



Antenna Datasheet

Product OC: YEMN308Q1AM

Version: 1.0

Date: 2026-05-12

Status: Released

Product Name: 4G & GNSS 3in1 Screw Mount Combo External Antenna

Key Features:

Frequency Band: 4G: 698–960 MHz, 1710–2690 MHz

4G-DIV: 698–960 MHz, 1710–2690 MHz

GNSS: 1559–1606 MHz

Dimensions: Φ 81 mm $\times$ 15.5 mm

Efficiency: Up to 25.3 % (FS)

GNSS LNA Gain: 16 $\pm$ 3 dB

RoHS Compliant

IP66

Overview

YEMN308Q1AM is a 4G & GNSS 3in1 combo antenna measuring Φ 81 mm $\times$ 15.5 mm. This ultra-wide-band 4G & GNSS antenna provides broad coverage from 1559–1606 MHz, 698–960 MHz, 1710–2690 MHz whilst offering backward-compatibility to support 3G and 2G networks as well as LTE Cat-M and narrowband IoT (NB-IoT). Ideal for applications where the antenna is required to be discrete, the antenna is available screw mount omni-directional antenna. It is easy to install with maximum durability assured and suitable for use in harsh outdoor environments thanks to its IP66 rated enclosure. It is compatible with Quectel's RM520x Series modules.

YEMN308Q1AM has 2 $\times$ 4G LMH antenna and 1 $\times$ GNSS L1 antenna. It allows high efficiency, stable signal transmission and reception for active GNSS from 1559–1606 MHz, and 4G bands from 698–960 MHz, 1710–2690 MHz. In the meantime, this product also offers high isolation between antennas to avoid self-interference. All in all, this unique product is designed to provide stable and high-speed data connection to 4G & GNSS applications.

- **Typical applications include:**

- ✓ Public safety
- ✓ HD Video Streaming
- ✓ Utilities and Smart Cities
- ✓ Fleet Management
- ✓ Automotive vehicle tracking

Quectel provides comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs. We have regional R & D centers to offer quick response to meet your requirements. Please contact our sales & FAEs if you have any requests.

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1 Specification

Test Condition: Free Space & 300mm × 300mm Metal Plane

1.1. Electrical

Electrical Specifications		
Frequency Range	4G	698–960 MHz, 1710–2690 MHz
	4G DIV	698–960 MHz, 1710–2690 MHz
	GNSS	1559–1606 MHz
Radiation Pattern	4G	Omni-directional
	4G DIV	Omni-directional
	GNSS	Directional
Polarization	4G	Linear
	4G DIV	Linear
	GNSS	RHCP
Impedance		50 Ω

1.1.1. 4G

Electrical – Detail												
SPEC	Band	Band	B12 /B13 /B28	B5 /B8 /B26	n74 /n75 /n76	B1 /B2 /B3	B40	Wi-Fi 2G	B38 /B41	B42 /B48 /n77	n79	Wi-Fi 5G
	Freq. (MHz)	700– 810	820– 960	1420– 1520	1700– 2170	2300– 2400	2400– 2500	2500– 2690	3300– 4200	4400– 5000	5150– 5850	
Max. VSWR	FS	3.3	3.1	-	2.0	2.0	2.1	2.0	-	-	-	
	MP	3.0	2.5	-	2.1	1.9	1.9	1.7				
Max. Return Loss (dB)	FS	-5.4	-5.9	-	-9.3	-9.4	-9.2	-9.3	-	-	-	
	MP	-5.9	-7.4	-	-9.2	-10.5	-10.3	-11.6				
AVG Eff. (%)	FS	20.4	20.9	-	21.4	23.0	22.3	20.6	-	-	-	
	MP	7.8	14.4	-	14.9	13.4	13.7	13.6				
AVG AVG Gain (dB)	FS	-6.9	-6.8	-	-6.7	-6.4	-6.5	-6.9	-	-	-	
	MP	-11.4	-9.0	-	-8.3	-8.7	-8.6	-8.7				
Max. Peak Gain (dBi)	FS	0.2 (810)	0.7 (820)	-	0.5 (2070)	-0.2 (2300)	-0.6 (2400)	-0.8 (2530)	-	-	-	
	MP	-2.5 (770)	0.9 (950)		0.4 (1920)	0.5 (2400)	0.8 (2460)	0.4 (2680)				
VSWR					≤ 3.3							
Return Loss					≤ -5.4 dB							
Peak Gain					≤ 0.9 dBi							

1.1.2. 4G-DIV

Electrical – Detail												
SPEC	Band	Band	B12 /B13 /B28	B5 /B8 /B26	n74 /n75 /n76	B1 /B2 /B3	B40	Wi-Fi 2G	B38 /B41	B42 /B48 /n77	n79	Wi-Fi 5G
	Freq. (MHz)	700– 810	820– 960	1420– 1520	1700– 2170	2300– 2400	2400– 2500	2500– 2690	3300– 4200	4400– 5000	5150– 5850	
Max. VSWR	FS	2.3	2.4	-	1.6	1.5	1.6	1.8	-	-	-	
	MP	3.1	2.7	-	2.2	1.6	1.4	1.7				
Max. Return Loss (dB)	FS	-8.1	-7.6	-	-12.5	-13.6	-12.5	-11.0	-	-	-	
	MP	-5.8	-6.7	-	-8.7	-12.9	-15.2	-11.6				
AVG Eff. (%)	FS	14.9	14.1	-	19.4	22.8	19.5	15.8	-	-	-	
	MP	14.7	8.6	-	5.4	21.3	21.6	19.4				
AVG AVG Gain (dB)	FS	-8.3	-8.5	-	-7.1	-6.4	-7.1	-8.1	-	-	-	
	MP	-8.3	-10.8	-	-13.0	-6.7	-6.7	-7.2				
Max. Peak Gain (dBi)	FS	-2.6 (770)	-2.6 (960)	-	-0.1 (1940)	-1.2 (2320)	-1.3 (2400)	-1.7 (2620)	-	-	-	
	MP	-1.3 (710)	-2.9 (840)	-	-0.5 (2170)	1.8 (2400)	2.4 (2450)	2.4 (2530)				
VSWR					≤ 3.1							
Return Loss					≤ -5.8 dB							
Peak Gain					≤ 2.4 dBi							

1.1.3. GNSS

Band Frequency (MHz)	GPS L5 GALILEO E5a BDS B2a-B2I QZSS L5 IRNSS L5	GALILEO E5b BDS B2b	GPS L2 QZSS L2C	GLONAS S G2	BDS B3	BDS B1I	GPS L1 GALILEO E1 BDS B1C QZSS L1	GLONAS S G1
	1176	1207	1227	1248	1268	1561	1575	1602
VSWR	-	-	-	-	-	2.8	1.08	5.7
Return Loss (dB)	-	-	-	-	-	-6.6	-27.6	-3.07
Efficiency (%)	-	-	-	-	-	45.4	69.7	39
Peak Gain (dBi)	-	-	-	-	-	-0.7	2.16	0.53

LNA Electrical	
LNA Gain	16 ±3 dB
Noise Figure	≤ 2.5 dB
Output VSWR	≤ 2.0
Input VSWR	≤ 2.0
Filter Out-of-Band Attenuation	40 dB f0 ±100 MHz f0 (1580 MHz)
Working Voltage	1.8 V–3.3 V
Working Current	4.1±2 mA @ 3.3 V
Impedance	50 Ω

1.2. Supported Bands

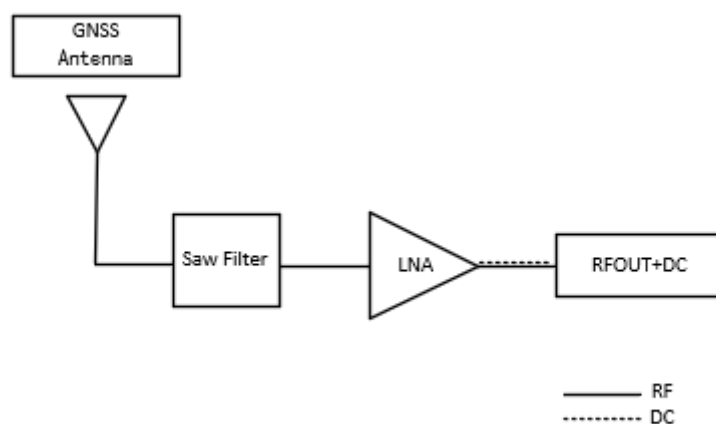
5G NR / LTE / LTE-Advanced / WCDMA / HSPA / HSPA+ / GPRS / GSM / NB-IoT				
Band	Frequency (MHz)	Uplink (MHz)	Downlink (MHz)	Covered
1	2100	1920–1980	2110–2170	✓
2	1900	1850–1910	1930–1990	✓
3	1800	1710–1785	1805–1880	✓
4	1700	1710–1755	2110–2155	✓
5	850	824–849	869–894	✓
7	2600	2500–2570	2620–2690	✓
8	900	880–915	925–960	✓
9	1800	1749.9–1784.9	1844.9–1879.9	✓
11	1500	1427.9–1447.9	1475.9–1495.9	-
12	700	699–716	729–746	✓
13	700	777–787	746–756	✓
14	700	788–798	758–768	✓
17	700	704–716	734–746	✓
18	850	815–830	860–875	✓
19	850	830–845	875–890	✓
20	800	832–862	791–821	✓
21	1500	1447.9–1462.9	1495.9–1510.9	-
22	3500	3410–3490	3510–3590	-
23	2100	2000–2020	2180–2200	✓
24	1600	1626.5–1660.5	1525–1559	-
25	1900	1850–1915	1930–1995	✓
26	850	814–849	859–894	✓

28	700	703–748	758–803	✓
31	450	452.5–457.5	462.5–467.5	-
34	2100	2010–2025		✓
38	2600	2570–2620		✓
39	1900	1880–1920		✓
40	2300	2300–2400		✓
41	2500	2496–2690		✓
42	3500	3400–3600		-
48	3500	3550–3700		-
66	1700	1710–1780	2110–2200	✓
71	600	663–698	617–652	-
74	1500	1427–1470	1475–1518	-
77	3500	3300–4200		-
78	3500	3300–3800		-
79	4500	4400–5000		-

1.3. Mechanical & Environmental

Mechanical		
Antenna Dimensions		Φ 81 mm × 15.5 mm
Casing Material & Color		ABS
Cable Type & Color & Length	4G	RG174 & Black & 3000 mm
	4G DIV	RG174 & Black & 3000 mm
	GNSS	RG174 & Black & 3000 mm
Connector Type		SMA Male
Mounting Type		Screw (Nut M12)
Weight		Typ. 156 g
Environmental		
Operation Temperature		-20 °C to +70 °C
Storage Temperature		-20 °C to +70 °C
Ingress Protection (IP) Rating		IP66
RoHS Compliant		Yes

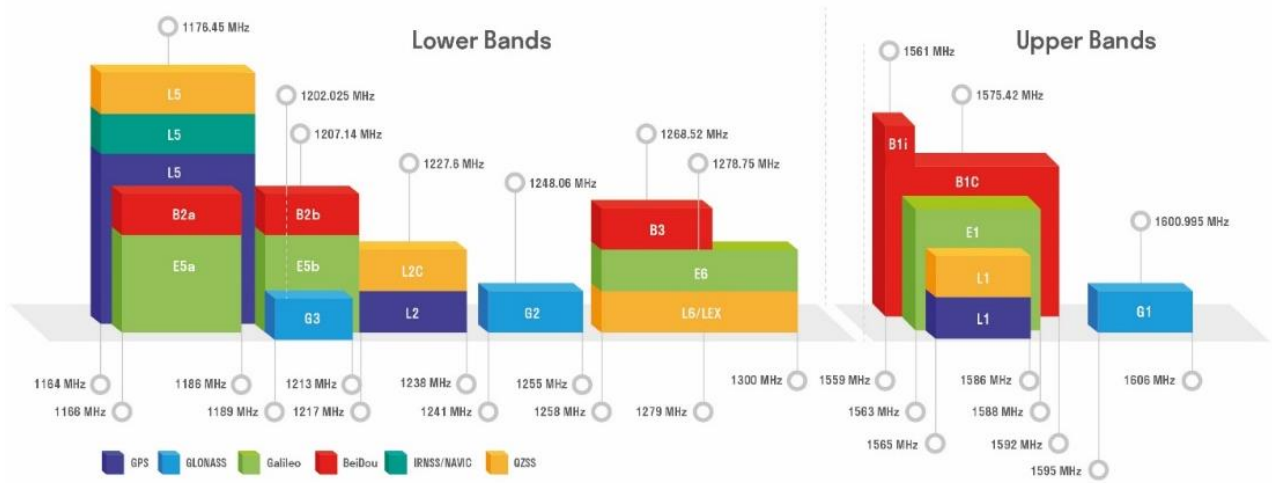
1.4. Block Diagram (Active Antenna)



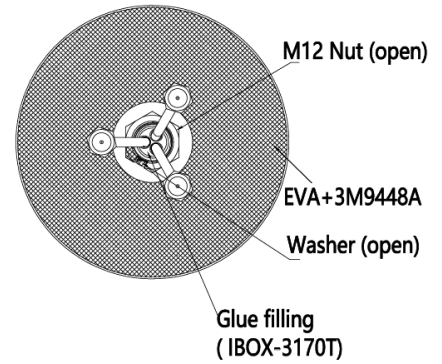
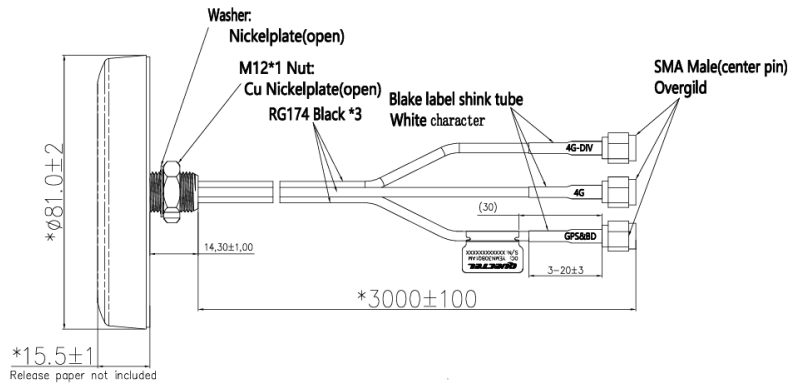
1.5. Supported GNSS Frequency Bands

GNSS Frequency Bands (MHz)					
GPS	L1 Centre 1575.42 (1565–1586)	L2 Centre 1227.6 (1217–1238)	L5 Centre 1176.45 (1164–1189)		
	√	-	-		
GLONASS	G1-L10C-L10F Centre 1601 (1595–1606)	G2-L20C-L20F Centre 1248.06 (1241–1255)	G3-L30C Centre 1202.025 (1189–1213)		
	√	-	-		
GALILEO	E1 Centre 1575.42 (1563–1588)	E5a Centre 1176.45 (1166–1187)	E5b Centre 1207.14 (1197–1218)	E6 Centre 1278.75 (1258–1300)	
	√	-	-	-	
BDS	B1I Centre 1561.098 (1559–1564)	B1C (BDS-3) Centre 1575.42 (1559–1592)	B2a-B2I Centre 1176.45 (1166–1187)	B2b Centre 1207.14 (1197–1217)	B3 Centre 1268.52 (1258–1279)
	√	√	-	-	-
QZSS	L1 Centre 1575.42 (1573–1578)	L2C Centre 1227.6 (1226–1229)	L5 Centre 1176.45 (1166–1187)	L6 Centre 1278.75 (1257–1300)	
	√	-	-	-	
IRNSS	L5 Centre 1176.45 (1164–1189)				
	-				

GNSS Bands and Constellations



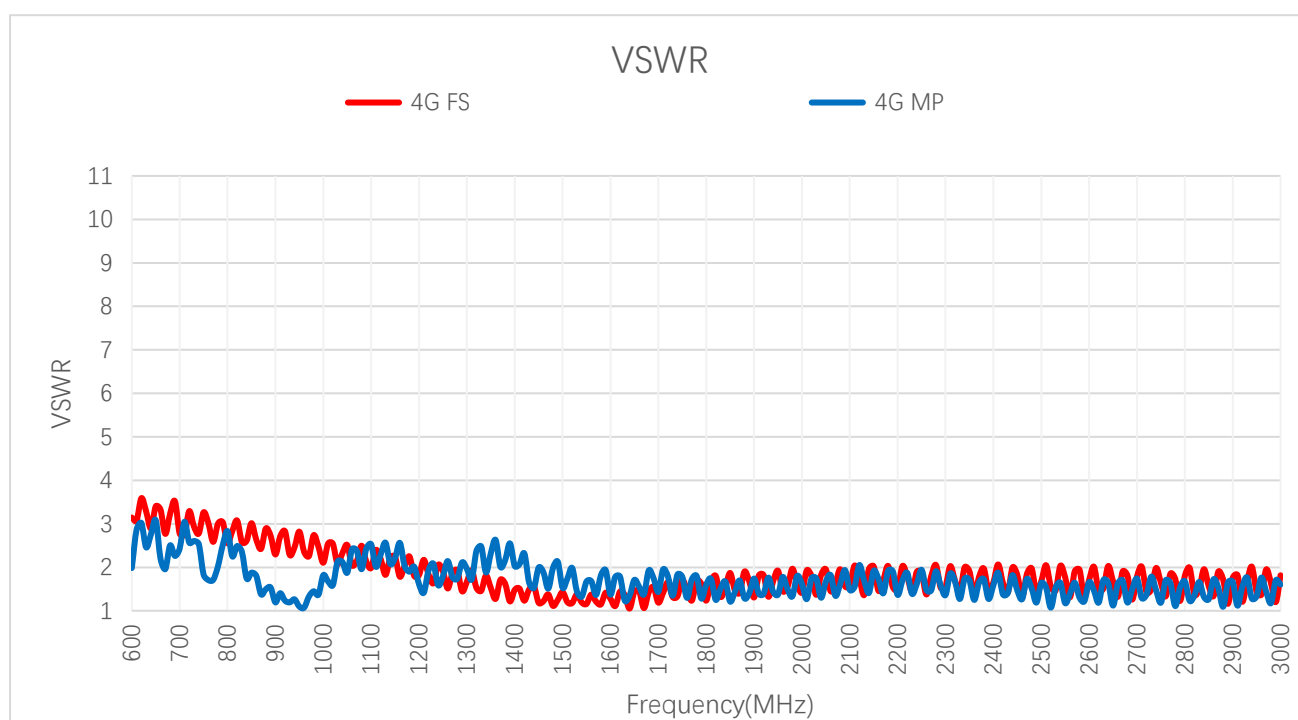
2 Drawing



3 Detailed Performance

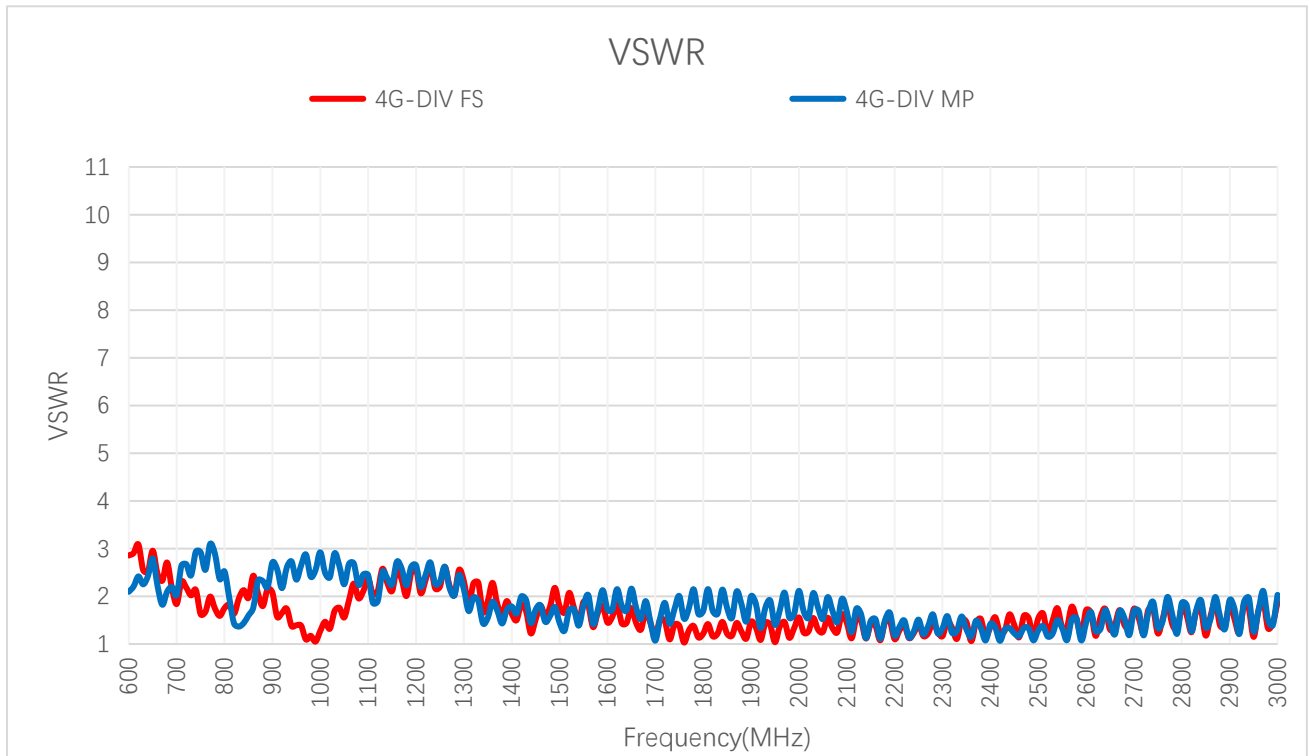
3.1. S-Parameter Test

3.1.1. VSWR



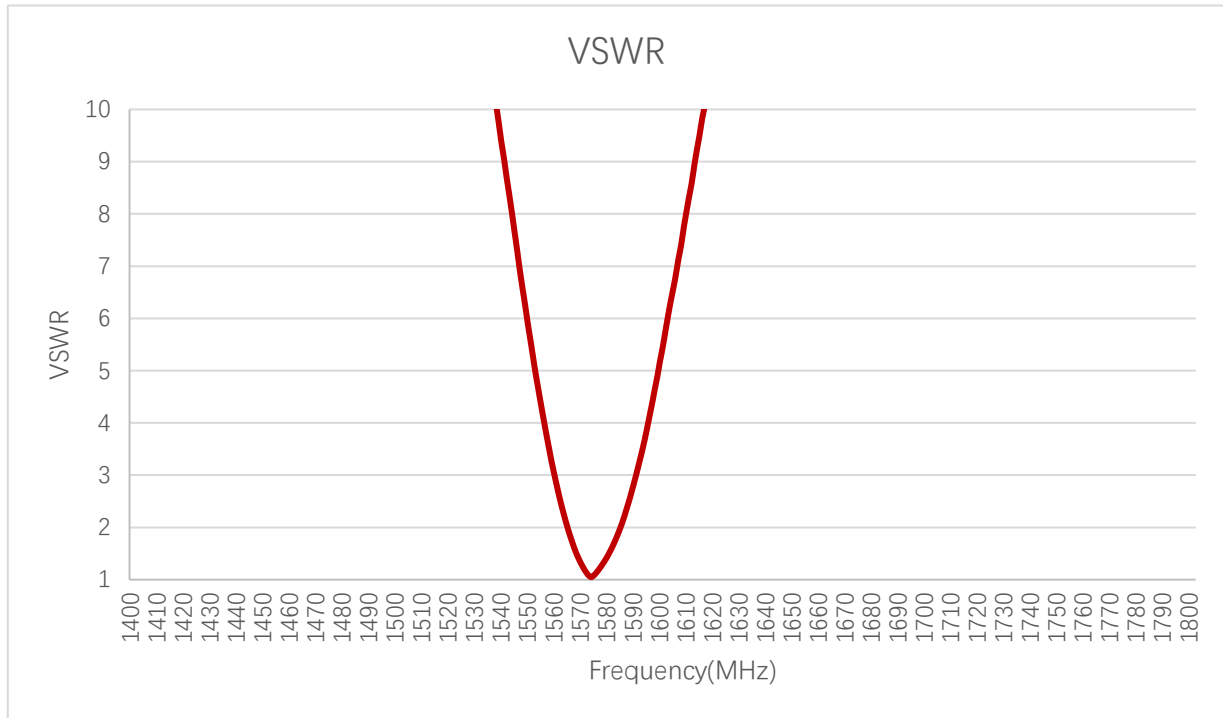
VSWR – 4G

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	2.7	2.6	2.3	2.4	-	1.4	1.3	1.9
MP	-	-	3.0	2.4	1.2	1.1	-	2.0	1.8	1.3
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	1.9	2.0	1.9	1.8	1.7	1.3	-	-	-	-
MP	1.4	1.4	1.7	1.5	1.7	1.5	-	-	-	-



VSWR – 4G-DIV

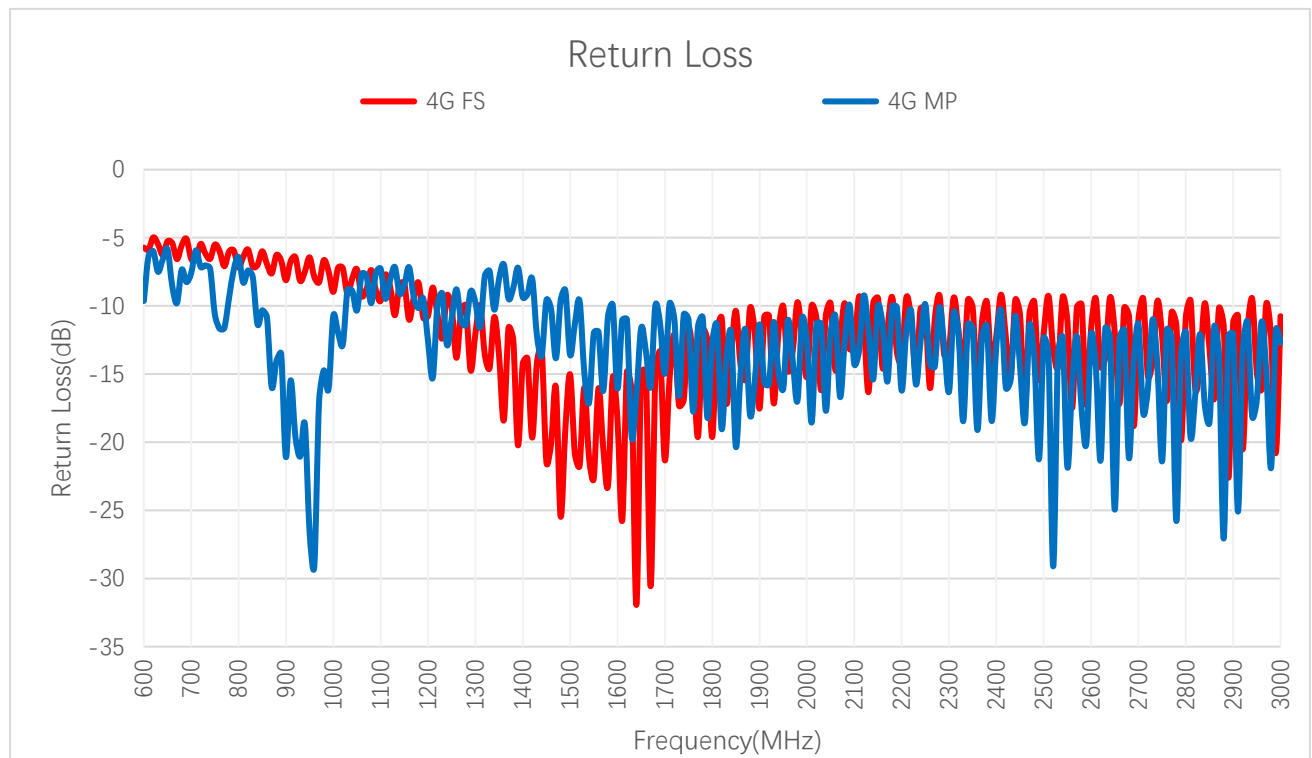
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	2.3	2.0	2.1	1.4	-	1.5	1.4	1.3
MP	-	-	2.6	1.4	2.7	2.6	-	1.5	1.7	1.8
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	1.0	1.1	1.5	1.4	1.7	1.3	-	-	-	-
MP	1.4	1.1	1.3	1.2	1.4	1.2	-	-	-	-



VSWR

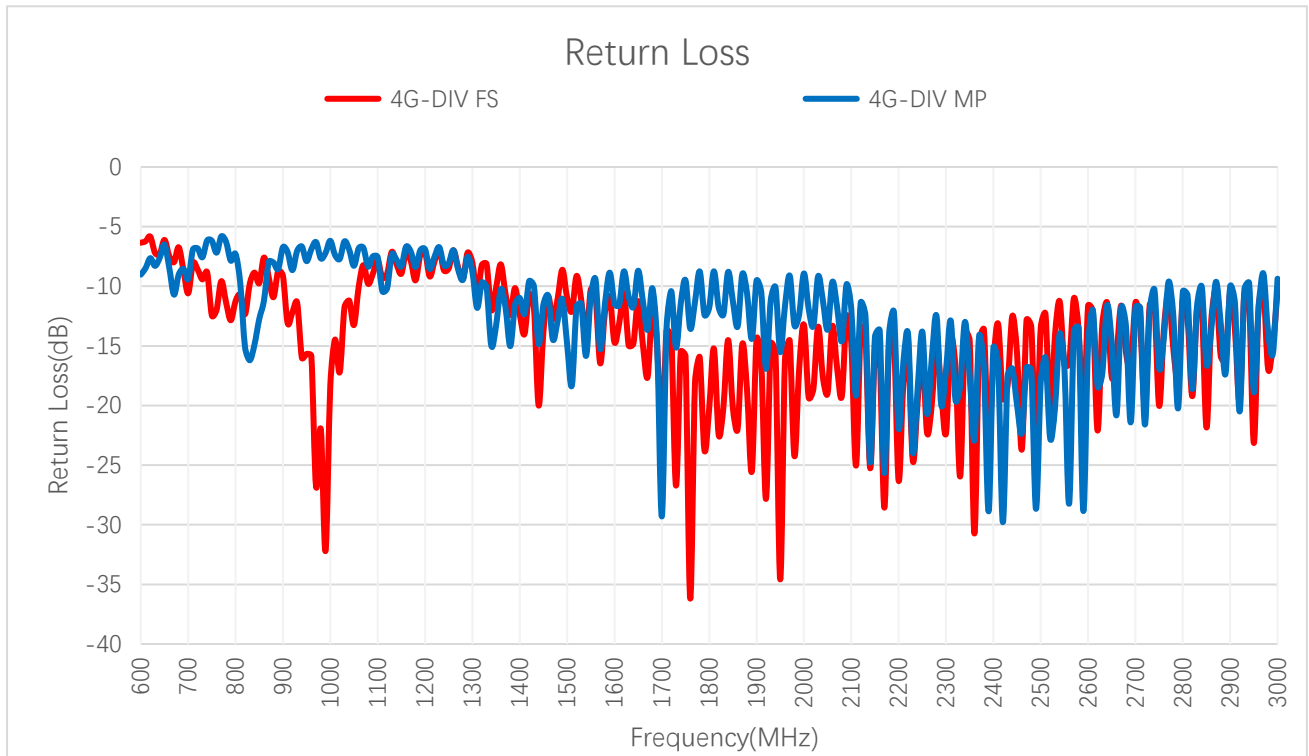
Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
VSWR	-	-	-	-	-	2.8	1.08	5.7

3.1.2. Return Loss



Return Loss (dB) – 4G

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	-6.6	-7.1	-8.1	-7.9	-	-15.4	-16.9	-10.2
MP	-	-	-5.9	-7.9	-21.1	-29.1	-	-9.8	-10.6	-18.0
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	-10.0	-9.8	-10.1	-10.7	-11.7	-18.8	-	-	-	-
MP	-16.1	-15.4	-11.7	-14.4	-12.1	-14.1	-	-	-	-



Return Loss (dB) – 4G-DIV

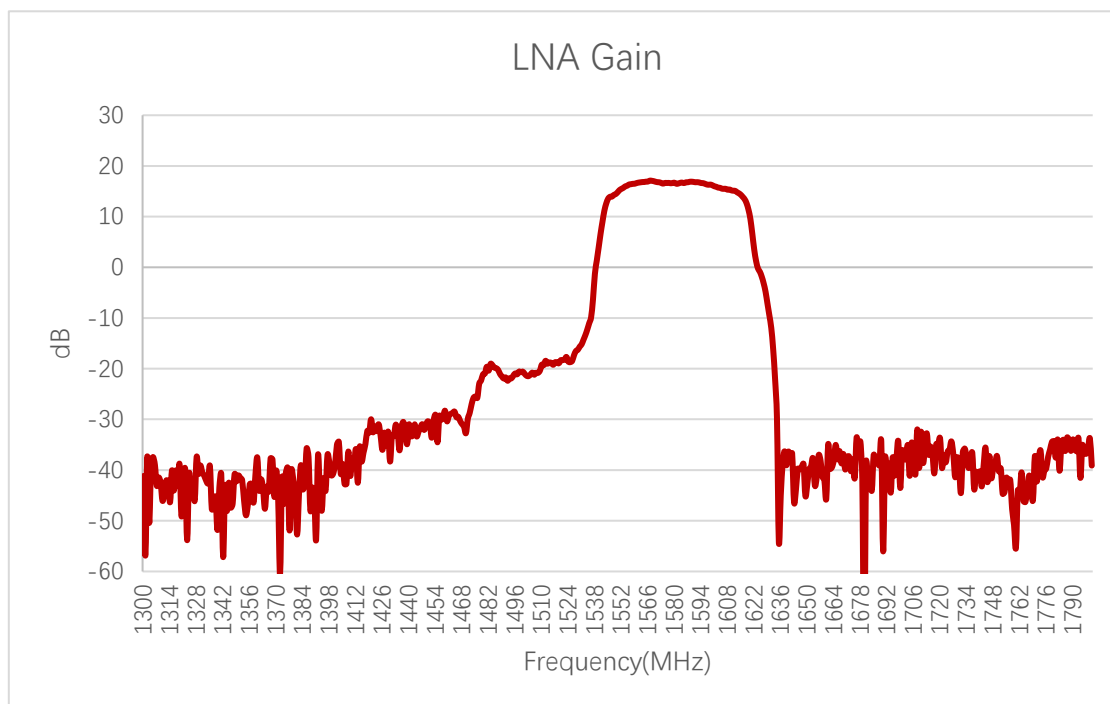
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	-8.1	-9.8	-9.1	-15.8	-	-13.7	-15.5	-18.8
MP	-	-	-6.9	-16.2	-6.7	-6.9	-	-13.5	-11.4	-10.6
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	-34.6	-25.3	-14.6	-15.6	-11.6	-16.9	-	-	-	-
MP	-15.5	-24.8	-17.5	-20.0	-14.8	-21.4	-	-	-	-



Return Loss (dB)

Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
Return Loss (dB)	-	-	-	-	-	-6.6	-27.6	-3.07

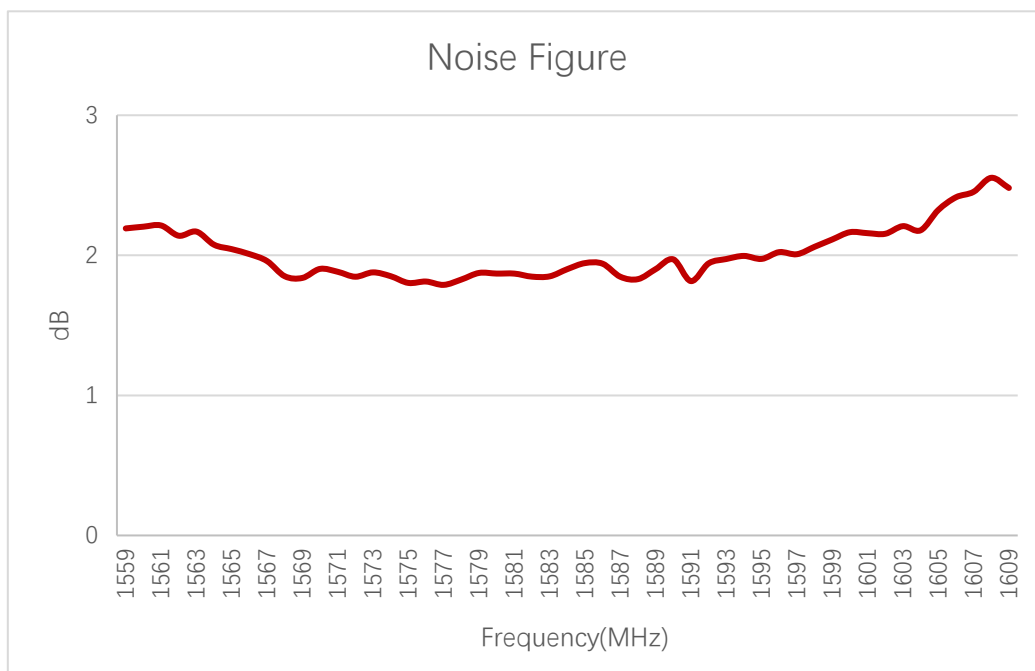
3.1.3. GNSS LNA Gain



LNA Gain (dB)

Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
LNA Gain (dB)	-	-	-	-	-	16.7	16.6	15.8

3.1.4. GNSS Noise Figure

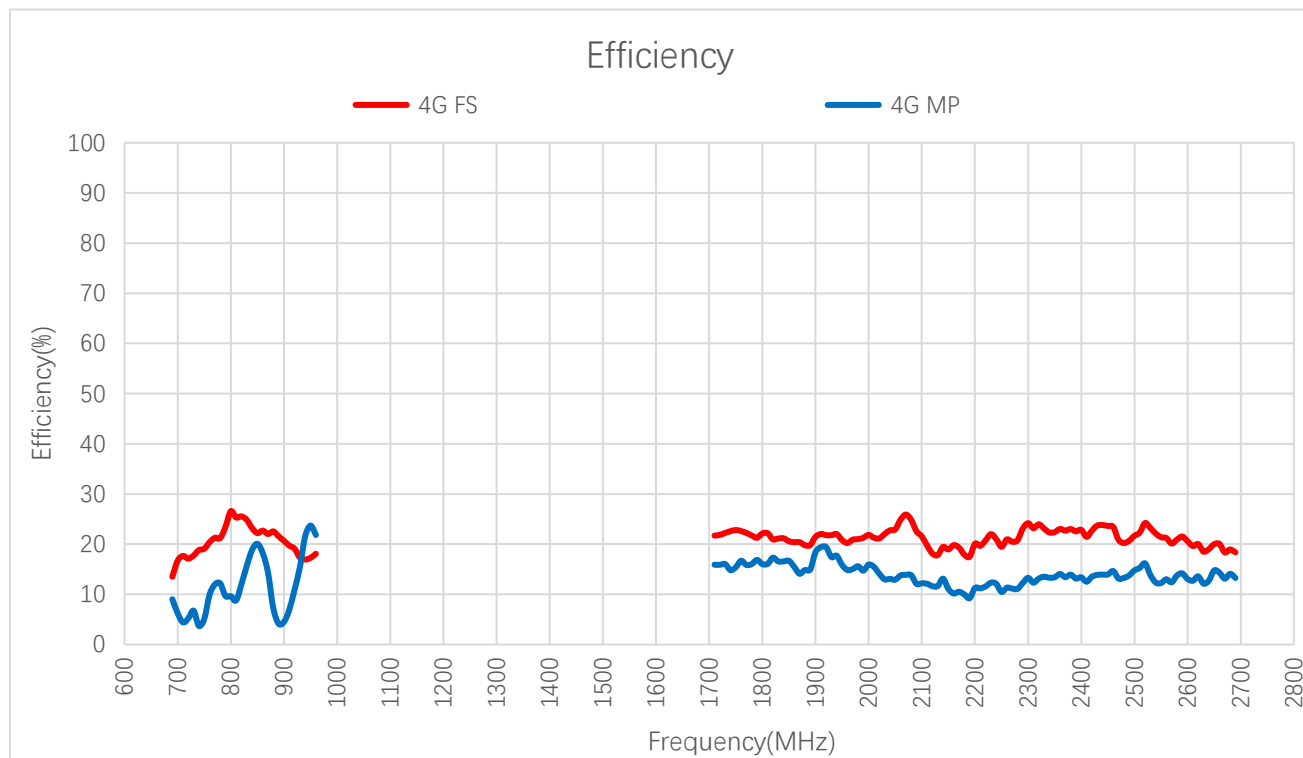


Noise Figure (dB)

Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
Noise Figure (dB)	-	-	-	-	-	2.2	1.8	2.15

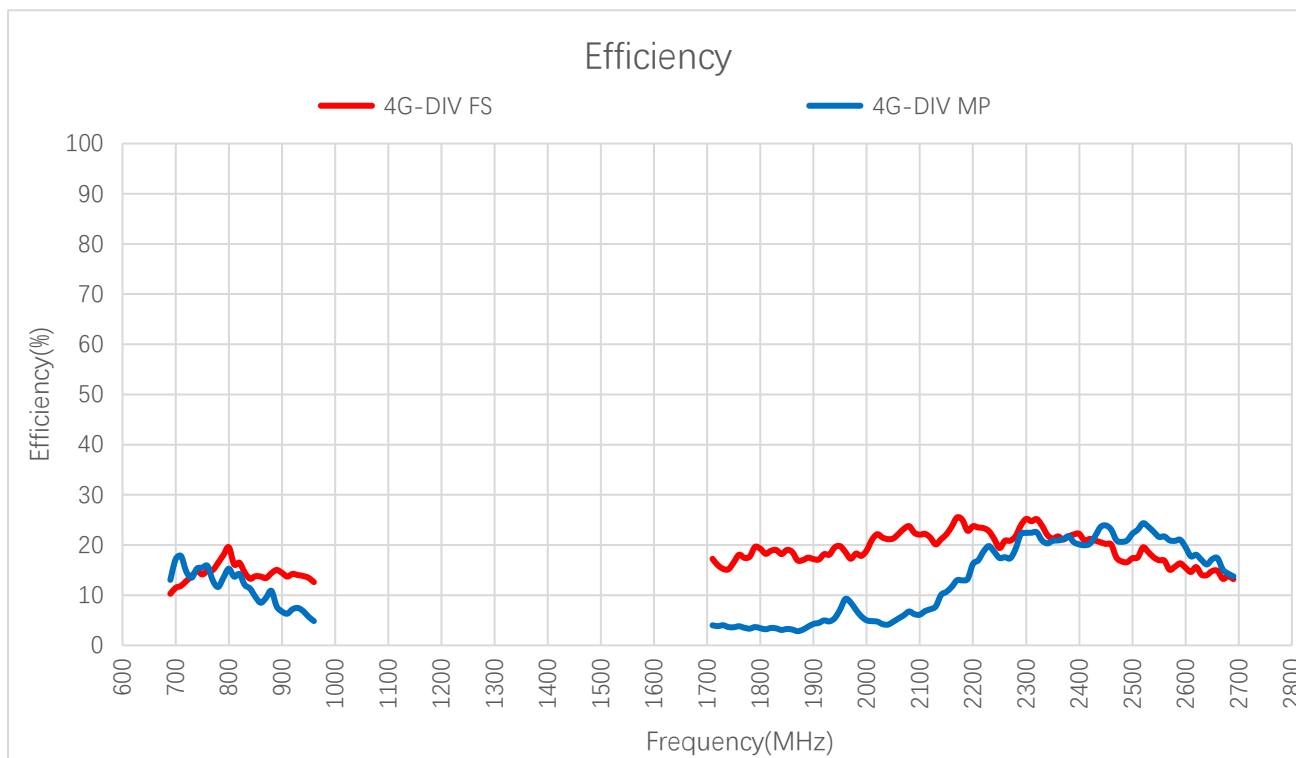
3.2. Radiation Performance Test

3.2.1. Efficiency



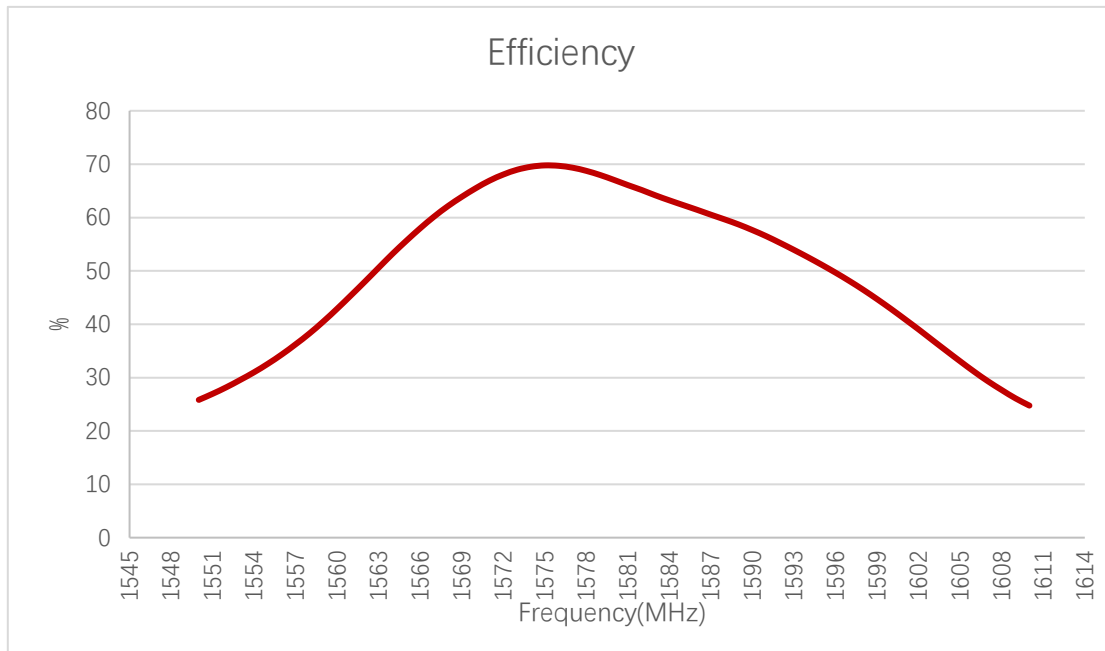
Efficiency (%) – 4G

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	17.7	24.9	20.7	18.1	-	21.7	22.6	19.8
MP	-	-	4.4	15.7	4.5	21.8	-	15.9	14.8	14.9
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	20.8	19.5	22.4	23.6	20.6	18.4	-	-	-	-
MP	15.9	13.1	13.4	14.0	13.1	13.3	-	-	-	-



Efficiency (%) – 4G-DIV

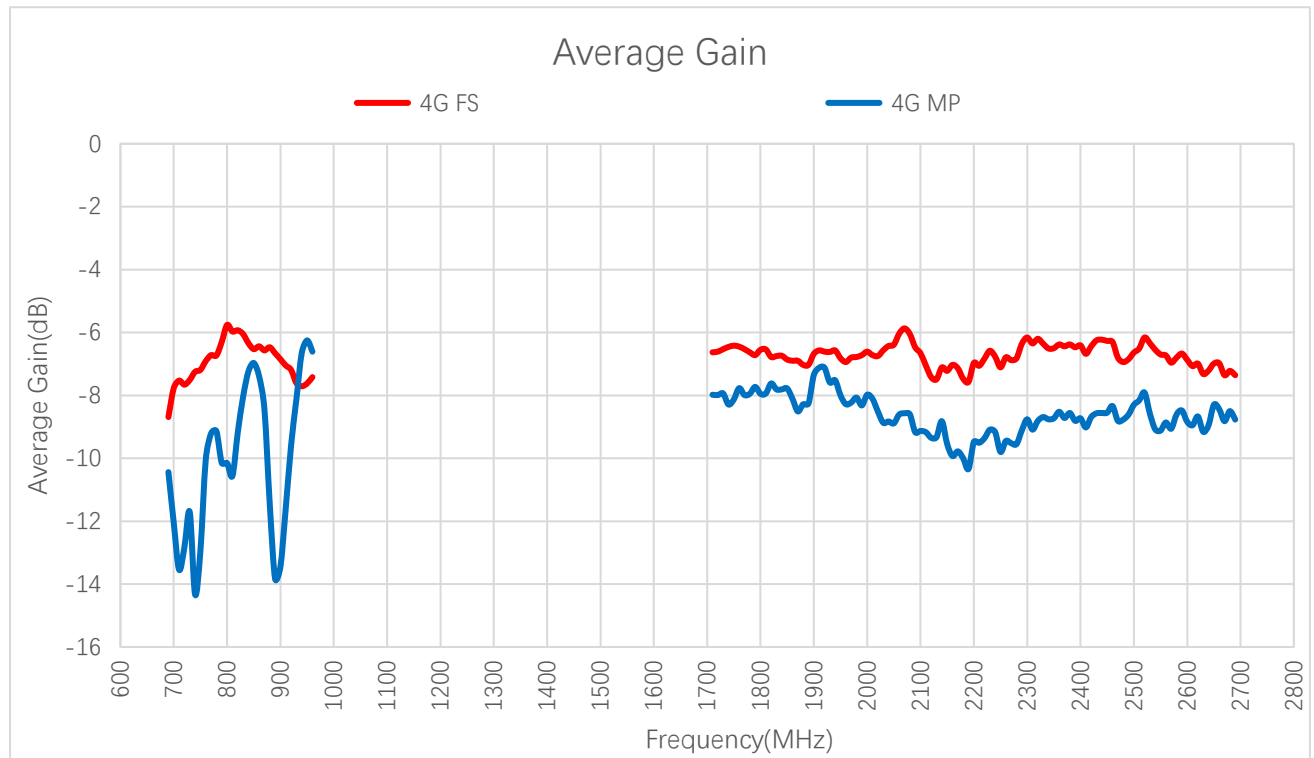
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	11.9	14.5	14.5	12.6	-	17.2	15.2	17.0
MP	-	-	17.8	12.1	6.7	4.8	-	4.0	3.6	3.1
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	19.8	21.2	21.3	20.2	15.5	13.2	-	-	-	-
MP	7.1	10.0	20.8	23.9	19.6	13.8	-	-	-	-



Efficiency (%)

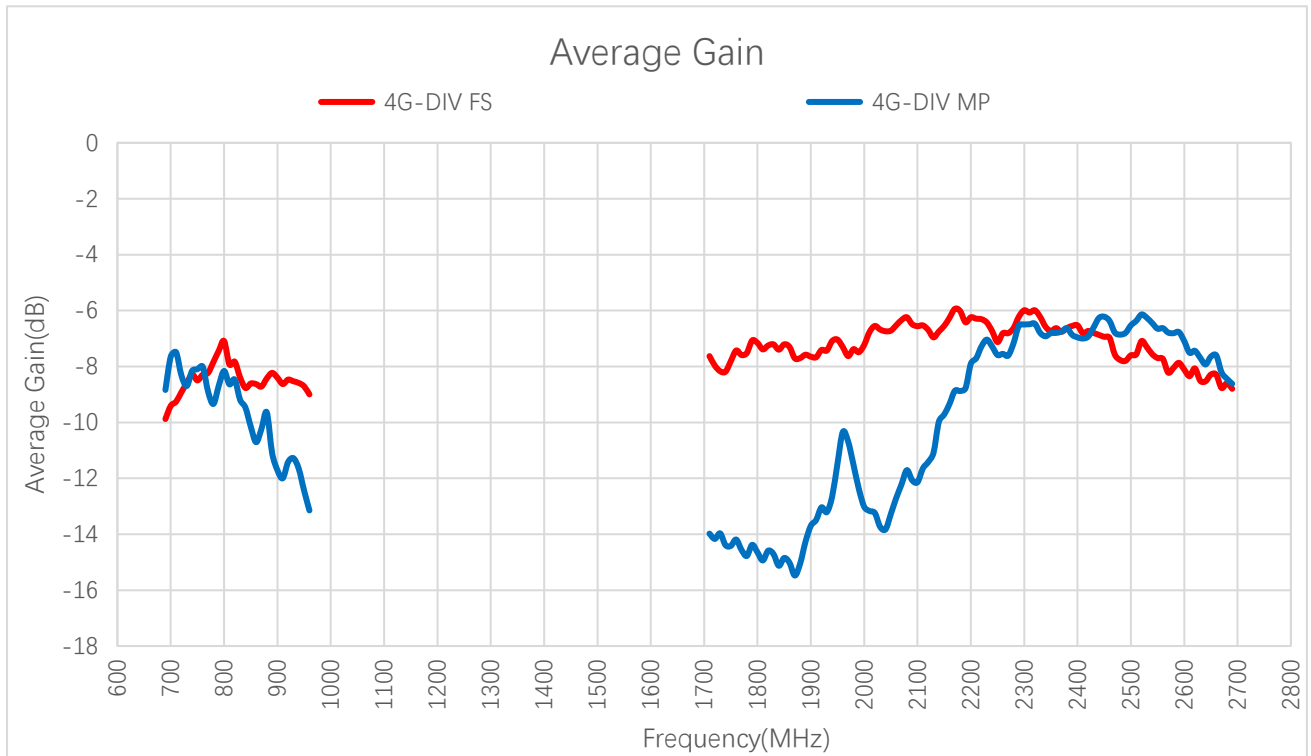
Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
Efficiency (%)	-	-	-	-	-	45.4	69.7	39

3.2.2. Average Gain



Average Gain (dB) – 4G

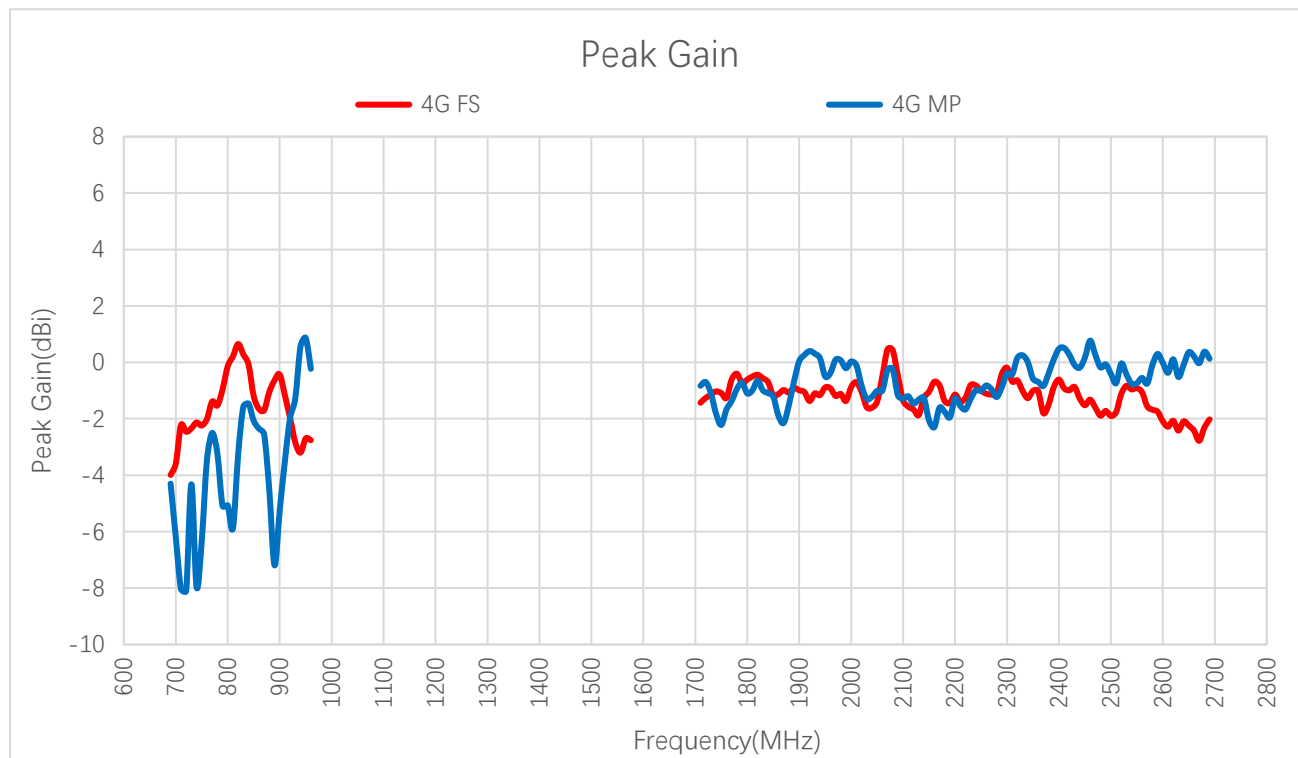
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	-7.5	-6.1	-6.9	-7.4	-	-6.6	-6.5	-7.0
MP	-	-	-13.5	-8.1	-13.5	-6.6	-	-8.0	-8.3	-8.3
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	-6.8	-7.1	-6.5	-6.3	-6.9	-7.4	-	-	-	-
MP	-8.0	-8.8	-8.7	-8.6	-8.8	-8.8	-	-	-	-



Average Gain (dB) – 4G-DIV

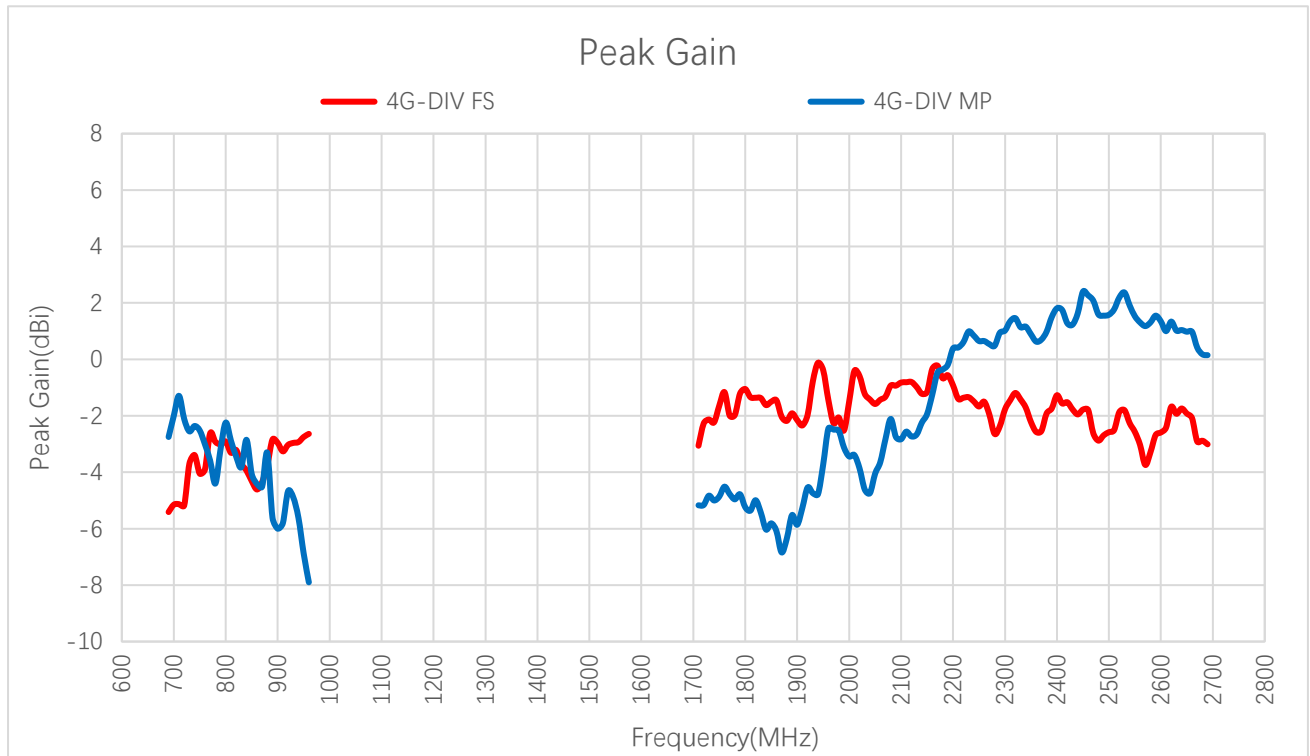
Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	-9.3	-8.4	-8.4	-9.0	-	-7.6	-8.2	-7.7
MP	-	-	-7.5	-9.2	-11.7	-13.2	-	-14.0	-14.4	-15.1
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	-7.0	-6.8	-6.7	-6.9	-8.1	-8.8	-	-	-	-
MP	-11.5	-10.0	-6.8	-6.2	-7.1	-8.6	-	-	-	-

3.2.3. Peak Gain



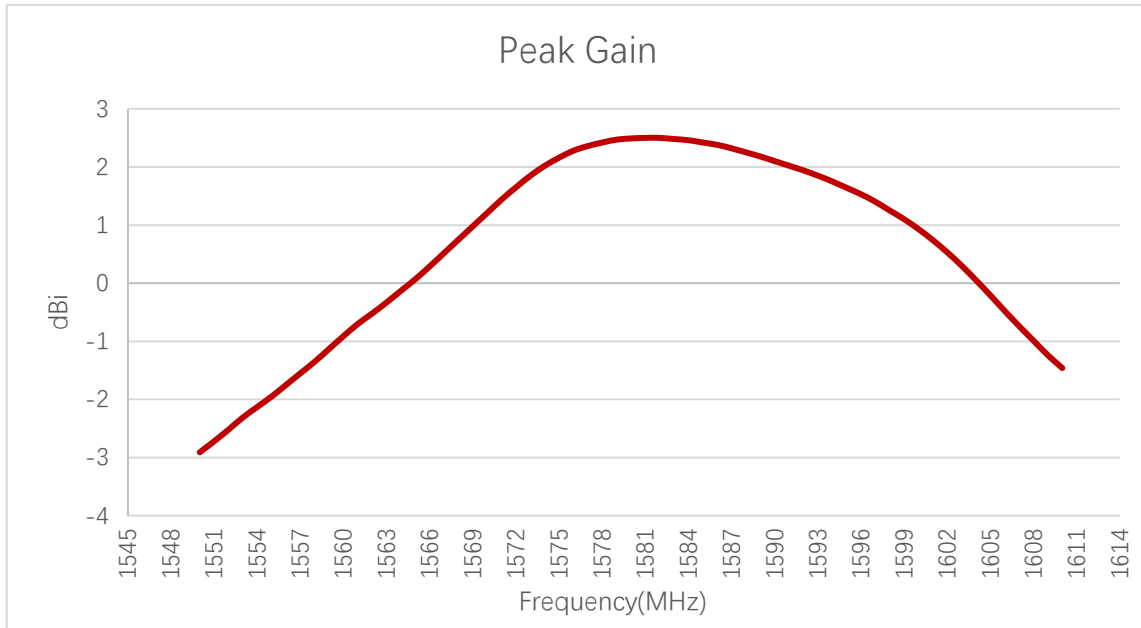
Peak Gain (dBi) – 4G

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	-2.2	0.3	-0.4	-2.8	-	-1.4	-1.0	-1.1
MP	-	-	-8.0	-1.6	-5.3	-0.2	-	-0.8	-1.8	-1.5
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	-0.9	-1.3	-1.0	-1.5	-2.1	-2.0	-	-	-	-
MP	-0.5	-1.3	-0.6	0.2	0.0	0.1	-	-	-	-



Peak Gain (dBi) – 4G-DIV

Frequency (MHz)	600	630	710	830	900	960	1440	1710	1740	1880
FS	-	-	-5.1	-3.7	-3.0	-2.6	-	-3.1	-2.2	-2.2
MP	-	-	-1.3	-3.8	-6.0	-7.9	-	-5.2	-5.0	-6.4
Frequency (MHz)	1950	2140	2350	2450	2600	2690	4700	5000	5500	6000
FS	-0.4	-1.2	-2.2	-1.8	-2.6	-3.0	-	-	-	-
MP	-3.7	-2.2	0.9	2.4	1.4	0.2	-	-	-	-



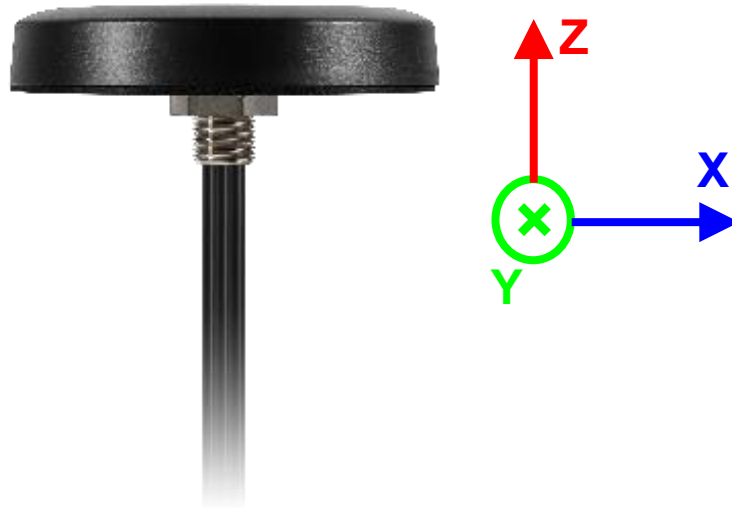
Peak Gain (dBi)

Frequency (MHz)	1176	1207	1227	1248	1268	1561	1575	1602
Peak Gain (dBi)	-	-	-	-	-	-0.7	2.16	0.53

3.2.4. 3D & 2D Radiation Pattern

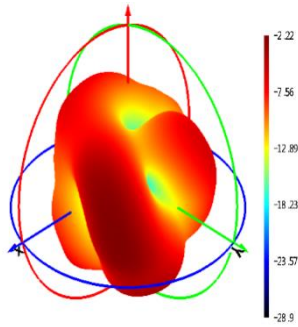
3.2.4.1 Test Condition: Free Space

- Test Chamber: HF-SY-1

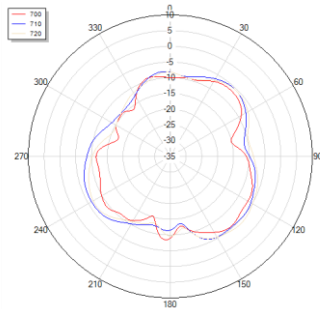


● 4G

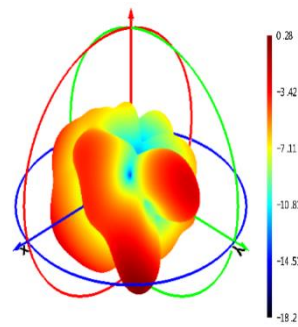
710 MHz



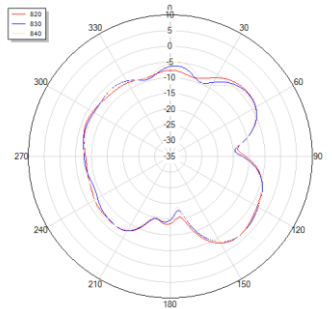
Phi=0



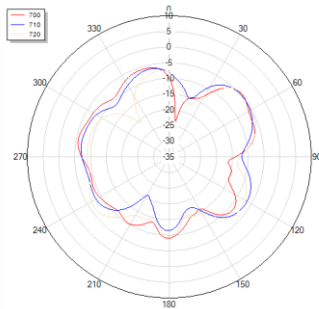
830 MHz



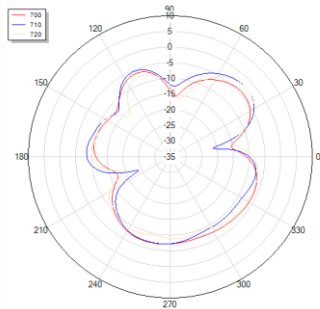
Phi=0



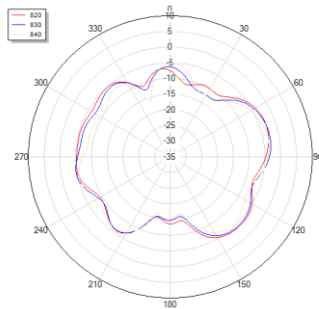
Phi=90



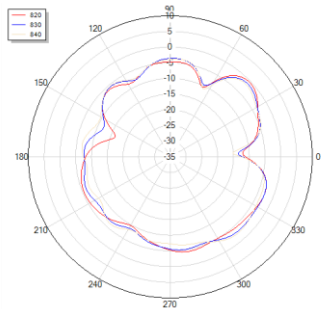
Theta=90



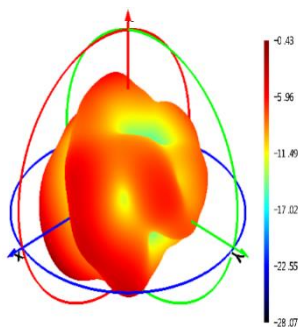
Phi=90



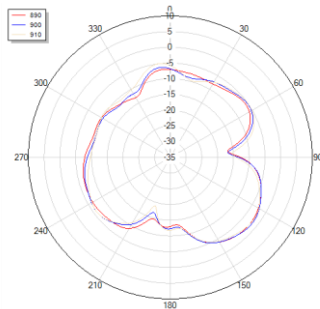
Theta=90



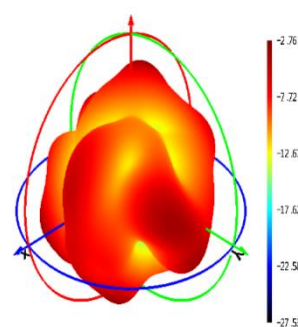
900 MHz



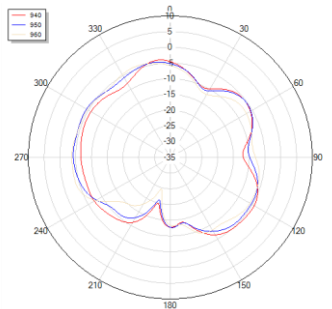
Phi=0



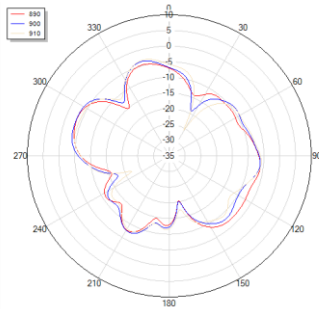
960 MHz



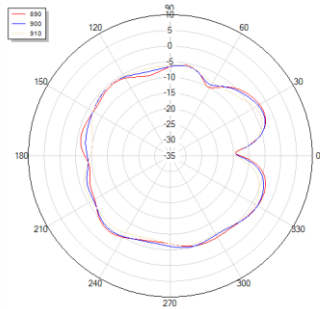
Phi=0



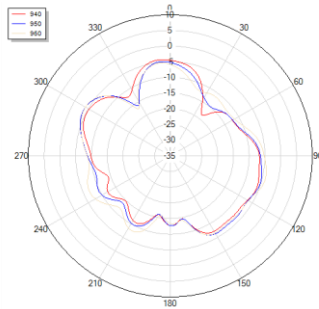
Phi=90



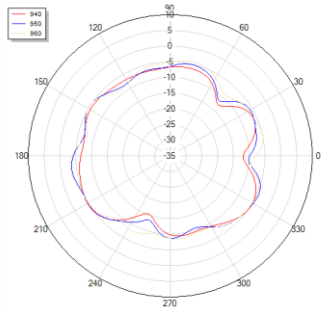
Theta=90

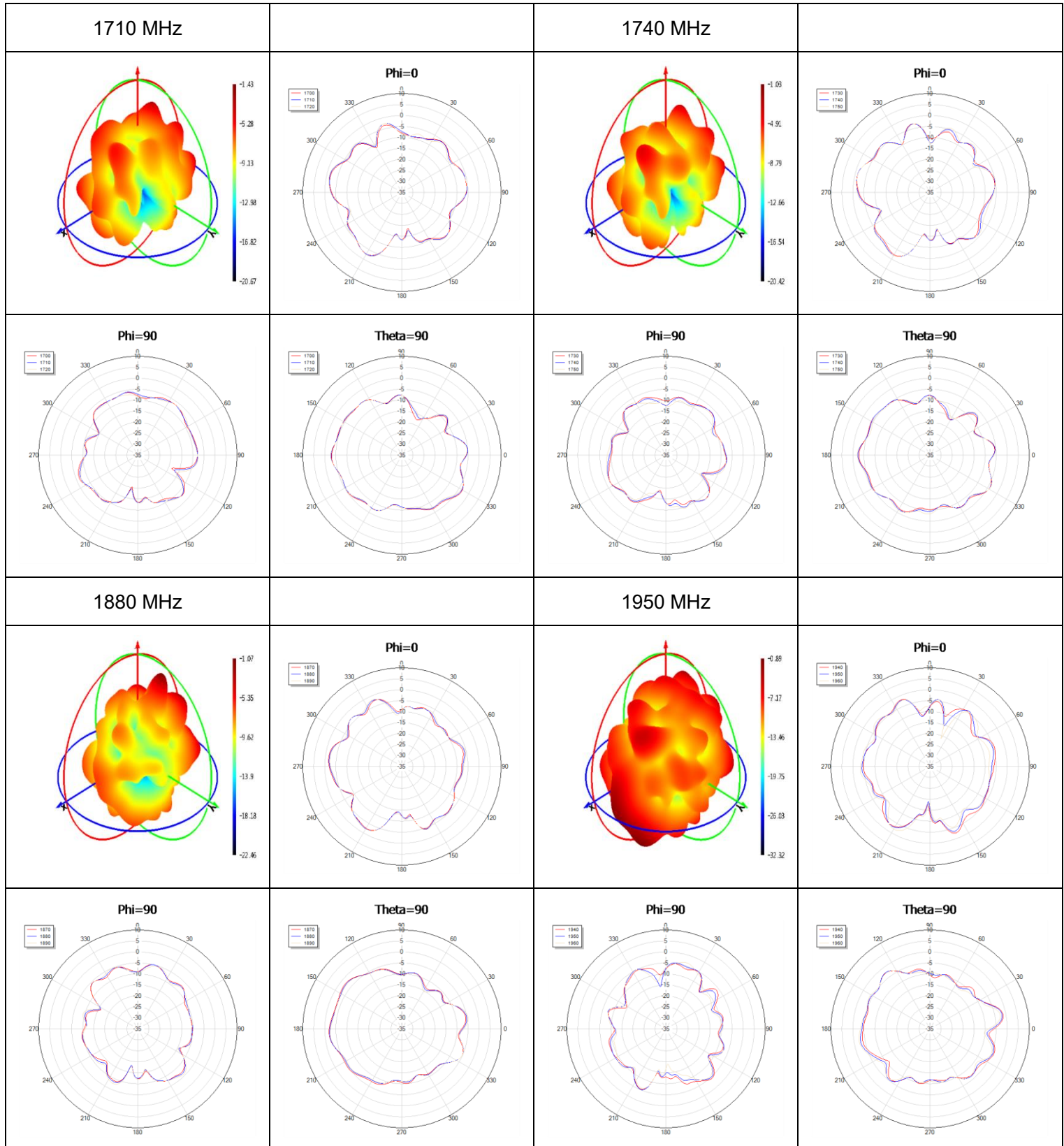


Phi=90

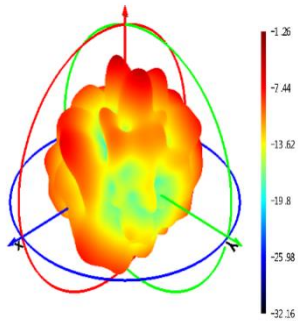


Theta=90

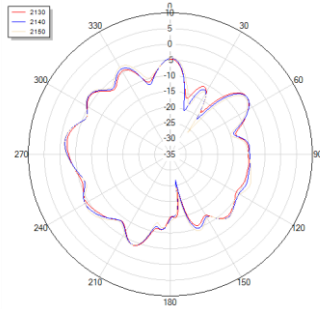




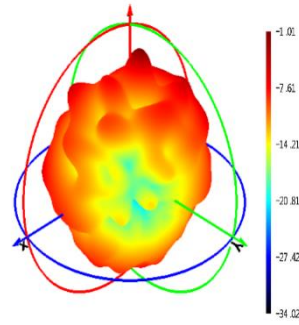
2140 MHz



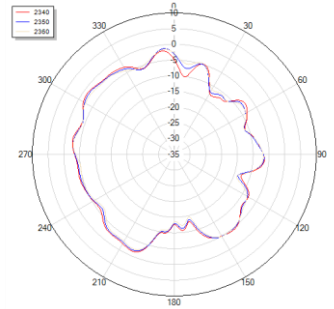
Phi=0



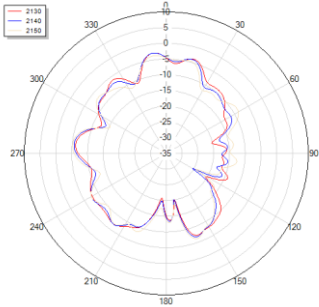
2350 MHz



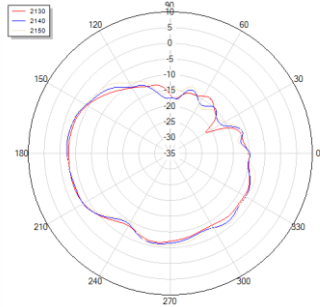
Phi=0



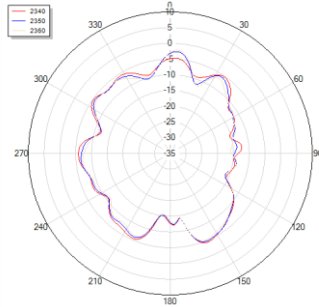
Phi=90



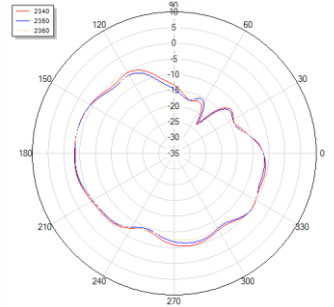
Theta=90



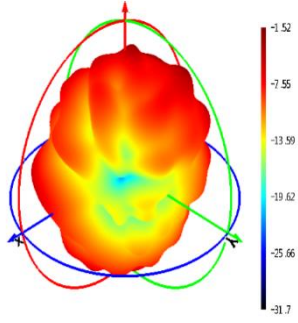
Phi=90



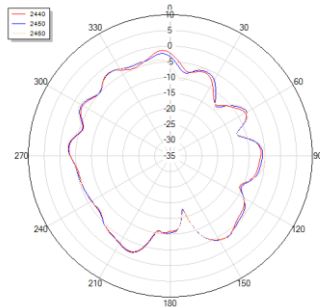
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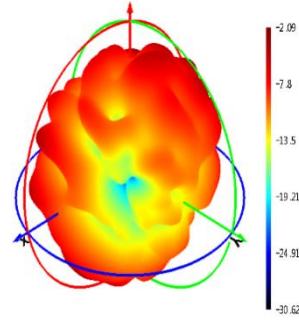
2450 MHz



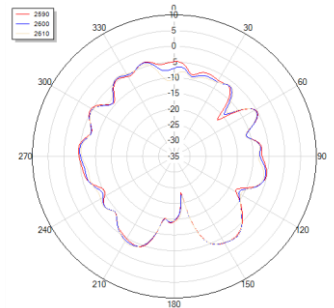
Phi=0



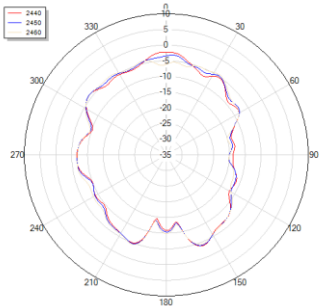
2600 MHz



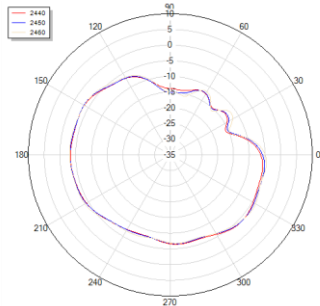
Phi=0



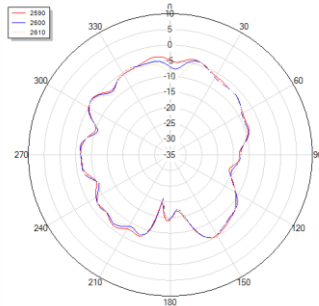
Phi=90



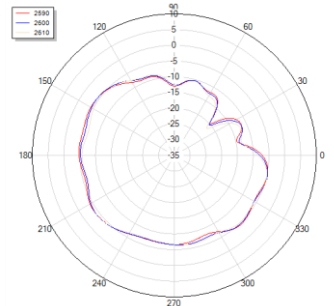
Theta=90



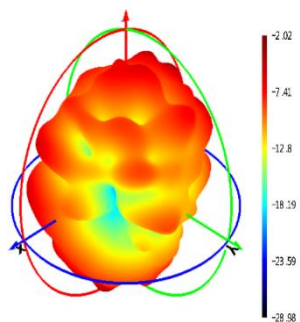
Phi=90



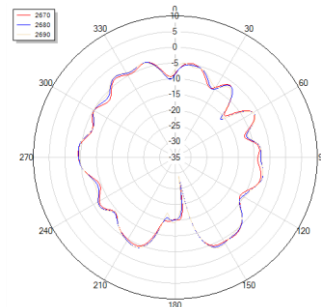
Theta=90



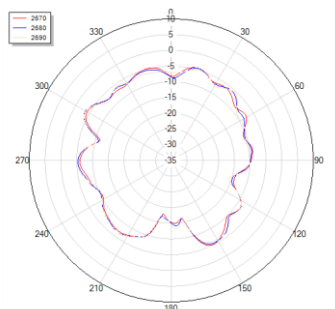
2690 MHz



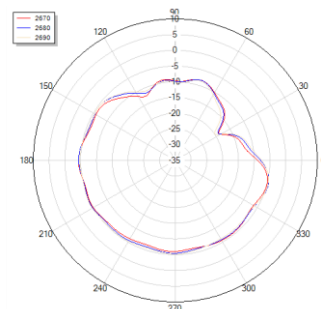
Phi=0



Phi=90

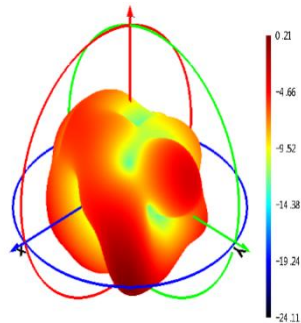


Theta=90

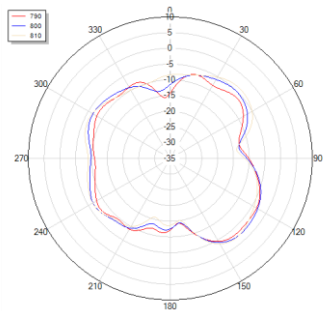


● **4G Max Peak Gain**

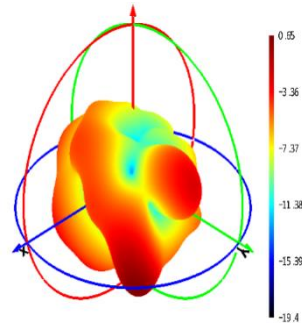
810 MHz



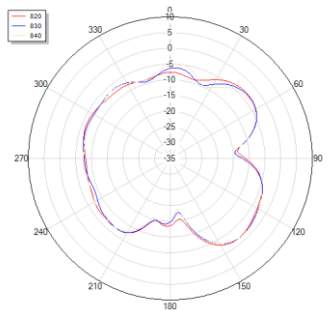
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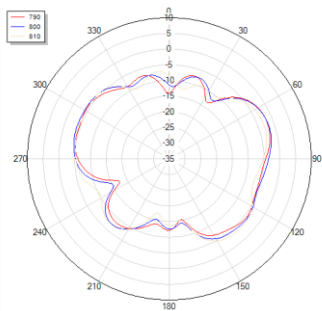
820 MHz



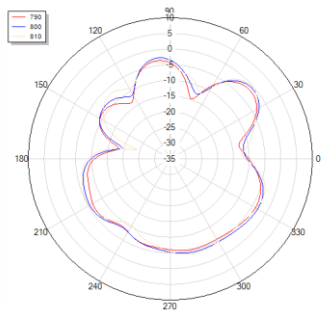
Phi=0



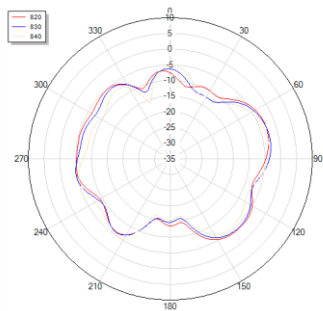
Phi=90



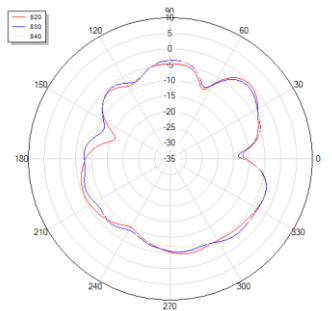
Theta=90



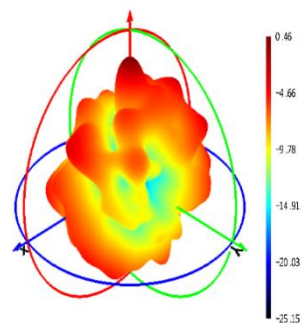
Phi=90



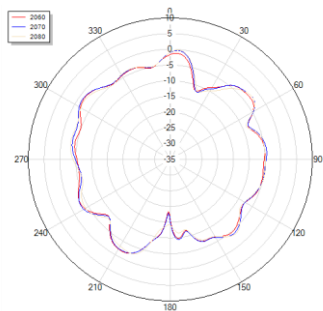
Theta=90



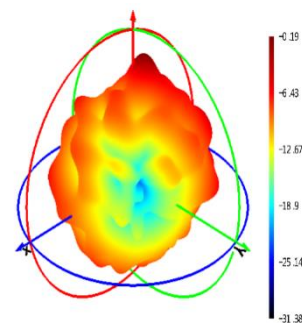
2070 MHz



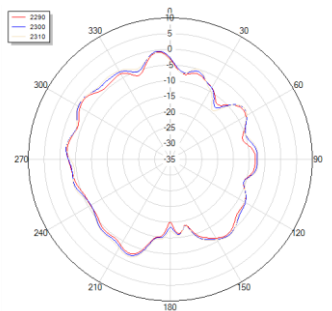
Phi=0



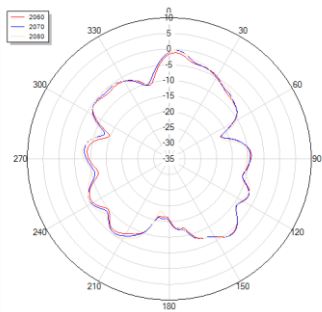
2300 MHz



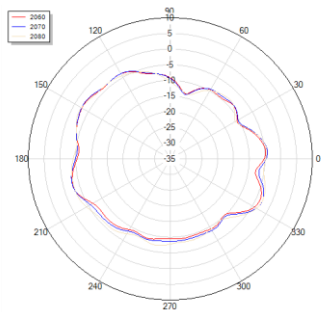
Phi=0



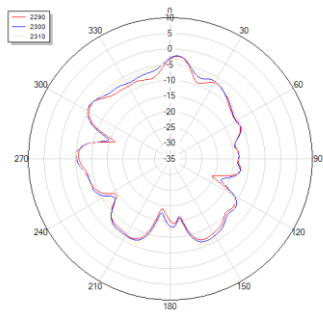
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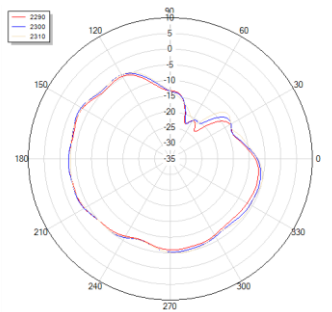
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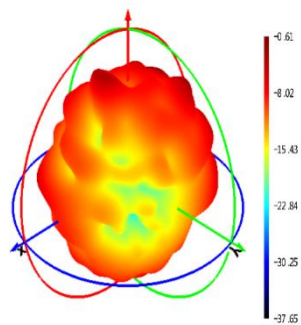
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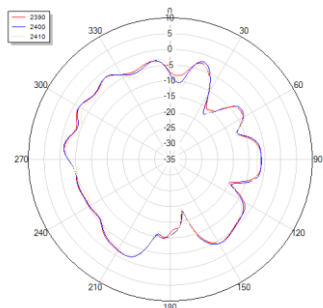
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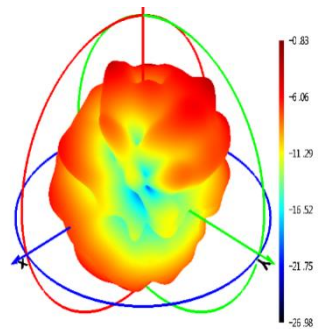
2400 MHz



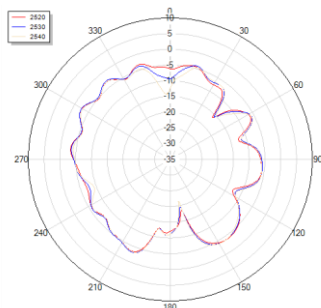
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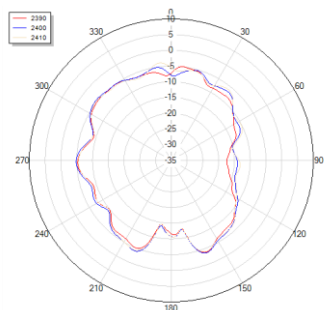
2530 MHz



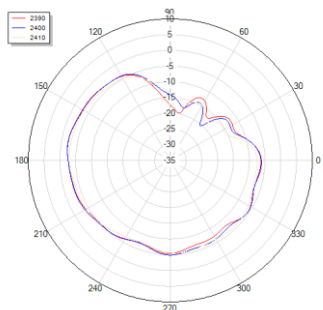
Phi=0



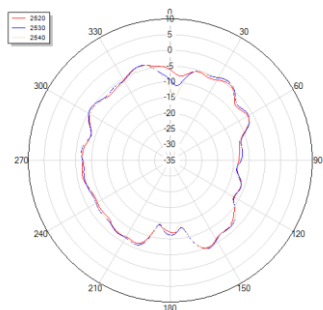
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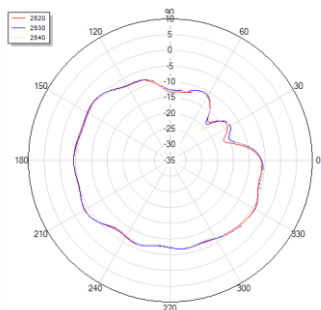
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Phi=90

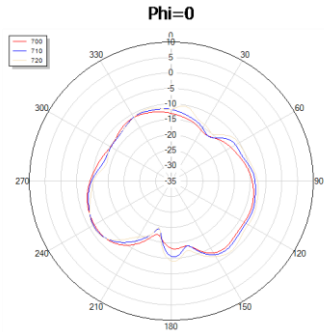
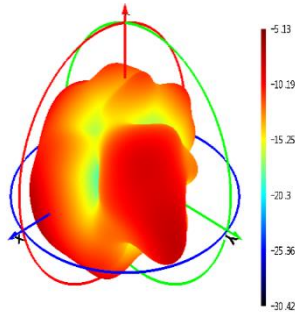


Theta=90

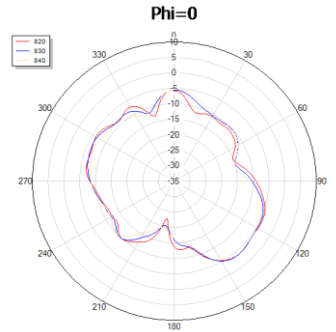
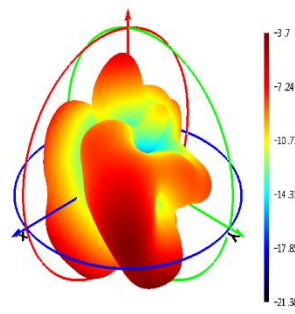


● **4G-DIV**

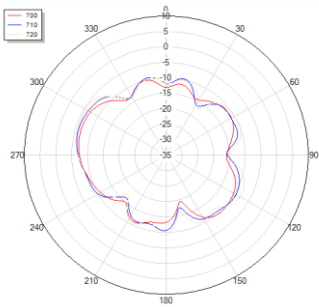
710 MHz



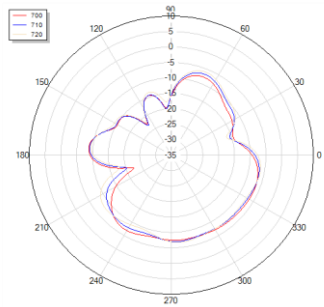
830 MHz



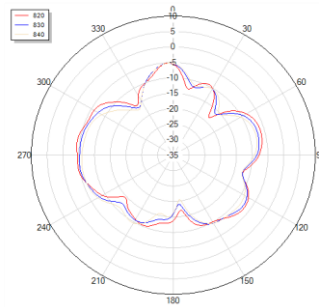
Phi=90



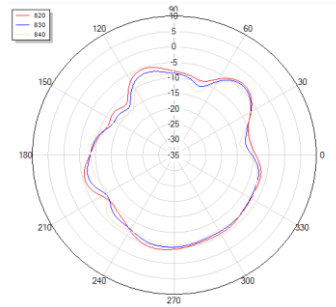
Theta=90



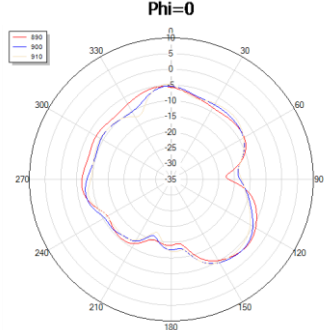
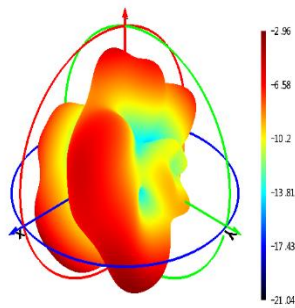
Phi=90



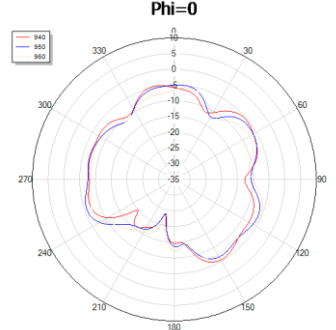
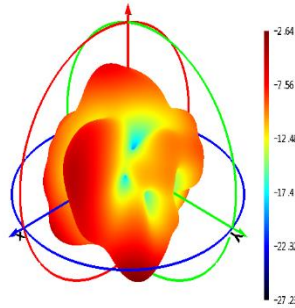
Theta=90



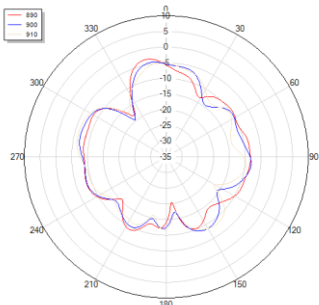
900 MHz



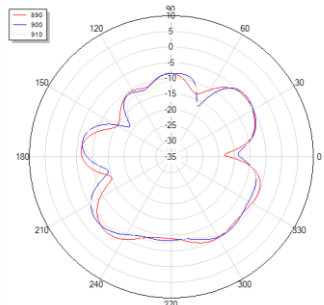
960 MHz



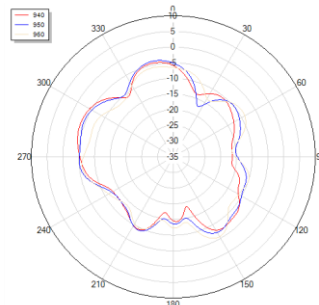
Phi=90



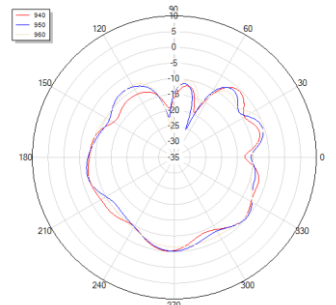
Theta=90

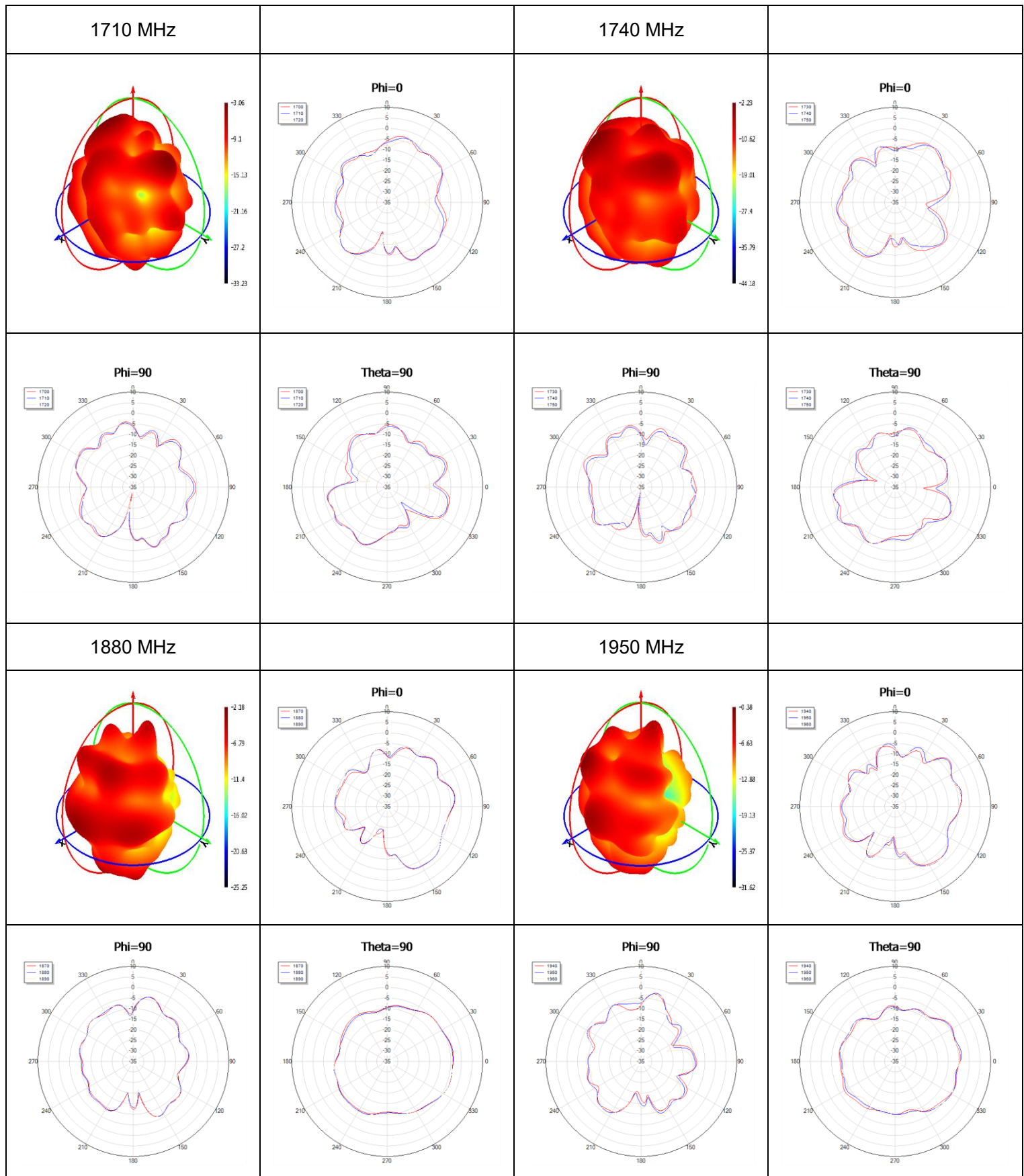


Phi=90

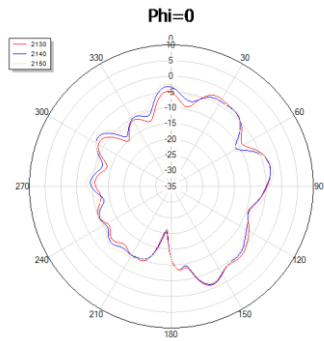
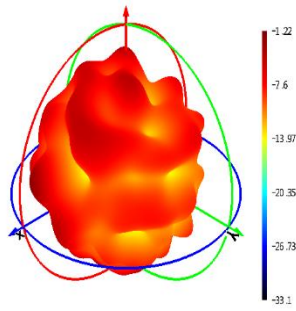


Theta=90

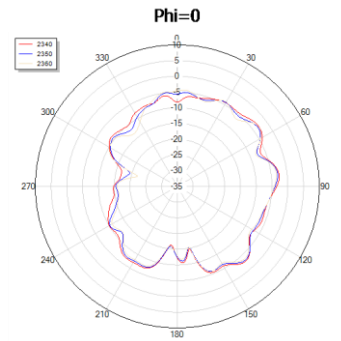
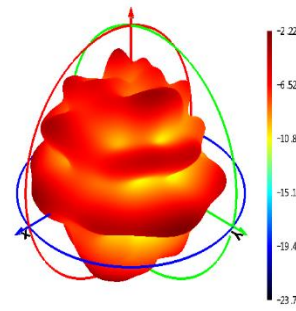




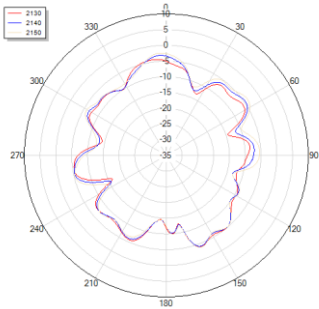
2140 MHz



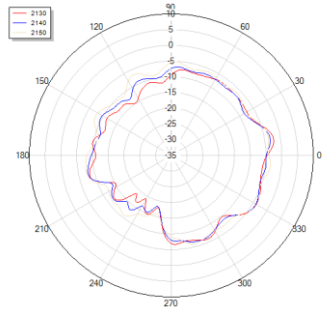
2350 MHz



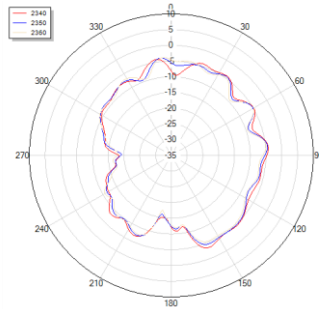
Phi=90



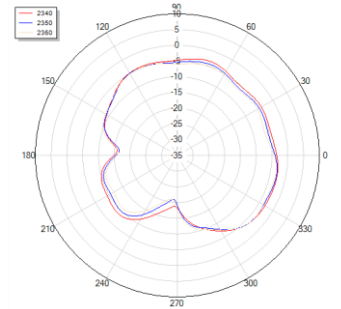
Theta=90



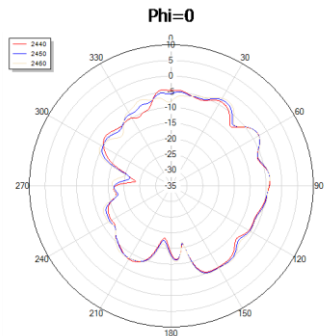
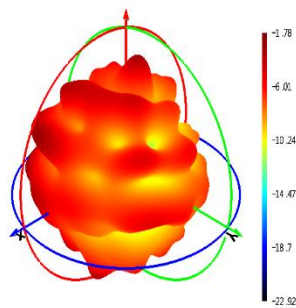
Phi=90



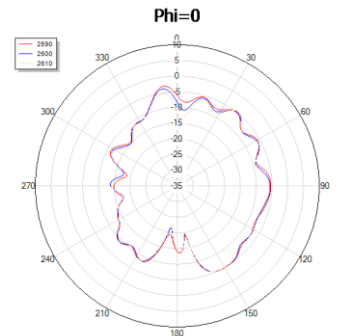
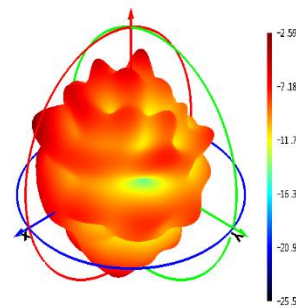
Theta=90



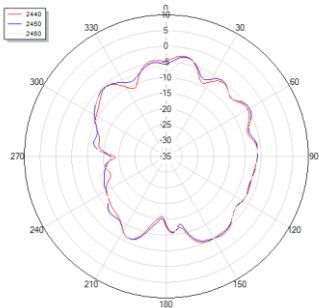
2450 MHz



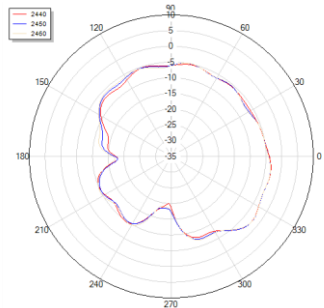
2600 MHz



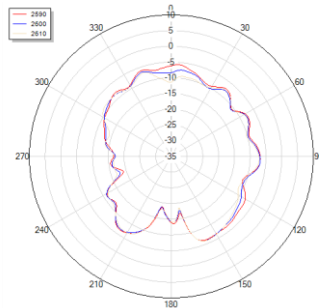
Phi=90



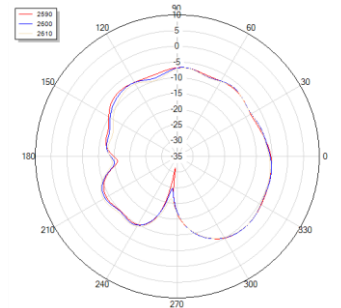
Theta=90



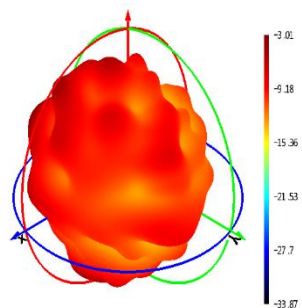
Phi=90



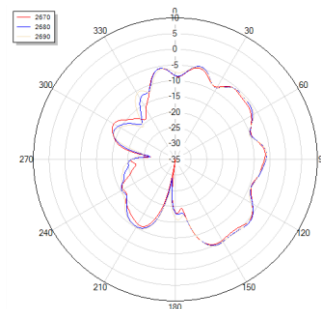
Theta=90



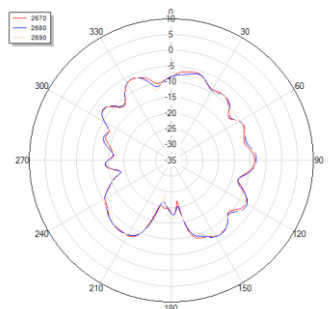
2690 MHz



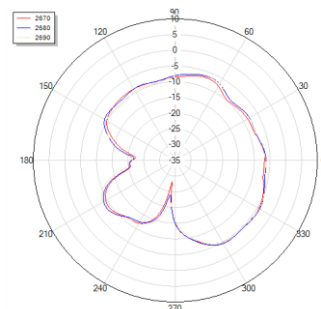
Phi=0



Phi=90

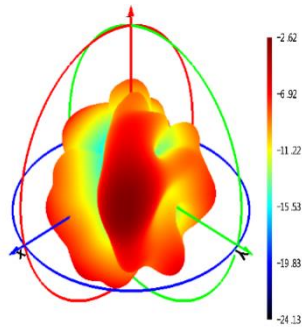


Theta=90

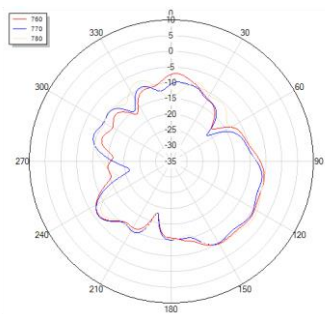


● **4G-DIV Max Peak Gain**

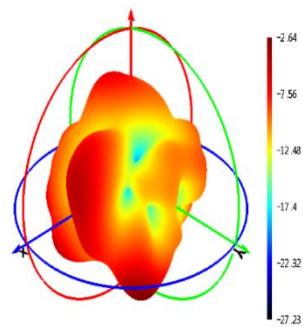
770 MHz



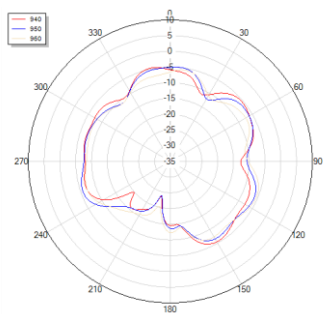
Phi=0



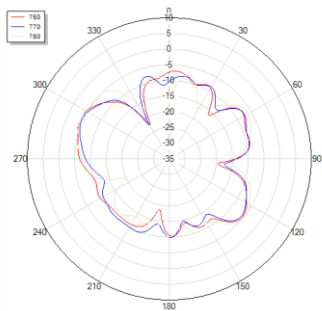
960 MHz



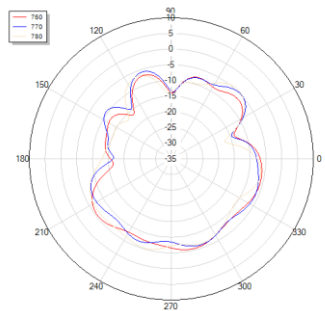
Phi=0



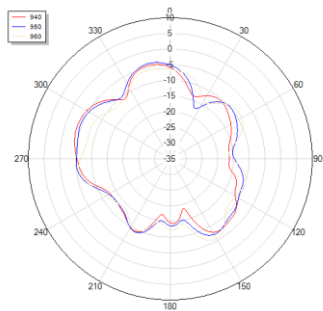
Phi=90



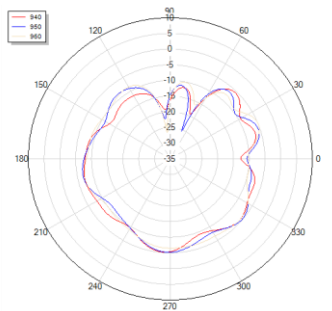
Theta=90



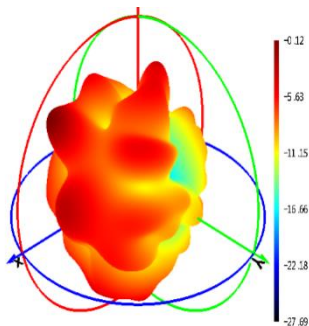
Phi=90



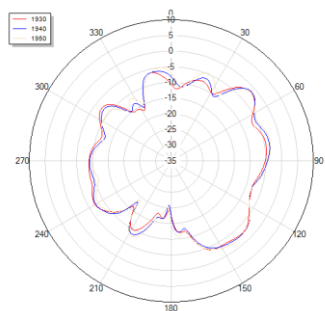
Theta=90



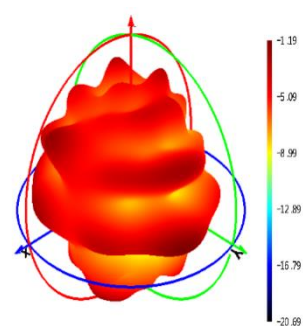
1940 MHz



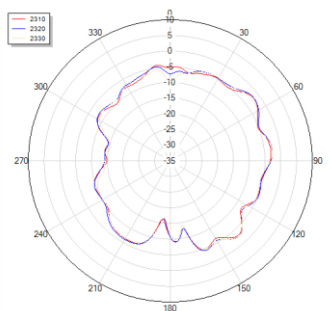
Phi=0



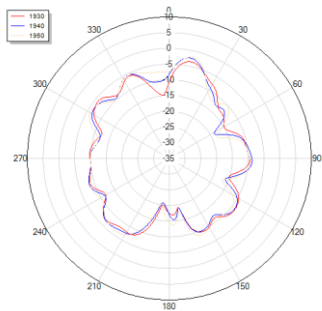
2320 MHz



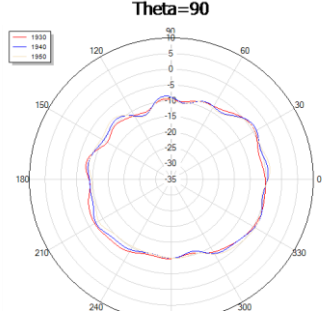
Phi=0



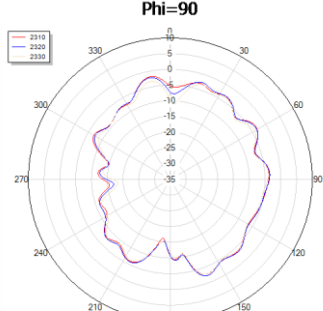
Phi=90



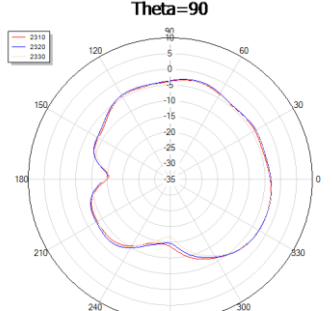
Theta=90

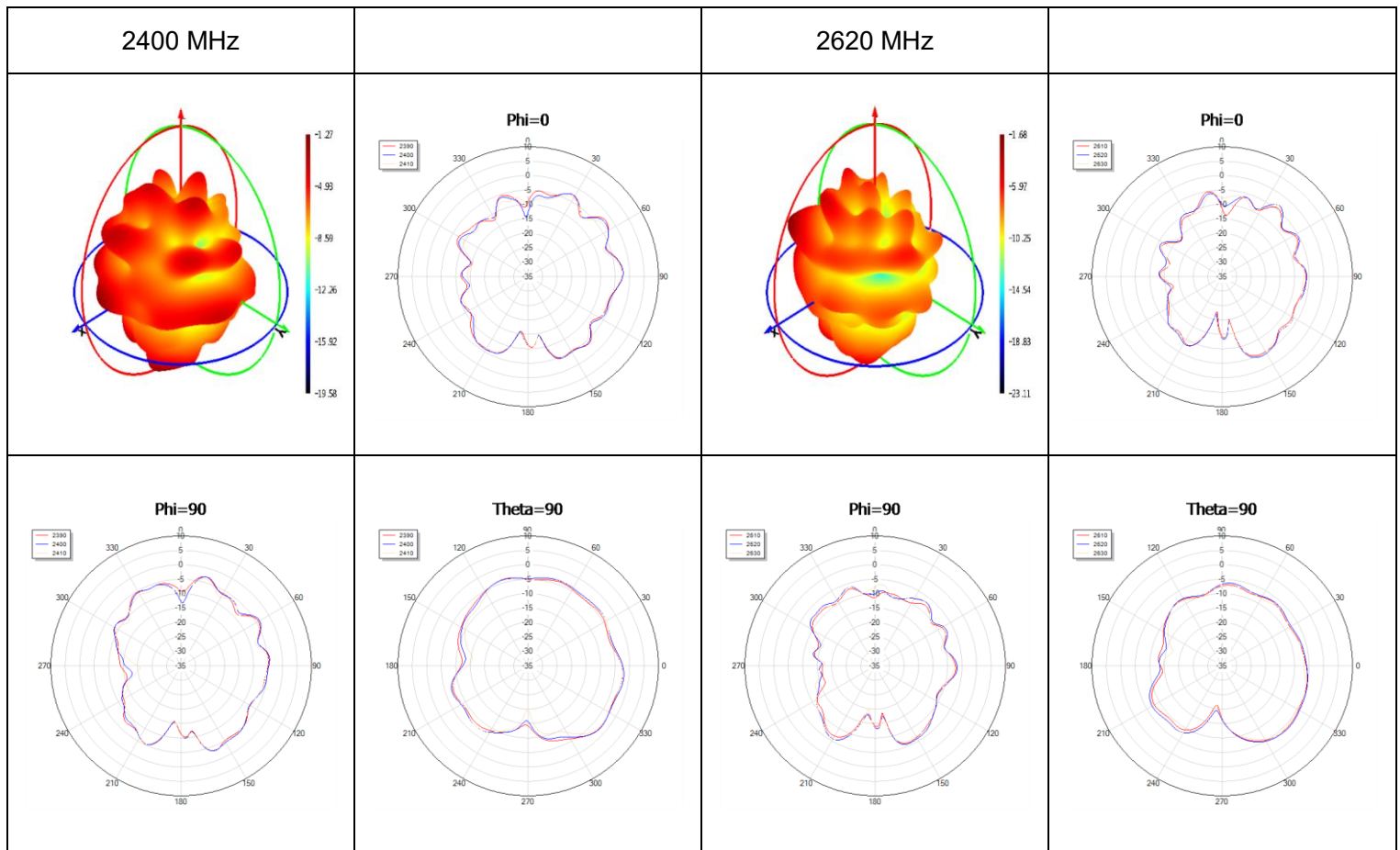


Phi=90



Theta=90

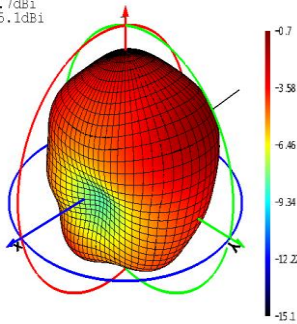




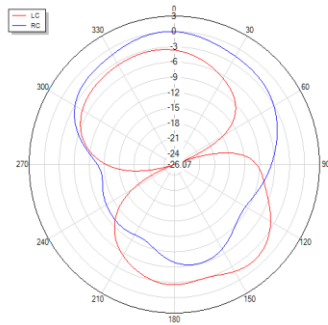
● **GNSS**

1561 MHz

MAX:-0.7dBi
MIN:-15.1dBi

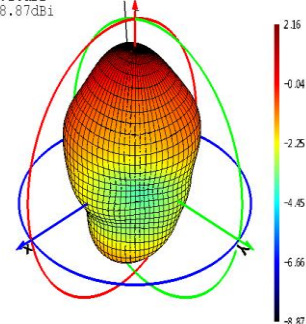


Phi=0 freq=1561MHz

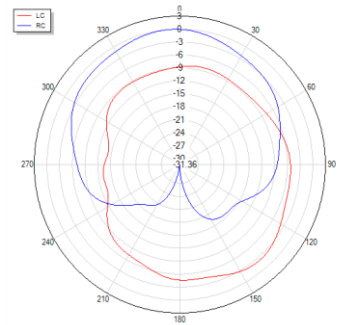


1602 MHz

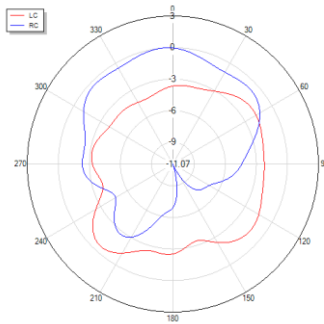
MAX:2.16dBi
MIN:-8.87dBi



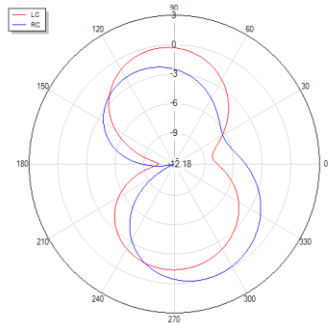
Phi=0 freq=1575MHz



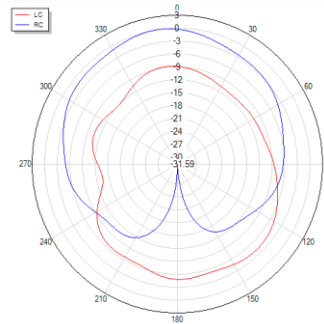
Phi=90 freq=1561MHz



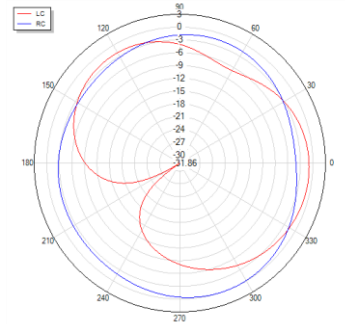
Theta=90 freq=1561MHz



Phi=90 freq=1575MHz

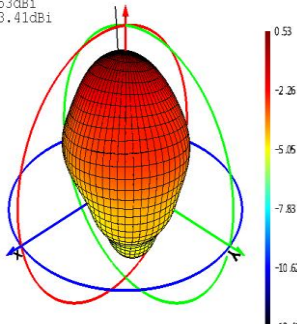


Theta=90 freq=1575MHz

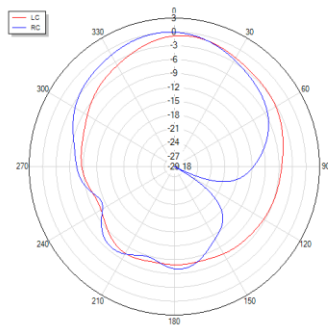


1602 MHz

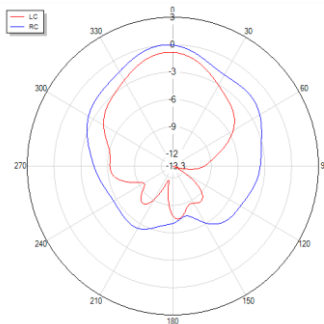
MAX:0.53dBi
MIN:-13.41dBi



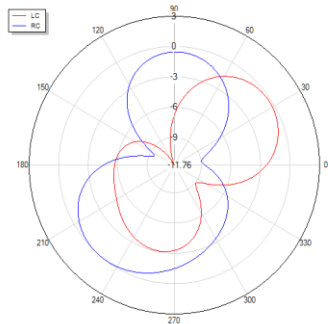
Phi=0 freq=1602MHz



Phi=90 freq=1602MHz

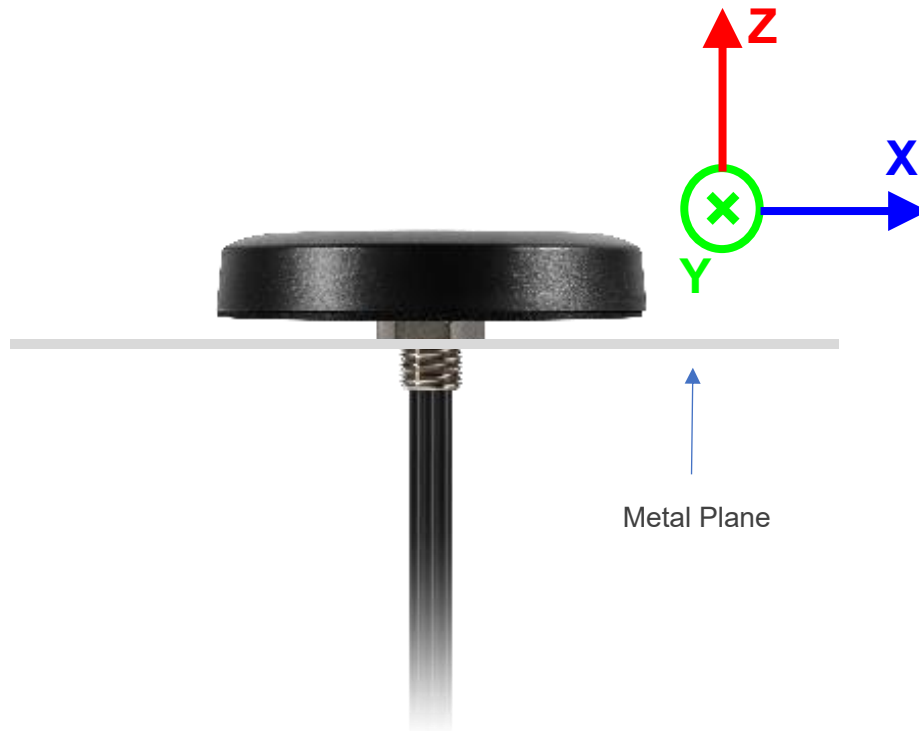


Theta=90 freq=1602MHz



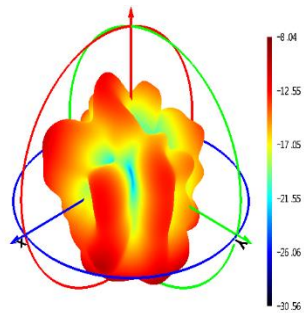
3.2.4.2 Test Condition: 300 mm × 300 mm Metal Plane

- Test Chamber: HF-SY-1

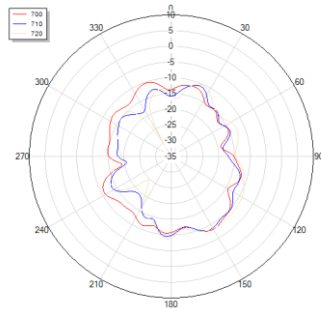


● 4G

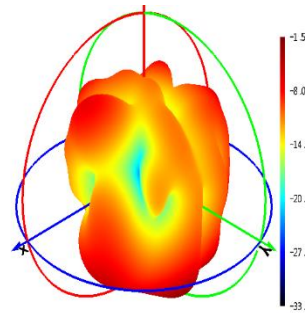
710 MHz



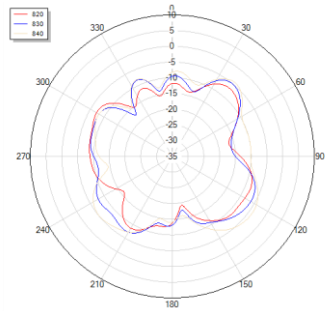
Phi=0



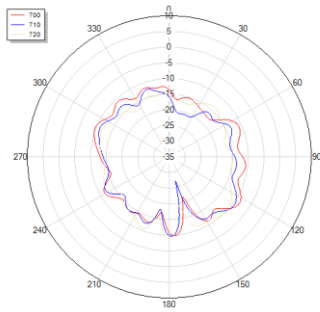
830 MHz



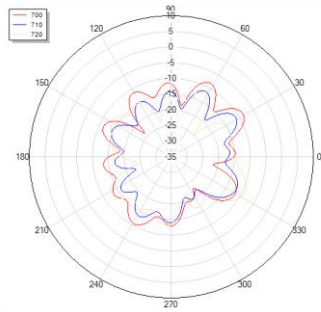
Phi=0



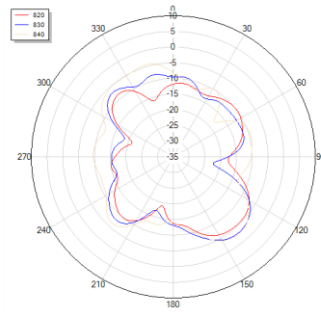
Phi=90



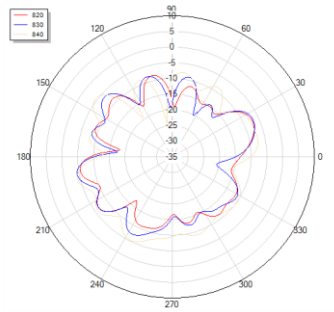
Theta=90



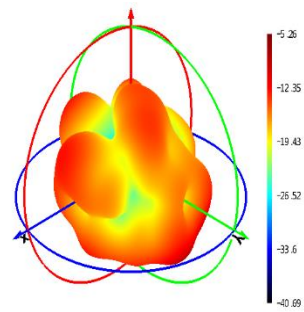
Phi=90



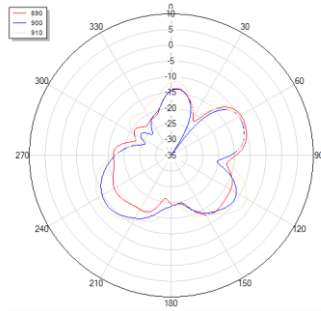
Theta=90



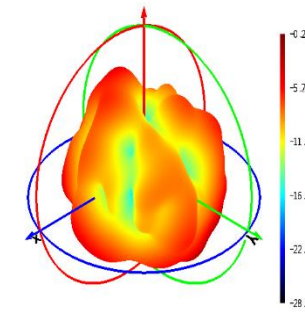
900 MHz



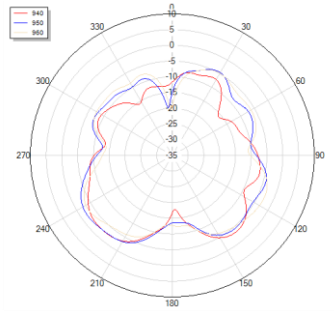
Phi=0



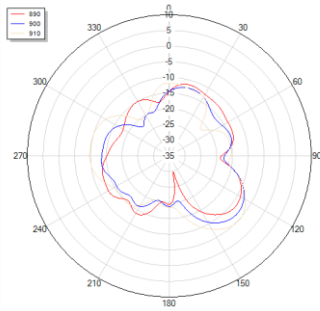
960 MHz



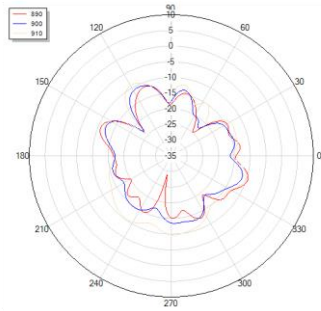
Phi=0



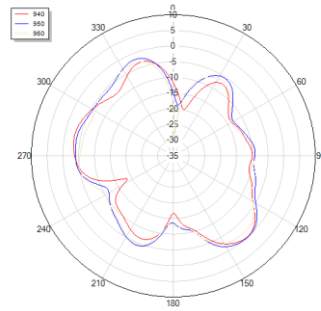
Phi=90



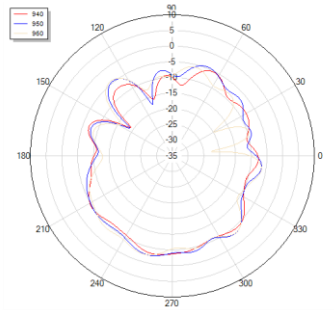
Theta=90

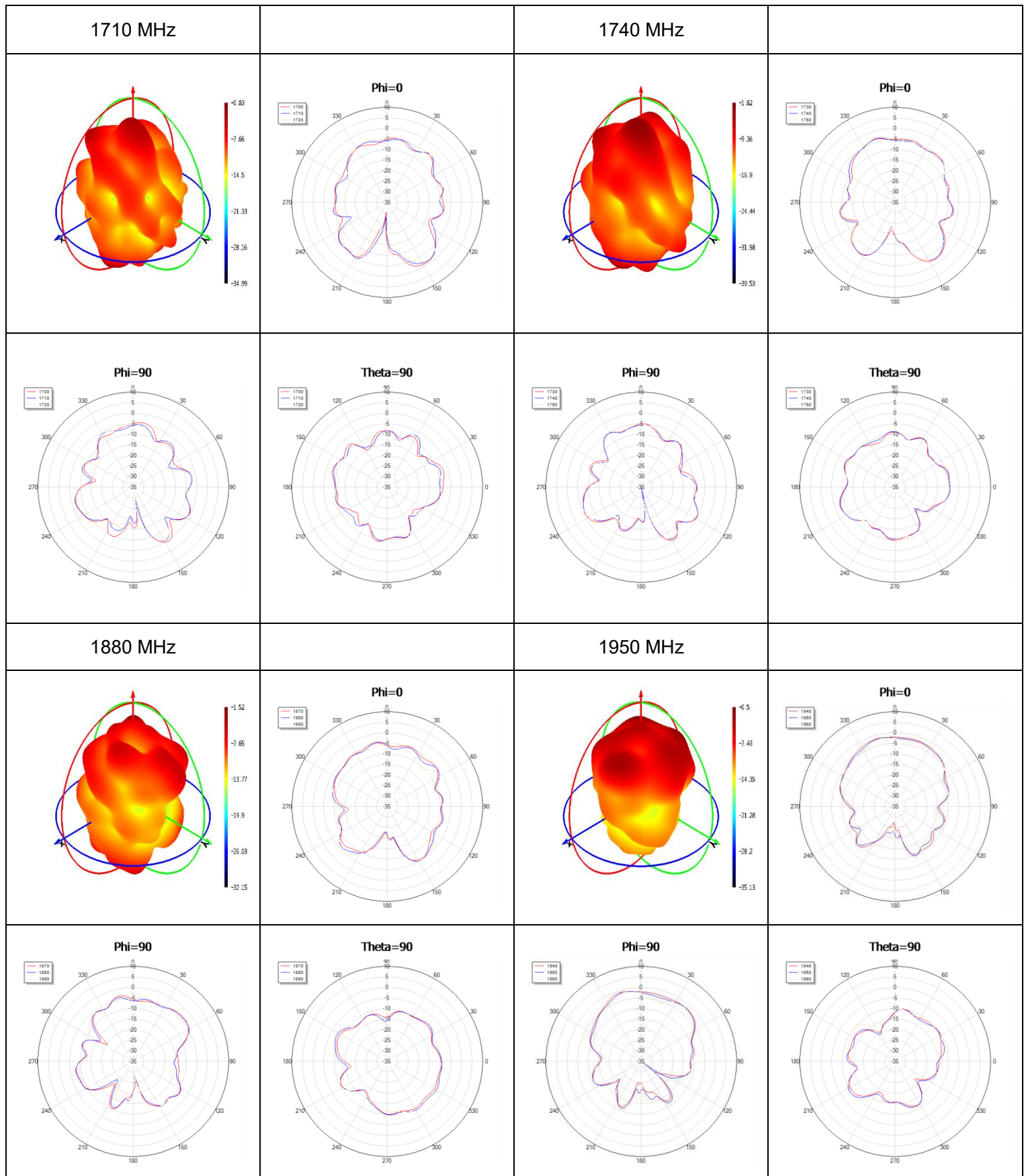


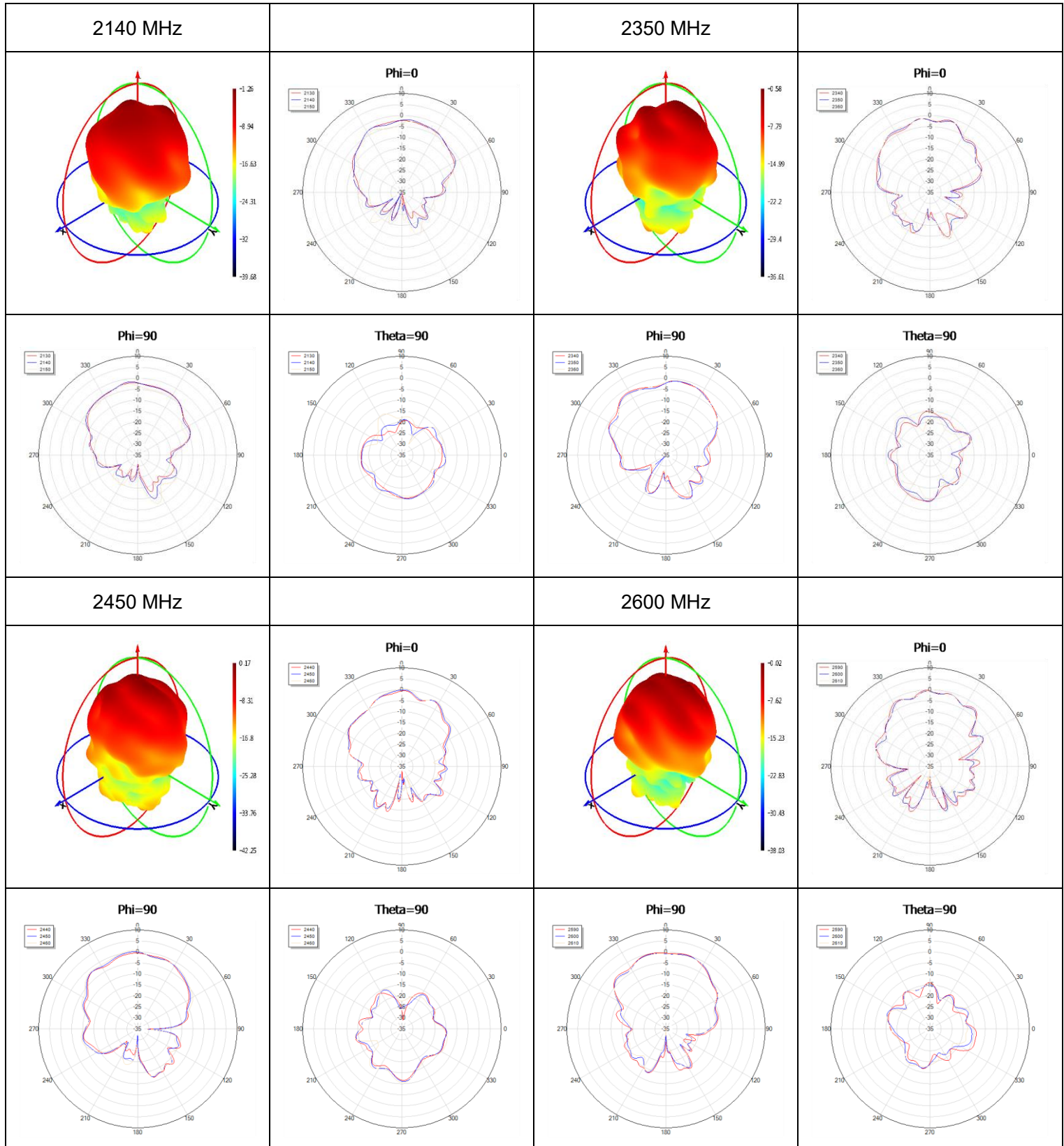
Phi=90



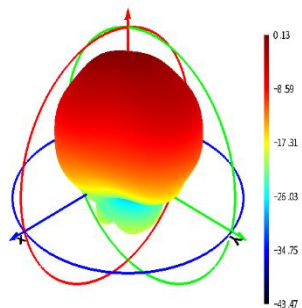
Theta=90



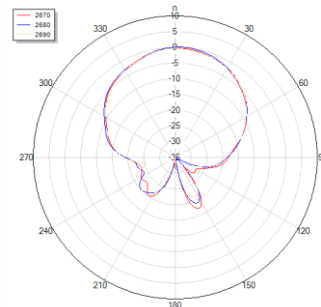




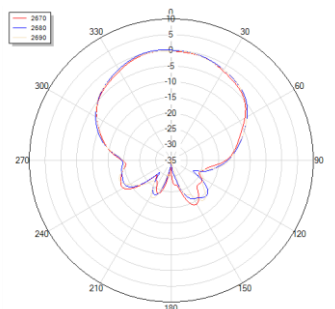
2690 MHz



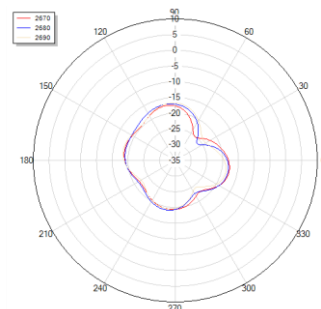
Phi=0



Phi=90

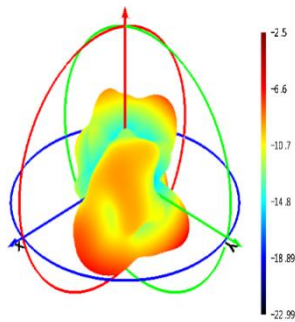


Theta=90

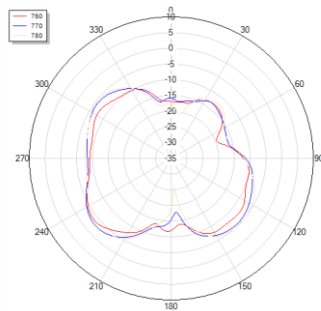


● **4G Max Peak Gain**

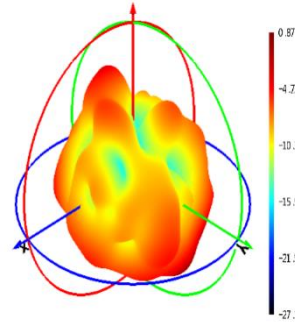
770 MHz



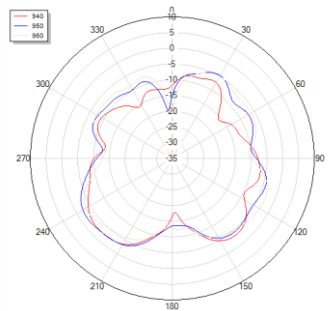
Phi=0



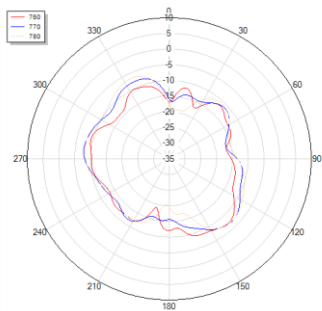
950 MHz



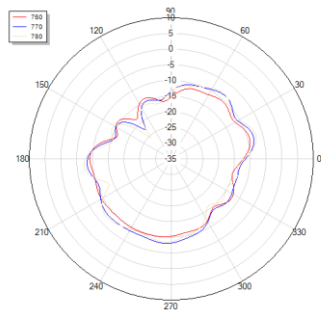
Phi=0



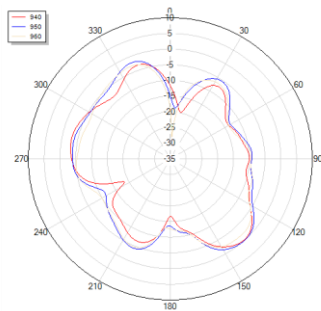
Phi=90



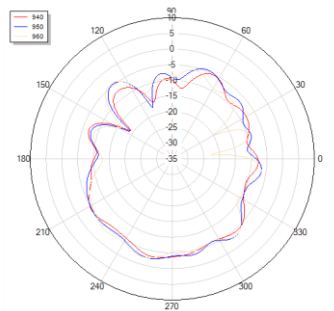
Theta=90



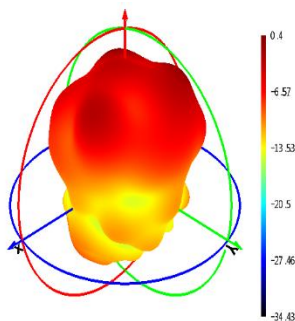
Phi=90



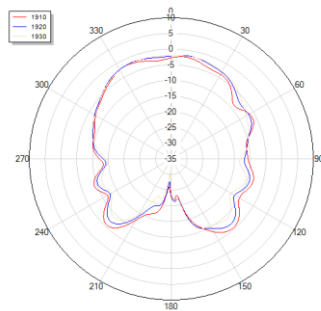
Theta=90



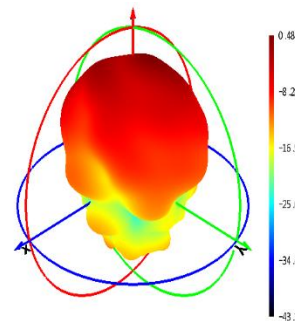
1920 MHz



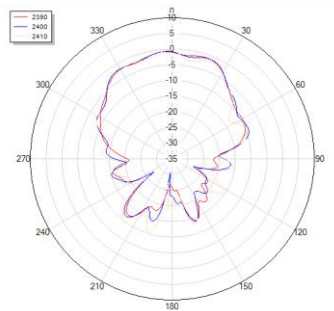
Phi=0



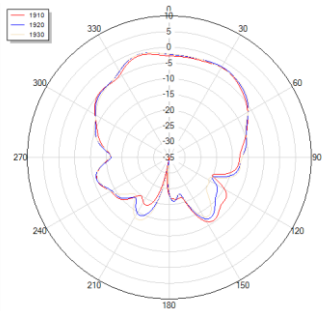
2400 MHz



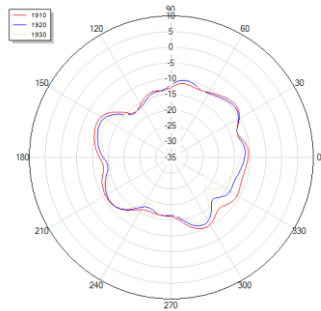
Phi=0



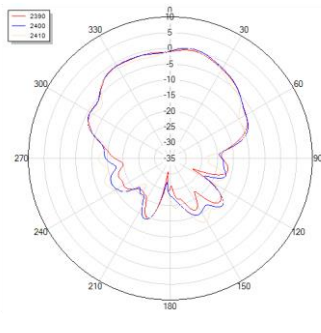
Phi=90



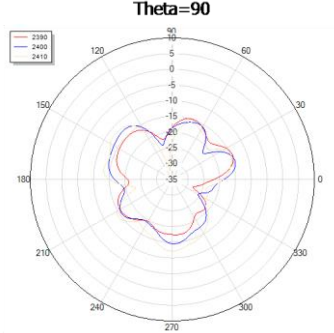
Theta=90



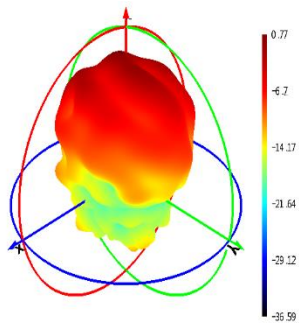
Phi=90



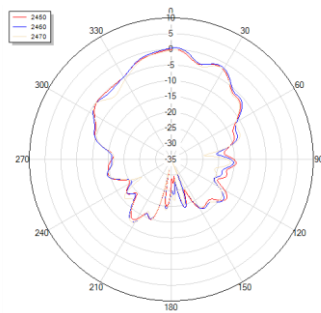
Theta=90



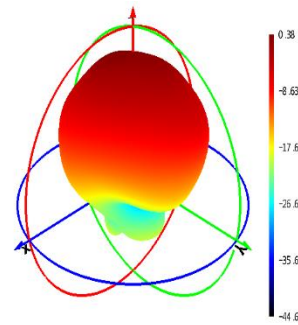
2460 MHz



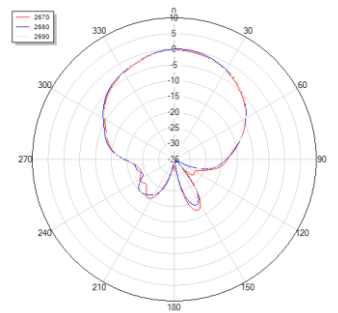
Phi=0



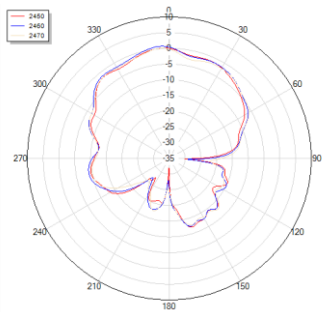
2680 MHz



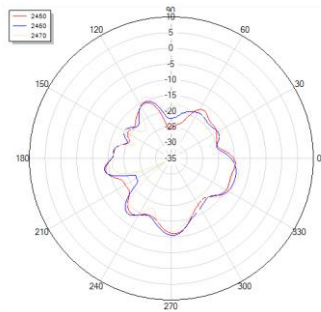
Phi=0



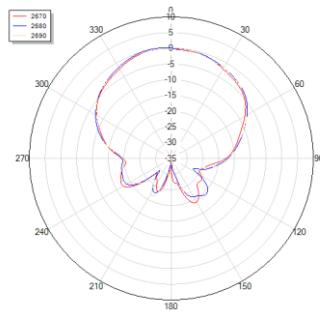
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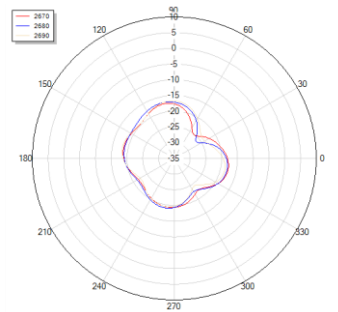
Theta=90



Phi=90

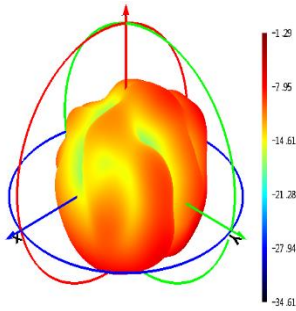


Theta=90

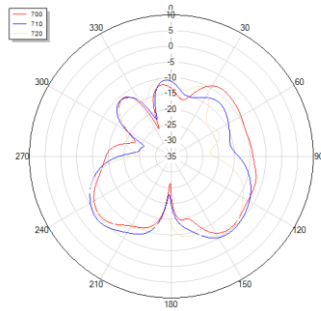


● **4G-DIV**

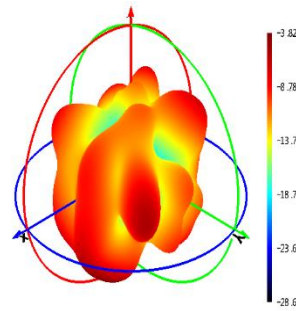
710 MHz



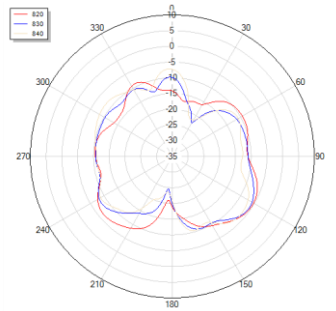
Phi=0



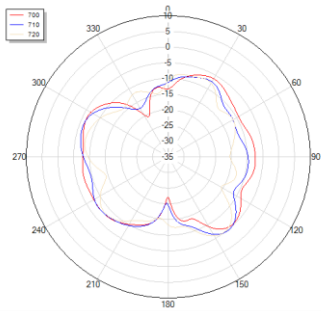
830 MHz



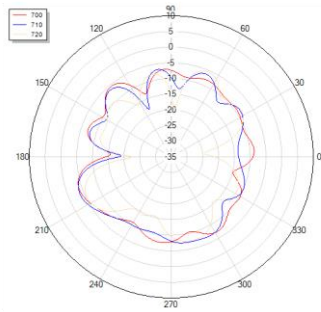
Phi=0



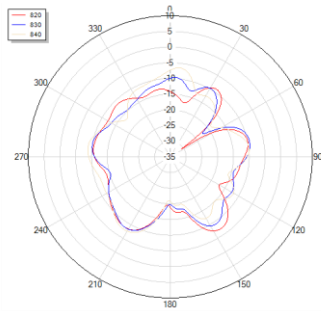
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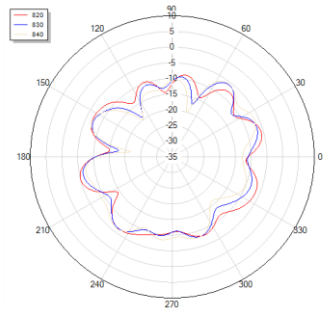
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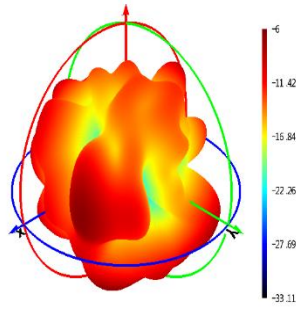
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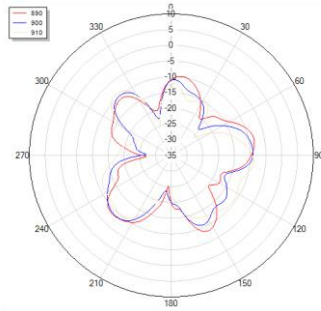
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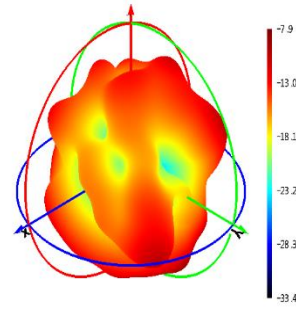
900 MHz



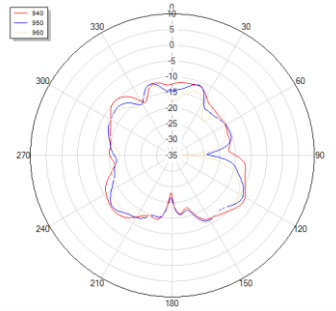
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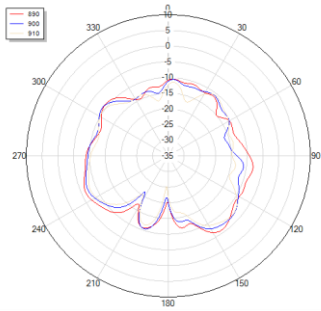
960 MHz



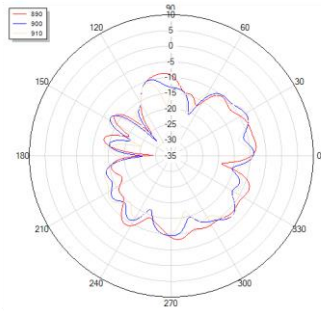
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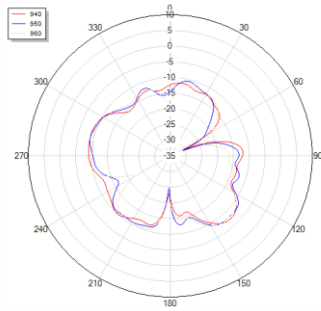
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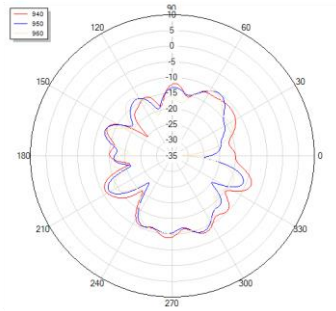
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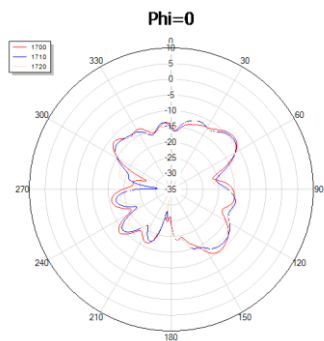
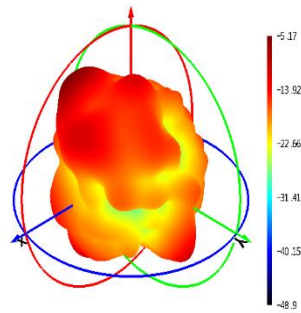
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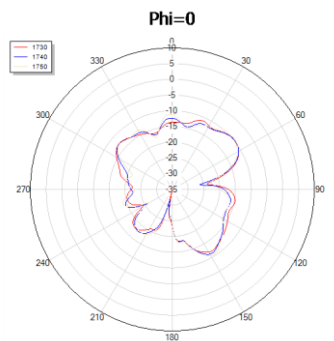
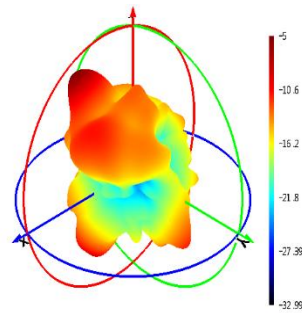
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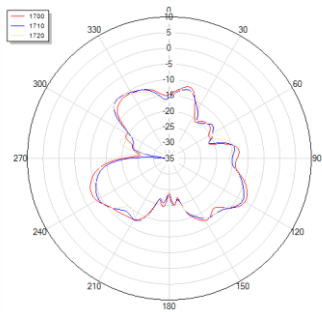
1710 MHz



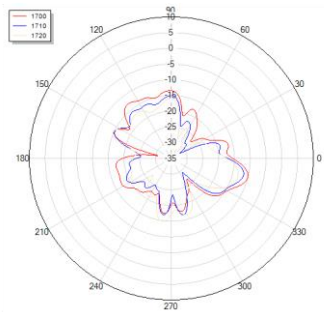
1740 MHz



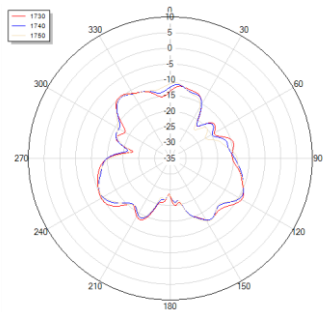
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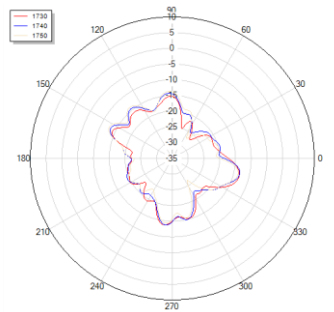
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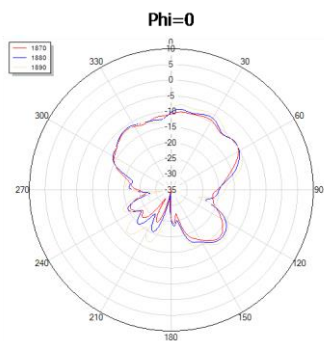
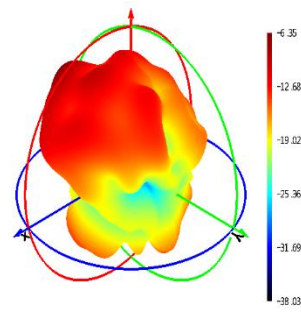
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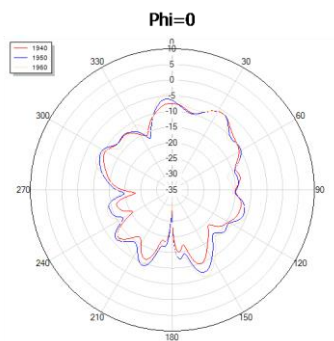
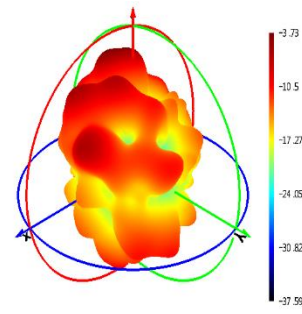
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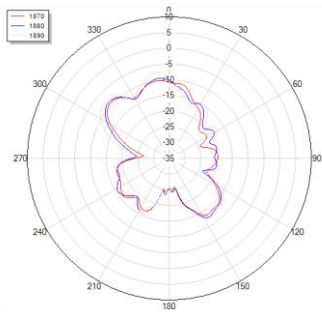
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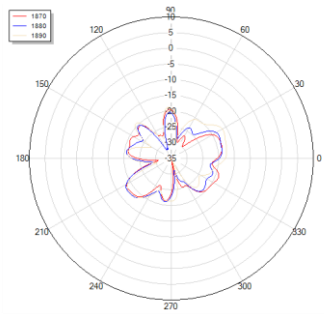
1950 MHz



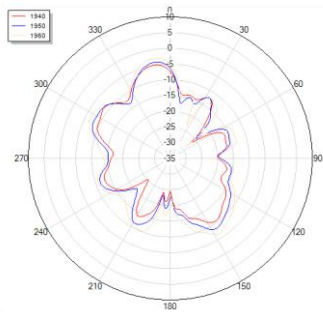
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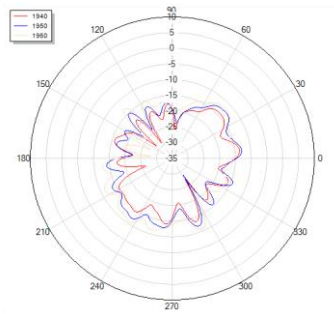
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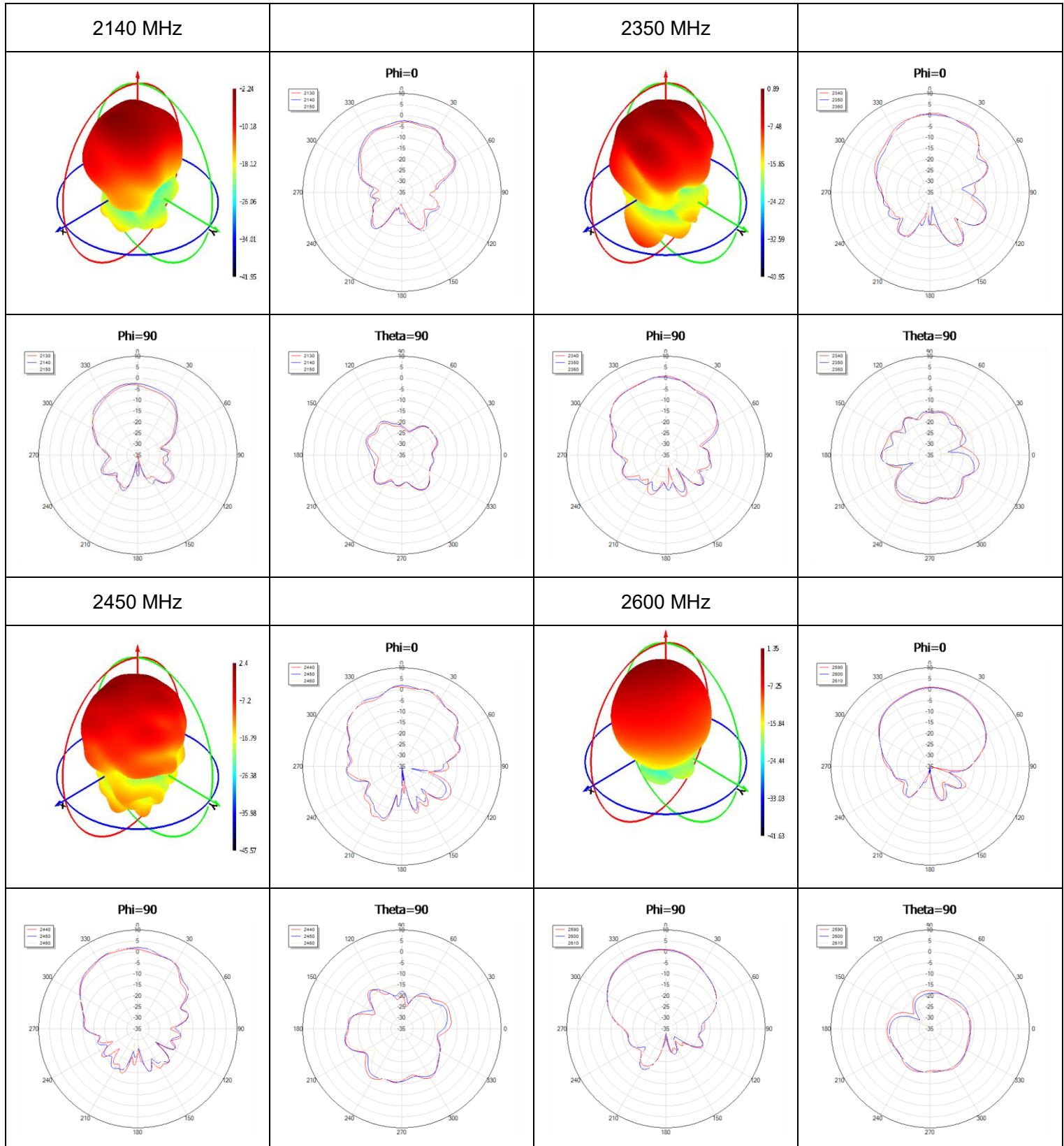


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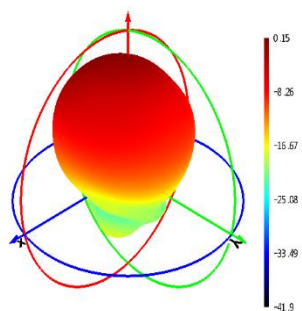


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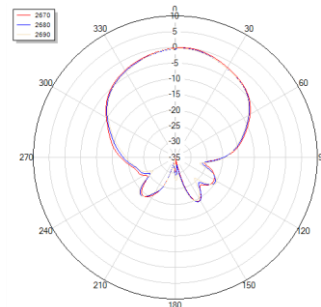




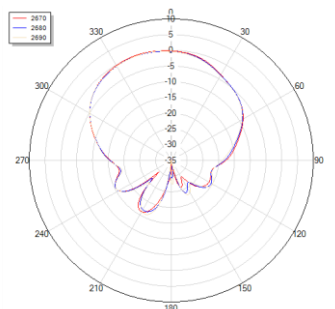
2690 MHz



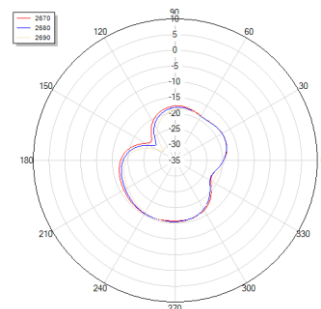
Phi=0



Phi=90

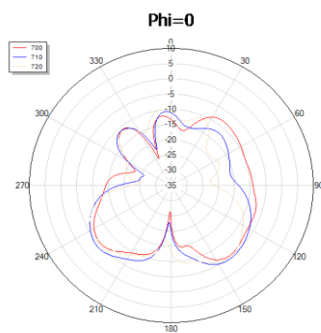
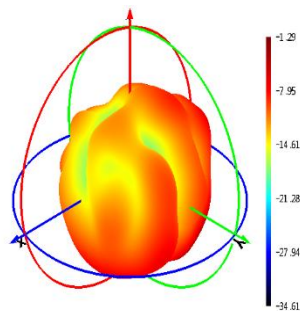


Theta=90

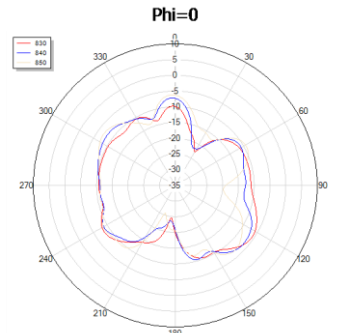
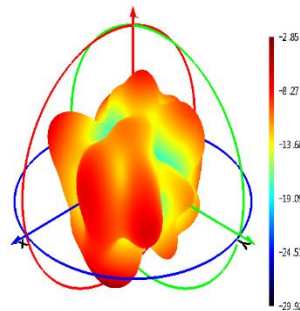


● **4G-DIV Max Peak Gain**

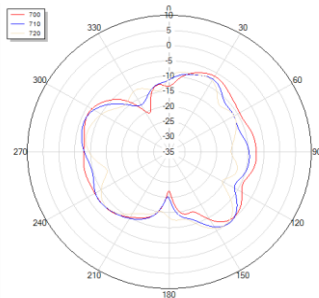
710 MHz



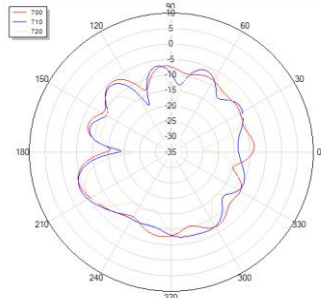
840 MHz



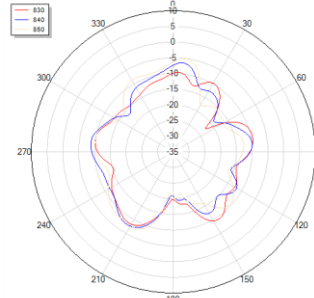
Phi=90



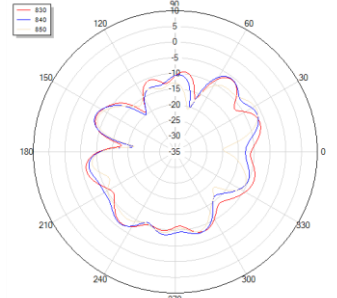
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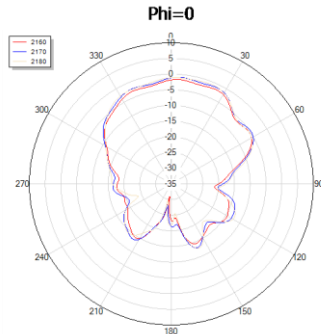
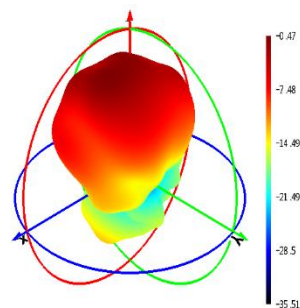
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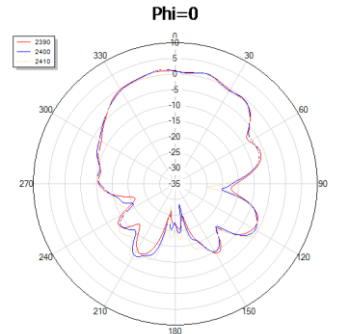
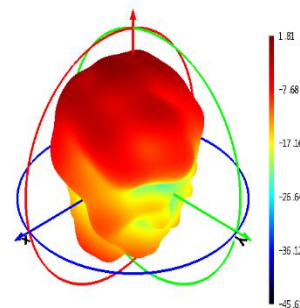
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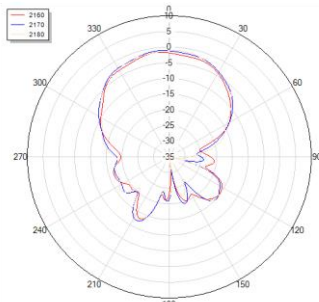
2170 MHz



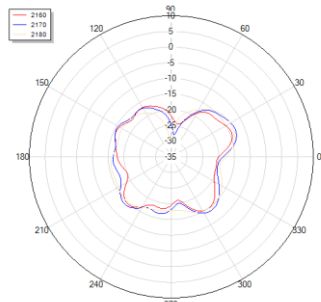
2400 MHz



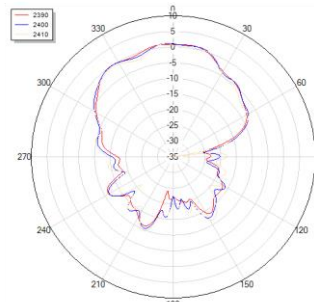
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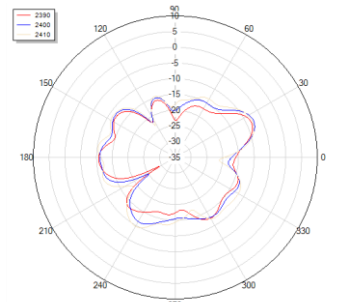
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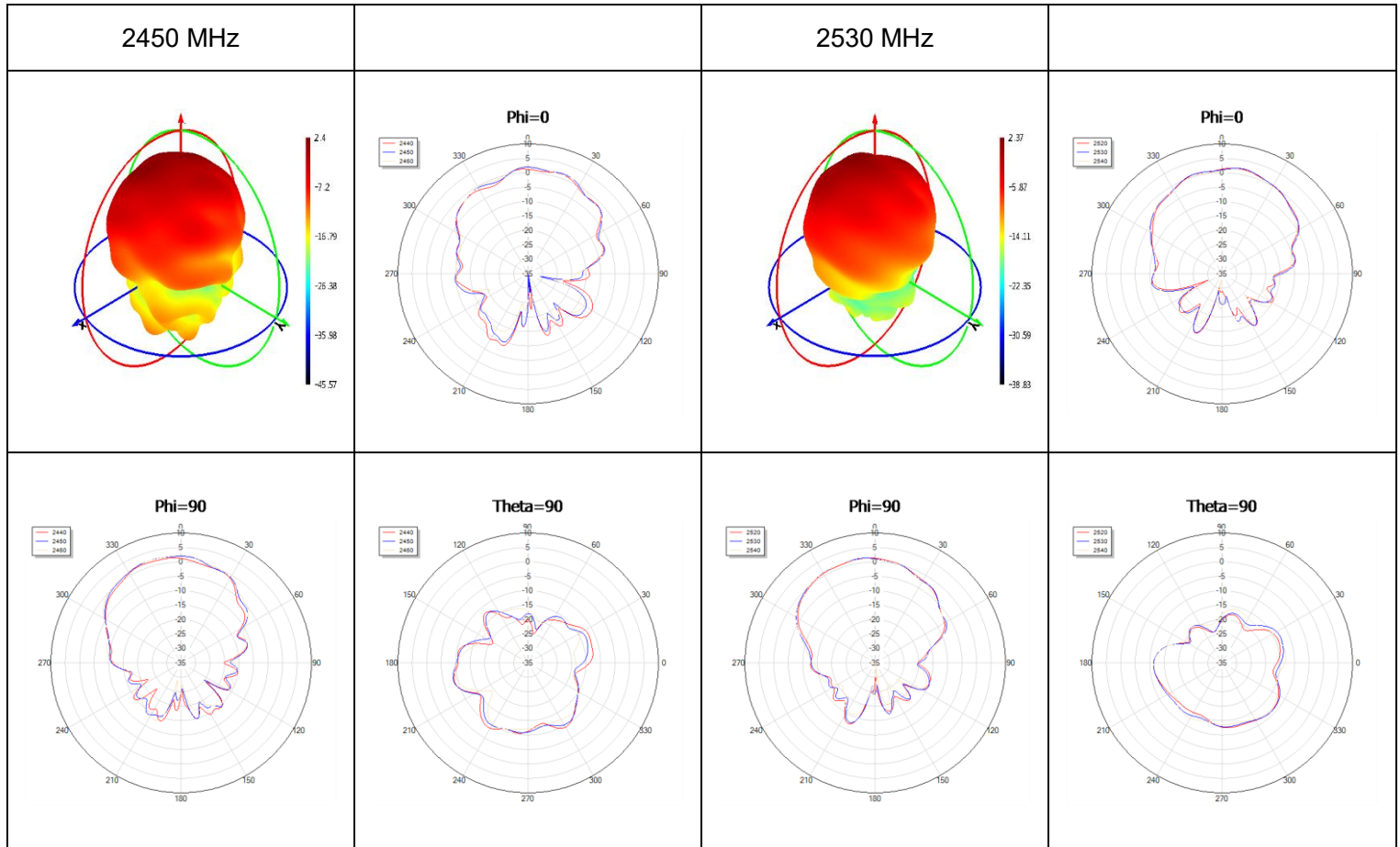


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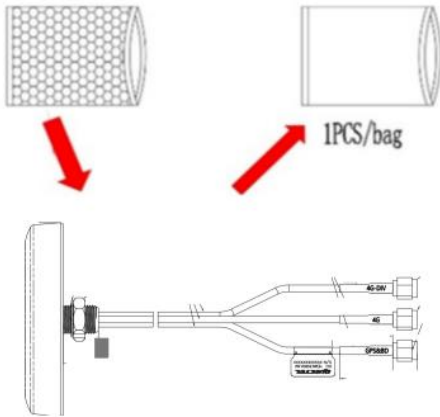
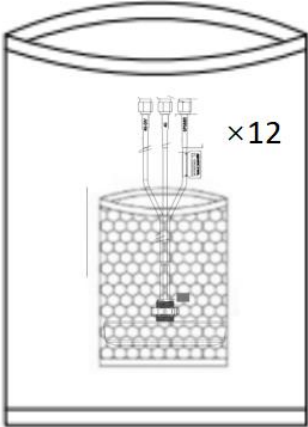
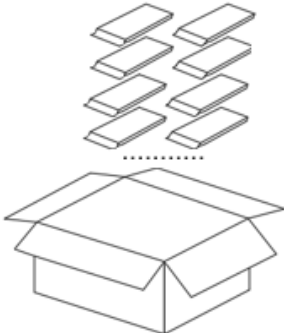


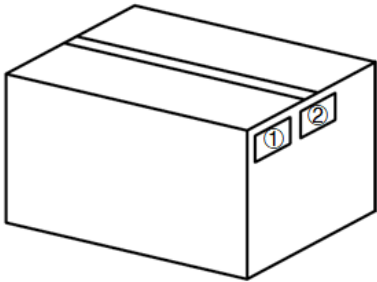
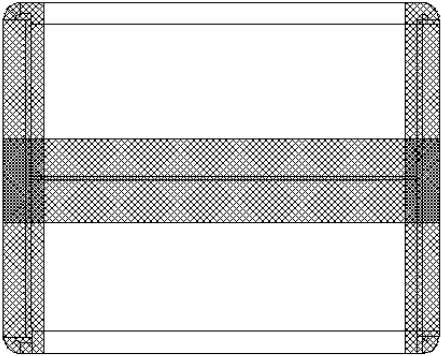
Theta=90





4 Packaging

Step	Packaging Picture / 2D Picture	Description
1		1 antenna product head is wrapped with bubble bag. (1 Antenna / Bubble Bag) Whole antenna product in a small PE bag. (1 Antenna / Small PE Bag)
2		12 antenna products in a big PE bag. (12 Antennas / Big PE Bag)
3		(8 Big PE Bags / Carton Box) (96 Antennas / Carton Box) Estimated quantity Products that cannot fill the entire carton box are packed in a suitable size carton box. <u>Carton Size:</u> <u>L × W × H = 470 × 310 × 310 mm</u>

4		Position for Attaching Labels ① Carton Label ② Quality Label
5		Sealing Cartons H-shaped sealing cartons
Note	The initial packaging method described above is for reference only, and the final actual packaging method shall be subject to the actual shipping packaging.	

Contact Us

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Revision History

Version	Date	Author	Note
-	2026-05-12	Ruean Liu/ Junsen Li/ Blake Xiang/ Caius Zhang/ Rainey Liao	Creation of the document
1.0	2026-05-12	Ruean Liu/ Junsen Li/ Blake Xiang/ Caius Zhang/ Rainey Liao	First official release



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