

## AMC-ANT-2J6083Pa

### 5G NR MIMO adhesive mount antenna

#### Features

- **Cables 1 & 2: 5G NR**
  - 617 – 960MHz
  - 1427 – 2690MHz
  - 3300 – 5000MHz
  - 5150 – 5925MHz
- Adhesive mount
- Ground plane independent
- Dimensions: 80 x 76 x 16mm
- Customisable cables and connectors



## 1. Antenna and electrical specifications

### Cable 1

Parameters	5G NR Antenna			
<b>Technologies</b>	5G, 4G, 3G, 2G			
<b>Standards</b>	5G NR/4G LTE/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>5G NR bands</b>	n5, n8, n12, n20, n28, n71, n81, n83	n1, n2, n3, n7, n25, n34, n38, n40, n41, n50, n51, n66, n70, n74, n75, n76, n80, n84, n86	n77, n78, n79	
<b>4G LTE 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, 43, B48, B49, B52	B46, B47, B252, B255
<b>3G CELL 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>2G CELL bands</b>	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS		
<b>CDMA CELL 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>	~-8.6	~-14.2	~-8.9	~-8.5
<b>VSWR</b>	~2.8:1	~1.7:1	~2.4:1	~2.2:1
<b>Efficiency (%)</b>	~51.4	~58.4	~37.2	~39.7
<b>Peak gain (dBi)</b>	~3.6	~4.2	~1.2	~-1.8
<b>Average gain (dBi)</b>	~-2.9	~-2.4	~-4.3	~-4.0
<b>Impedance (Ohms)</b>	50			
<b>Polarisation</b>	Linear			
<b>Radiation pattern</b>	Omni-directional			
<b>Max input power (W)</b>	35			
<b>Connector type</b>	SMA male standard (other connectors available)			
<b>Cable length</b>	3 metres standard (other lengths available)			
<b>Cable type</b>	DACAR 302 (other cables available)			

**Cable 2**

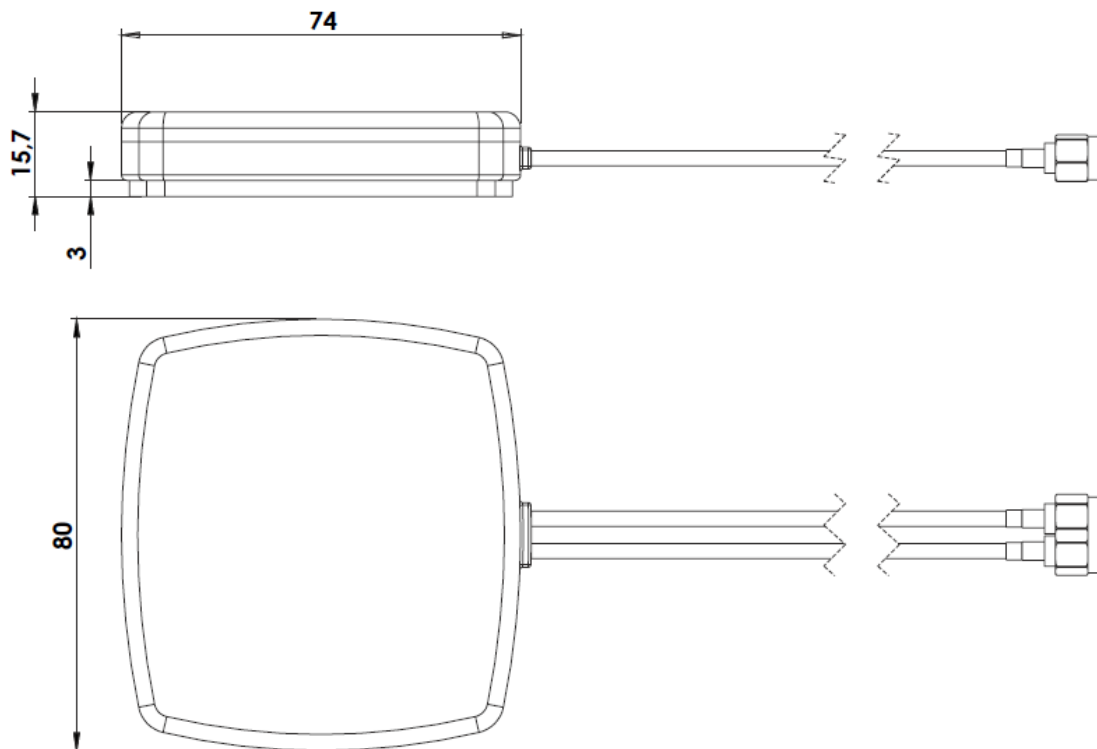
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<b>Standards</b>	5G NR/4G LTE/FirstNet/CBRS/LPWA/CAT-X/Cat-Mx/CAT-NBx/NB-IoT/3G/2G			
<b>Frequency (MHz)</b>	617 - 960	1427 - 2690	3300 -5000	5150 - 5925
<b>Band (MHz)</b>	600, 700, 850, 900	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800
<b>5G NR bands</b>	n5, n8, n12, n20, n28, n71, n81, n83	n1, n2, n3, n7, n25, n34, n38, n40, n41, n50, n51, n66, n70, n74, n75, n76, n80, n84, n86	n77, n78, n79	
<b>4G LTE 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, 43, B48, B49, B52	B46, B47, B252, B255
<b>3G CELL 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>2G CELL bands</b>	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS		
<b>CDMA CELL 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>	~-8.5	~-14.4	~-9.3-	~-9.2
<b>VSWR</b>	~2.4:1	~1.7:1	~2.3:1	~2.1:1
<b>Efficiency (%)</b>	~50.4	~63.0	~38.0	~38.2
<b>Peak gain (dBi)</b>	~2.4	~4.2	~2.0	~1.9
<b>Average gain (dBi)</b>	~-3.1	~-2.1	~-4.3	~-4.2
<b>Impedance (Ohms)</b>	50			
<b>Polarisation</b>	Linear			
<b>Radiation pattern</b>	Omni-directional			
<b>Max input power (W)</b>	35			
<b>Connector type</b>	SMA male standard (other connectors available)			
<b>Cable length</b>	3 metres standard (other lengths available)			
<b>Cable type</b>	DACAR 302 (other cables available)			

**Measurement conditions:**

- Mounted on 30 x 30 x 0.25cm ABS plate
- 1 metre of DACAR 302 cable
- Measured in certified CTIA 3D anechoic chamber

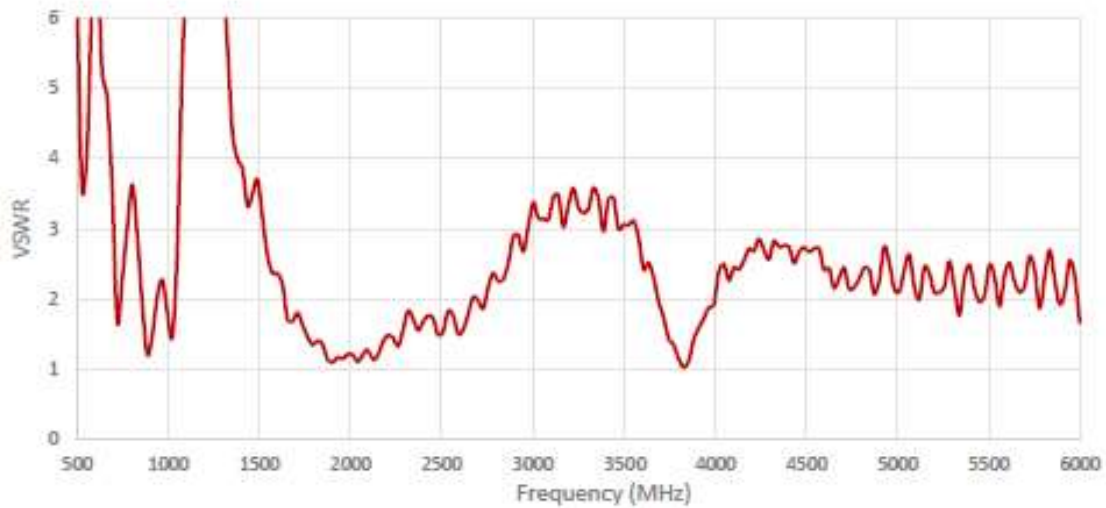
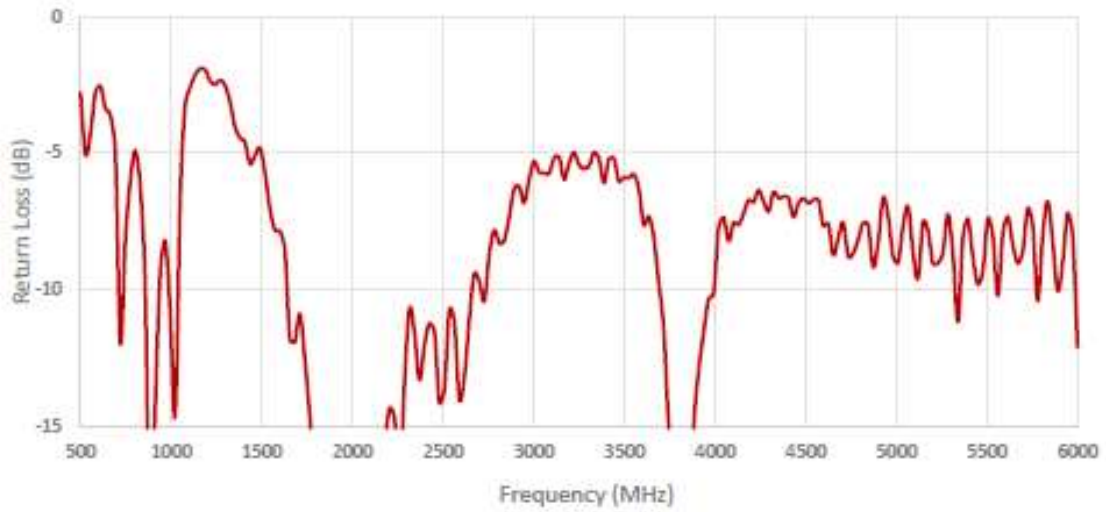
**2. Mechanical and environmental specifications**

Mounting type	Adhesive mount
Dimensions (mm)	80 x 76 x 16
Antenna material	ABS UV stable
Antenna colour	Black or white
Operating temperature (°C)	-40 to +85
Storage temperature (°C)	-40 to +85
Substance compliance	RoHS



### 3. Antenna Parameters

Cable 1: 5G NR



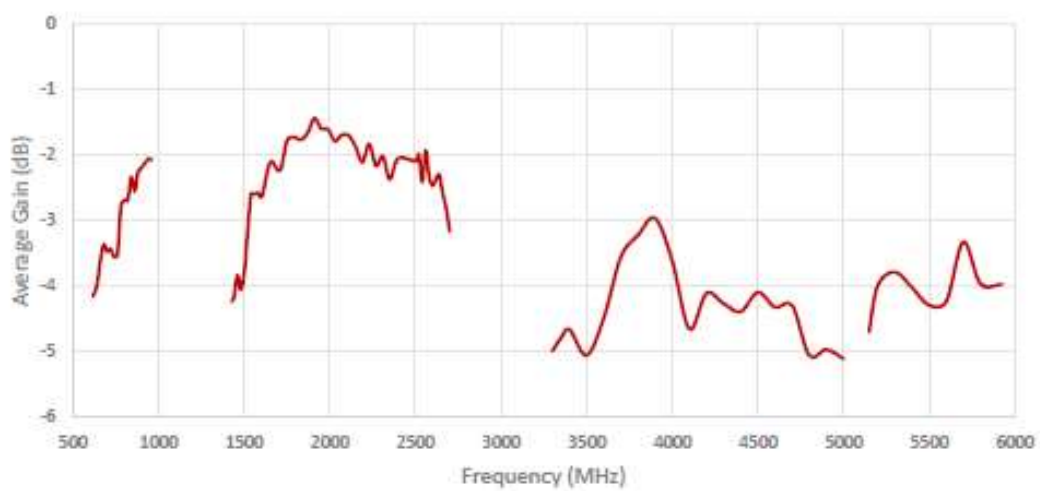
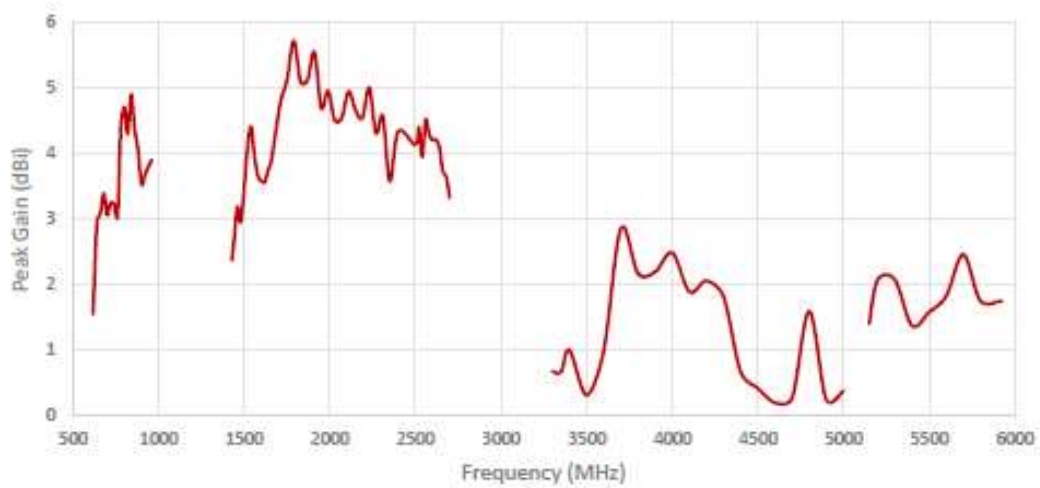
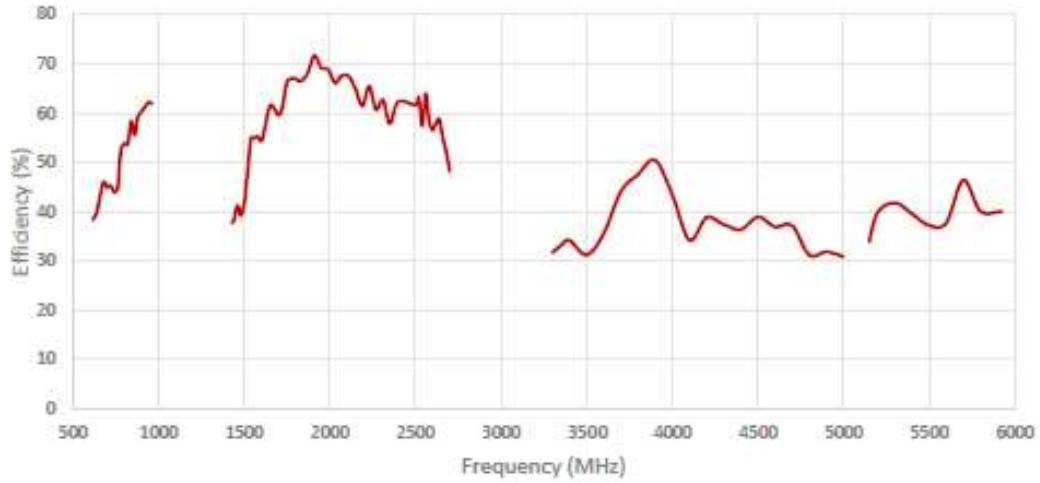
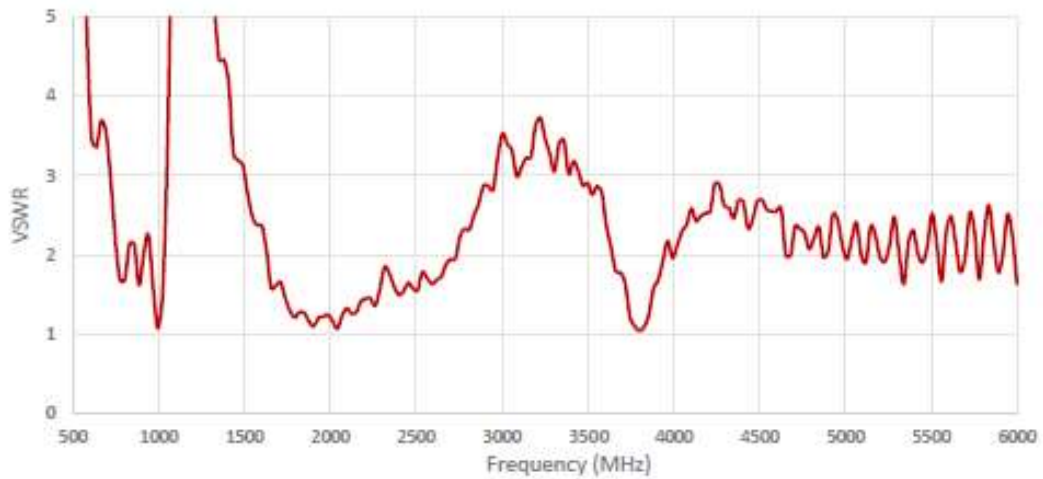
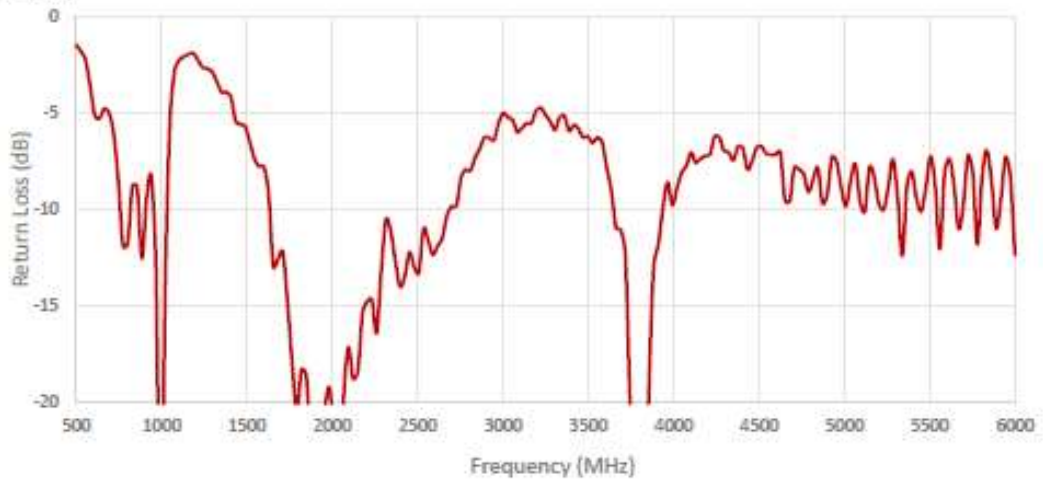
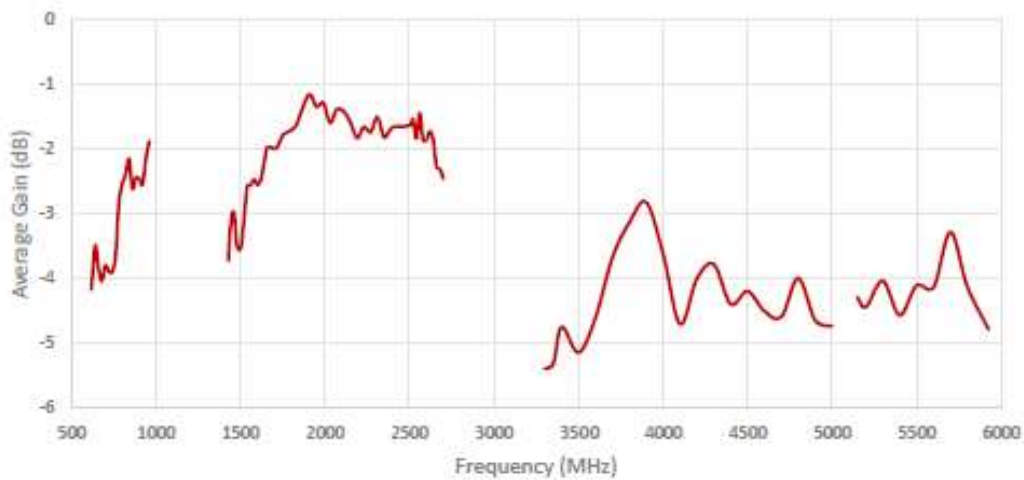
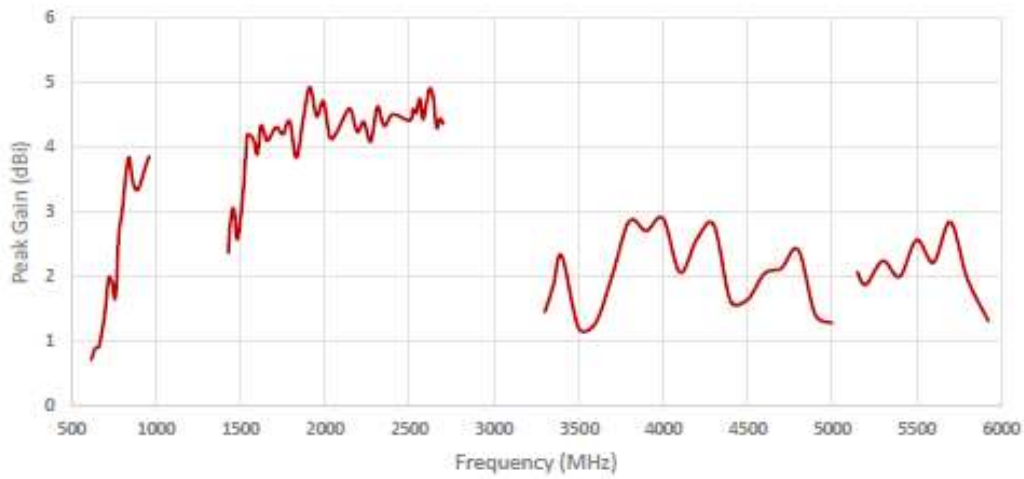
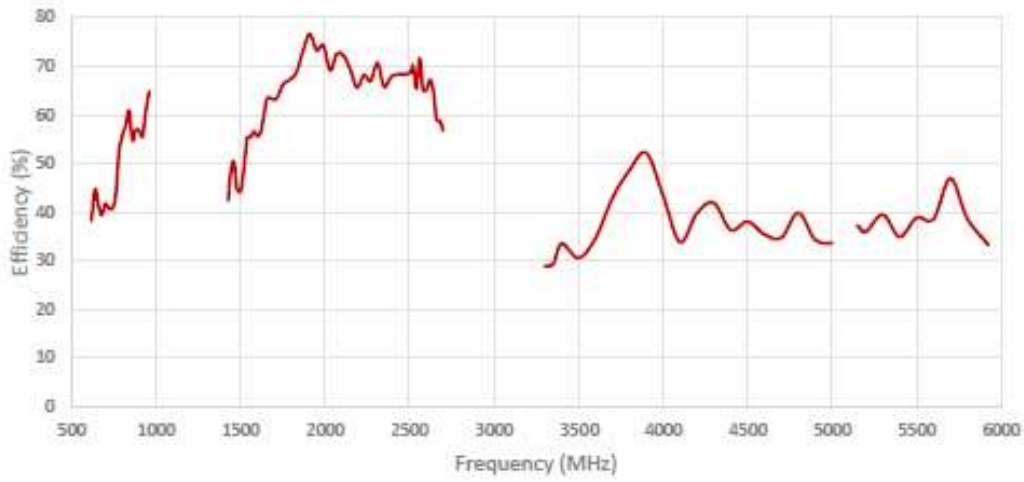


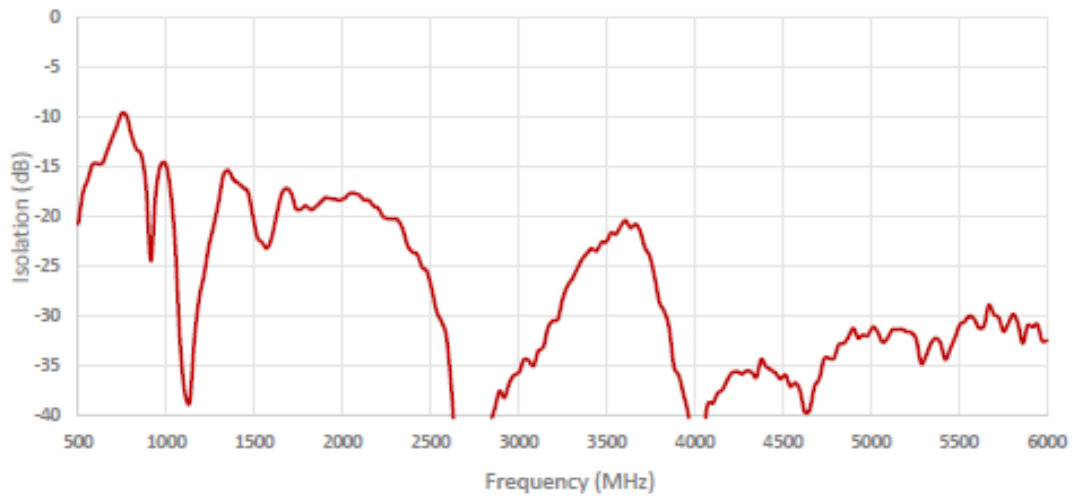
Table 2- 5G NR



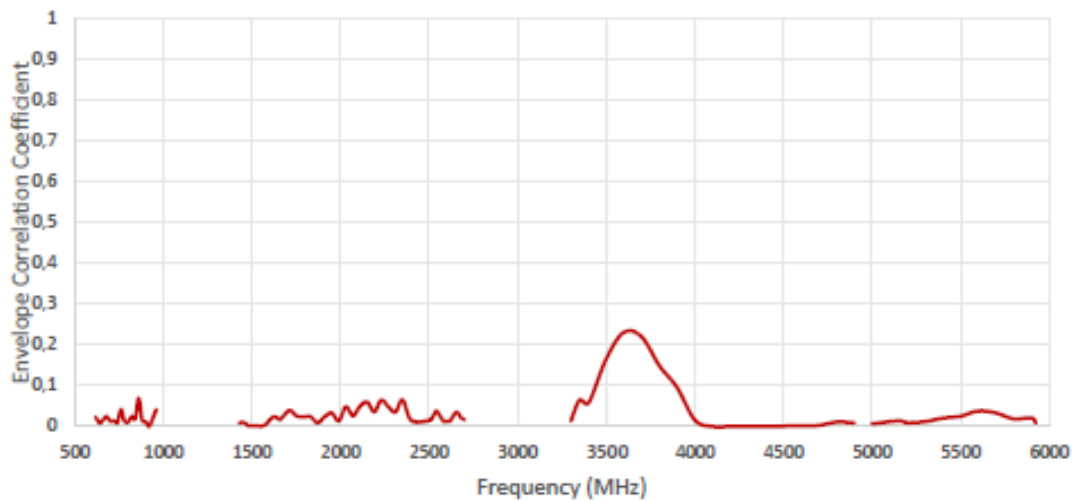




**ISOLATION FOR CABLES 1 AND 2**



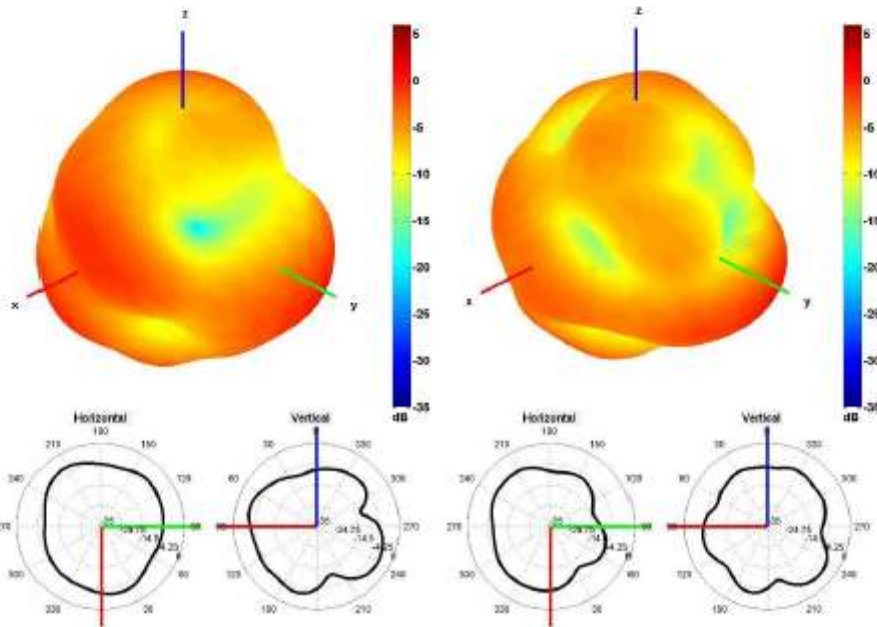
**ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2**



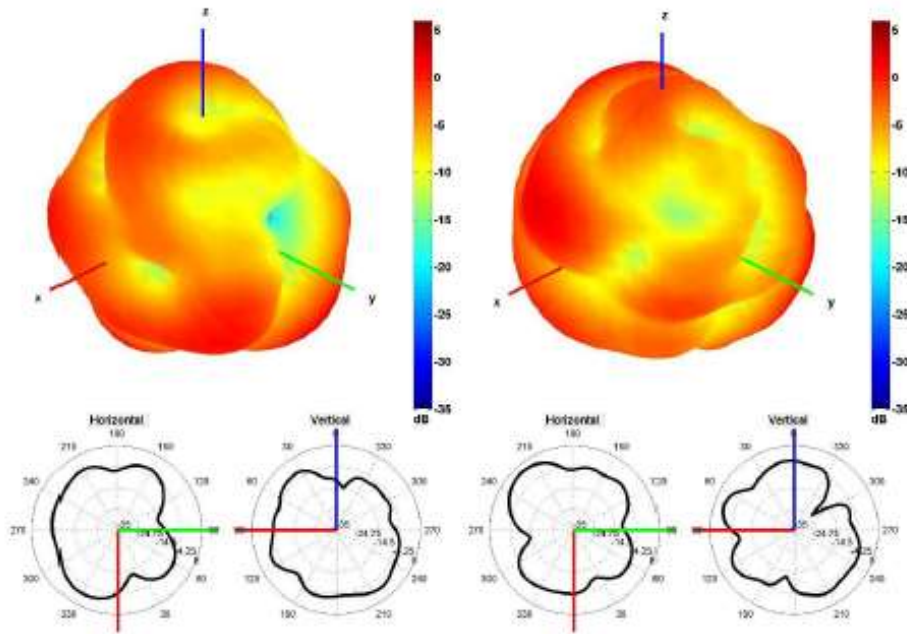


Radiation pattern reference

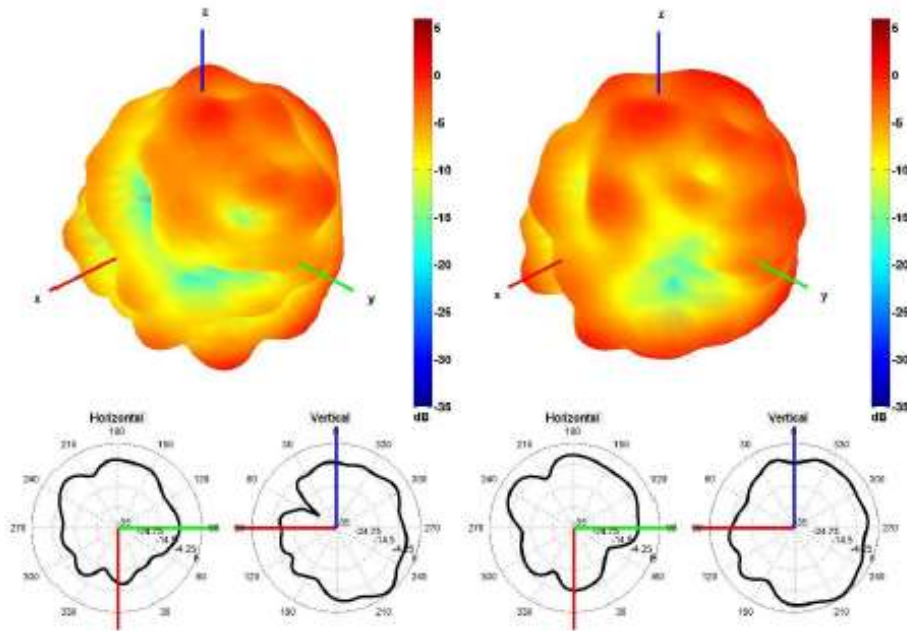
Cable 1: 5GNR



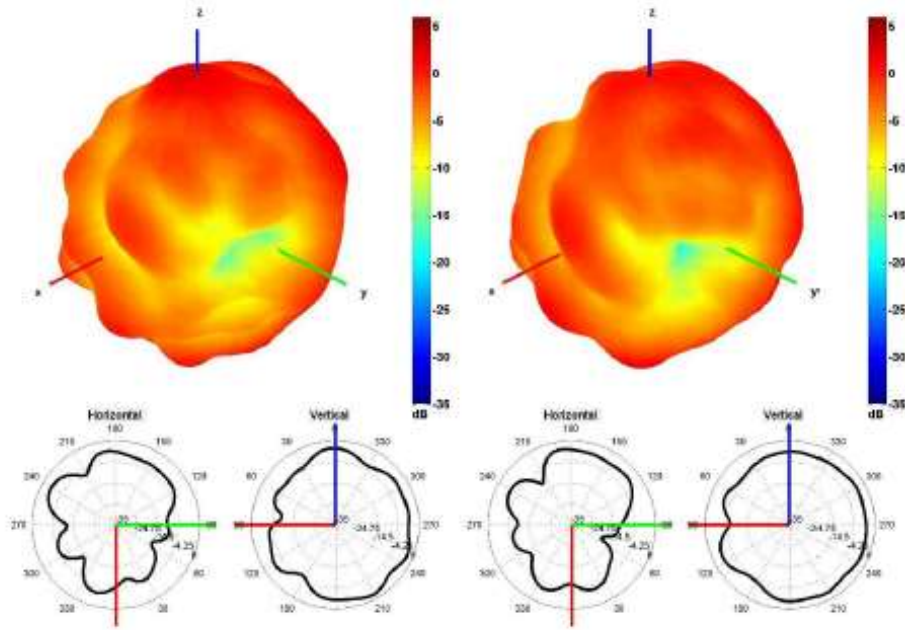
650 and 750 MHz Radiation pattern



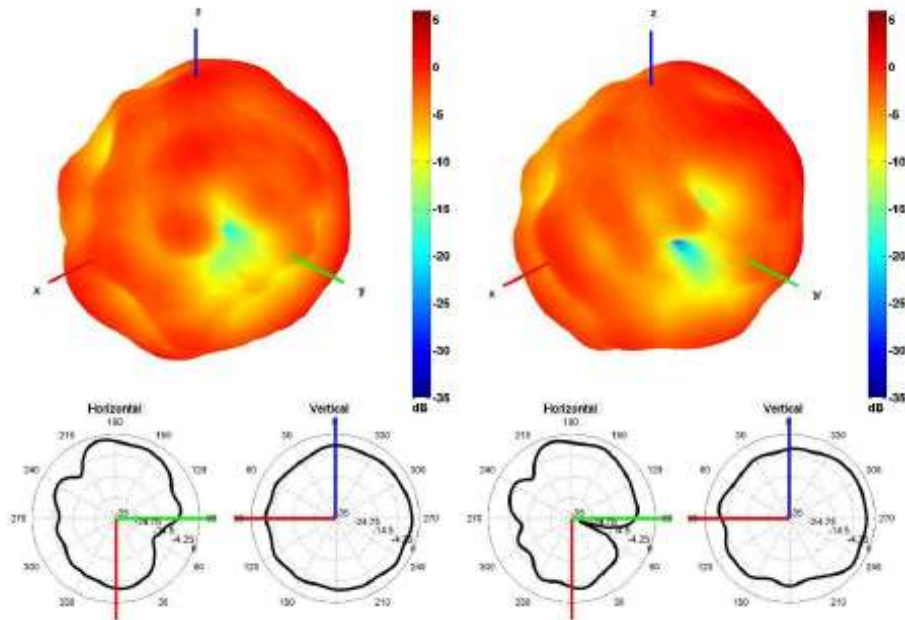
850 and 940 MHz Radiation pattern



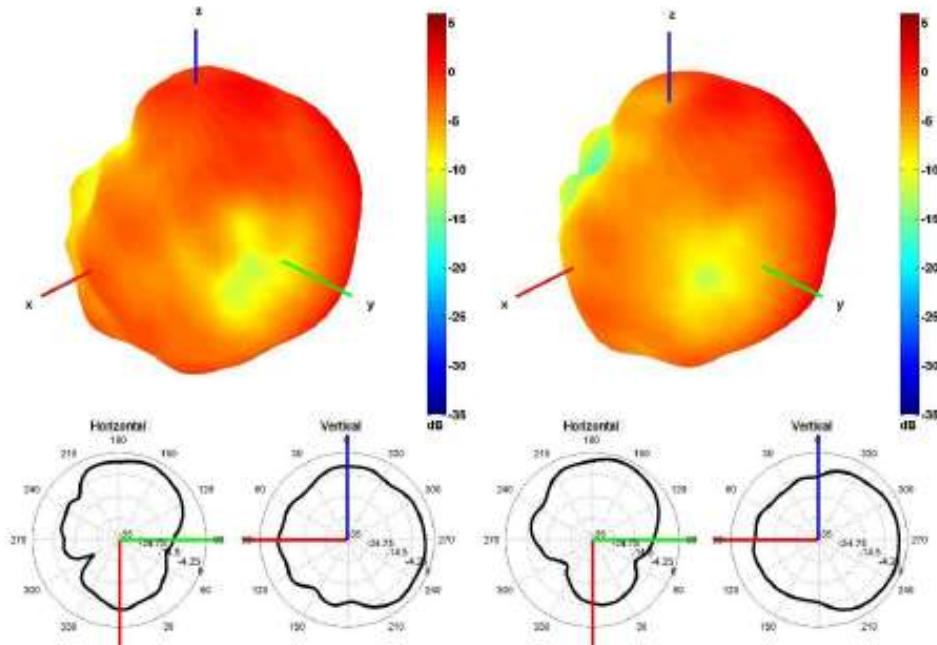
1500 and 1600 MHz Radiation pattern



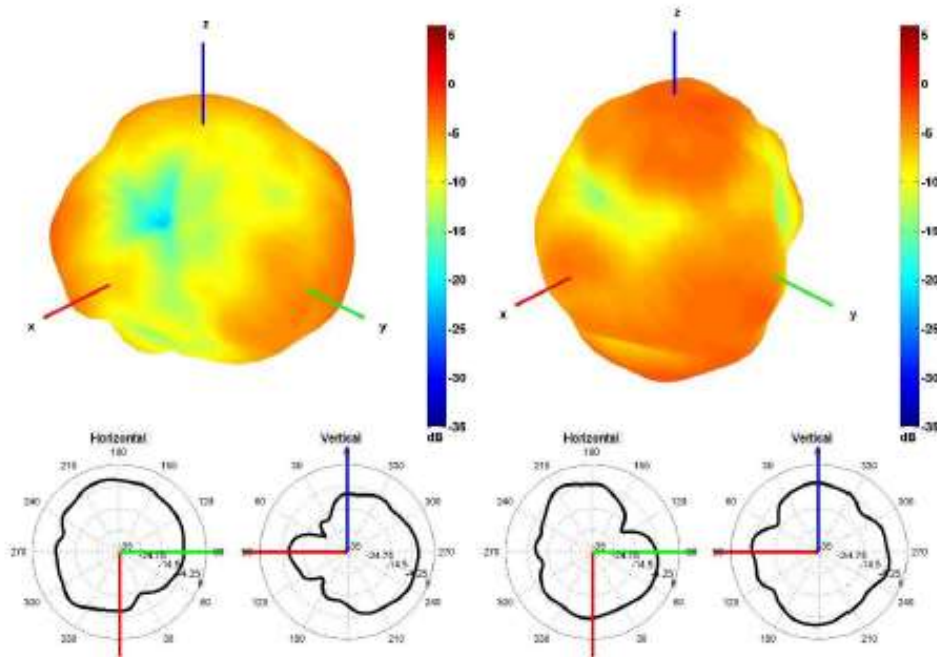
1750 and 1850 MHz Radiation pattern



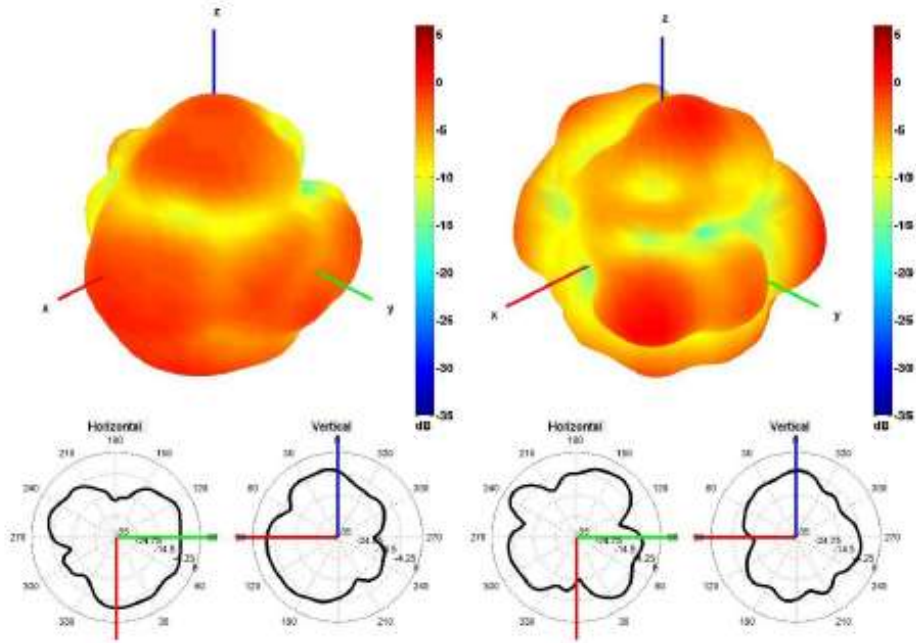
1950 and 2100 MHz Radiation pattern



2350 and 2600 MHz Radiation pattern

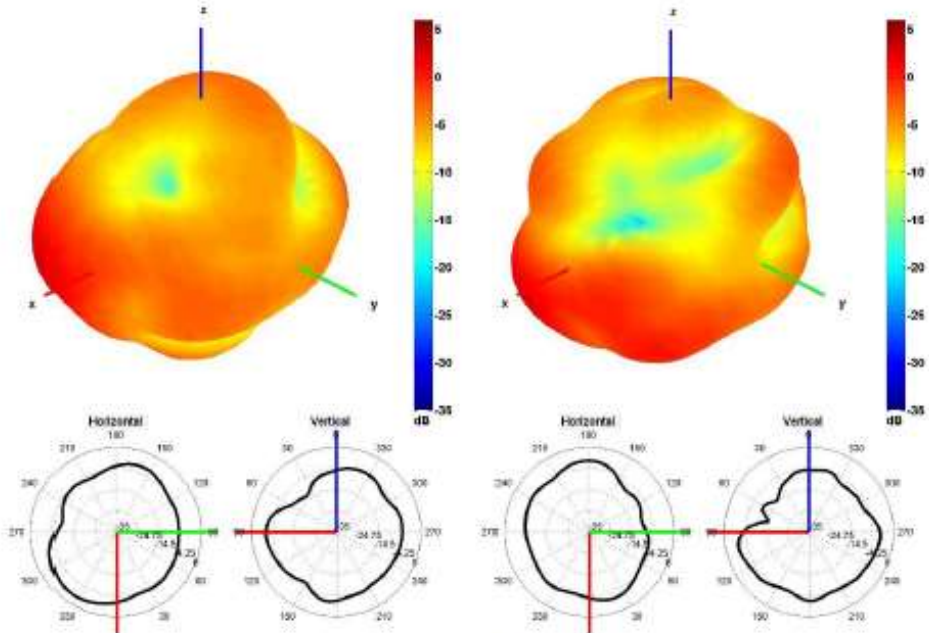


3350 and 3600 MHz Radiation pattern

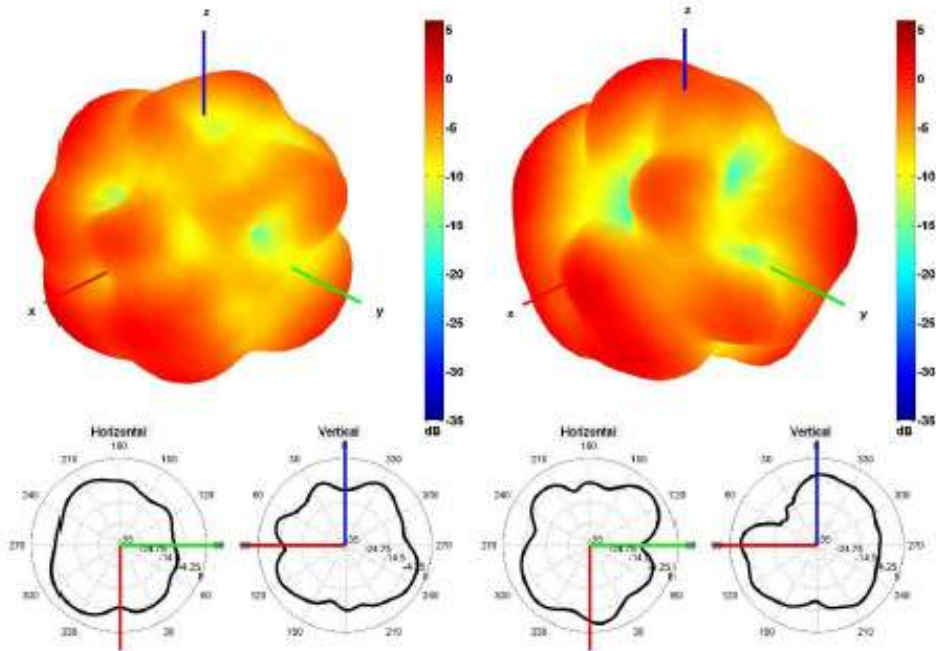


4500 and 5500 MHz Radiation pattern

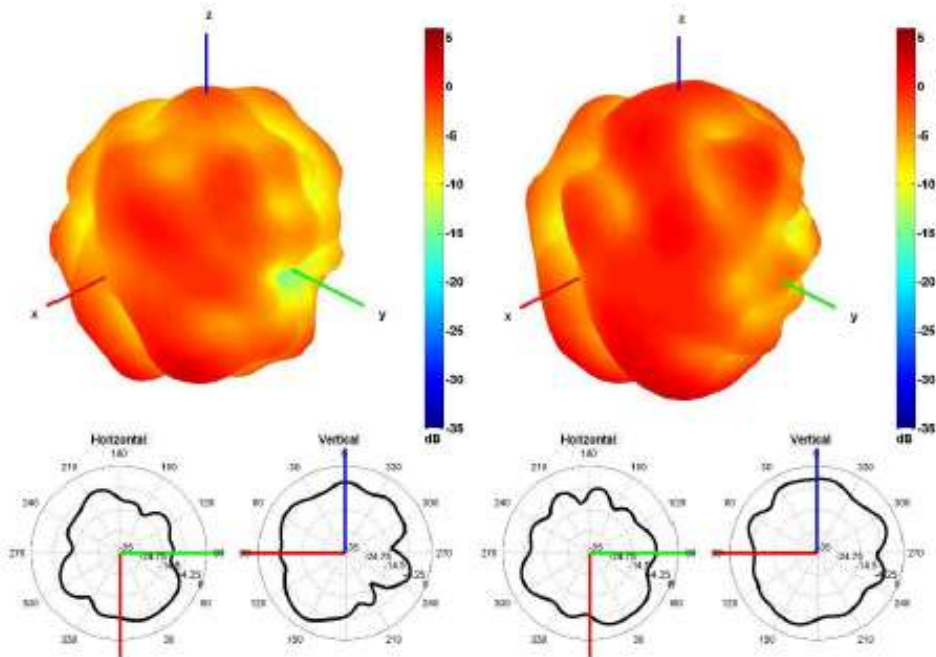
Table 2: 5GNR



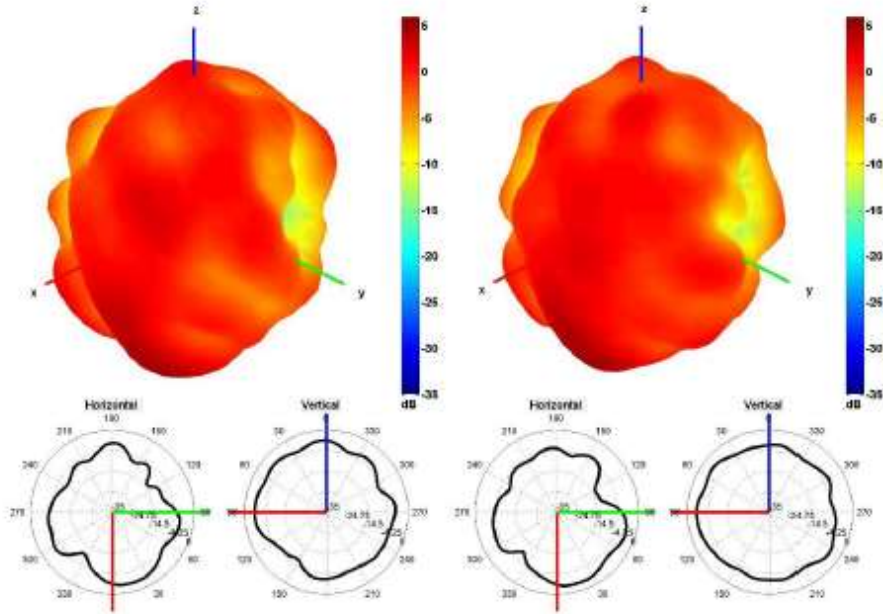
650 and 750 MHz Radiation pattern



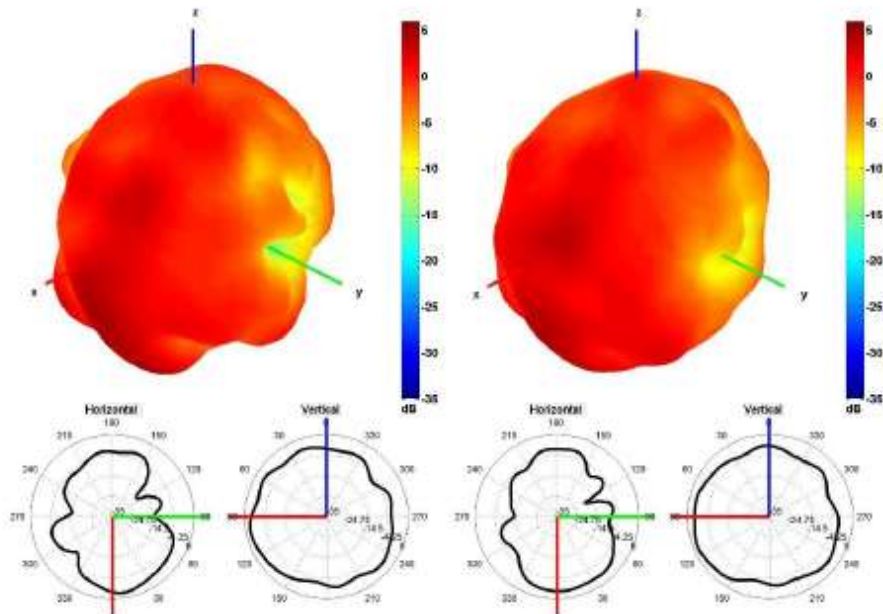
850 and 940 MHz Radiation pattern



1500 and 1600 MHz Radiation pattern

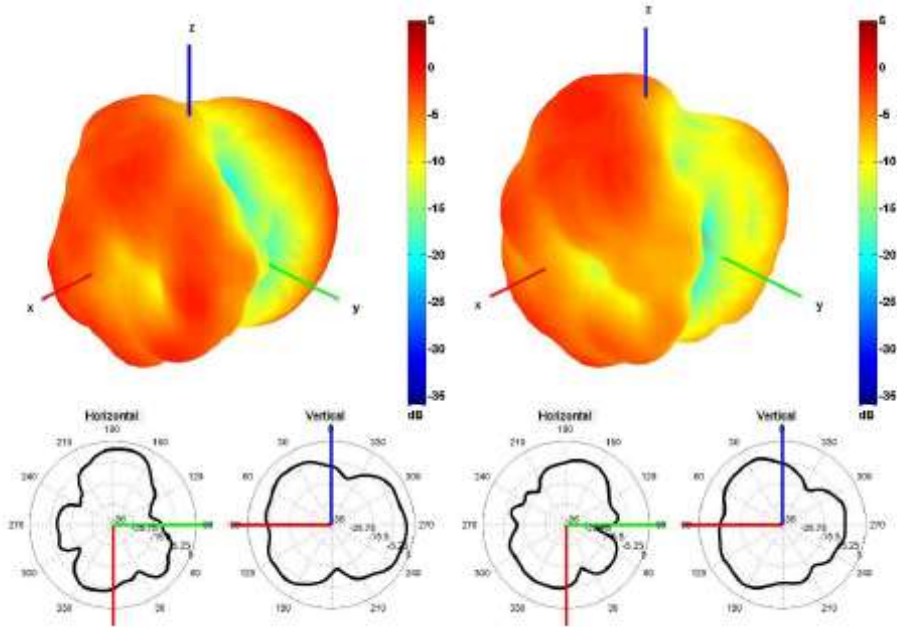


1750 and 1850 MHz Radiation pattern

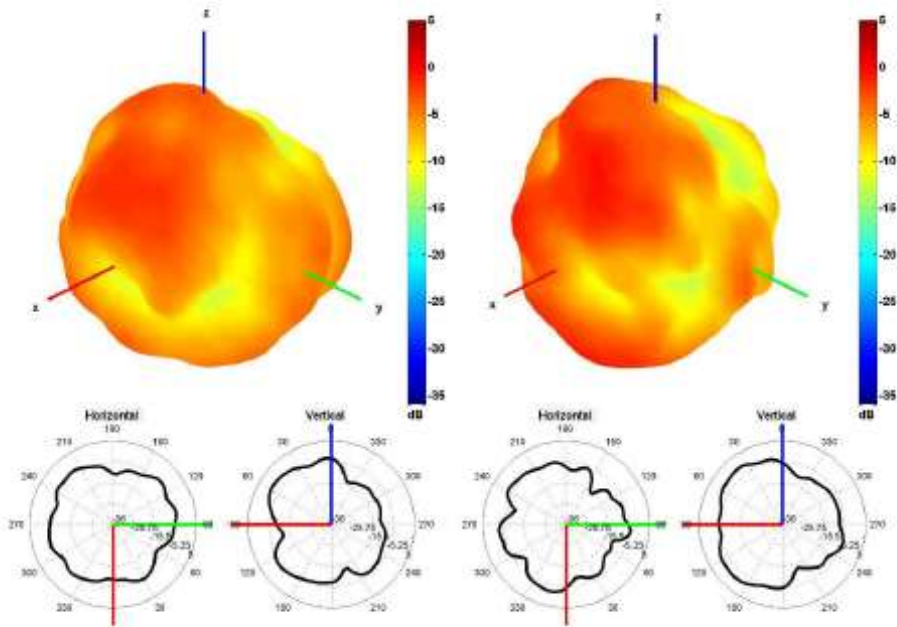


1950 and 2100 MHz Radiation pattern

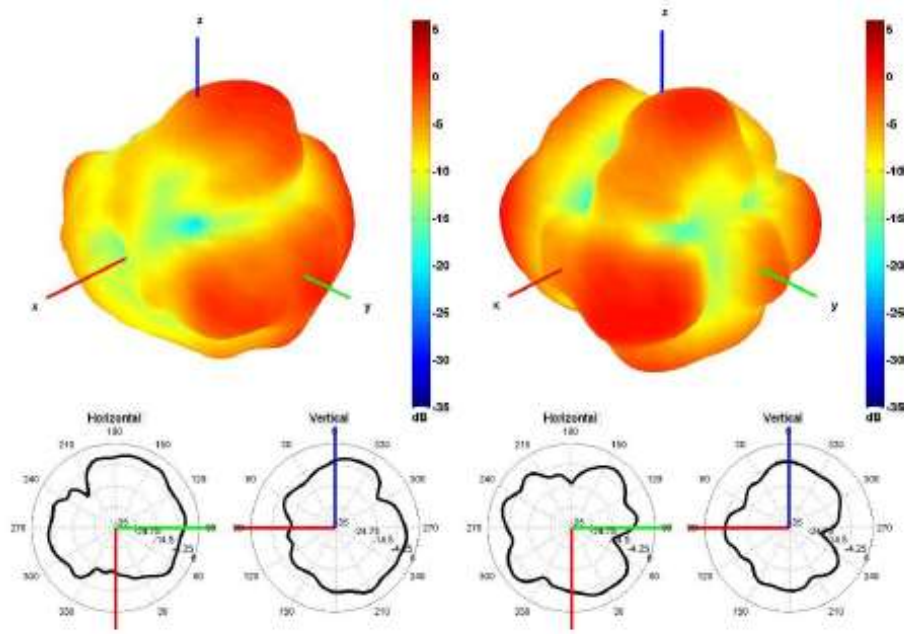




2350 and 2600 MHz Radiation pattern



3350 and 3600 MHz Radiation pattern



4500 and 5500 MHz Radiation pattern

