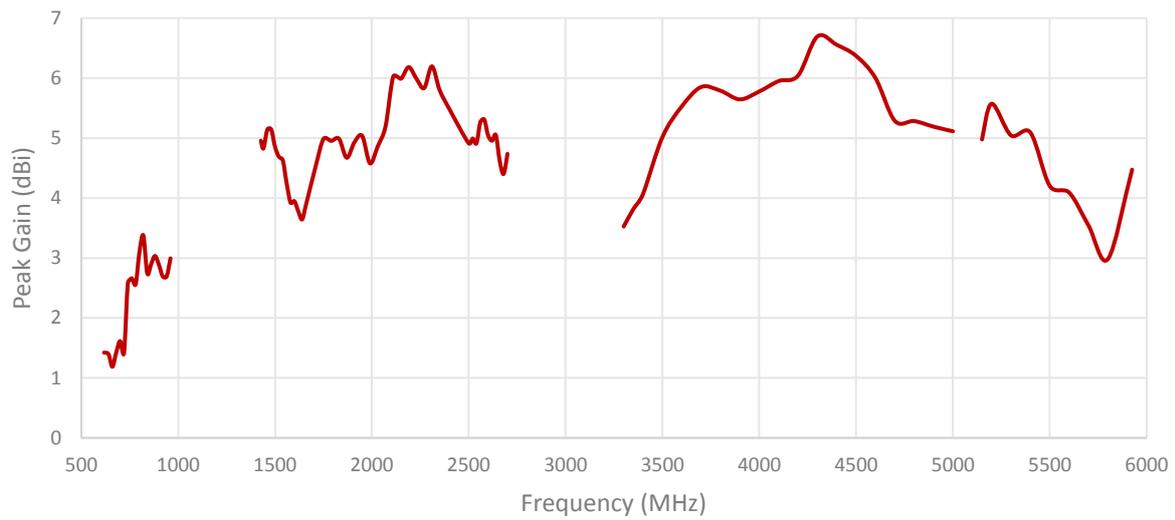
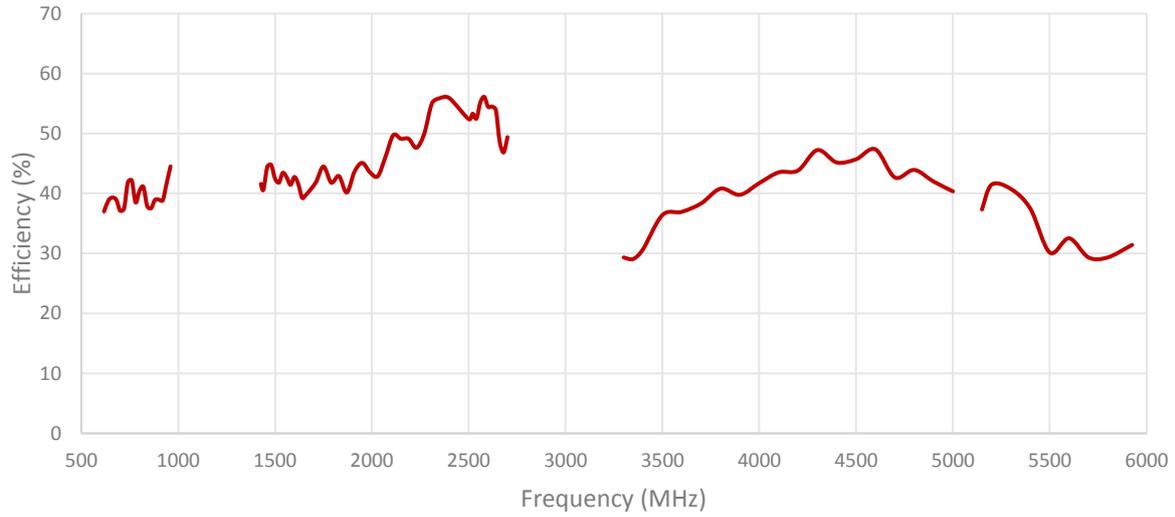
Cable 1: 5GNR



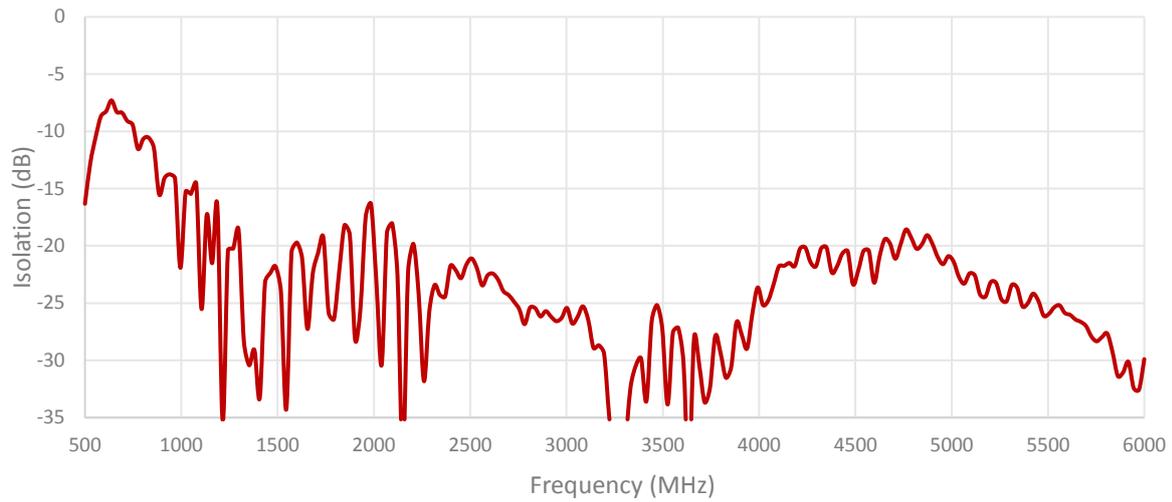


Cable 2: 5GNR

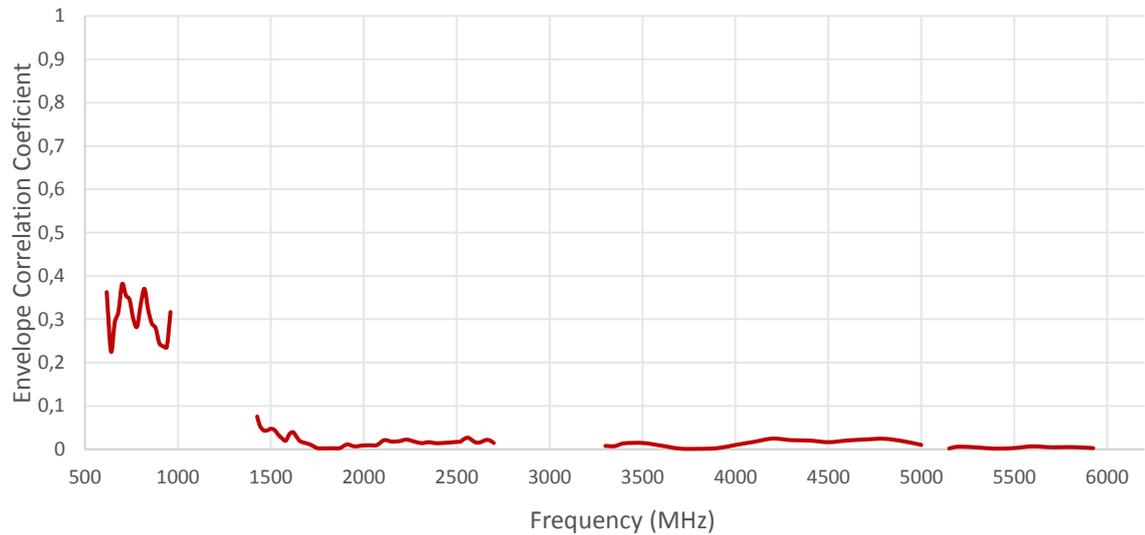


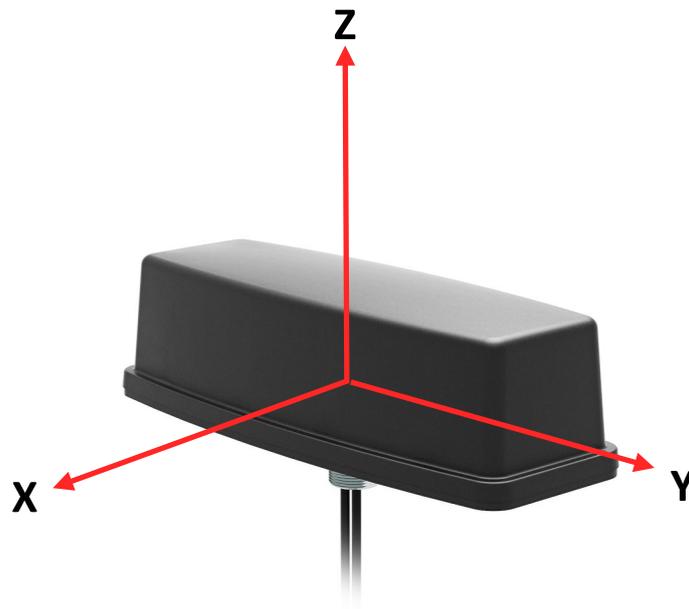


## ISOLATION FOR CABLES 1 AND 2



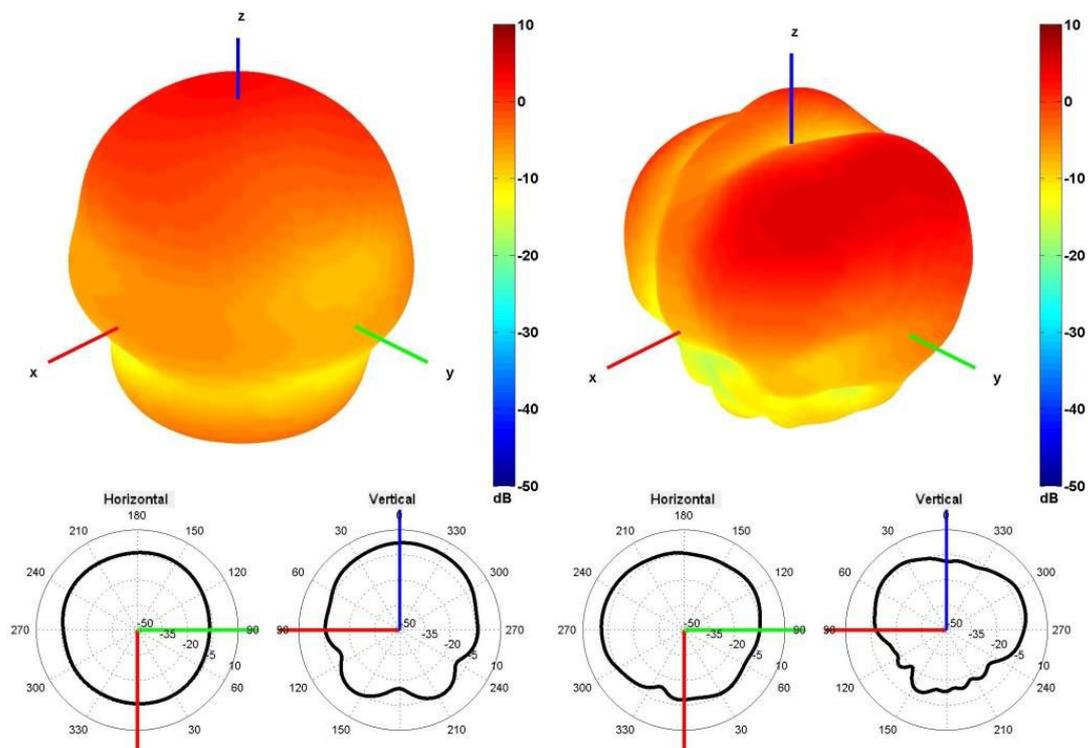
## ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2



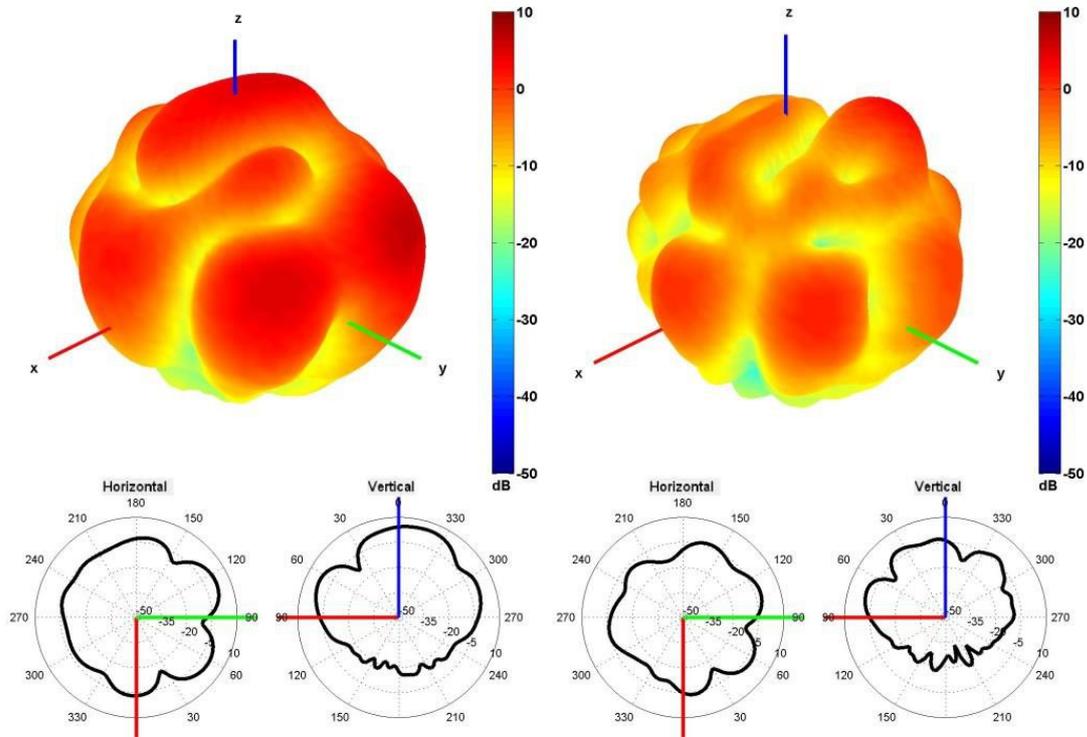


Radiation pattern reference

Cable 1: 5GNR

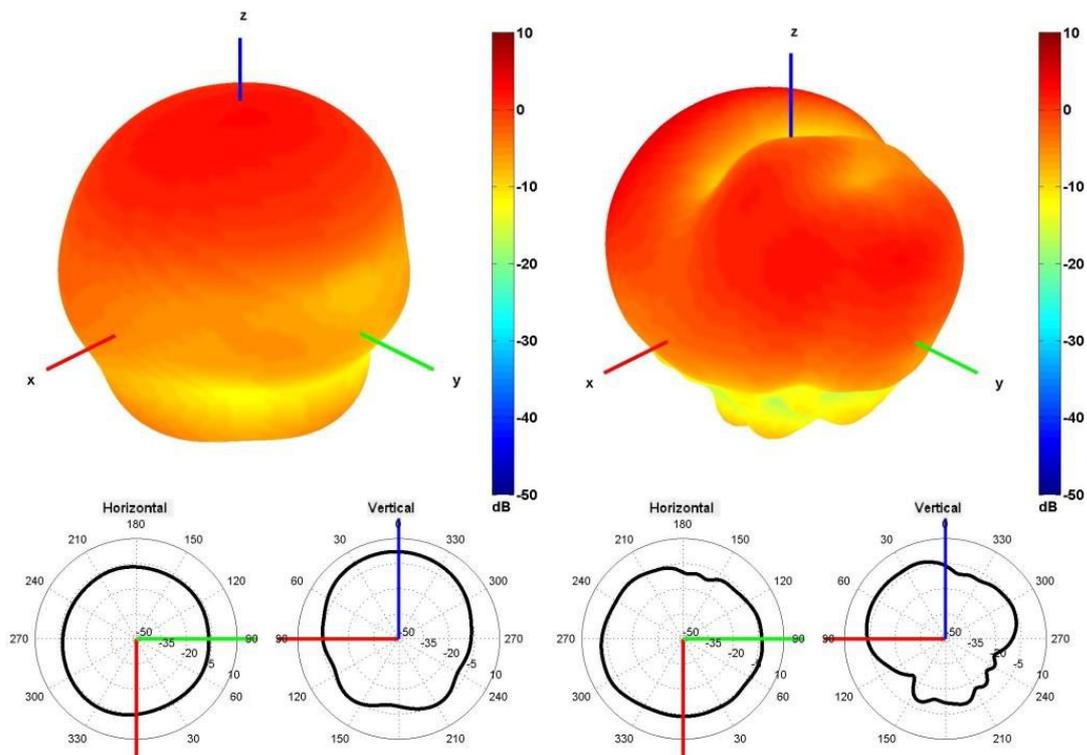


740 and 2500 MHz Radiation pattern

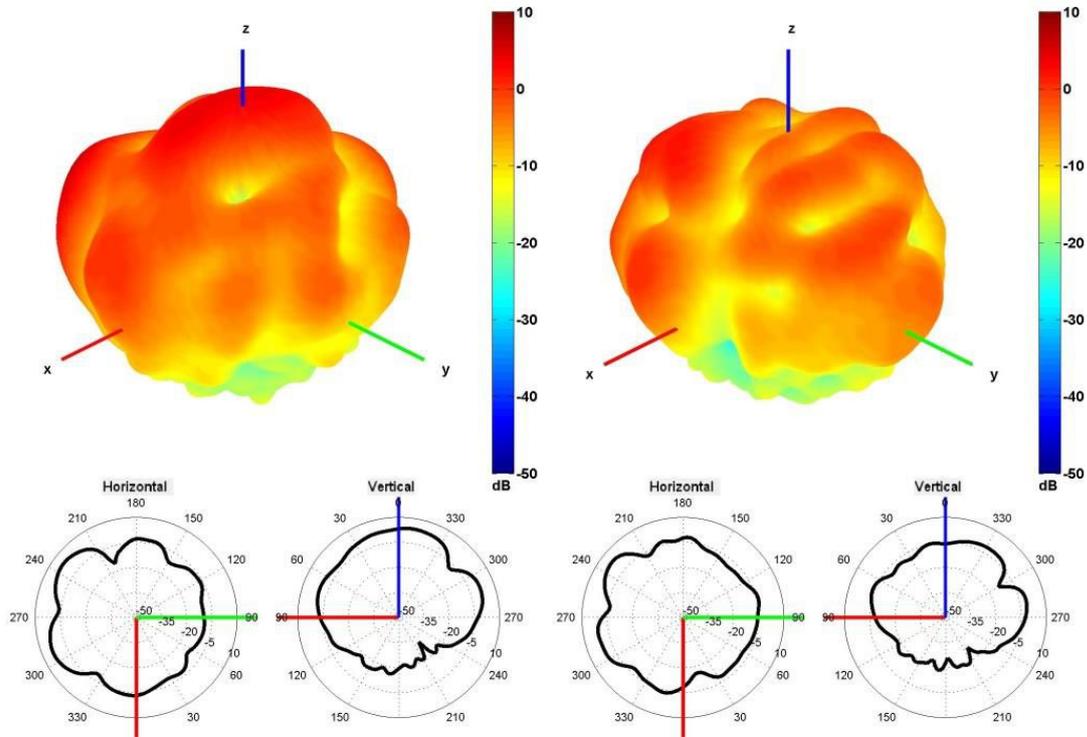


450 and 550 MHz Radiation pattern

Cable 2: 5GNR

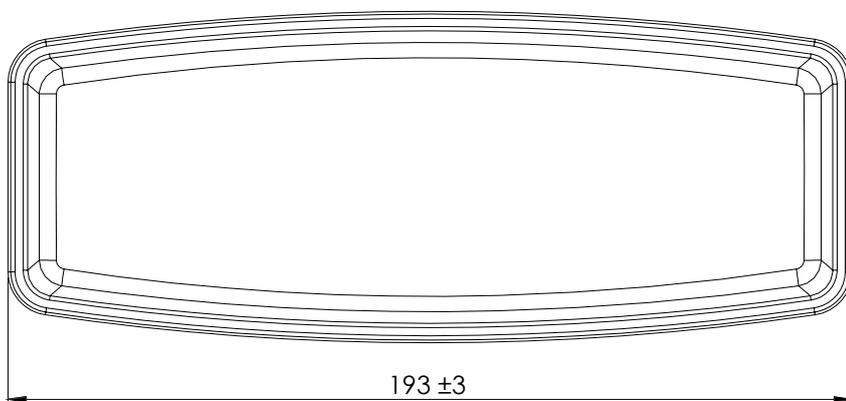
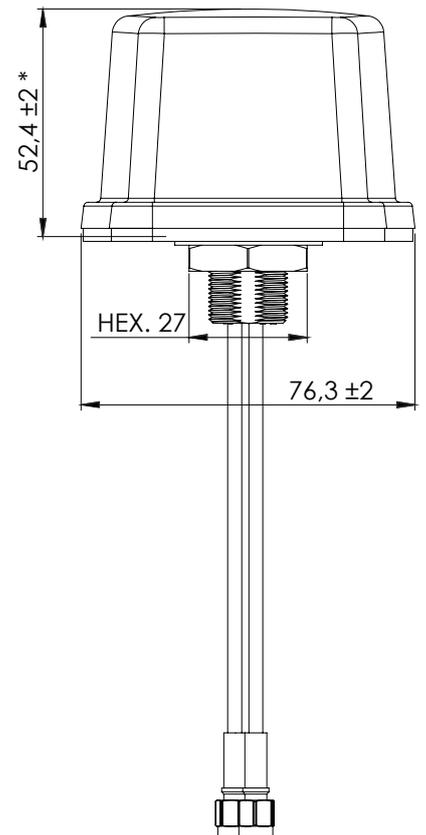
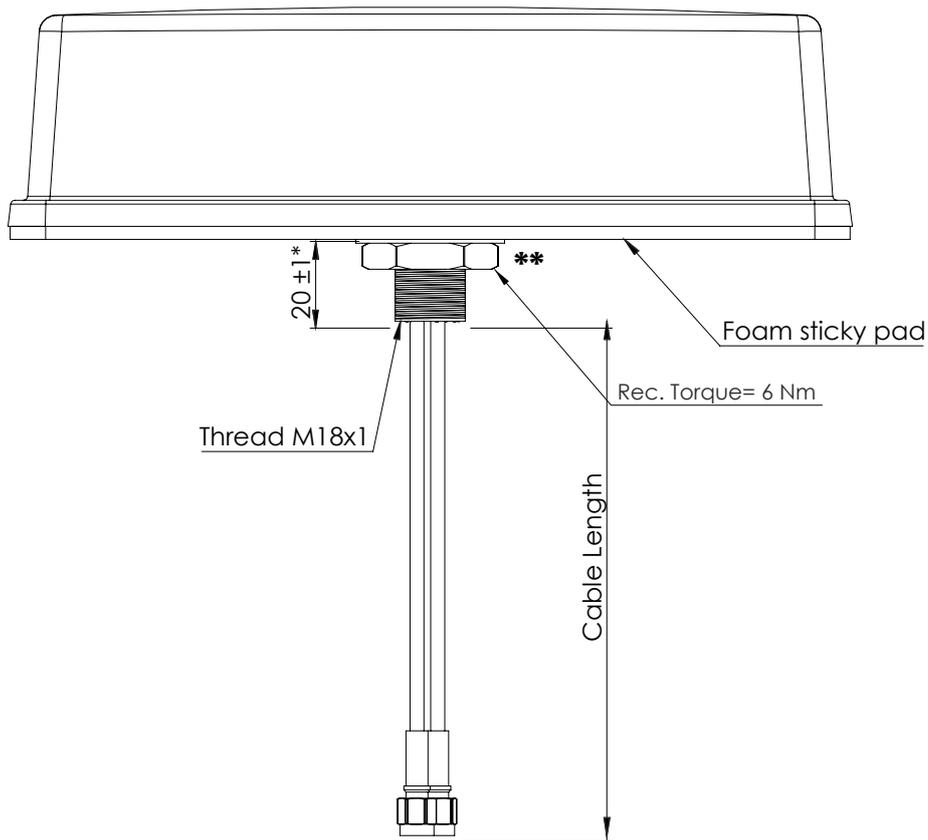


740 and 2500 MHz Radiation pattern

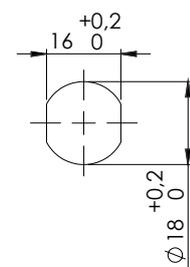


450 and 550 MHz Radiation pattern

## 4. Antenna drawings



### Mounting hole



Max. mounting thickness 12mm  
 Note: Dimensions are in millimeters  
 \*Dimensions are after mounting  
 \*\*Recommended Torque= 6 Nm

## 5. Antenna Images

