

RFA-100-005: SMA ANTENNA WITH ELBOW, 600MHz to 5950MHz, RATED TO IPX5, ADDITIONAL SNAP 45°

Material and plating:

1. SMA Plug: Brass, Nickel plating
2. Bottom Base: PC+PBT, Black
3. Rivet: POM, Black
4. Upper Base: PC+PBT, Black
5. Cap: ABS, Black

Electrical

Frequency Range:

600~960Mhz, 1428~1690Mhz
1710~2690Mhz; 3300~5950MHz

Impedance: 50Ω

VSWR: 600~960Mhz<3.0; 1428Mhz<4.0,
1690Mhz<2.5; 1710Mhz<2.5;
2690Mhz<3.5, 3300Mhz<3.5,
5950MHz<2.5

Radiation: Omni Directional

Gain: 3dBi +/-0.5

Polarization: Vertical

Maximum Power: 1W

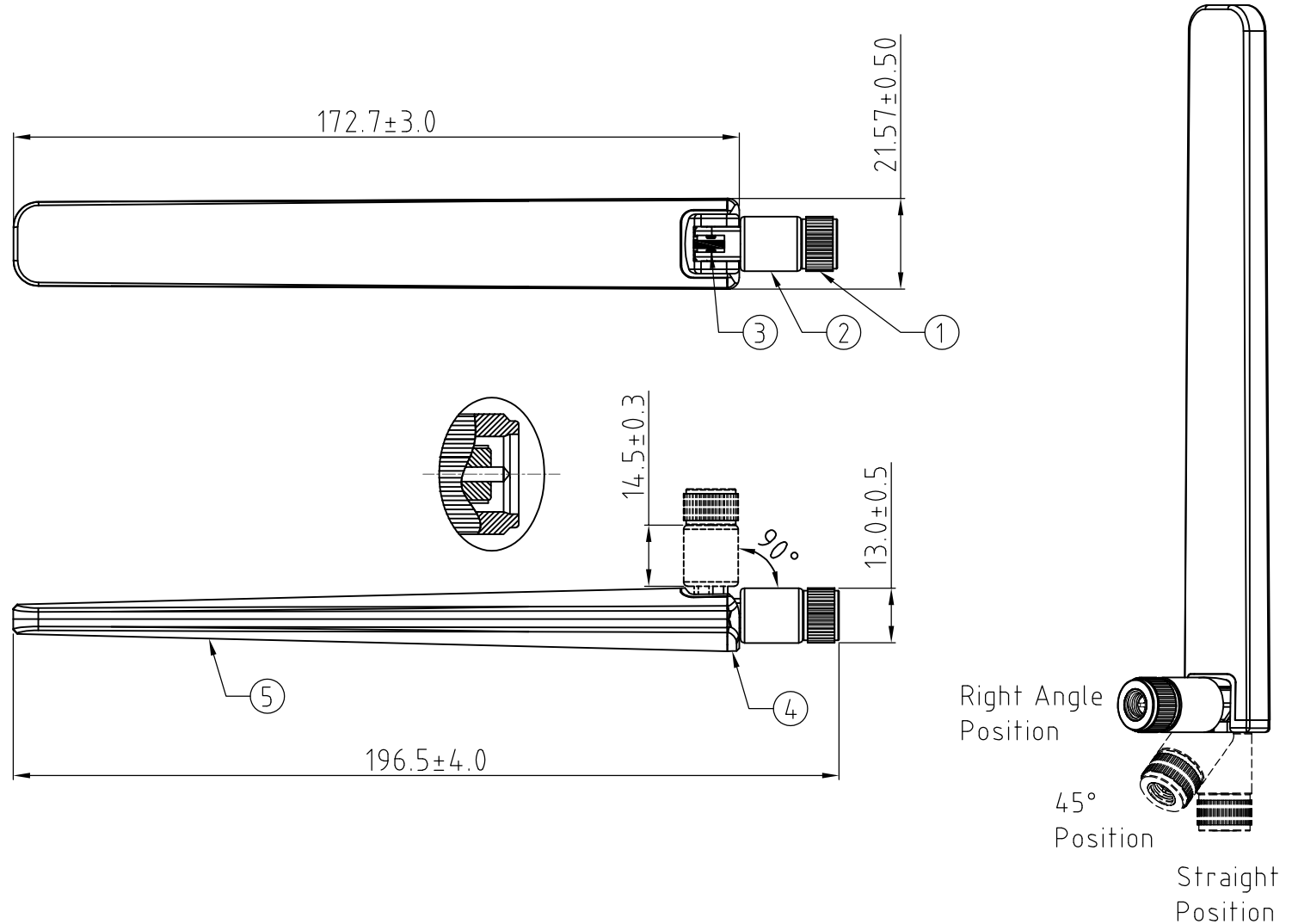
Mechanical & Environment

Operating Temperature: -20°C to +65°C

Ingress Protection Rating: IPX5

Weight: 23.1g

Lead free ROHS



REV. DATE & DRN	11 24/01/24 - CC
10 04/09/23 - CC RELEASE	Remove IP protection rating
12 07/02/24 - CC	Add IPX5 to the drawing
13 10/05/25 - NYW	Add GCT logo.

Scale: NTS	THIRD ANGLE	Unstated Tolerances: .X ± 0.30 .XX ± 0.20 .XXX ± 0.10 ANGLES	Material SEE NOTE
Drawn: CC			Material SEE NOTE
App'd: PH	Title SMA Antenna	NOT TO SCALE	
Date: 13 MAY '25	Revision: 1.3	Unit: mm	

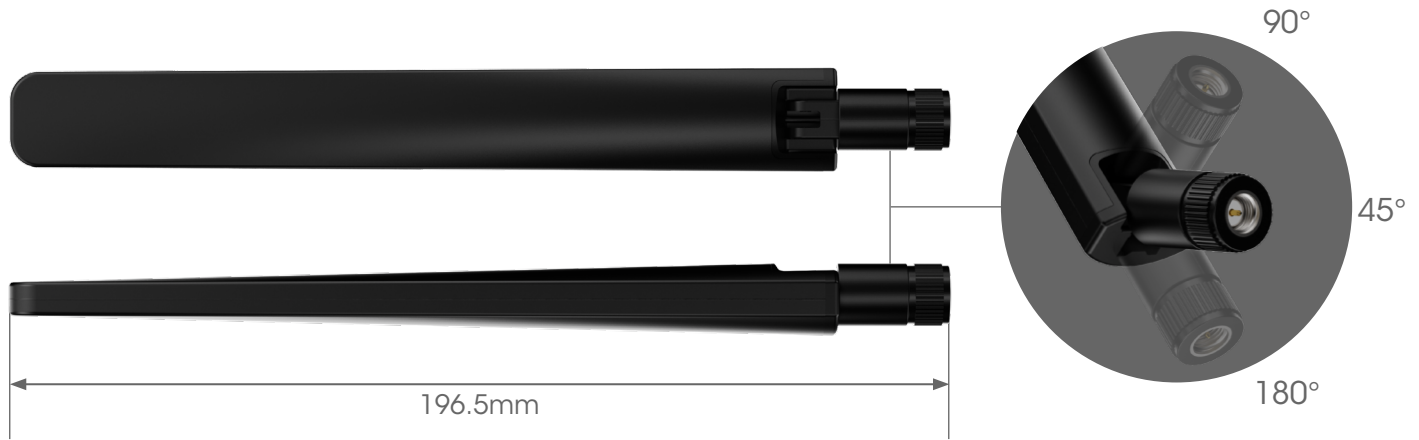
www.gct.co www.gradconn.com

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Type: RFA-100-005
RFA-100-005
Drawing Number:
Sheet 1 of 1
Drawing © E and O E

RFA-100-005 Antenna

IPX5 Rated RF Antenna Stick | Multi Band | SMA Plug interface



Electrical Specifications

Description	Specification
Frequency Range/s	600-960MHz, 1520-1770MHz, 2200-2580MHz, 3300-3880MHz, 4350-5950MHz
Antenna Type	Whip, Tilt
Number of Bands	5
Radiation Pattern	Omnidirectional
Polarization	Vertical
Max. Input Power	1 Watt
Impedance	50Ω

Frequency	Return Loss	Peak Gain	Average Efficiency
600-960MHz	< -7.5 dB	1.0 dBi	46%
1520-1770MHz	< -8.4 dB	2.4 dBi	40%
2200-2580MHz	< -8.5 dB	3.8 dBi	43%
3300-3880MHz	< -8.3 dB	5.3 dBi	58%
4350-5950MHz	< -7.5 dB	3.4 dBi	32%

Mechanical Specifications

Description	Specification
Length	196.5 ± 4mm
Swivel Elbow	180°, 90°, 45°
Weight	23.9g
Termination	SMA Male
Radome Material	PC+PBT
IP Rating	IPX5
Operating Temperature	-20°C to 65°C
Compliance	RoHS

Applications

Cellular Network: GSM, CDMA, UMTS, WCDMA, HSPA, LTE
Satellite Navigation: GPS, GLONASS
Wireless Communication: Wi-Fi
Private & IoT Networks: CBRS, NB-IoT

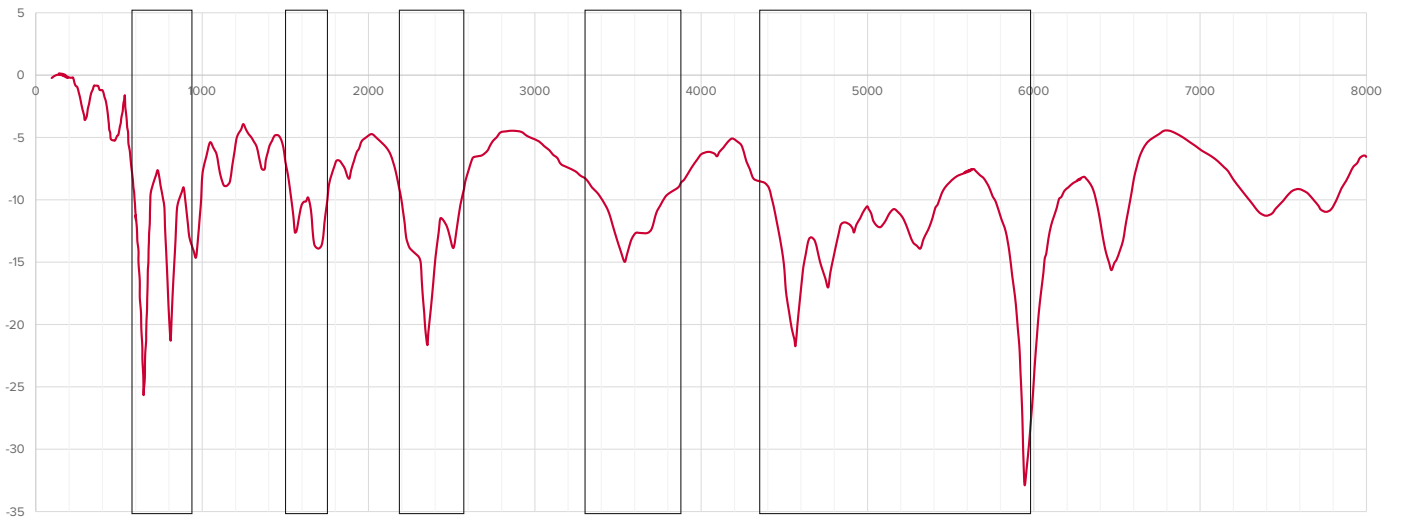
Disclaimer: The image shown is for illustration purposes only and may not be an exact representation of the product.

Performance

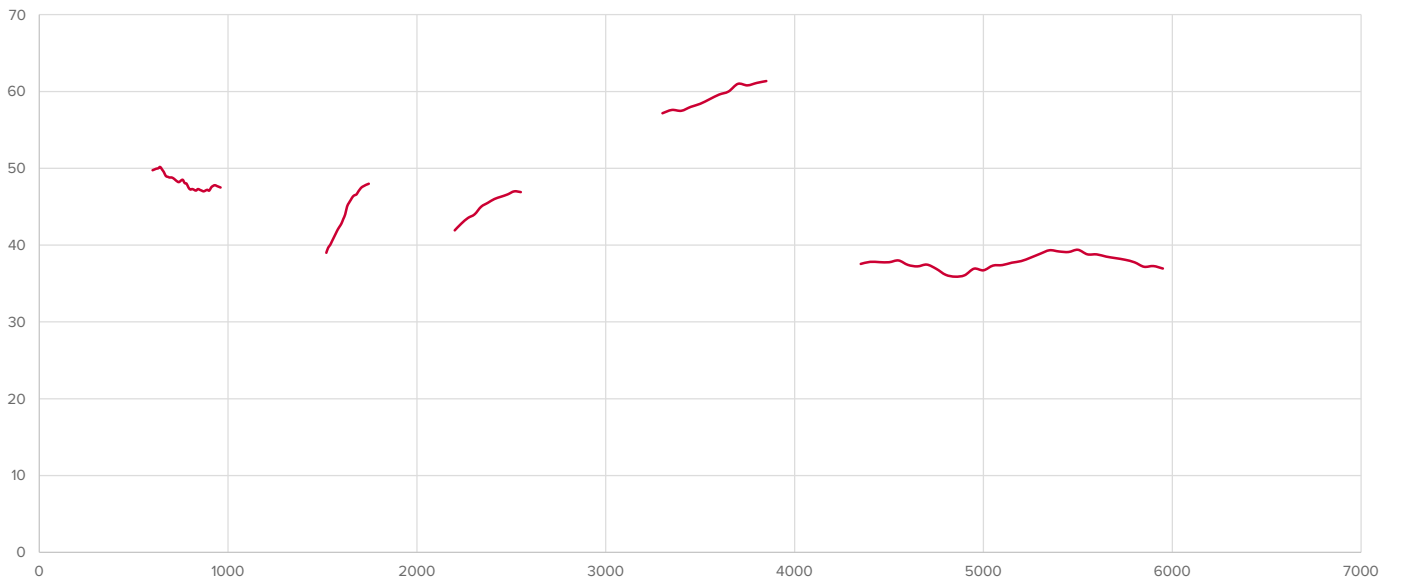
The test setup and measurements were conducted in a 3D anechoic chamber



Return Loss (dB) Chart

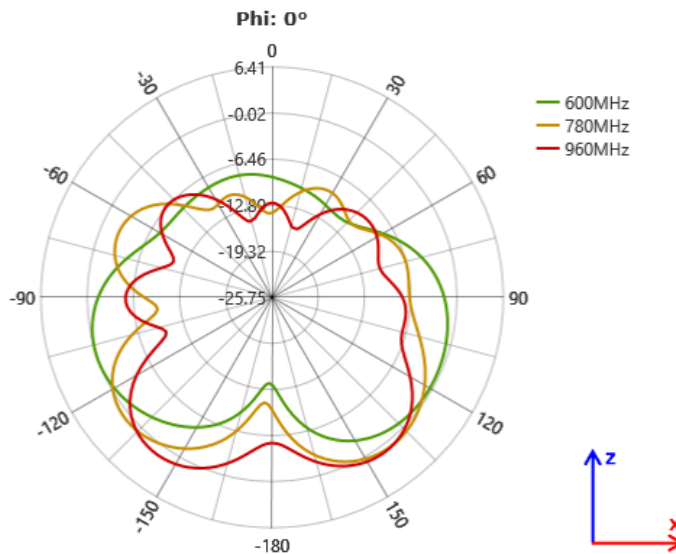
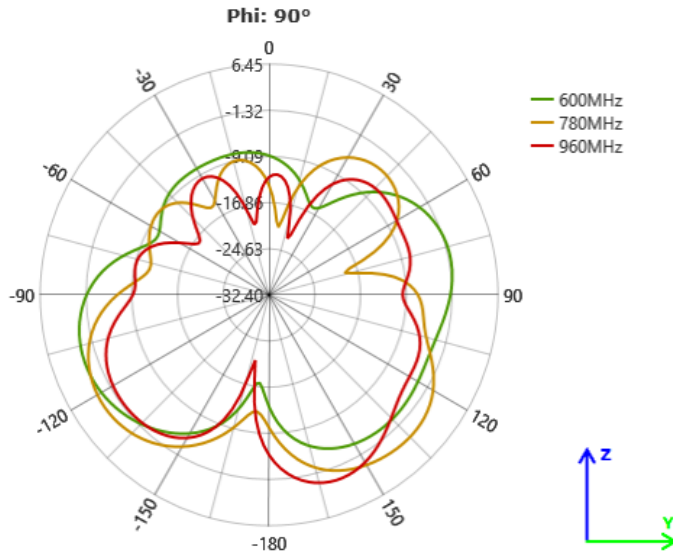
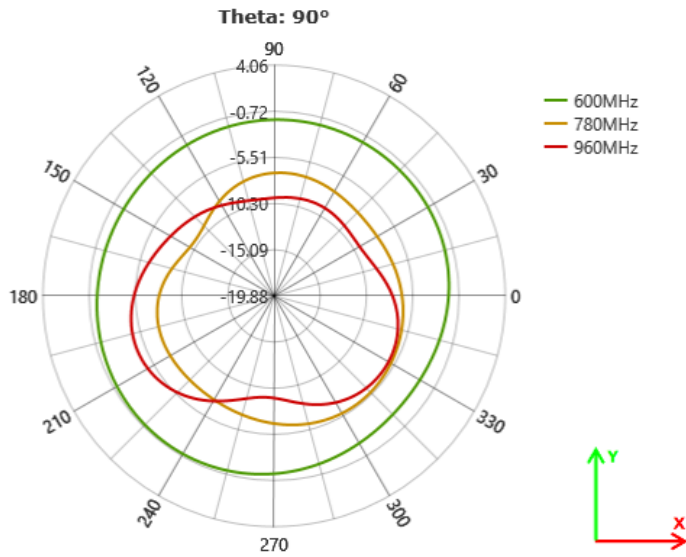


Efficiency



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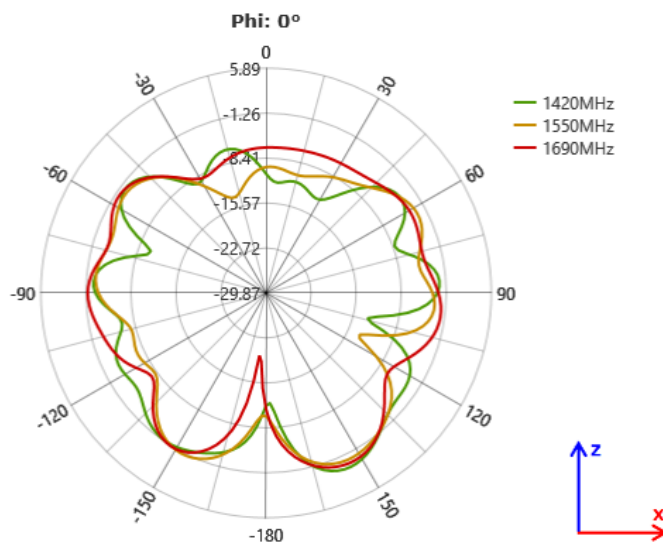
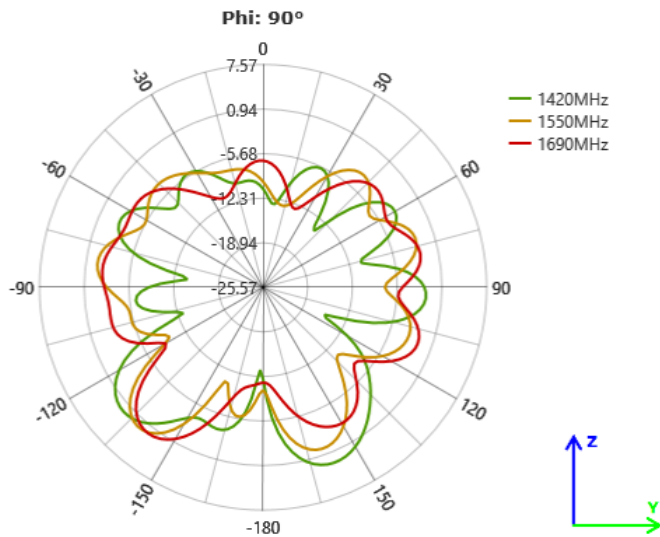
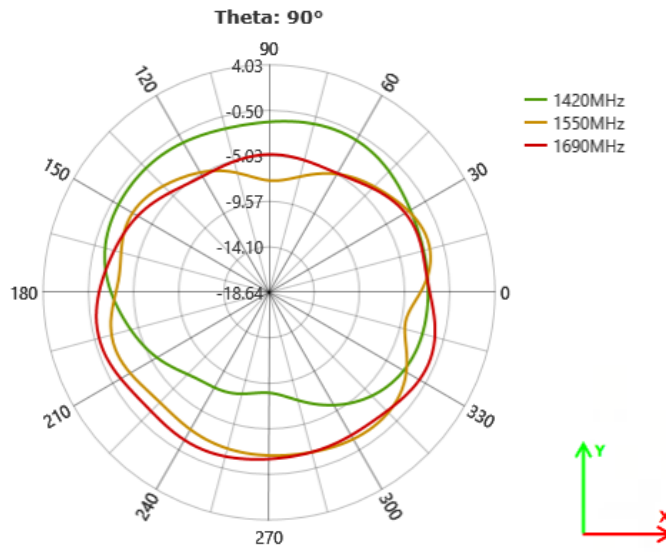
Radiation Patterns
600-960MHz



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Radiation Patterns

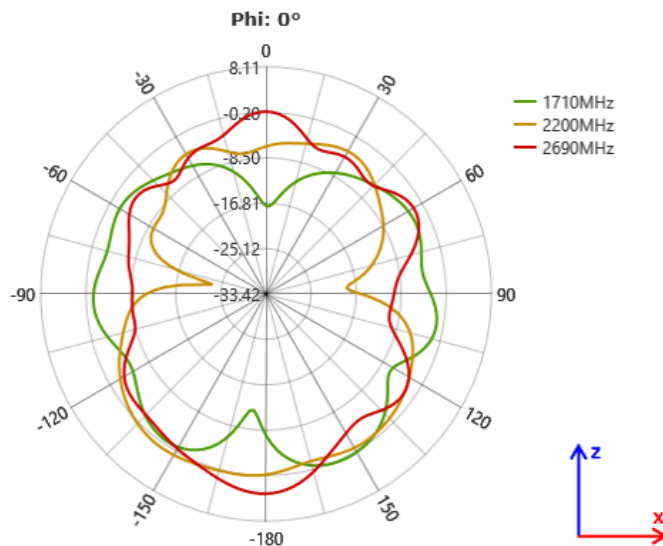
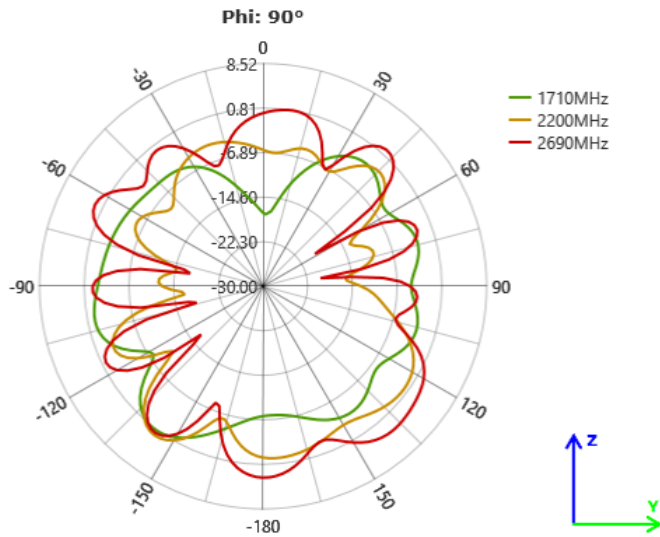
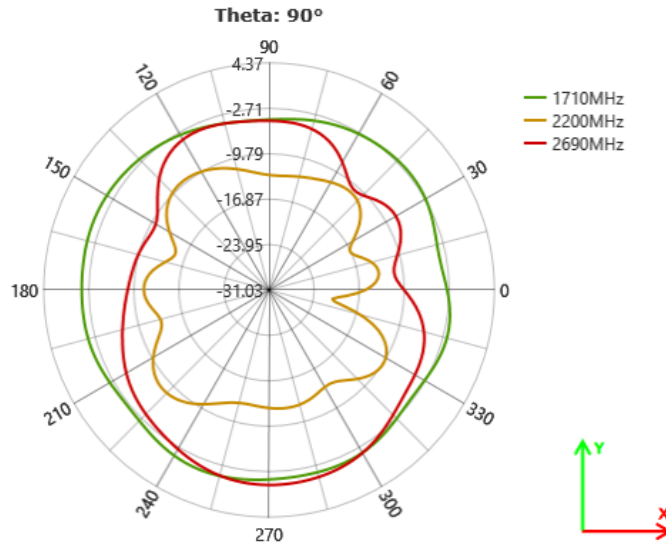
1420-1690MHz



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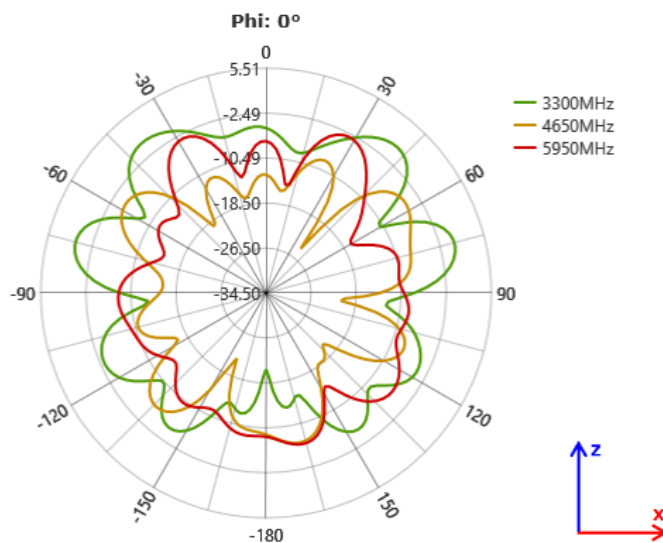
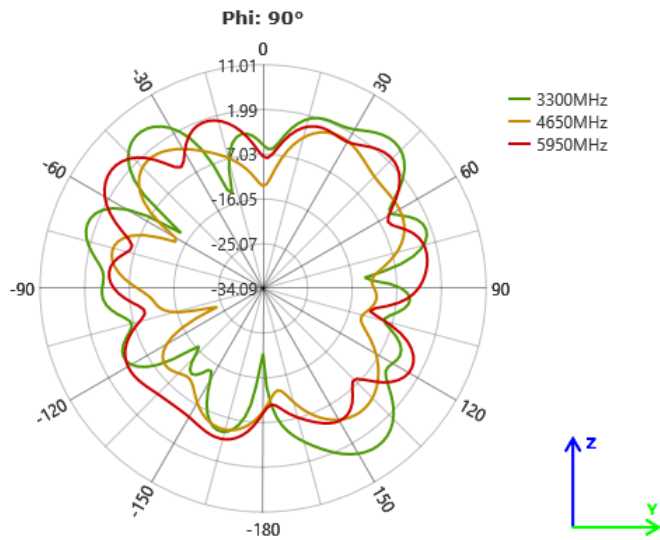
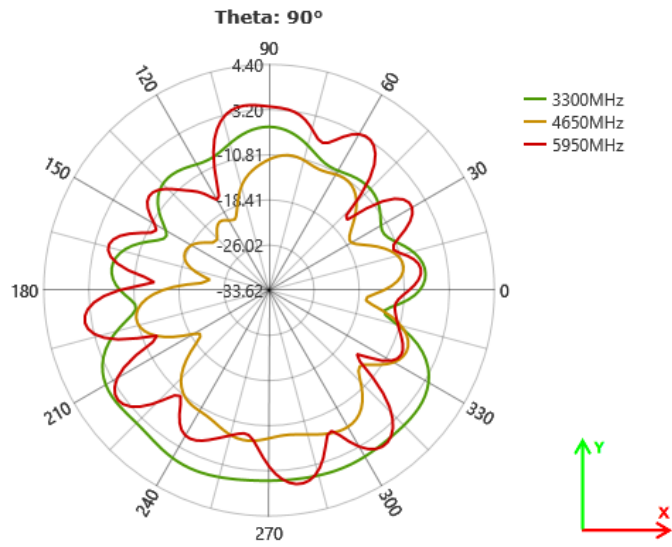
Radiation Patterns

1710-2690MHz



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Radiation Patterns
3300-5950MHz



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