

2J6C75BGFa

2× 5GNR MIMO, IRIDIUM and GNSS Screw Mount

Key Features

Cable 1-2: 5GNR

- 617-960 MHz
- 1427-2690 MHz
- 3300-5000 MHz
- 5150-5925 MHz
- 5925-7125 MHz

Cable 3: IRIDIUM

- 1616-1627 MHz

Cable 4: GPS/GLONASS/QZSS/Galileo

- 1575-1606 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				
Technologies	5G, 4G, 3G and 2G				
Standards	5GNR/4GLTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G				
Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925	5925-7125
Band (MHz)	600, 700, 800, 850, 900	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800	6175, 6525, 6775
5GNR Bands	n5, n8, 12, n13, n14, n18, n20, n26, n28, n29, n67, n71, n81, n82, n83, n85, n89, n100, n105, n106	n1, n2, n3, n7, n, 24, n25, n30, n34, n38, n39, n40, n41, n50, n51, n53, n54, n65, n66, n70, n74, n75, n76, n80, n84, n86, n91, n92, n93, n94, n95, n97, n98, n99, n101, n109, n254, n255, n256	n48, n77, n78, n79, n90	n46, n47	n96, n102, n104
4GLTE 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	
3GCELL 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		
2GCELL Bands	710, 750, 810T, 850, 900P, 900E, 900R	1800DCS, 1900PCS			
CDMACELL Bands	BC0, BC2, BC3, BC7, BC9, BC10, BC12, BC18, BC19	BC1, BC4, BC6, BC8, BC13, BC14, BC15, BC16, BC20, BC21			
Return Loss (dB)	~-8.5	~-10.0	~-12.0	~-12.0	~-8.5
VSWR	~2.2:1	~2.0:1	~1.7:1	~1.7:1	~2.2:1
Efficiency (%)	40.8	~46.1	~52.1	~40.2	~30.8
Peak Gain (dBi)	~1.1	~5.7	~3.9	~3.4	~3.6
Average Gain (dB)	~-4.3	~-3.5	~-2.9	~-4.0	~-5.4
Impedance (Ohm)	50				
Polarisation	Linear				
Radiation Pattern	Omni-Directional				
Max. Input Power (W)	10				
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

Parameters	5G NR Antenna				
Technologies	5G, 4G, 3G and 2G				
Standards	5G NR/4G LTE/FirstNet/CBRS/LPWA/CAT-X/CAT-Mx/CAT-NBx/NB-IoT/3G/2G				
Frequency (MHz)	617-960	1427-2690	3300-5000	5150-5925	5925-7125
Band (MHz)	600, 700, 800, 850, 900	1500, 1600, 1700, 1800, 1900, 2000, 2100, 2300, 2500, 2600	3300, 3500, 3600, 3700, 4500	5200, 5500, 5800	6175, 6525, 6775
5G NR Bands	n5, n8, 12, n13, n14, n18, n20, n26, n28, n29, n67, n71, n81, n82, n83, n85, n89, n100, n105, n106	n1, n2, n3, n7, n, 24, n25, n30, n34, n38, n39, n40, n41, n50, n51, n53, n54, n65, n66, n70, n74, n75, n76, n80, n84, n86, n91, n92, n93, n94, n95, n97, n98, n99, n101, n109, n254, n255, n256	n48, n77, n78, n79, n90	n46, n47	n96, n102, n104
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			
Return Loss (dB)	~-7.0	~-10.0	~-10.5	~-13.7	~-11.2
VSWR	~3.0:1	~2.5:1	~2.0:1	~1.6:1	~2.0:1
Efficiency (%)	~40.8	~50.7	~50.5	~50.7	~38.5
Peak Gain (dBi)	~1.3	~6.1	~4.1	~4.7	~4.4
Average Gain (dB)	~-4.3	~-3.2	~-3.1	~-3.0	~-4.3
Impedance (Ohm)	50				
Polarisation	Linear				
Radiation Pattern	Omni-Directional				
Max. Input Power (W)	10				
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

Parameters	Iridium Ceramic Antenna
Standards	Iridium
Band (MHz)	1621
Frequency (MHz)	1616-1627
Return Loss (dB)	~-12.8
VSWR	~1.6:1
Efficiency (%)	~65.8
Peak Gain (dBic)	~4.7
Average Gain (dB)	~-1.8
Polarisation	RHCP
Radiation Pattern	Hemispherical
Max. Input Power (W)	10
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 4

Parameters	GPS/GLONASS Antenna	
Standards	GPS/QZSS/Galileo	GLONASS
Band (MHz)	1575	1602
Frequency(MHz)	1575.42	1598-1610
Patch Size (mm)	25 x 25 x 4	
Return Loss (dB)	<=-15.0 dB	
VSWR	<=1.4:1 dB	
Impedance	50	
Radiation Pattern	Hemispherical	
Polarization	RHCP	
Saw Filter	Pre-filter	
Active Gain (dB)	28 @ 2.7 V	
Noise Figure (dB)	1.5 Typ	
Voltage (V)	1.5 – 3.6	
Current Consumption (mA)	9 Typ	
Power Consumption (mW)	24.3 Typ	
ESD Protection (kV)	2kV	
Connector Type	SMA-Male Standard (Other Connectors Available)	
Cable Length	300 cm Standard (Any Cable Length Available)	
Cable Type	LL100 Standard (Other Cables Available)	

Antenna Measurement Conditions:

Mounted on Metal Plate of 30 x 30 cm

100 cm of Cable D302

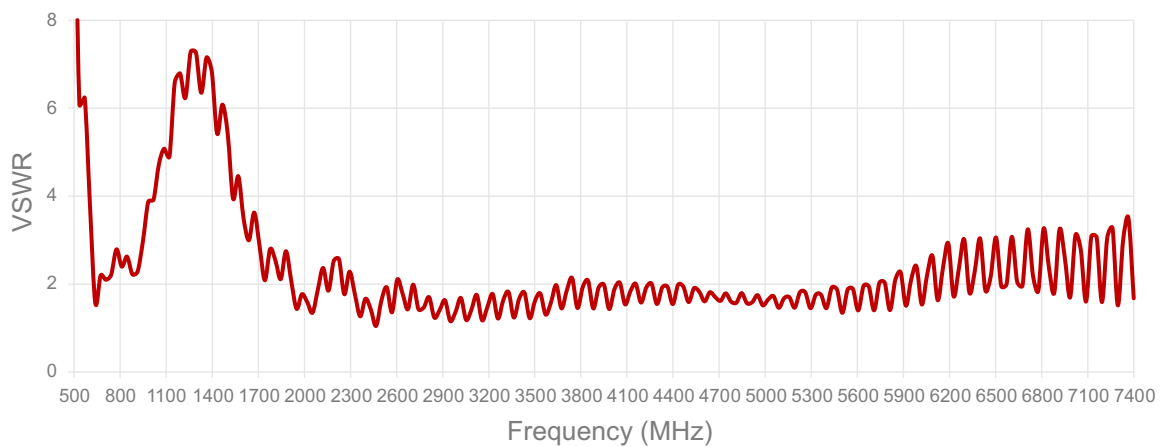
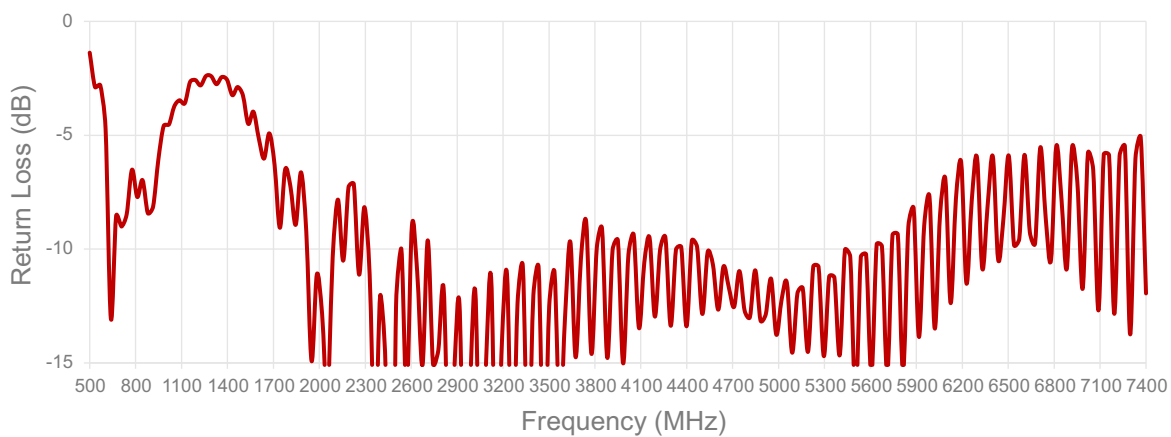
Measured in Certified CTIA 3D Anechoic Chamber

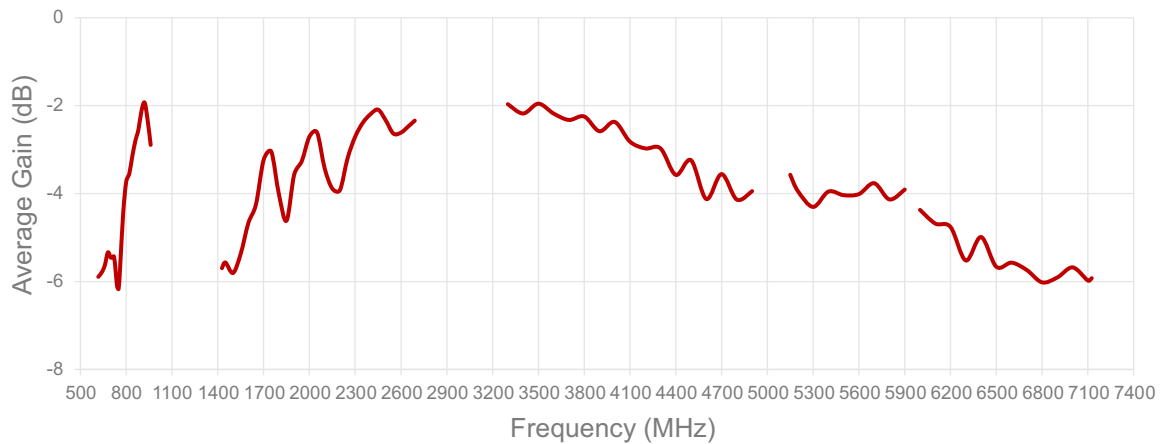
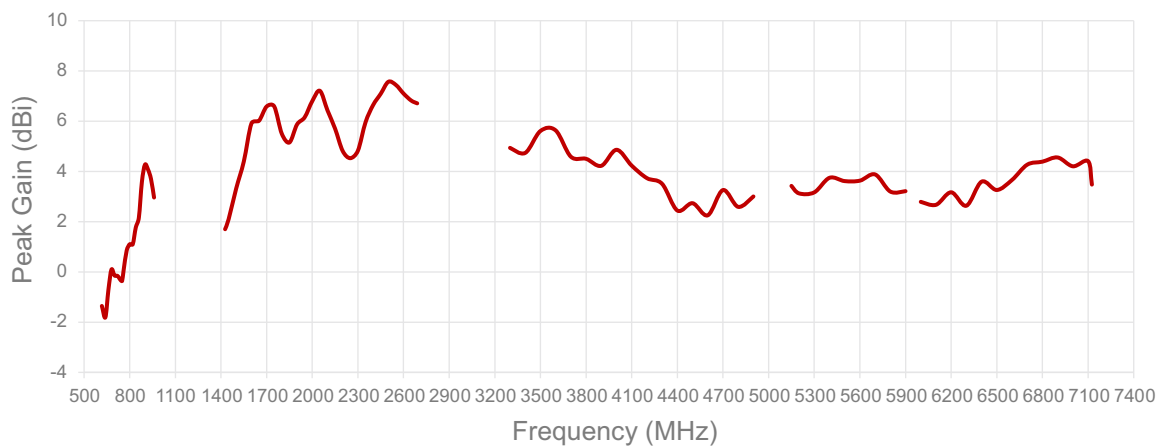
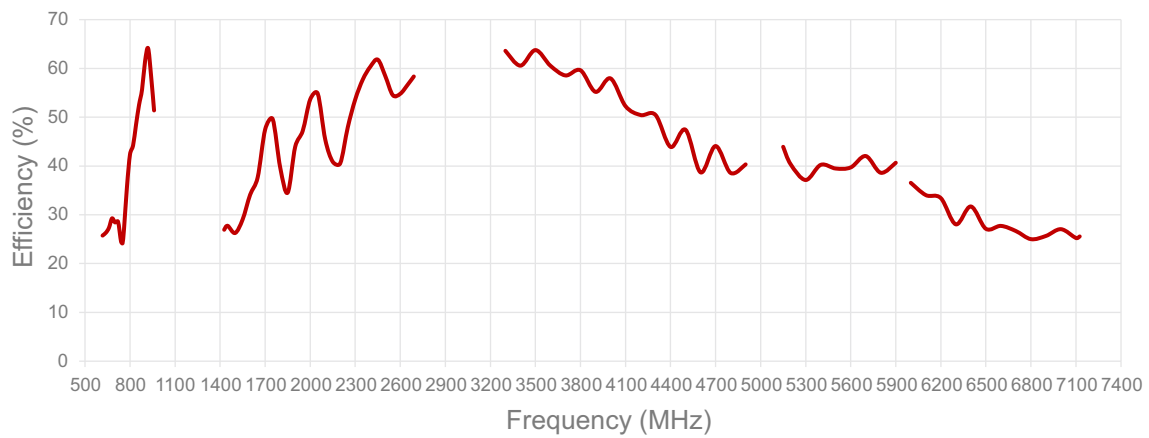
2. Mechanical and environmental specifications

Specifications	2J6C75BGFa
Mounting Type	Screw Mount
Dimensions (mm)	193 × 76.3 × 52.4
Recommended Torque (Nm)	6 Nm
Radome Type	ASA
Radome color	Black, White
Operating Temperature (C)	-40 to +85
Storage Temperature (C)	-40 to +85
Substance Compliance	RoHS
Certificates	IP67, IP69

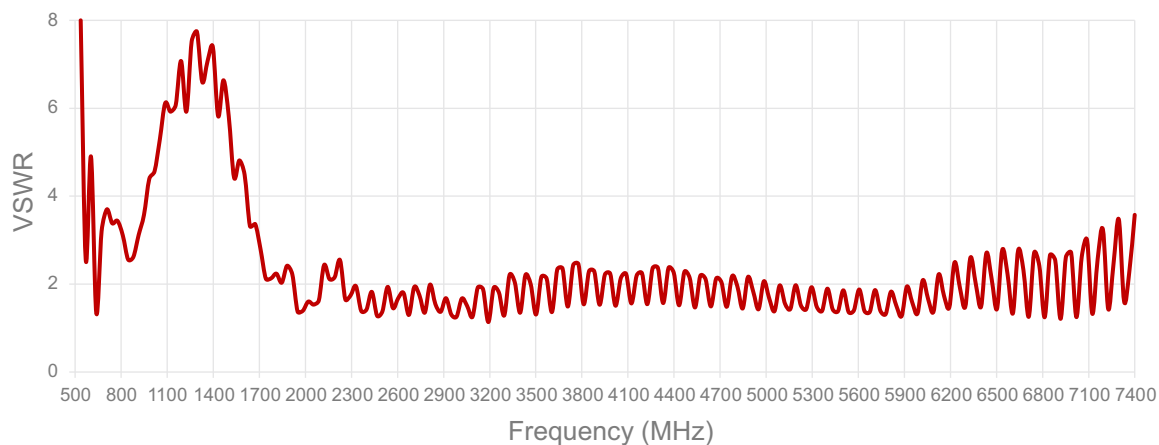
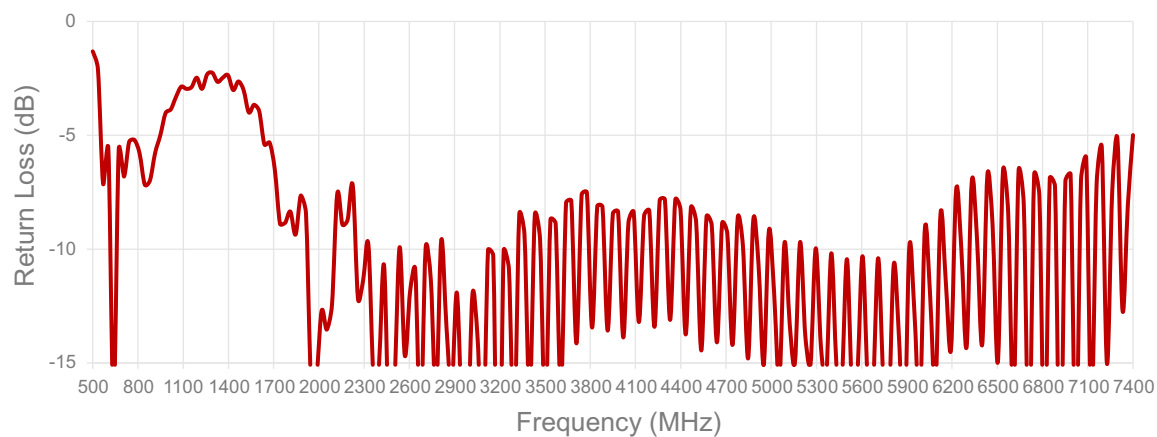
3. Antenna parameters

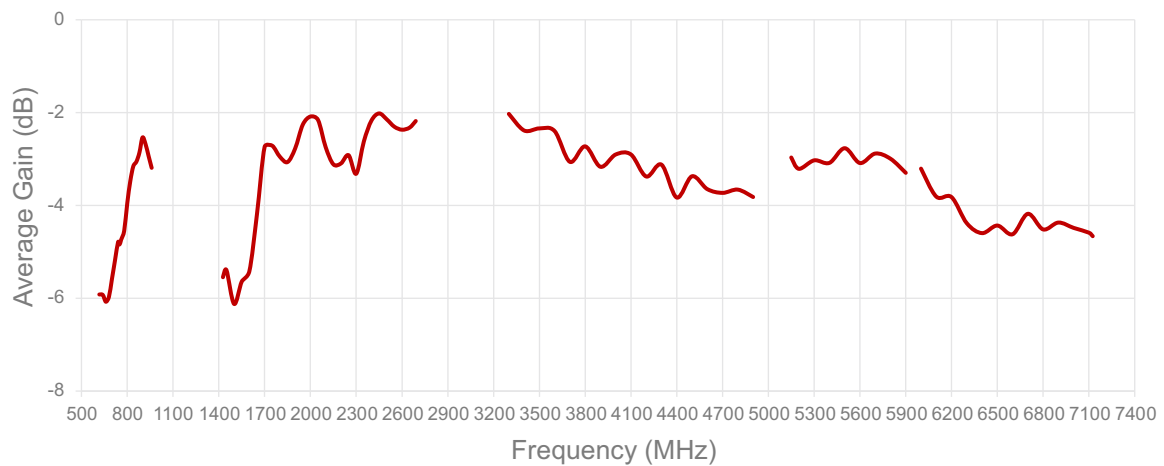
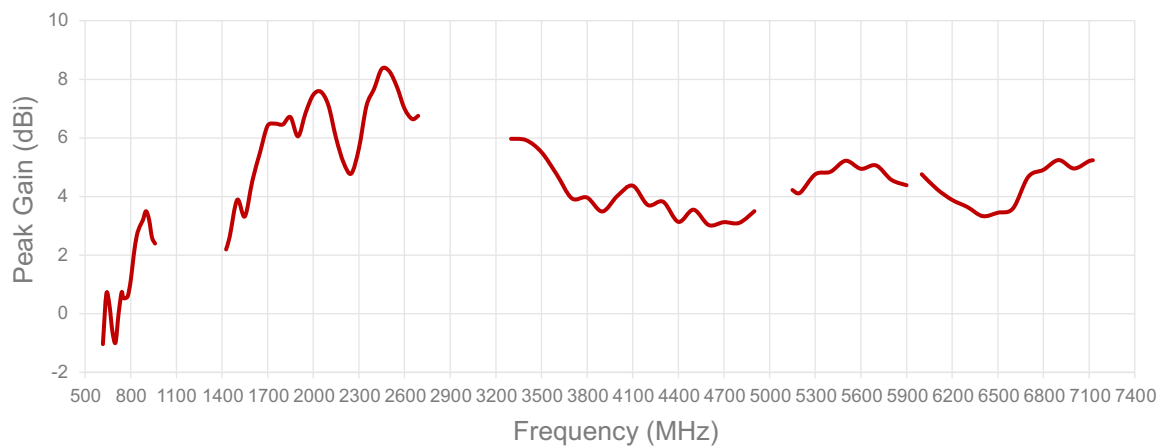
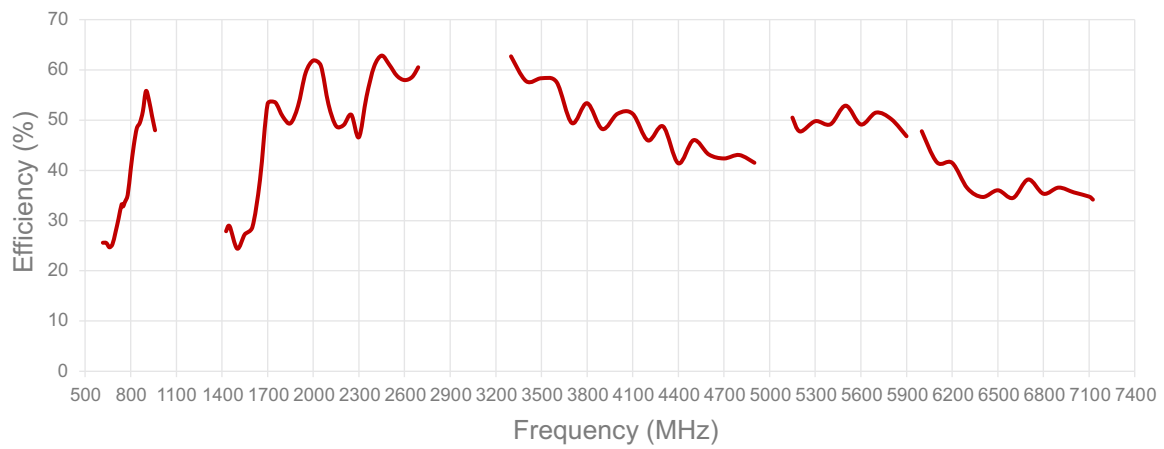
Cable 1: 5GNR



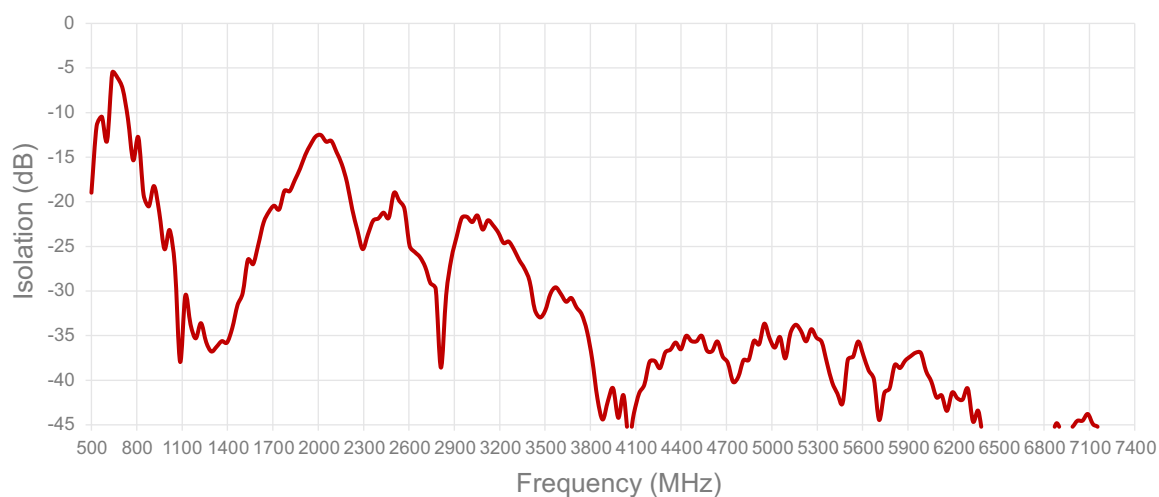


Cable 2: 5GNR

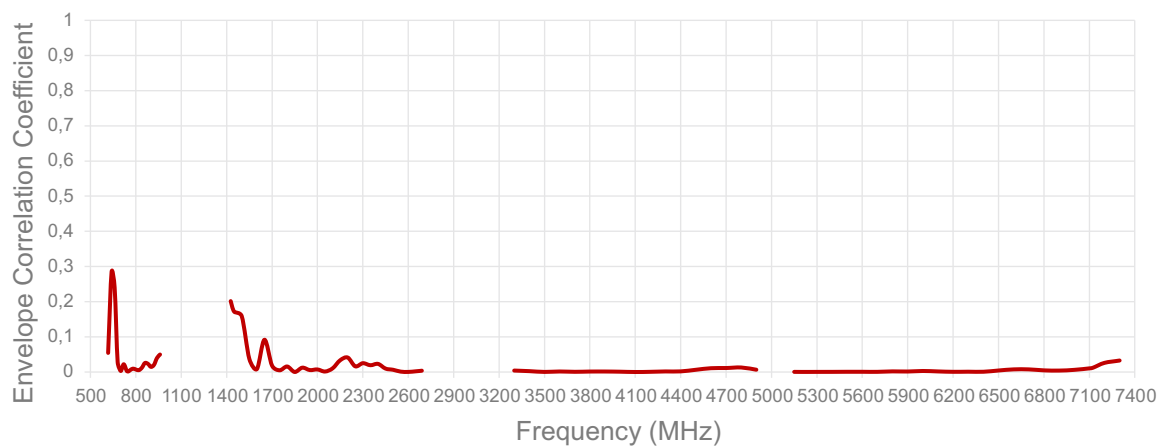




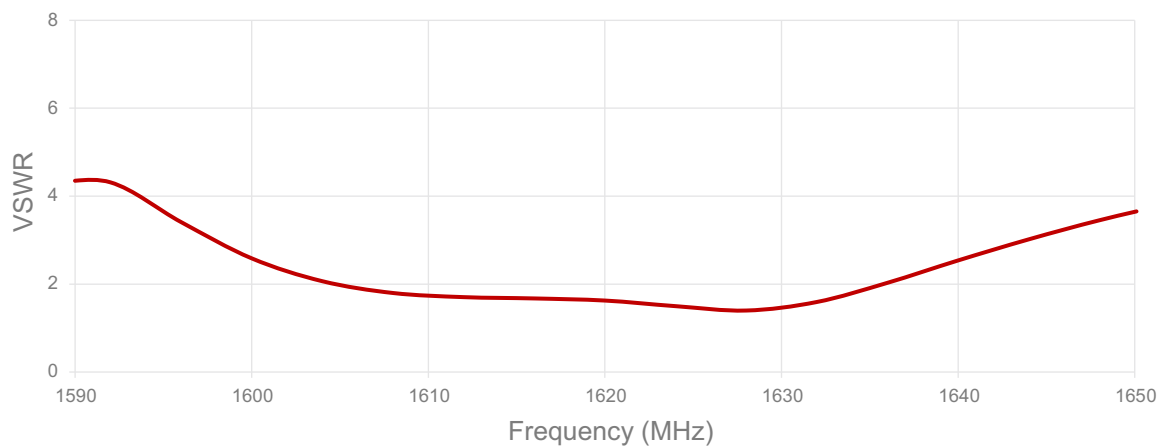
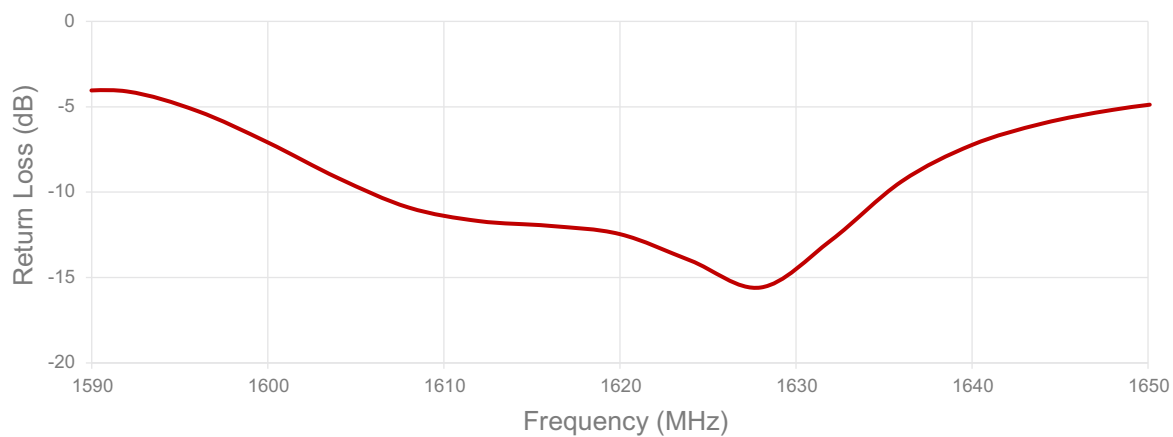
ISOLATION FOR CABLES 1 AND 2

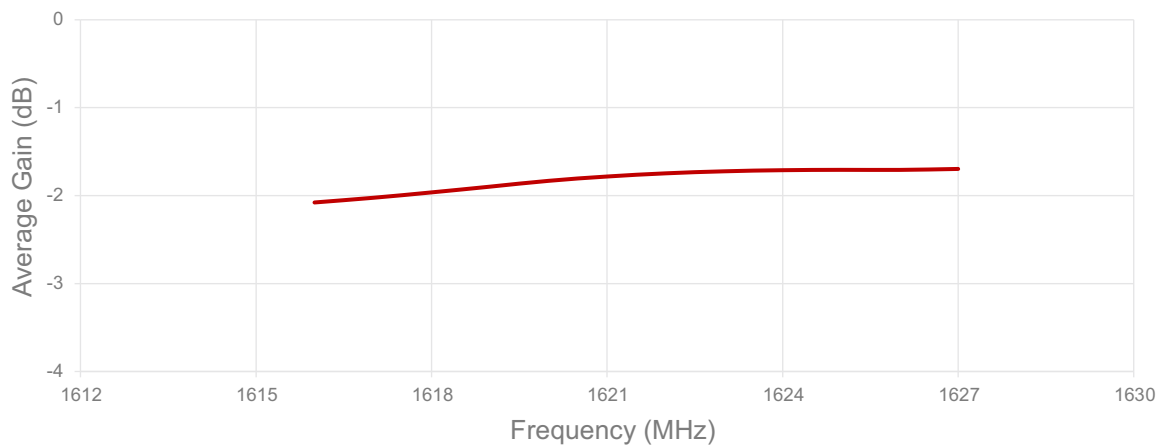
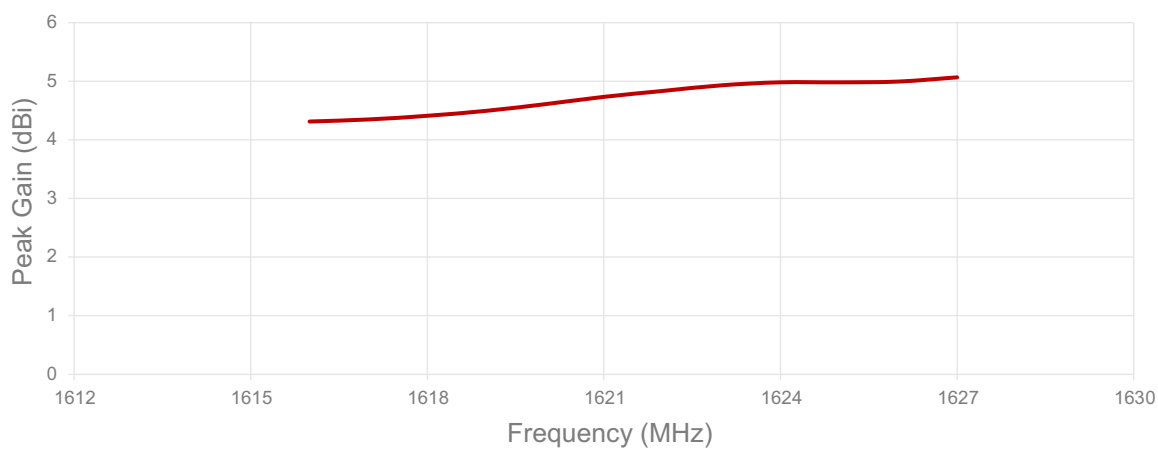
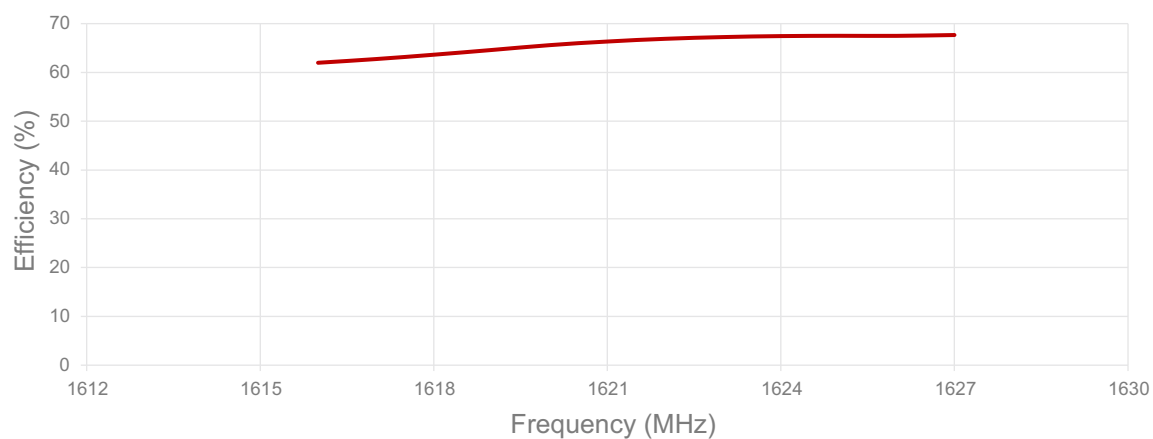


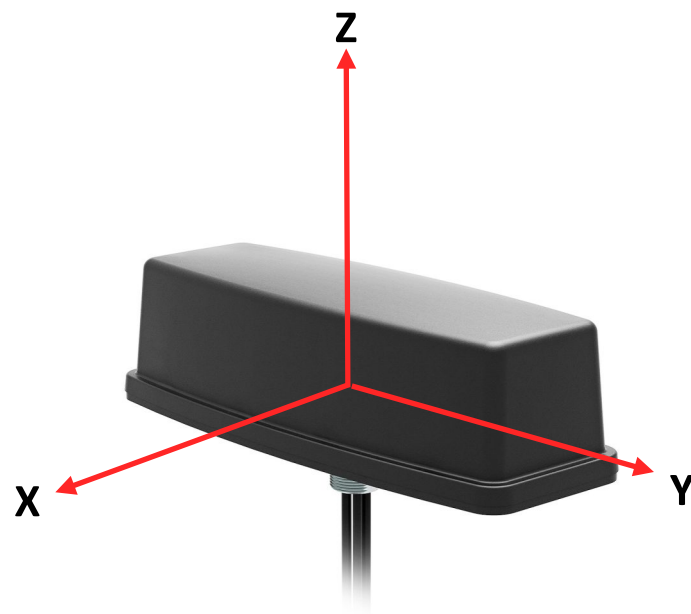
ENVELOPE CORRELATION COEFFICIENT FOR CABLES 1 AND 2



Cable 3: IRIDIUM

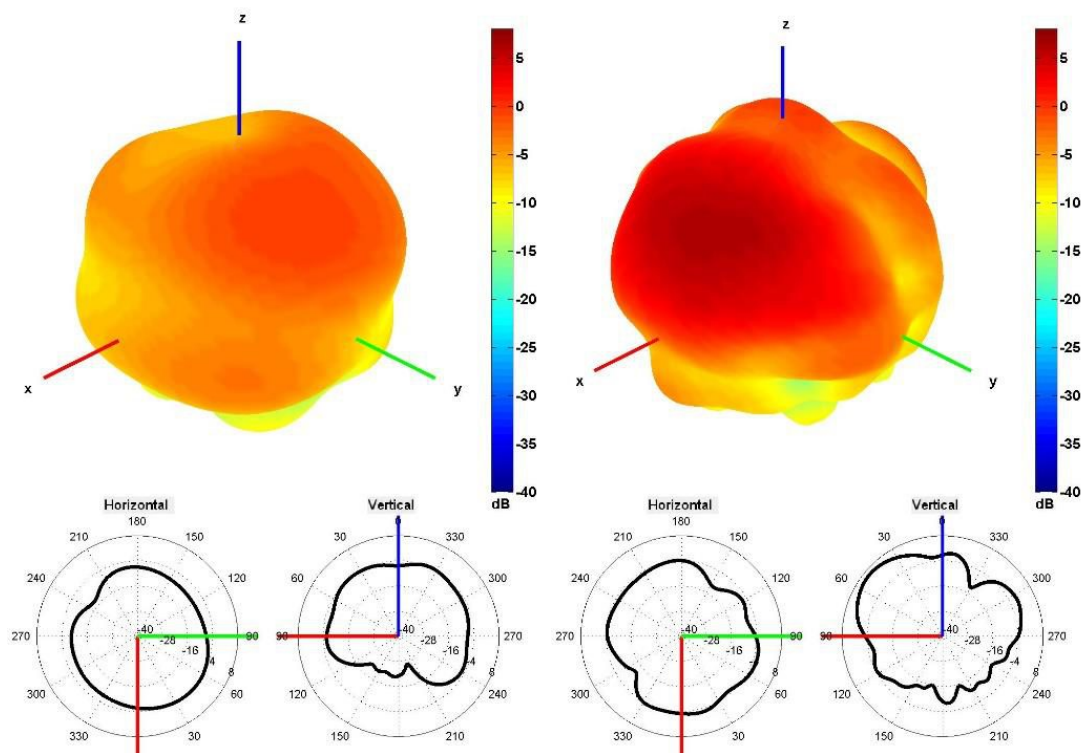




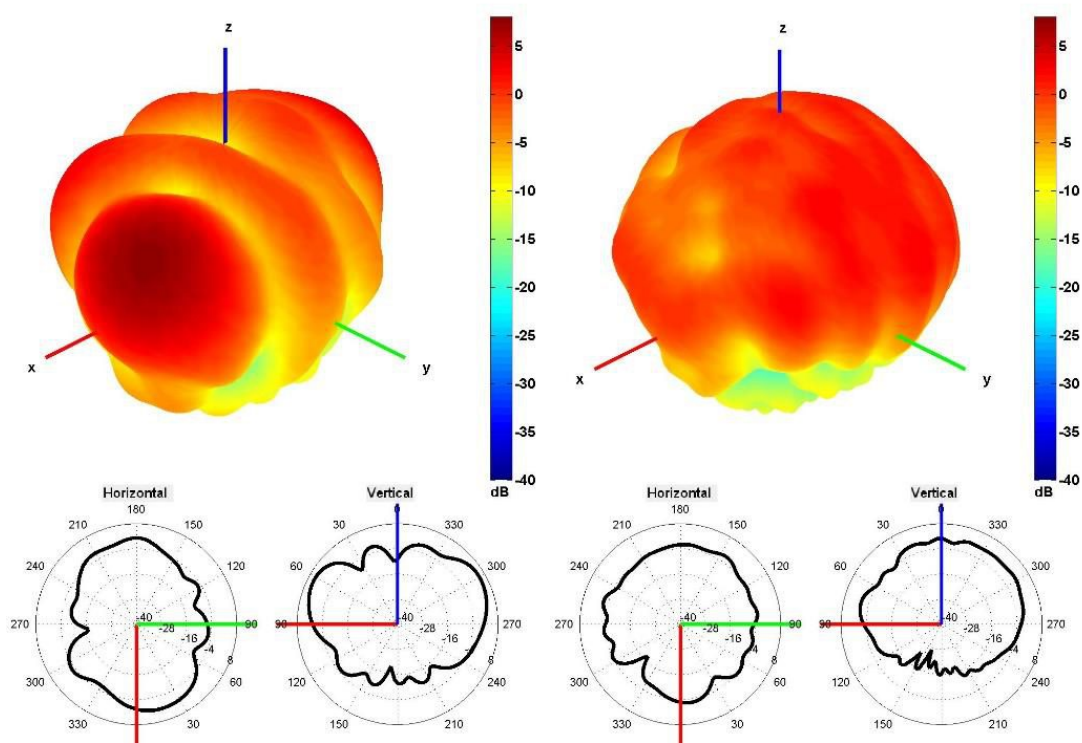


Radiation pattern reference

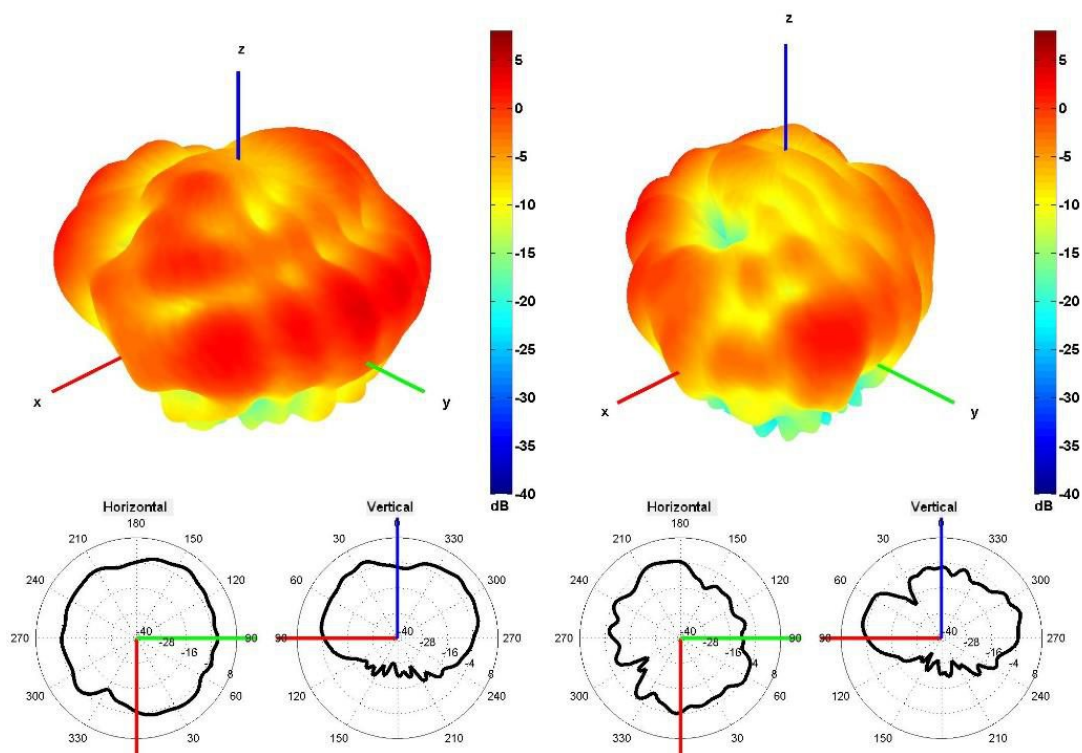
Cable 1: 5GNR



750 and 1950 MHz Radiation pattern

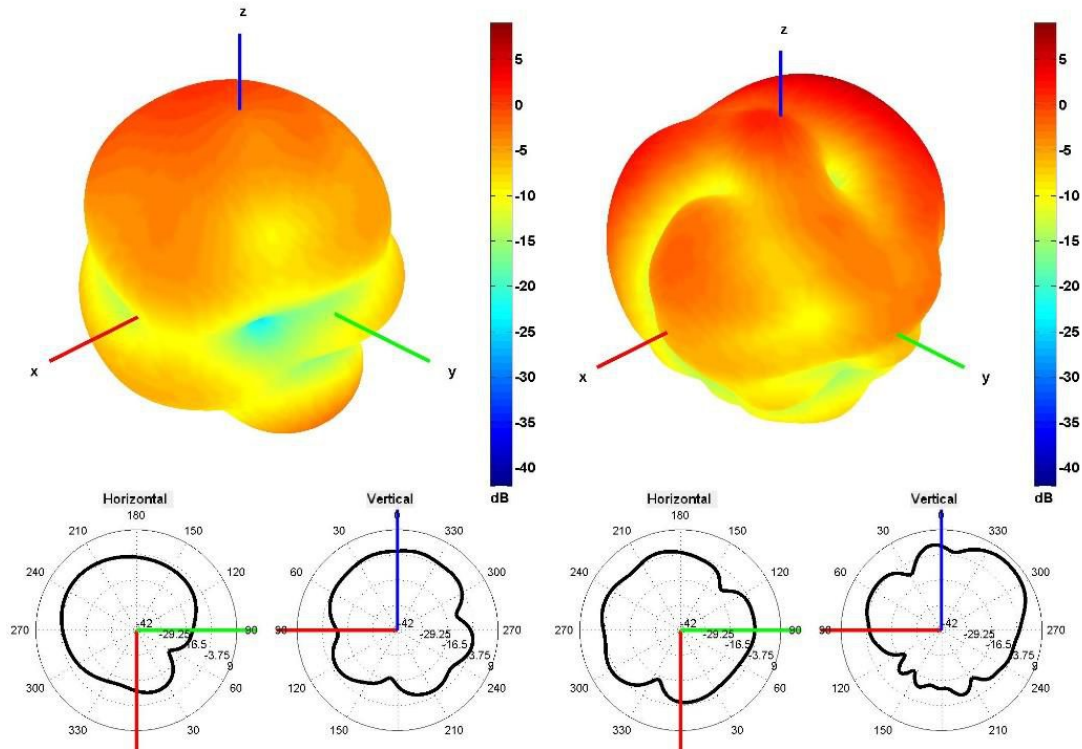


2500 and 4500 MHz Radiation pattern

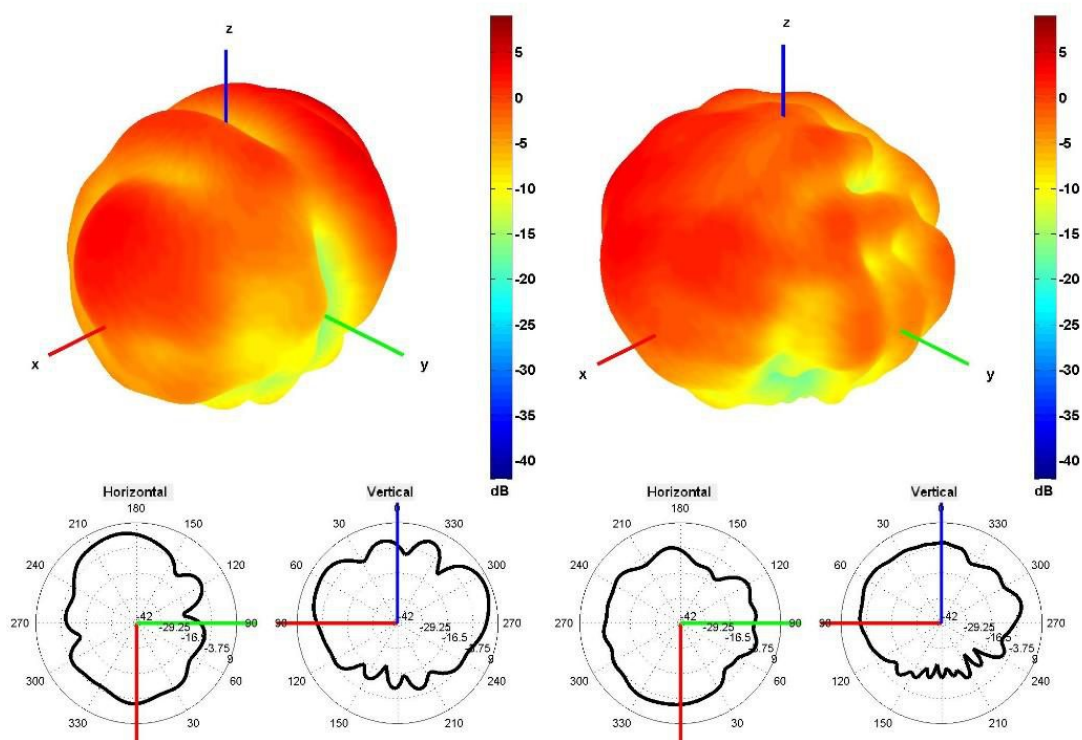


5500 and 6500 MHz Radiation pattern

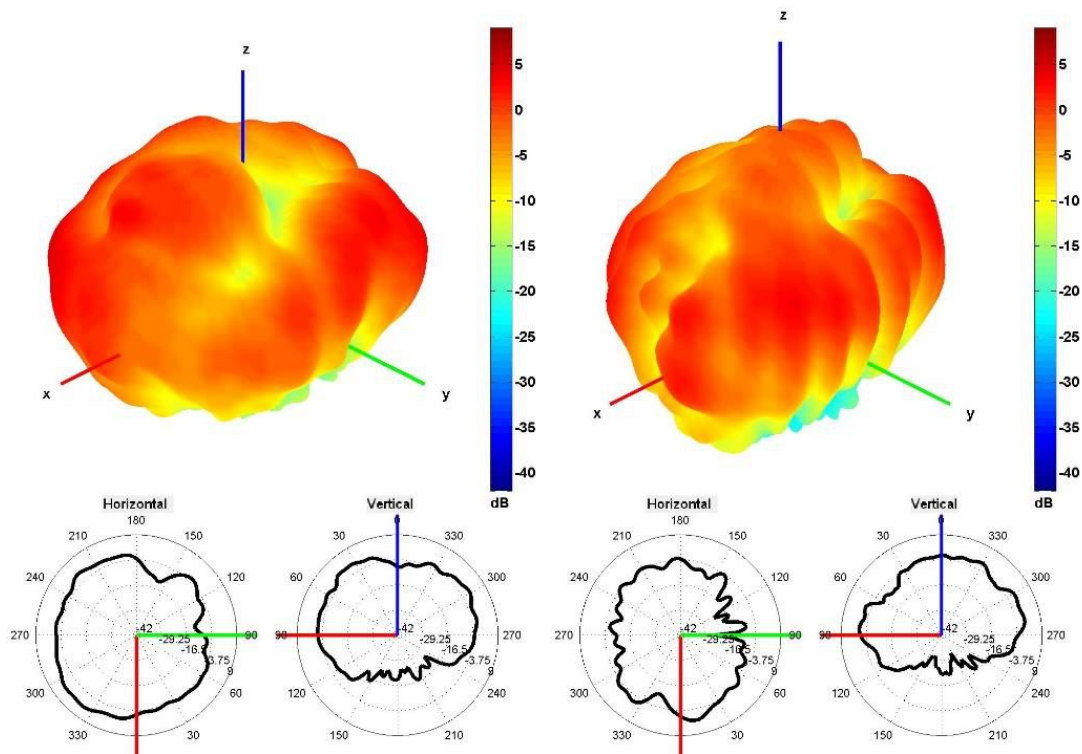
Cable 2: 5GNR



750 and 1950 MHz Radiation pattern

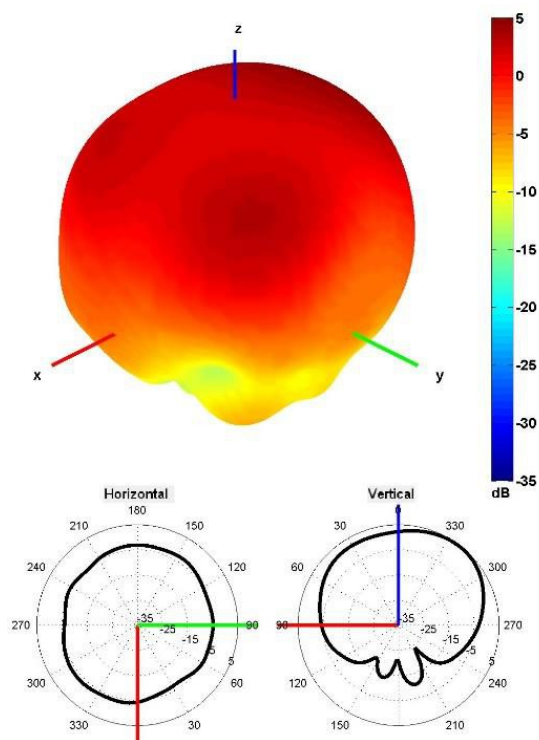


2500 and 4500 MHz Radiation pattern



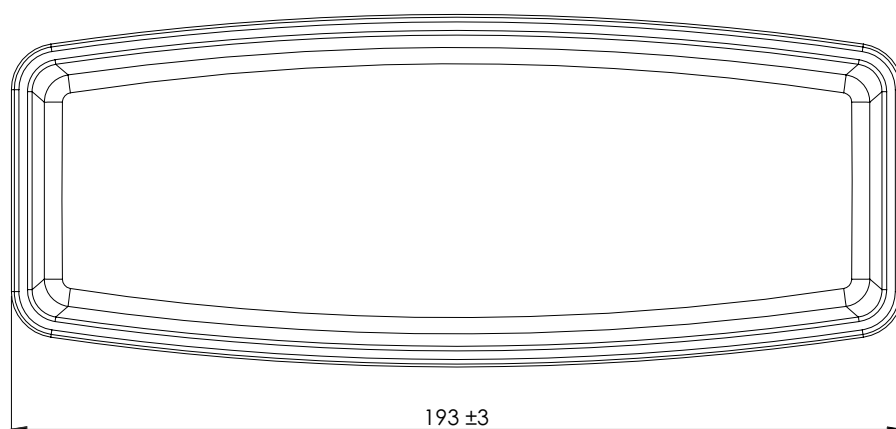
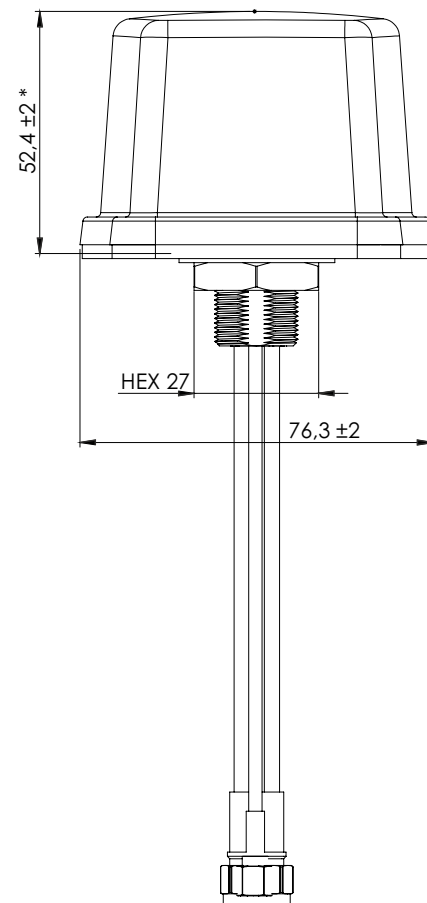
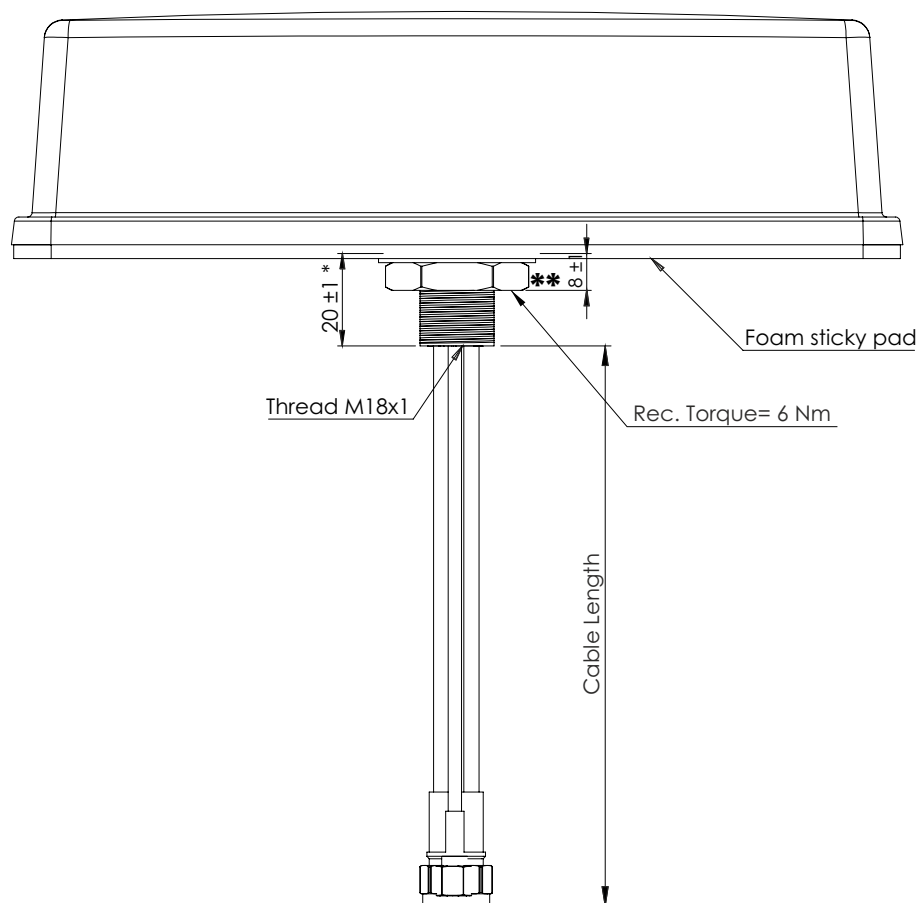
5500 and 6500 MHz Radiation pattern

Cable 3: IRIDIUM

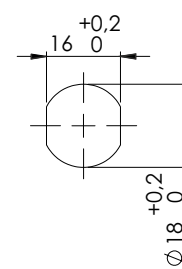


1621 MHz Radiation pattern

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

