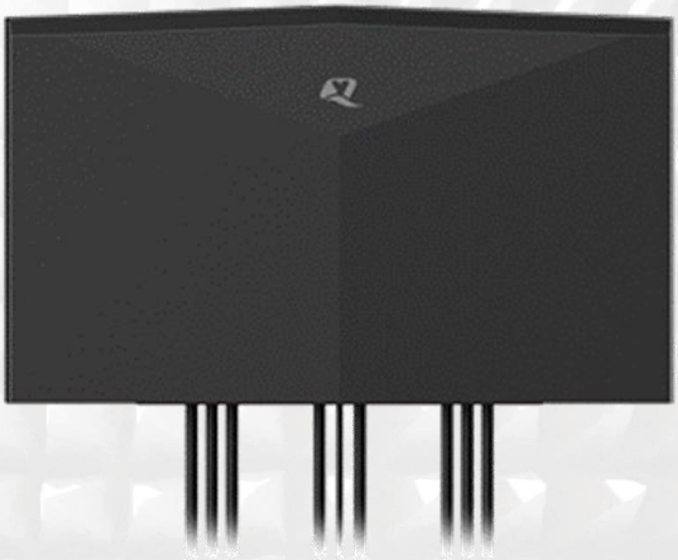


Antenna Datasheet

Product OC: YEMA013AA
Version: 1.0
Date: 2023-01-05
Status: Released

Product Name: 5G Adhesive Mount Antenna Box
Key Features:
Optimized for 5G and 4G Networks
8 * 8 5G/4G MIMO + GNSS L1 & L5
264.6 * 157.6 * 30.5mm
Adhesive Mount
SMA Male Connector
IP Rating: IP67 & IP69K

Overview

This ultra-wide-band 5G/4G antenna box provides broad coverage from 600-6000MHz whilst backward-compatible to support 3G/2G networks as well at Cat-M and NB-IoT. The antenna is designed to work with various GND plane sizes or in free space for ease of integration with connection via 9 various cable lengths from 300-5000mm, terminated with SMA connectors. This screw mount omnidirectional antenna is easy to install with maximum durability with its IP69 KIBILAC® ASA enclosure. It is compatible with Quectel's RM520x Series modules. Quectel provides comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

Contents

1 Specification

1.1. Electrical

Electrical Specifications		
Frequency Range	**LMHs**	600–960 MHz, 1400–6000 MHz
	MHs	1400–6000 MHz
	GNSS	1164–1189 MHz, 1559–1606 MHz
Radiation Pattern	**LMHs & MHs**	Omni-directional
	GNSS	Directional
Polarization	**LMHs & MHs**	Linear
	GNSS	RHCP
Impedance		50 Ω
Isolation		≤ -7.1 dB
Axial Ratio (GNSS)		< 3 dB

1.1.1. LMHs

Band / SPEC	Band	B71	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)	600–700	700–810	820–960	1420–1520	1700–2170	2300–2400	2400–2500	2500–2690	3300–4200	4400–5000	5150–5850
Max VSWR	FS	16.7	15.6	13.5	3.8	3.9	2.7	3.0	3.3	2.8	2.2	2.2
	MP	23.7	21.0	17.6	4.4	3.1	2.9	3.2	3.8	2.4	2.1	2.3
Max Return Loss (dB)	FS	-1.0	-1.1	-1.3	-4.7	-4.6	-6.9	-6.0	-5.5	-6.5	-8.6	-8.6
	MP	-0.7	-0.8	-1.0	-4.1	-5.9	-6.2	-5.5	-4.7	-7.8	-9.0	-8.0
AVG Eff. (%)	FS	41.0	52.1	46.5	39.2	49.0	50.6	50.9	48.6	53.5	52.2	45.2
	MP	23.9	33.9	47.5	34.8	50.7	48.7	47.2	48.8	52.9	47.9	39.6

AVG Gain (dB)	FS	-4.0	-2.9	-3.4	-4.1	-3.1	-3.0	-3.0	-3.2	-2.7	-2.8	-3.5
	MP	-6.6	-4.8	-3.3	-4.6	-3.0	-3.2	-3.3	-3.2	-2.8	-3.2	-4.1
Max Peak Gain (dBi)	FS	5.3	4.2	3.8	3.6	5.8	5.1	5.4	5.8	5.6	4.4	4.3
	MP	3.8	4.6	4.3	5.5	6.2	5.7	5.9	6.0	7.2	6.5	5.6
VSWR	FS	≤ 16.7										
	MP	≤ 23.7										
Return Loss	FS	≤ -1 dB										
	MP	≤ -0.7 dB										
Peak Gain	FS	≤ 5.8 dBi										
	MP	≤ 7.2 dBi										

- LMHs: LMH1, LMH2, LMH3, LMH4 Antennas
- MHs: MH1, MH2, MH3, MH4 Antennas
- FS: In Free Space
- MP: On 500 × 500 mm Metal Plane

1.1.2. MHs

Band / SPEC	Band	B71	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)	600–700	700–810	820–960	1420–1520	1700–2170	2300–2400	2400–2500	2500–2690	3300–4200	4400–5000	5150–5850
Max VSWR	FS	-	-	-	4.4	3.8	1.9	2.0	3.1	2.6	2.3	2.6
	MP	-	-	-	5.0	3.3	2.1	2.5	2.5	2.3	2.1	2.5
Max Return Loss (dB)	FS	-	-	-	-4.0	-4.7	-10.5	-9.3	-5.8	-7.2	-8.1	-7.2
	MP	-	-	-	-3.5	-5.4	-8.8	-7.2	-7.2	-7.9	-8.9	-7.4
AVG Eff. (%)	FS	-	-	-	45.3	42.2	48.9	49.8	47.7	48.8	54.9	49.5
	MP	-	-	-	42.5	45.1	50.7	50.1	48.2	41.7	47.5	41.2
AVG Gain (dB)	FS	-	-	-	-3.5	-3.8	-3.1	-3.0	-3.2	-3.1	-2.6	-3.1
	MP	-	-	-	-3.7	-3.5	-3.0	-3.0	-3.2	-3.8	-3.2	-3.9
Max Peak Gain (dBi)	FS	-	-	-	5.5	5.3	4.2	3.7	4.0	5.8	4.5	5.0
	MP	-	-	-	3.8	6.6	5.3	6.5	6.9	6.2	6.9	5.2
VSWR	FS	≤ 4.4										
	MP	≤ 5										

Return Loss	FS	≤ -4 dB
	MP	≤ -3.5 dB
Peak Gain	FS	≤ 5.8 dBi
	MP	≤ 6.9 dBi

- LMHs: LMH1, LMH2, LMH3, LMH4 Antennas
- MHs: MH1, MH2, MH3, MH4 Antennas
- FS: In Free Space
- MP: On 500 × 500 mm Metal Plane

1.1.3. GNSS

Band / Specification	Band	GNSS L5	GNSS L2	GNSS L1
	Freq. (MHz)	1164 - 1189	1217 - 1238	1559 - 1606
Max VSWR	FS	2.0	-	2.1
	MP	2.1	-	2.0
Max Return Loss (dB)	FS	-9.7	-	-9.1
	MP	-8.8	-	-9.4
AVG Eff. (%)	FS	58.9	-	52.5
	MP	57.7	-	52.1
AVG Gain (dB)	FS	-2.3	-	-2.8
	MP	-2.4	-	-2.8
Max Peak Gain (dBi)	FS	2.8	-	4.5
	MP	4.0	-	6.3
VSWR	FS	≤ 2.1		
	MP	≤ 2.1		
Return Loss	FS	≤ -9.1 dB		
	MP	≤ -8.8 dB		
Peak Gain	FS	≤ 4.5 dBi		
	MP	≤ 6.3 dBi		

- LMHs: LMH1, LMH2, LMH3, LMH4 Antennas
- MHs: MH1, MH2, MH3, MH4 Antennas
- FS: In Free Space
- MP: On 500 × 500 mm Metal Plane

GNSS LNA Electrical	
LNA Gain	20 ±3 dB
Noise Figure	≤ 2.5 dB
Output VSWR	< 2.0
Input VSWR	< 2.0
Working Voltage	DC 2.8–3.6 V
Working Current	Max. 24 mA (Typ. 3 V)
Impedance	50 Ω

- LMHs: LMH1, LMH2, LMH3, LMH4 Antennas
- MHs: MH1, MH2, MH3, MH4 Antennas
- FS: In Free Space
- MP: On 500 × 500 mm Metal Plane

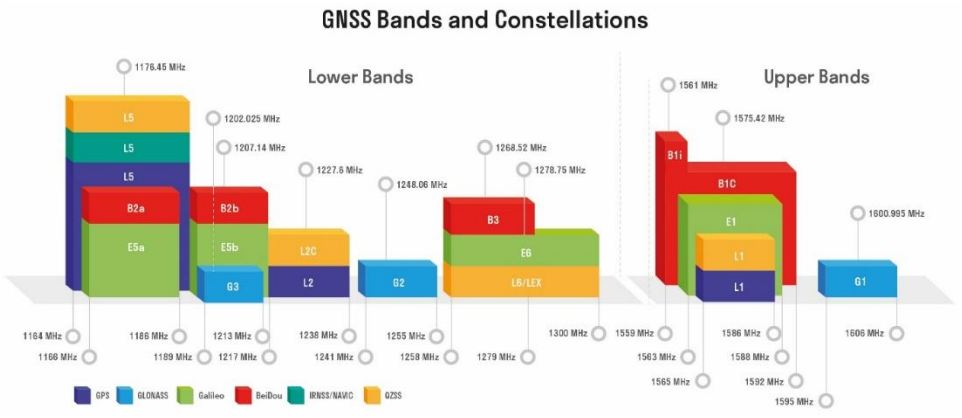
1.2. Supported Bands

5G NR/ LTE/ LTE-Advanced/ WCDMA/ HSPA/ HSPA+/ GPRS/ GSM/ NB-IoT					
Band	**Frequency (MHz)**	**Uplink (MHz)**	**Downlink (MHz)**	**LMHs**	**MHs**
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	√	-

5G NR/ LTE/ LTE-Advanced/ WCDMA/ HSPA/ HSPA+/ GPRS/ GSM/ NB-IoT					
Band	**Frequency (MHz)**	**Uplink (MHz)**	**Downlink (MHz)**	**LMHs**	**MHs**
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	√	√

5G NR/ LTE/ LTE-Advanced/ WCDMA/ HSPA/ HSPA+/ GPRS/ GSM/ NB-IoT					
Band	**Frequency (MHz)**	**Uplink (MHz)**	**Downlink (MHz)**	**LMHs**	**MHs**
77	3500	3300 - 4200		√	√
78	3500	3300 - 3800		√	√
79	4500	4400 - 5000		√	√
Note: Covered √ means efficiency > 20%					

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-L1OC-L1OF** Centre 1601 (1595–1606)	**G2-L2OC-L2OF** Centre 1248.06 (1241–1255)	**G3-L3OC** 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)	
	√	√	-	-	
BEIDOU	**B1I** Centre 1561.098 (1559–1564)	**B1C (BeiDou-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)				
	√				

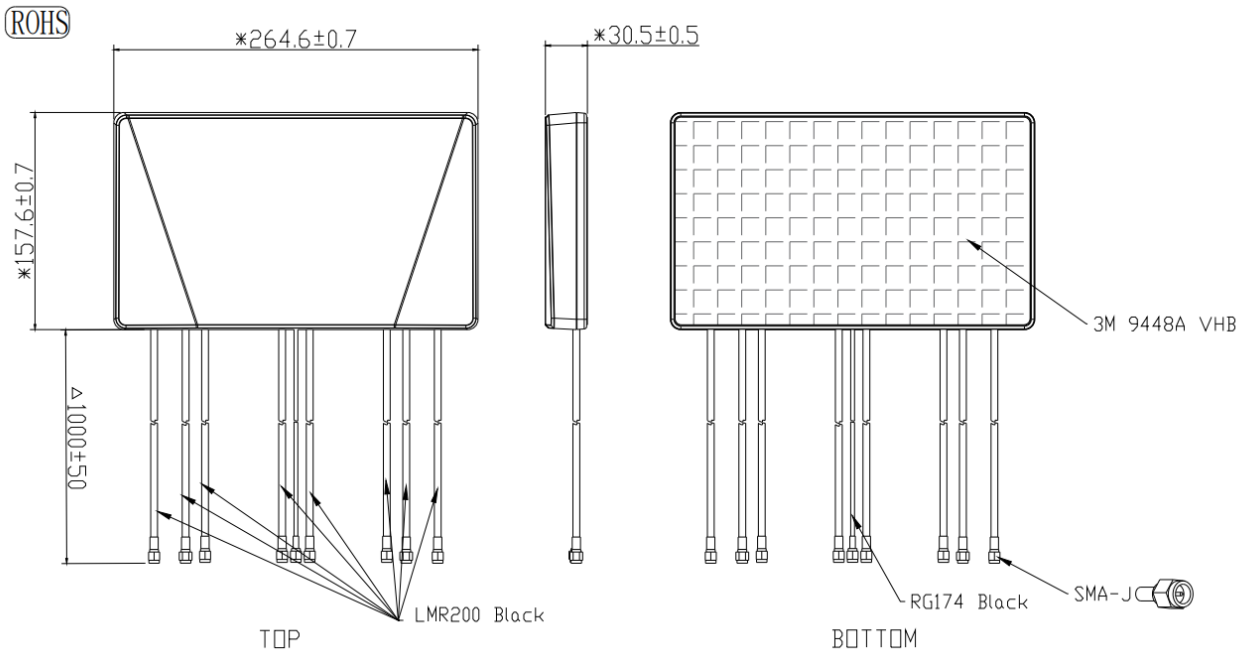


1.3. Mechanical, Environment & Storage

Mechanical		
Antenna Size		264.6 * 157.6 * 30.5mm
Casing Material & Color		PC & Black
Cable Type & Length	**LMHs & MHs**	LMR200 Black & 1000 mm
	GNSS	RG174 Black & 1000 mm
Connector Type		SMA Male
Mounting Type		Adhesive
Environmental		
Operation Temperature		-40 °C to +85 °C
Humidity		Non-condensing 65 °C 95 % RH
Ingress Protection (IP) Rating		IP67 (After Installation) IP69K (After Installation)
Impact Protection (IK) Rating		IK09
RoHS & REACH Compliant		Yes
Storage		
Storage Temperature		-40 °C to +85 °C
Storage Humidity		Less than 75% RH
Storage Place		Away from corrosive gas and direct sunlight
Packaging		Antennas should be stored in unopened sealed manufacturer's plastic packaging.

- LMHs: LMH1, LMH2, LMH3, LMH4 Antennas
- MHs: MH1, MH2, MH3, MH4 Antennas
- FS: In Free Space
- MP: On 500 × 500 mm Metal Plane

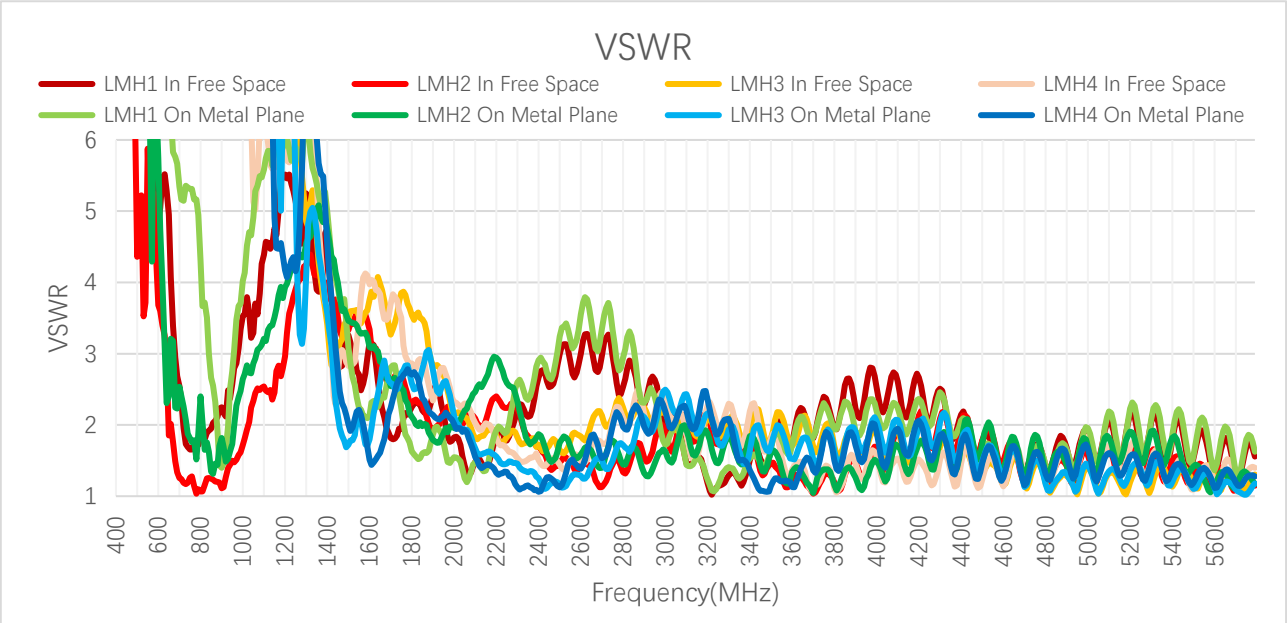
2 Drawing

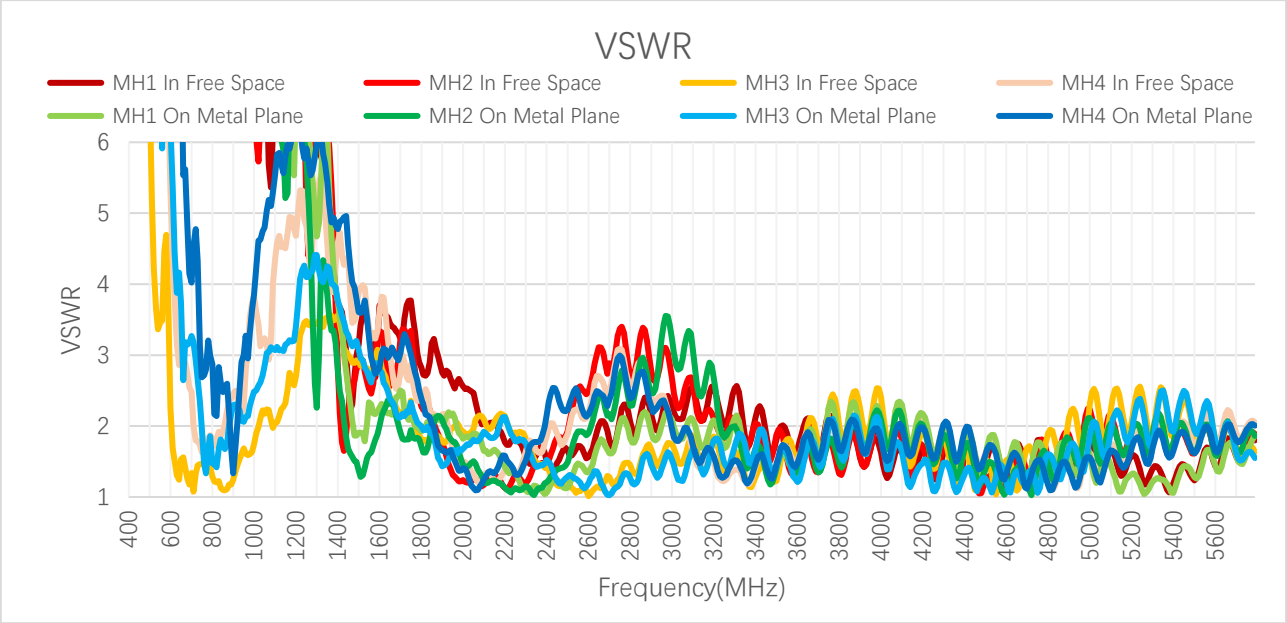

ROHS
*264.6±0.7
*30.5±0.5
*157.6±0.7
≥1000±50
LMR200 Black
3M 9448A VHB
RG174 Black
SMA-J
TOP
BOTTOM

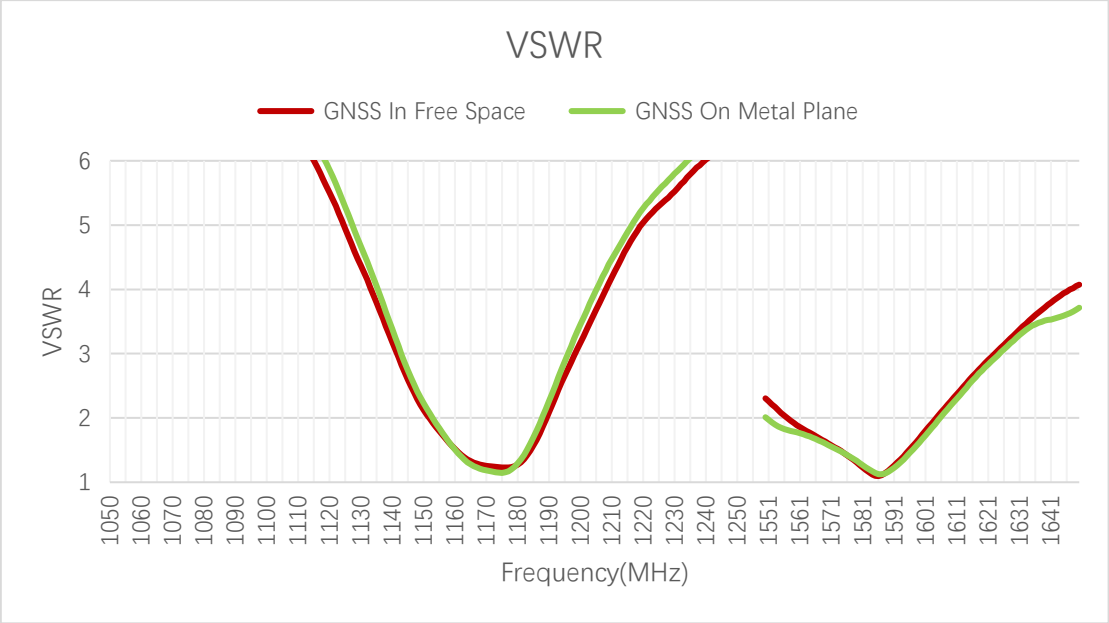
3 Detailed Performance

3.1. S-Parameter Test

3.1.1. VSWR







VSWR - LMH

Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
LMH1	FS	4.8	5.5	2.3	1.9	2.2	2.8	3.0	1.8	1.9	2.2
	MP	8.3	6.8	5.2	3.5	1.4	3.0	4.1	2.8	2.4	1.6
LMH2	FS	3.7	3.3	1.2	1.2	1.1	1.5	3.8	2.6	2.6	2.0
	MP	5.7	3.1	2.4	1.8	1.8	2.0	4.1	2.6	2.6	1.9
LMH3	FS	15.8	14.7	12.6	10.6	7.3	8.0	2.9	3.3	3.7	3.1
	MP	21.5	16.3	16.9	17.0	15.8	8.5	2.3	2.6	2.6	3.1
LMH4	FS	14.0	15.4	13.7	10.9	12.3	7.5	2.3	3.8	3.6	2.6
	MP	22.0	19.0	18.5	14.0	17.6	13.3	3.1	2.4	2.6	2.2
Frequency (MHz)		1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
LMH1	FS	2.2	1.4	2.1	2.5	3.0	1.7	1.3	1.9	1.5	-
	MP	1.8	1.4	2.4	2.7	3.6	1.7	1.3	2.0	1.6	-
LMH2	FS	2.2	2.0	1.8	1.4	1.4	1.3	1.2	1.6	1.3	-
	MP	1.9	2.6	1.8	1.5	1.6	1.3	1.3	1.7	1.4	-
LMH3	FS	2.7	1.8	1.8	1.7	1.8	1.7	1.2	1.4	1.2	-
	MP	2.6	1.6	1.3	1.2	1.3	1.5	1.1	1.4	1.1	-

LMH4	FS	2.8	2.0	1.5	1.5	1.5	1.4	1.3	1.8	1.1	2.8
	MP	2.1	1.4	1.2	1.3	1.4	1.1	1.2	1.7	1.2	2.1

VSWR - MH

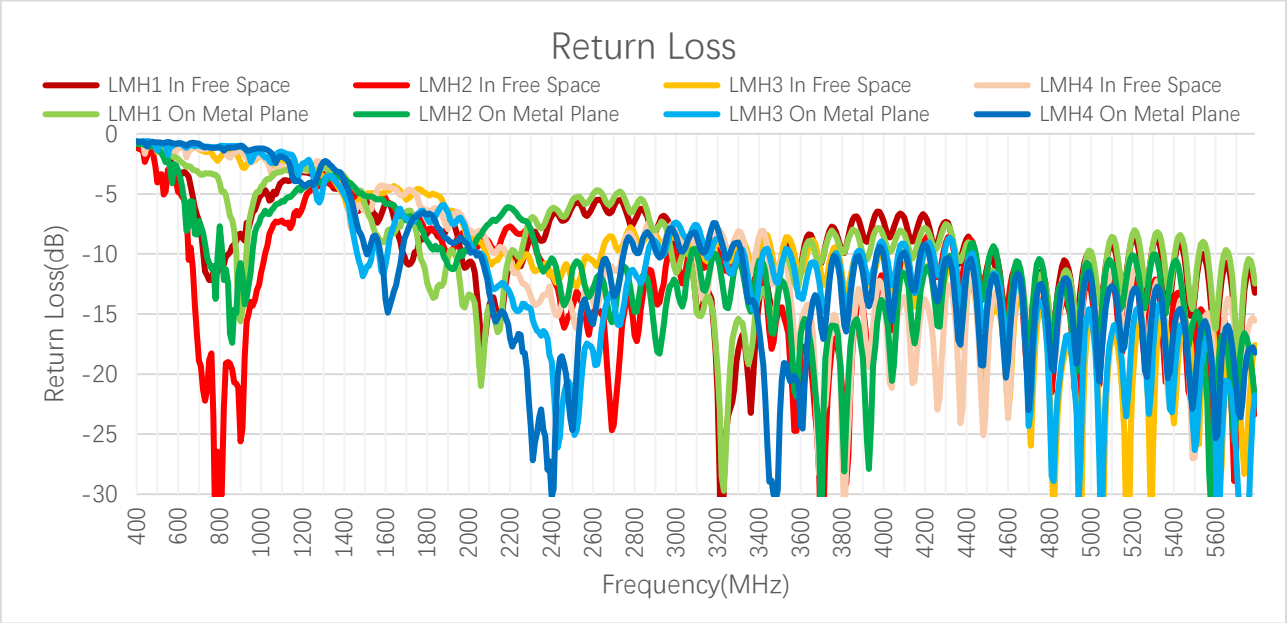
Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
MH1	FS	-	-	-	-	-	-	3.0	3.2	3.8	3.0
	MP	-	-	-	-	-	-	2.8	2.5	2.1	2.1
MH2	FS	-	-	-	-	-	-	1.9	3.4	3.2	1.9
	MP	-	-	-	-	-	-	1.8	1.8	1.8	2.1
MH3	FS	-	-	-	-	-	-	3.0	2.2	2.1	1.9
	MP	-	-	-	-	-	-	3.3	2.2	2.2	1.5
MH4	FS	-	-	-	-	-	-	4.3	3.0	2.6	2.1
	MP	-	-	-	-	-	-	5.0	3.2	3.1	1.7

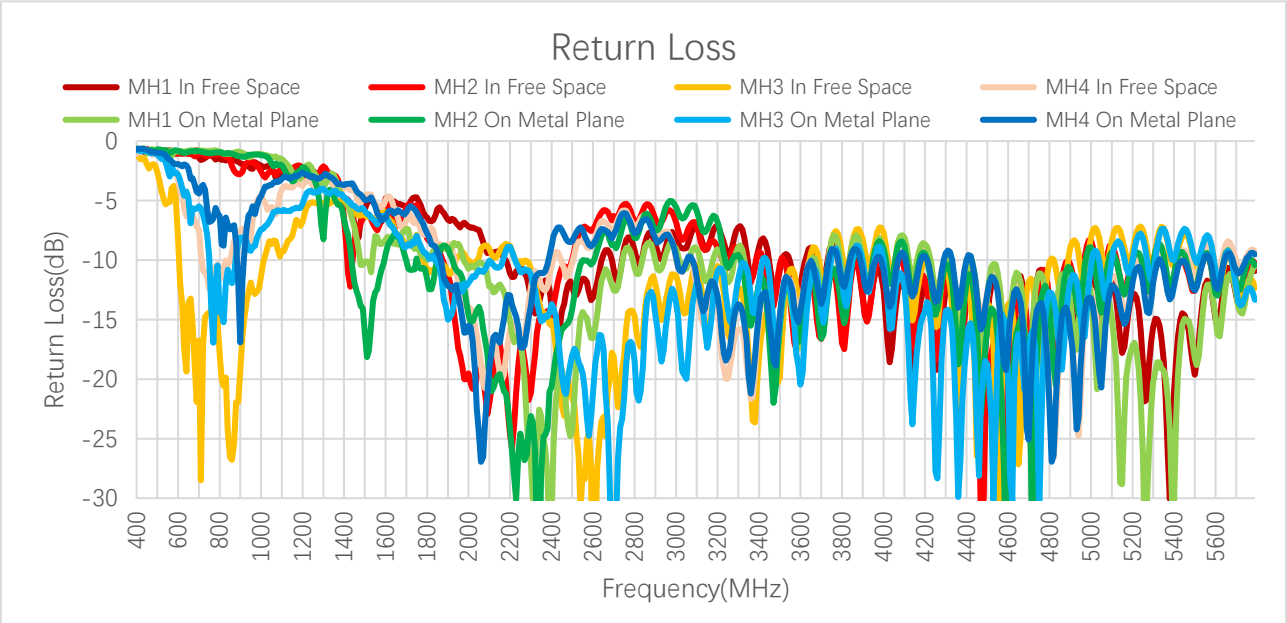
Frequency (MHz)		1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
MH1	FS	2.6	2.0	1.6	1.5	1.6	1.7	1.3	1.7	1.2	-
	MP	2.2	1.6	1.2	1.2	1.3	1.3	1.2	1.6	1.3	-
MH2	FS	1.3	1.3	1.5	1.8	2.5	1.5	1.3	2.2	1.6	-
	MP	1.8	1.2	1.1	1.4	1.9	1.4	1.2	2.1	1.6	-
MH3	FS	2.0	2.0	1.5	1.2	1.0	1.4	1.7	2.3	1.9	-
	MP	1.7	1.8	1.4	1.2	1.2	1.2	1.3	1.9	1.9	-
MH4	FS	1.7	1.3	1.7	1.9	2.2	1.5	1.1	1.6	1.7	-
	MP	1.6	1.3	1.8	2.5	2.2	1.5	1.1	1.6	1.6	-

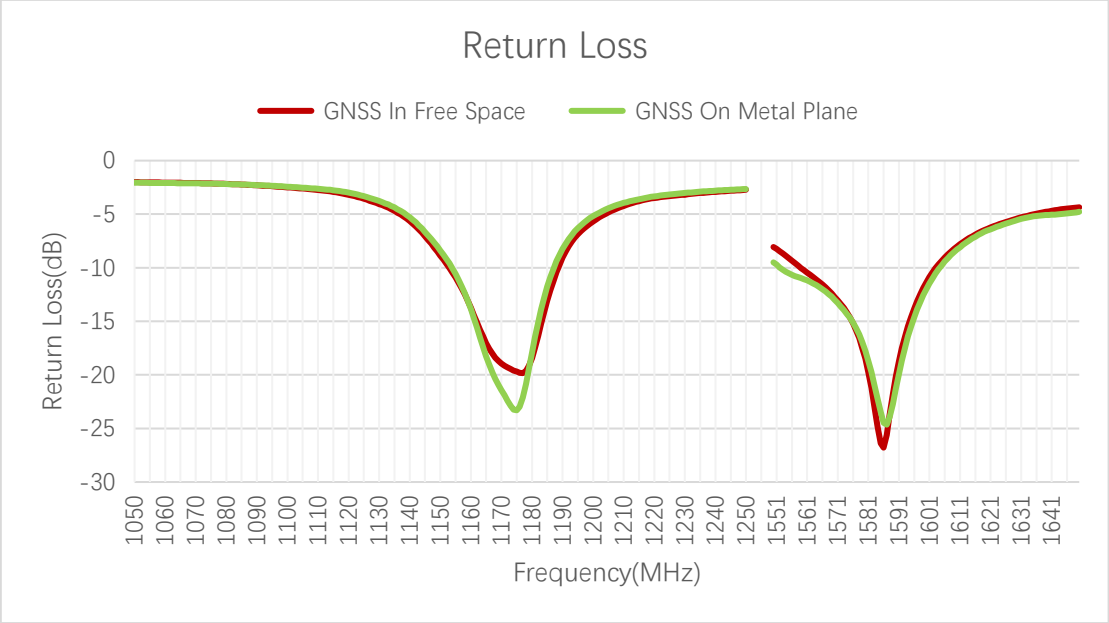
VSWR

Frequency (MHz)		1176	1227	1561	1575	1602
GNSS	FS	1.2	-	1.9	1.5	1.9
	MP	1.2	-	1.8	1.5	1.8

3.1.2. Return Loss







Return Loss (dB)

Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
LMH1	FS	-3.6	-3.2	-7.9	-10.2	-8.3	-6.5	-6.1	-10.9	-9.9	-8.5
	MP	-2.1	-2.6	-3.4	-5.1	-15.6	-5.9	-4.4	-6.4	-7.6	-12.4
LMH2	FS	-4.8	-5.5	-19.4	-19.1	-25.6	-14.3	-4.7	-7.0	-6.9	-9.4
	MP	-3.1	-5.8	-7.7	-11.3	-10.8	-9.6	-4.3	-6.9	-7.1	-10.2
LMH3	FS	-1.1	-1.2	-1.4	-1.6	-2.4	-2.2	-6.4	-5.3	-4.8	-5.9
	MP	-0.8	-1.1	-1.0	-1.0	-1.1	-2.0	-8.0	-7.1	-7.2	-5.9
LMH4	FS	-1.2	-1.1	-1.3	-1.6	-1.4	-2.3	-8.2	-4.6	-4.9	-7.2
	MP	-0.8	-0.9	-0.9	-1.2	-1.0	-1.3	-5.9	-7.8	-6.9	-8.6
Frequency (MHz)		1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
LMH1	FS	-8.7	-15.4	-8.9	-7.3	-6.0	-11.3	-16.7	-10.3	-13.6	-
	MP	-11.2	-16.5	-7.9	-6.9	-5.0	-11.6	-17.4	-9.8	-13.1	-
LMH2	FS	-8.7	-9.7	-10.6	-15.5	-15.0	-18.3	-20.2	-13.1	-17.6	-
	MP	-10.3	-7.1	-11.1	-13.8	-12.9	-16.7	-18.4	-11.7	-15.3	-
LMH3	FS	-6.8	-10.5	-11.2	-11.7	-10.6	-11.7	-22.9	-15.3	-22.0	-
	MP	-7.1	-12.7	-16.8	-22.8	-18.1	-13.6	-24.3	-14.9	-26.3	-

LMH4	FS	-6.5	-9.6	-13.8	-14.1	-14.0	-16.1	-18.1	-10.6	-27.0	-
	MP	-8.9	-15.4	-22.9	-18.5	-15.9	-24.3	-23.0	-12.0	-21.3	-

Return Loss(dB)

Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
MH1	FS	-	-	-	-	-	-	-5.9	-5.5	-4.7	-6.1
	MP	-	-	-	-	-	-	-6.6	-7.4	-9.1	-9.0
MH2	FS	-	-	-	-	-	-	-10.2	-5.3	-5.7	-10.3
	MP	-	-	-	-	-	-	-10.6	-10.7	-10.8	-8.8
MH3	FS	-	-	-	-	-	-	-5.9	-8.6	-8.8	-10.4
	MP	-	-	-	-	-	-	-5.4	-8.6	-8.6	-13.3
MH4	FS	-	-	-	-	-	-	-4.1	-6.0	-6.9	-8.9
	MP	-	-	-	-	-	-	-3.5	-5.6	-5.8	-11.5
Frequency (MHz)		**1950**	**2140**	**2350**	**2450**	**2600**	**3600**	**4700**	**5000**	**5500**	**6000**
MH1	FS	-7.1	-9.3	-12.8	-14.3	-13.1	-12.1	-18.4	-11.3	-19.6	-
	MP	-8.6	-12.2	-23.1	-19.3	-16.6	-16.6	-20.5	-13.0	-18.2	-
MH2	FS	-17.4	-17.1	-14.5	-10.6	-7.4	-14.5	-18.0	-8.4	-12.6	-
	MP	-11.0	-19.7	-27.8	-15.8	-10.2	-15.9	-20.3	-8.9	-12.5	-
MH3	FS	-9.7	-9.6	-14.3	-22.2	-45.0	-15.2	-11.8	-8.1	-10.4	-
	MP	-12.1	-10.6	-15.1	-19.7	-21.2	-20.5	-17.8	-10.4	-9.9	-
MH4	FS	-11.8	-18.4	-12.1	-10.2	-8.6	-13.6	-23.3	-12.5	-11.6	-
	MP	-13.0	-16.7	-11.1	-7.5	-8.7	-14.3	-25.1	-13.2	-12.6	-

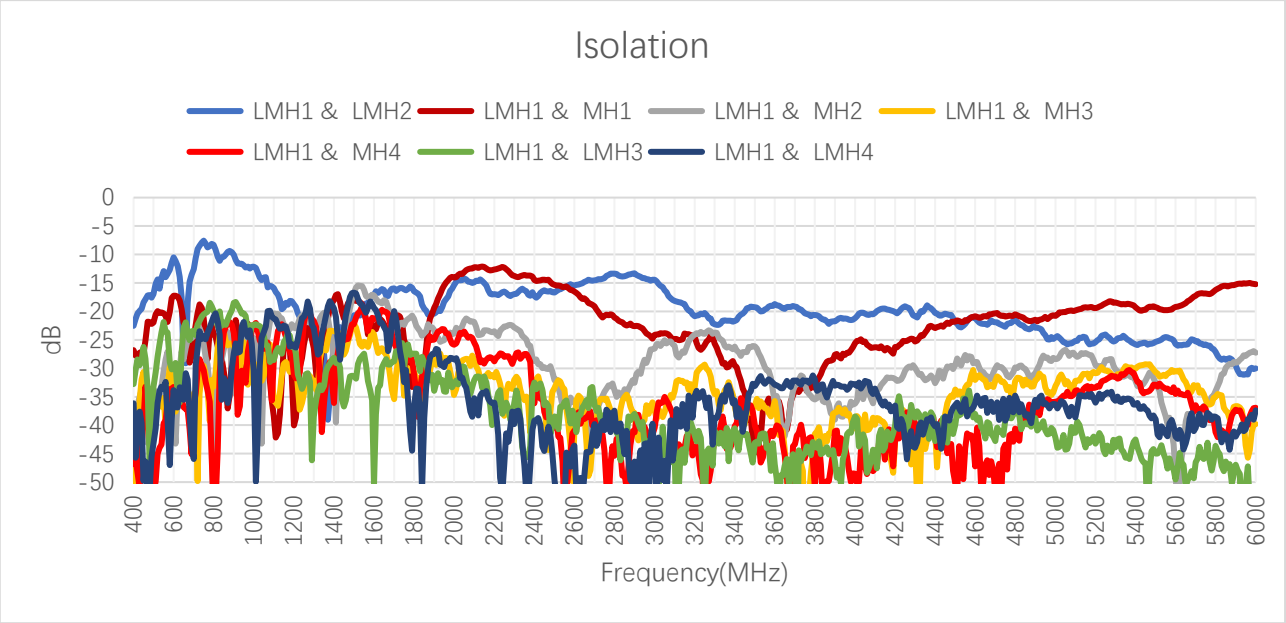
Return Loss(dB)

Frequency (MHz)		1176	1227	1561	1575	1602
GNSS	FS	-19.8	-	-10.5	-14.6	-10.4
	MP	-23.0	-	-11.2	-14.7	-11.0

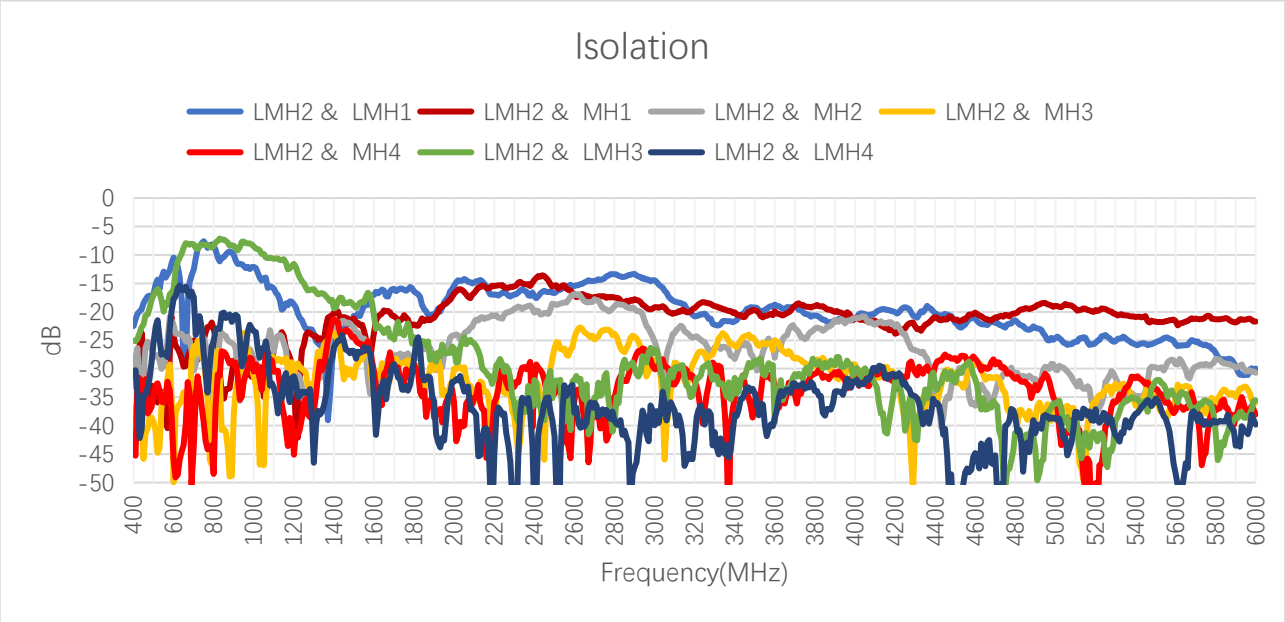
3.1.3. Isolation

3.1.3.1. Test Status: In Free Space

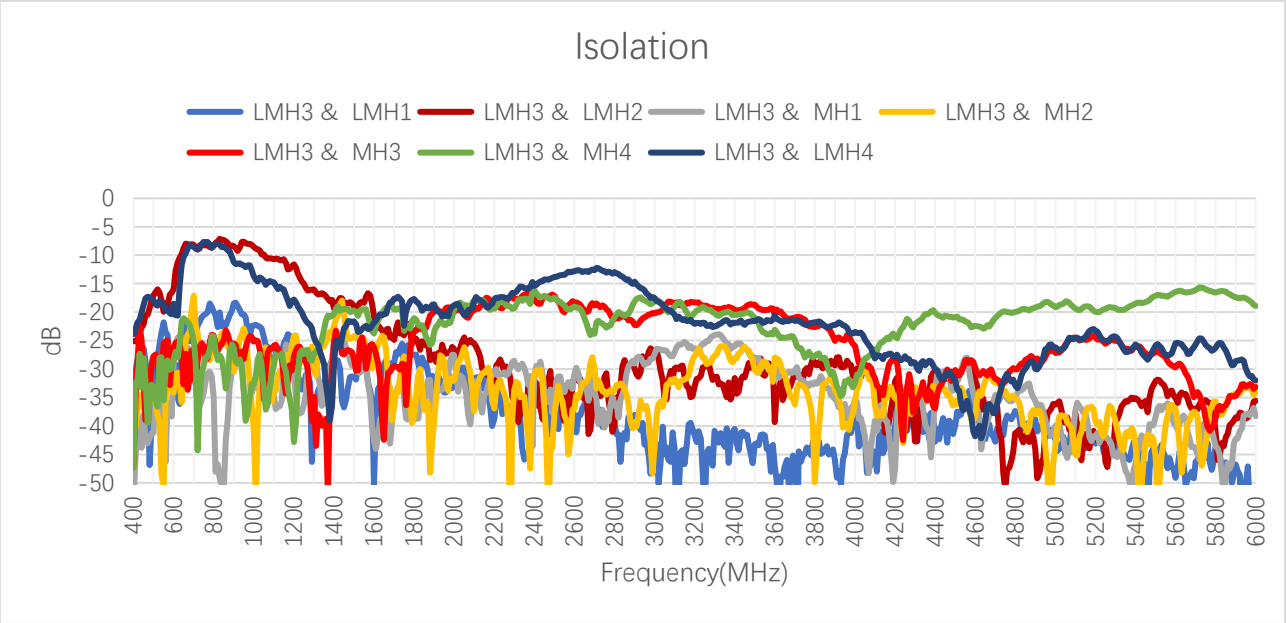
3.1.3.1.1. LMH1



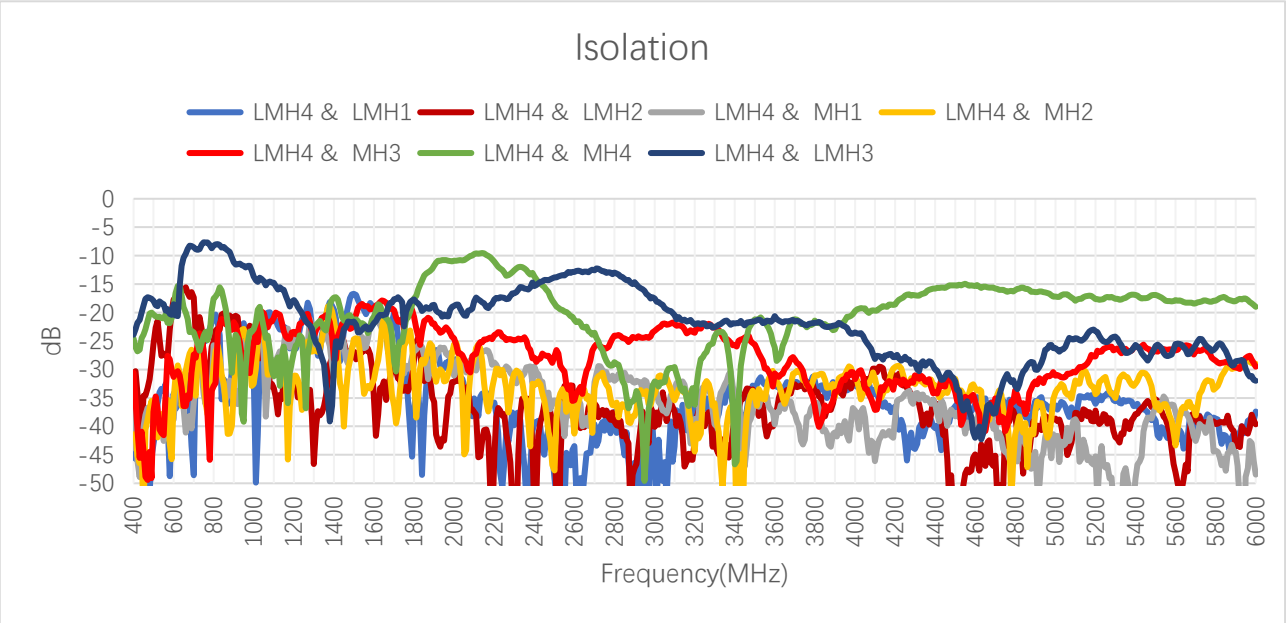
3.1.3.1.2. LMH2



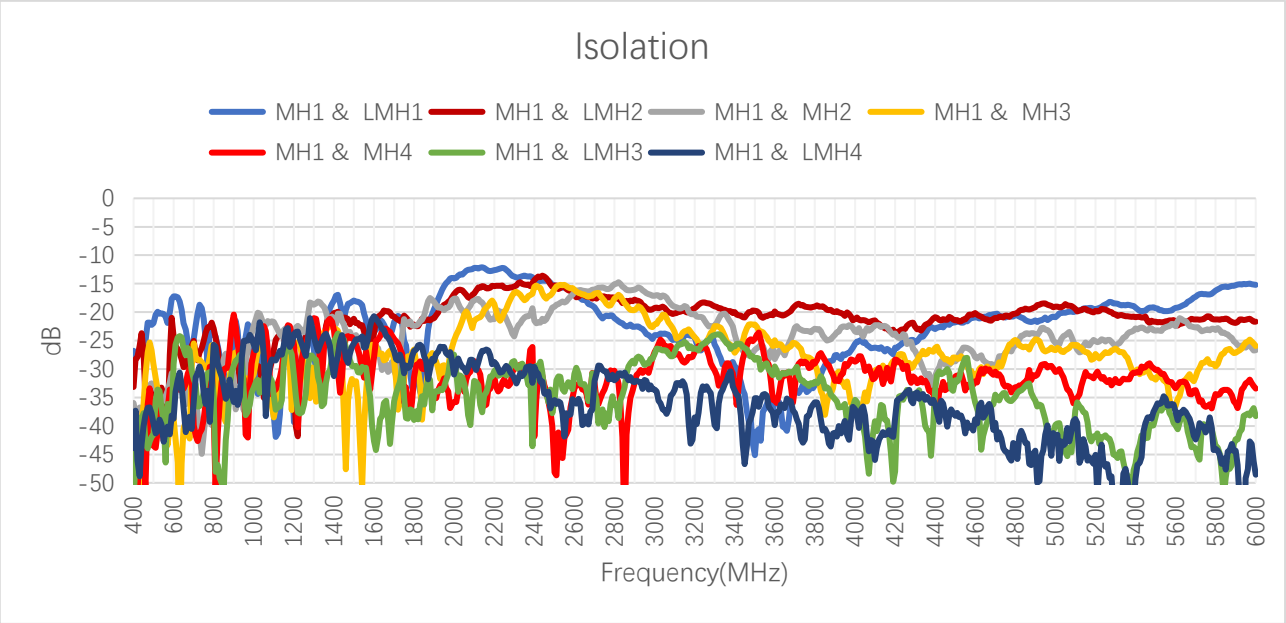
3.1.3.1.3. LMH3



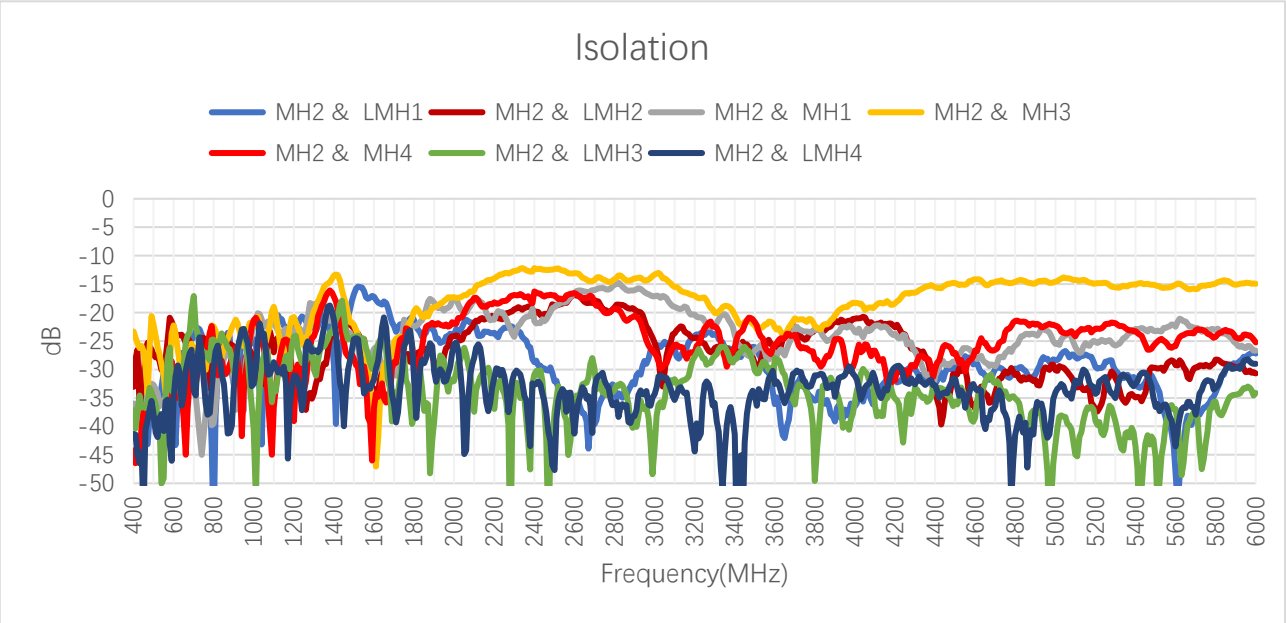
3.1.3.1.4. LMH4



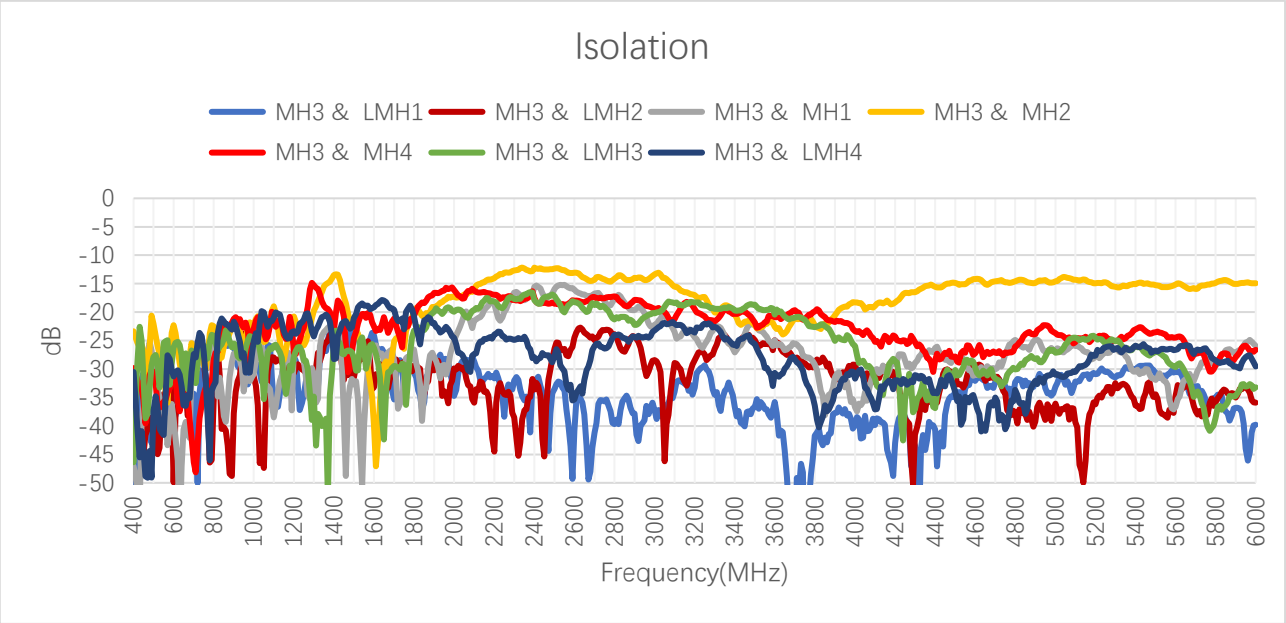
3.1.3.1.5. MH1



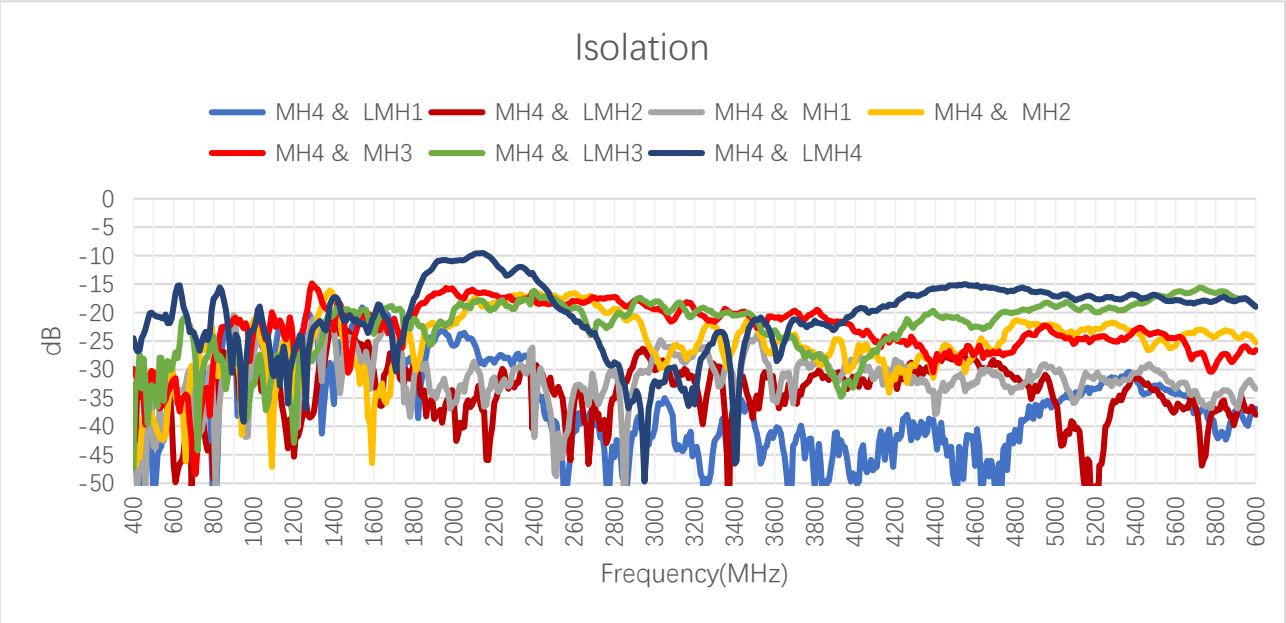
3.1.3.1.6. MH2



3.1.3.1.7. MH3

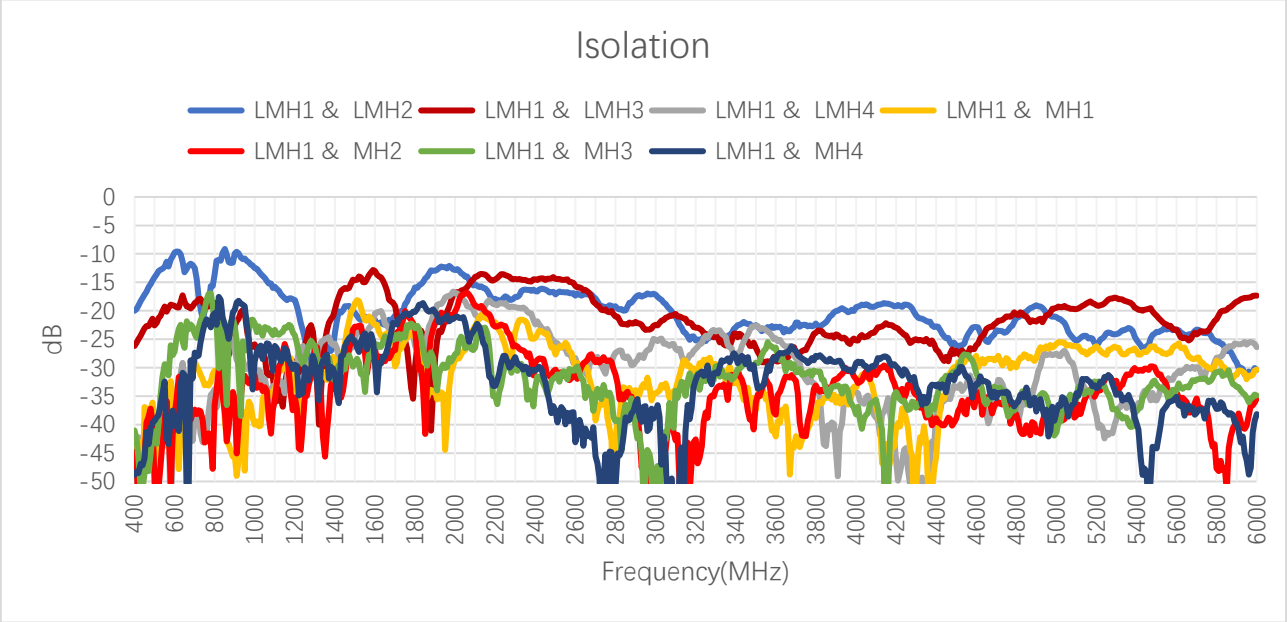


3.1.3.1.8. MH4

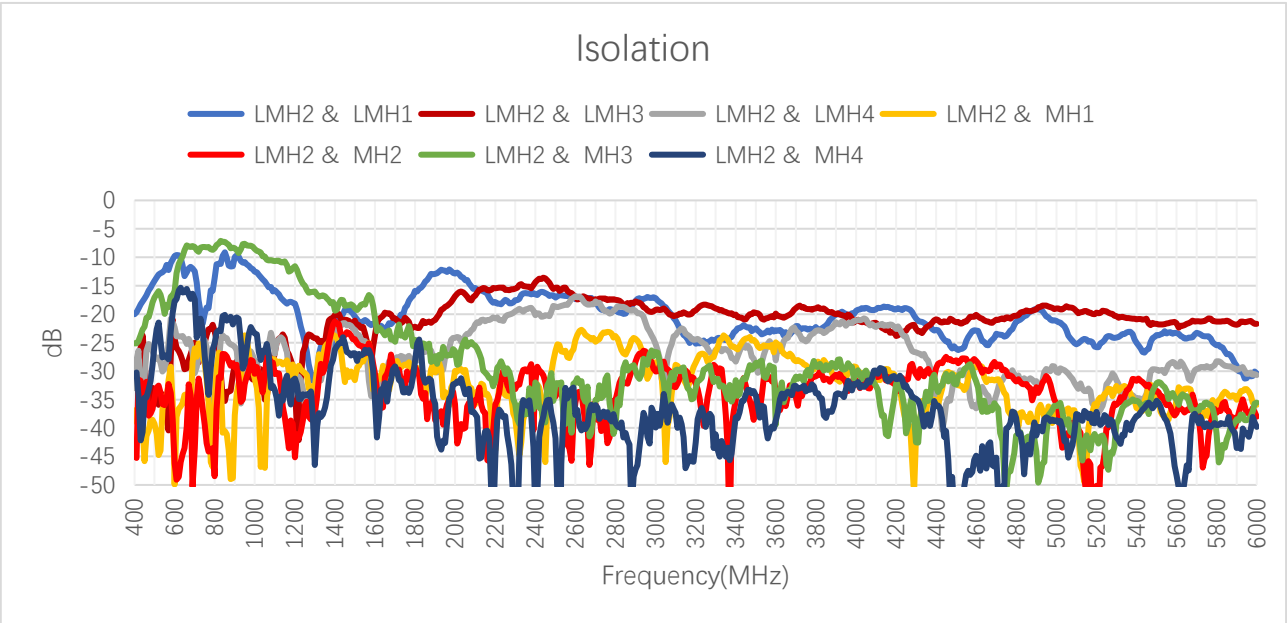


3.1.3.2. Test Status: On 500 × 500 mm Metal Plane

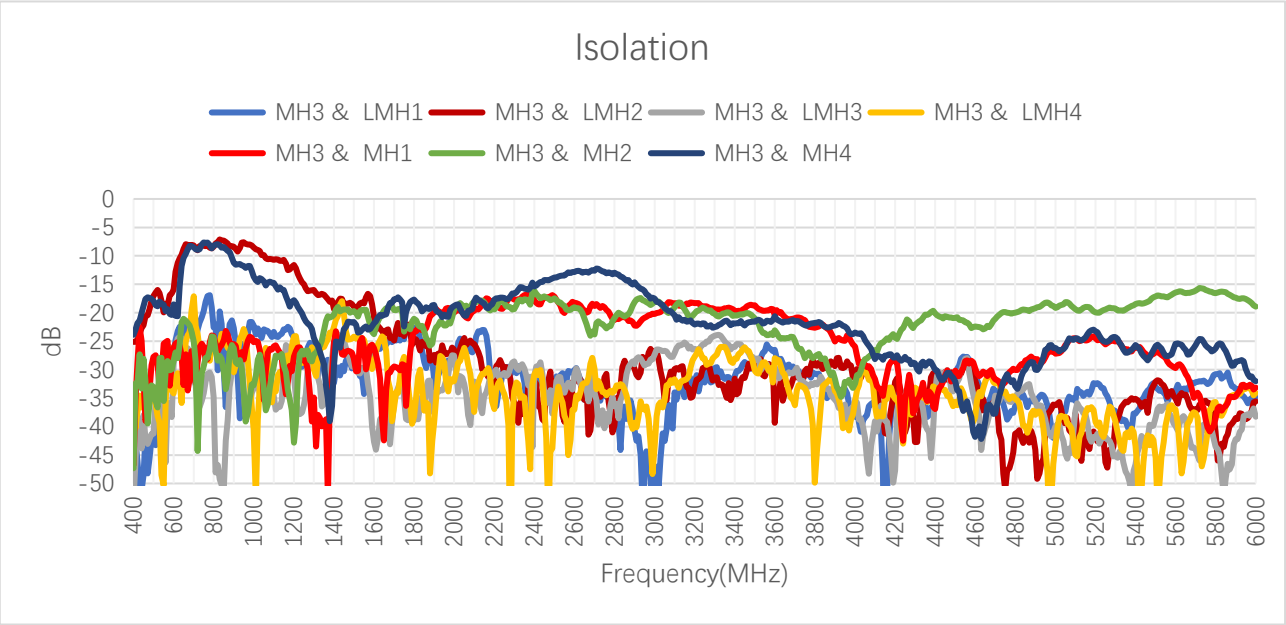
3.1.3.2.1. LMH1



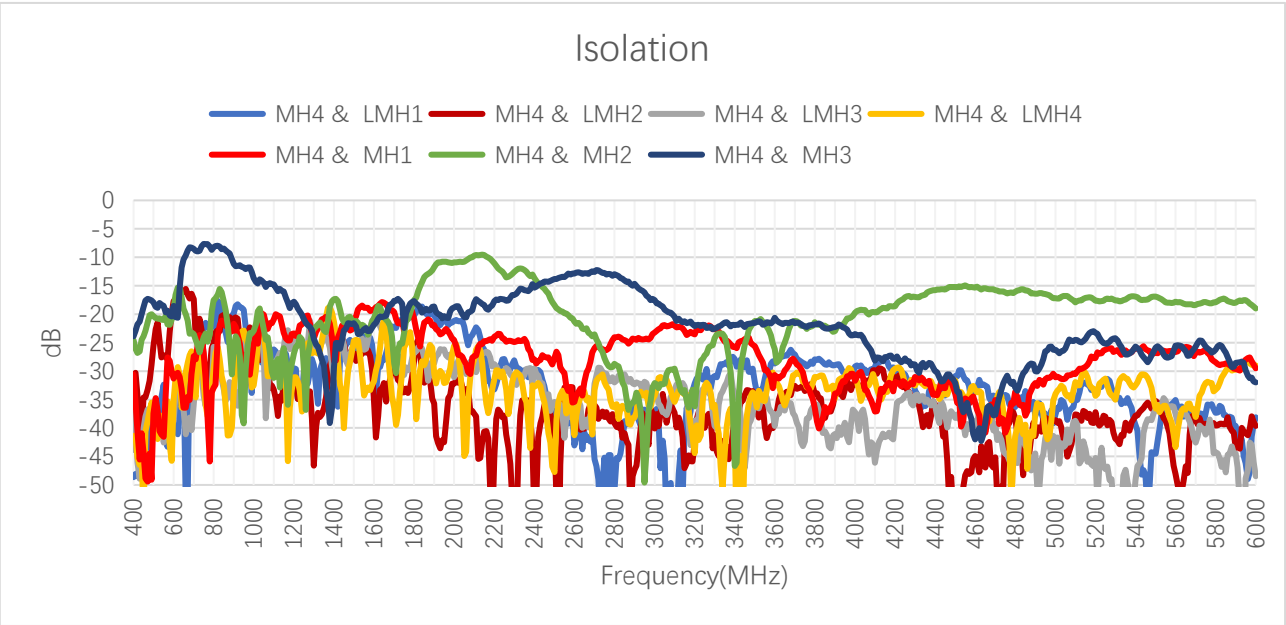
3.1.3.2.2. LMH2



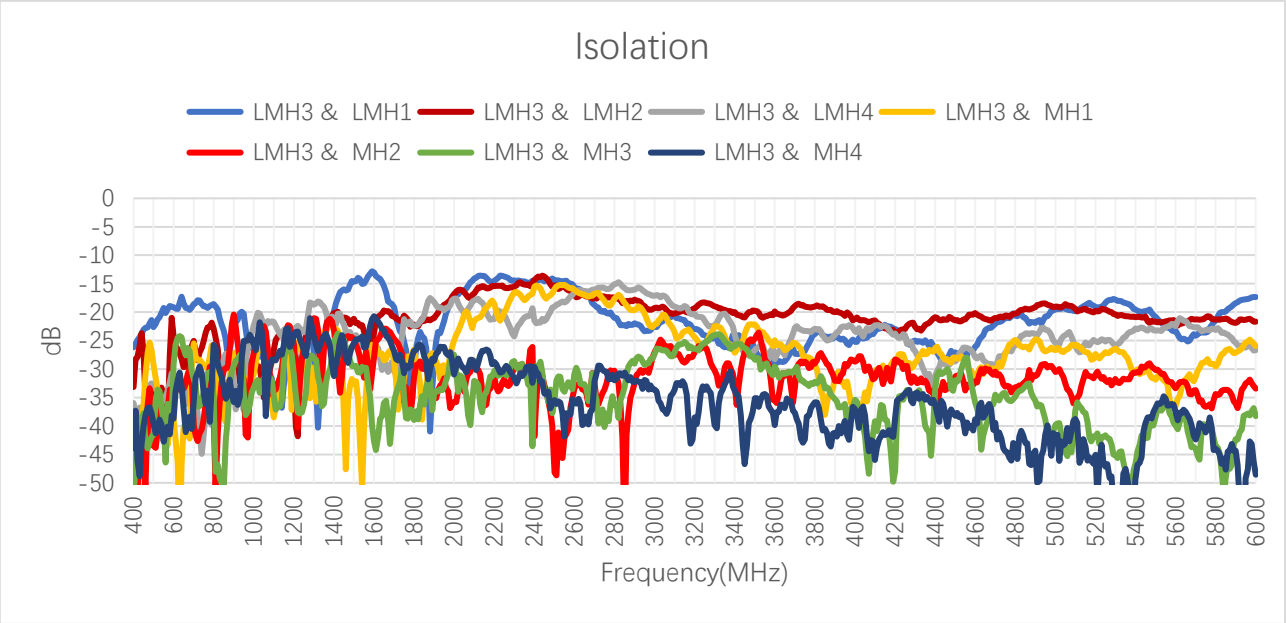
3.1.3.2.3. LMH3



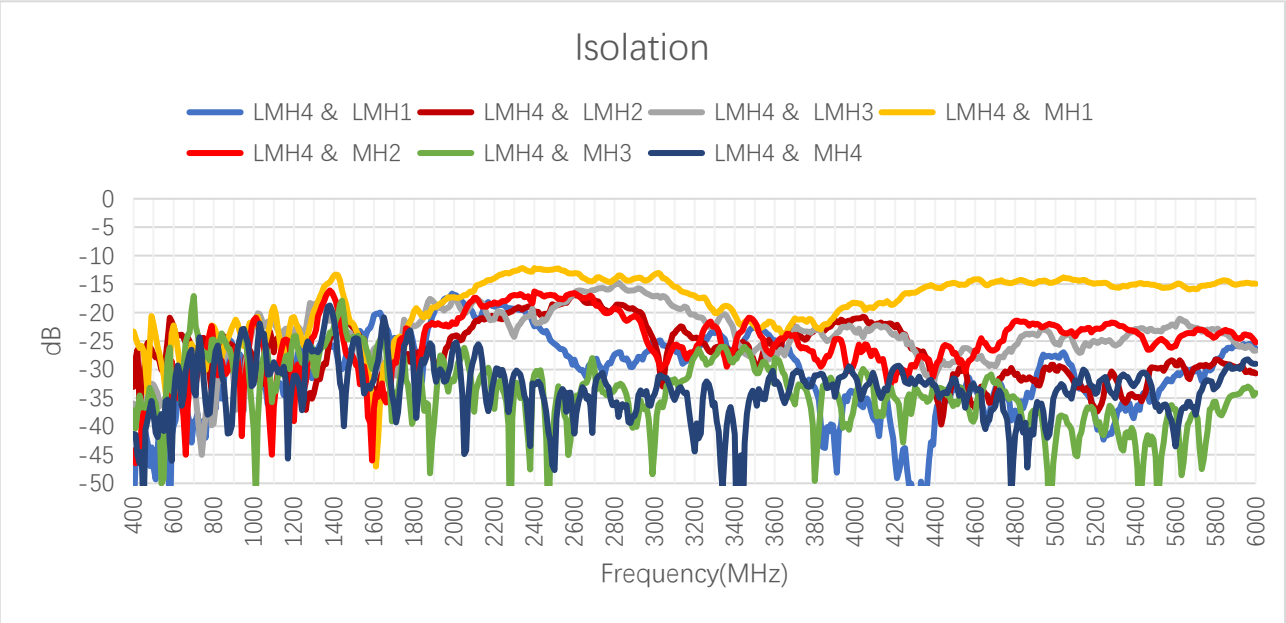
3.1.3.2.4. LMH4



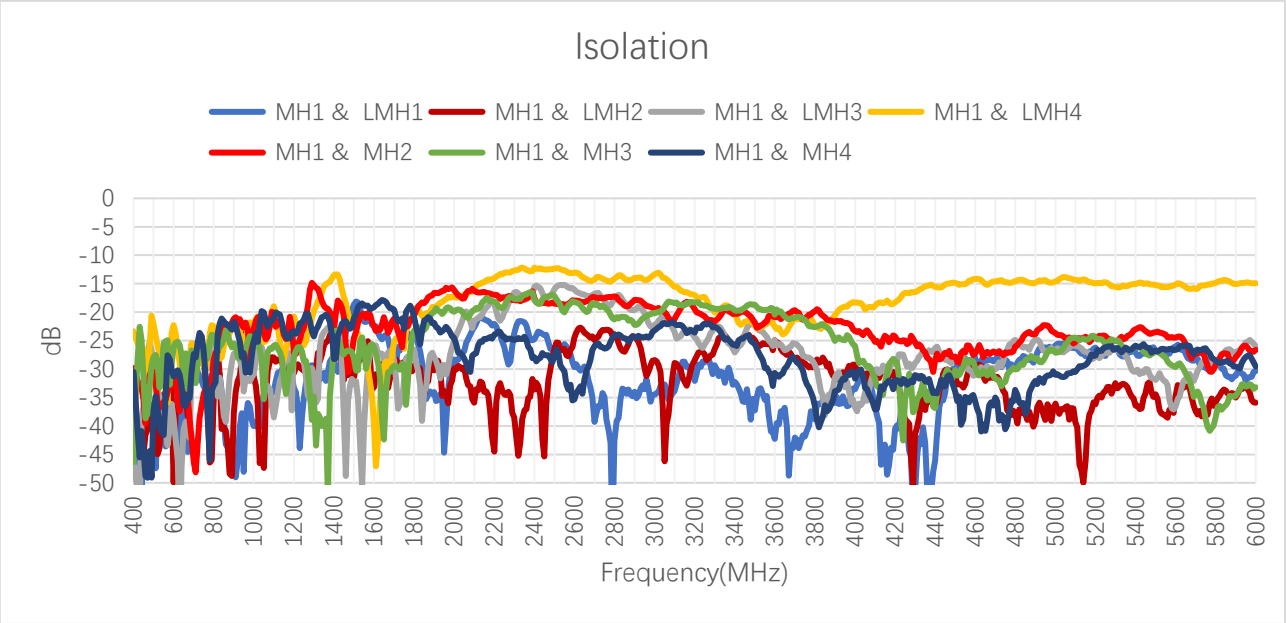
3.1.3.2.5. MH1



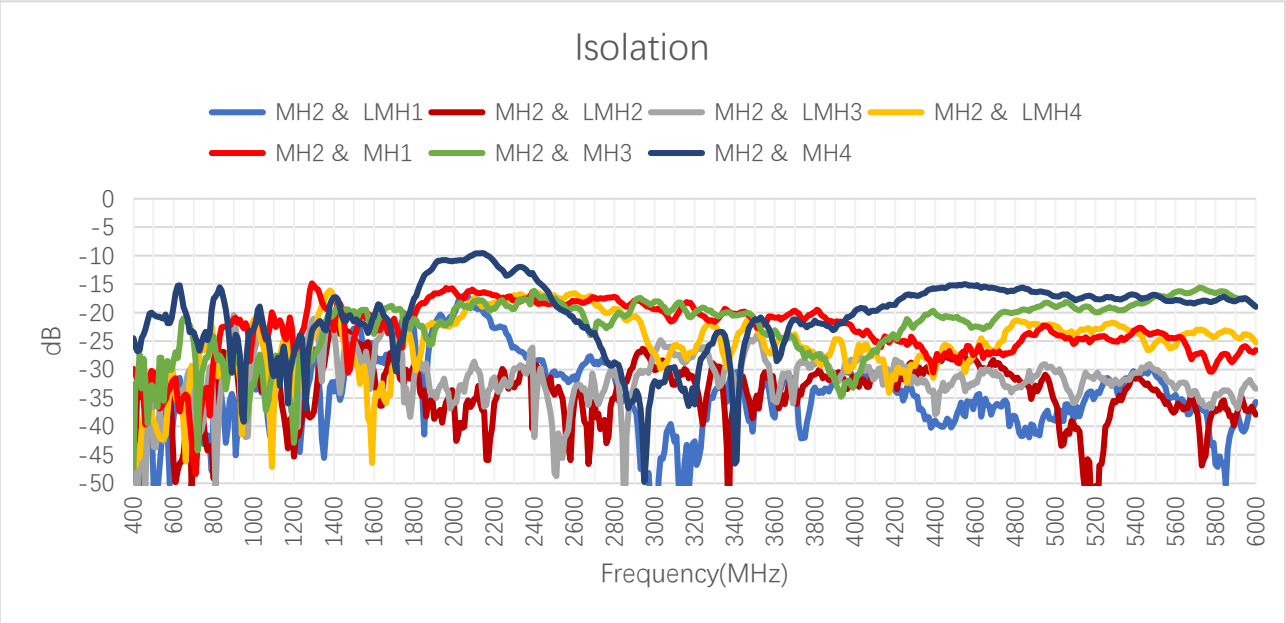
3.1.3.2.6. MH2



3.1.3.2.7. MH3

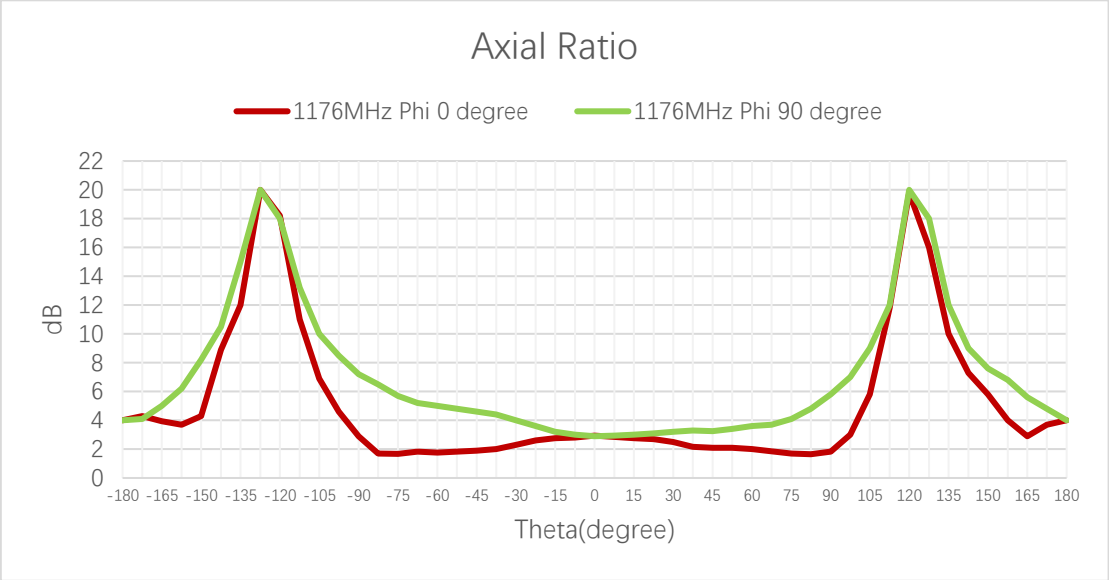


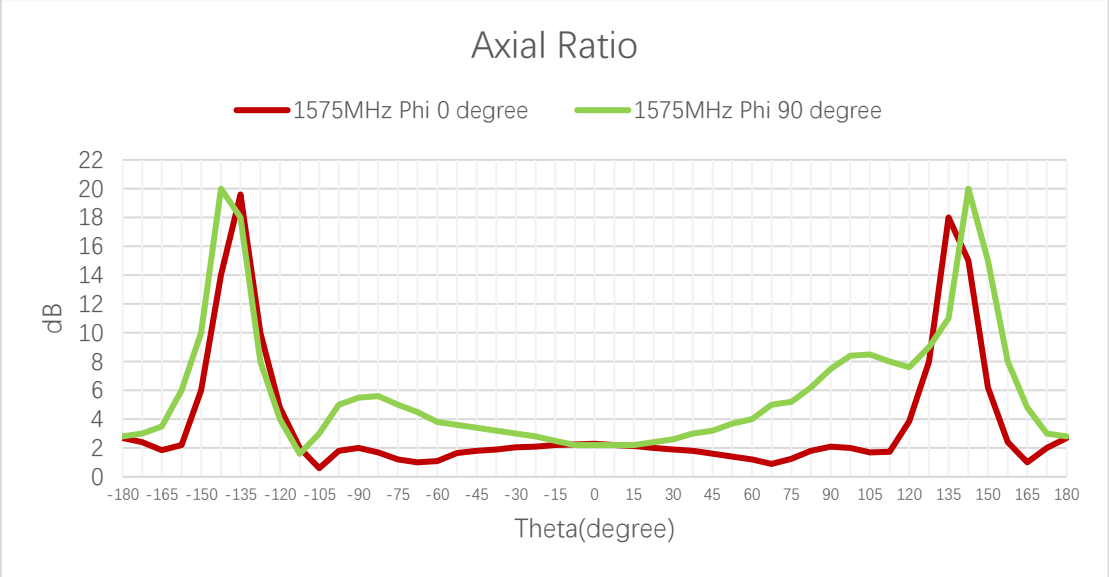
3.1.3.2.8. MH4



- FS: In Free Space
- MP: On 500 × 500 mm Metal Plane

3.1.4. GNSS Axial Ratio

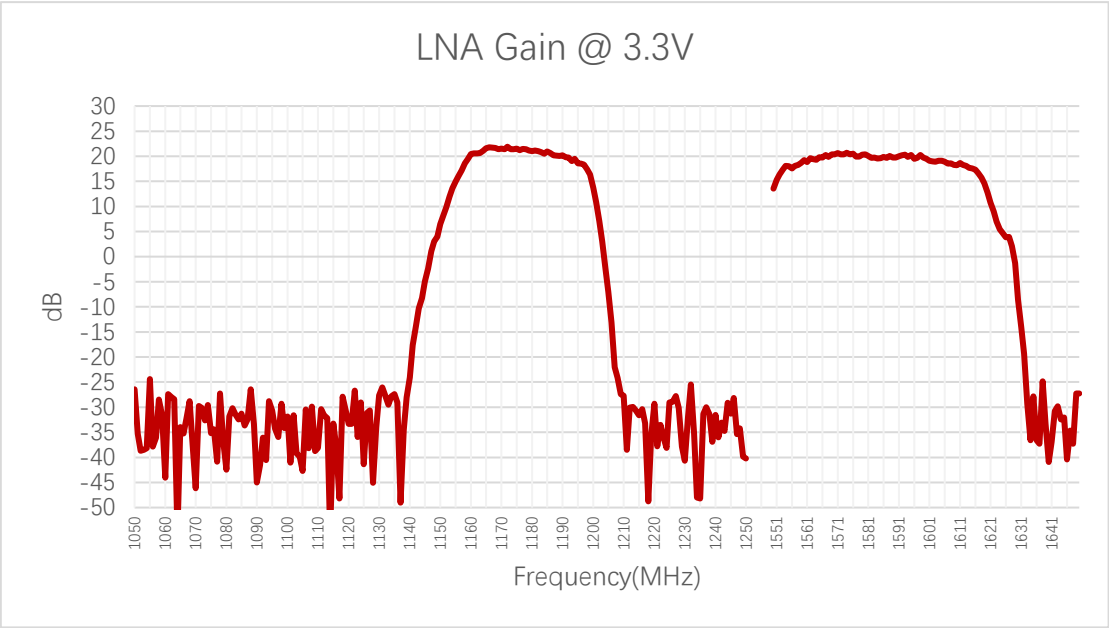




Axial Ratio (dB)

Frequency (MHz)		1176	1227	1575
GNSS	Phi = 0 (deg) Theta = 0 (deg)	2.8	-	2.2
	Phi = 90 (deg) Theta = 0 (deg)	2.8	-	2.2

3.1.5. GNSS LNA Gain

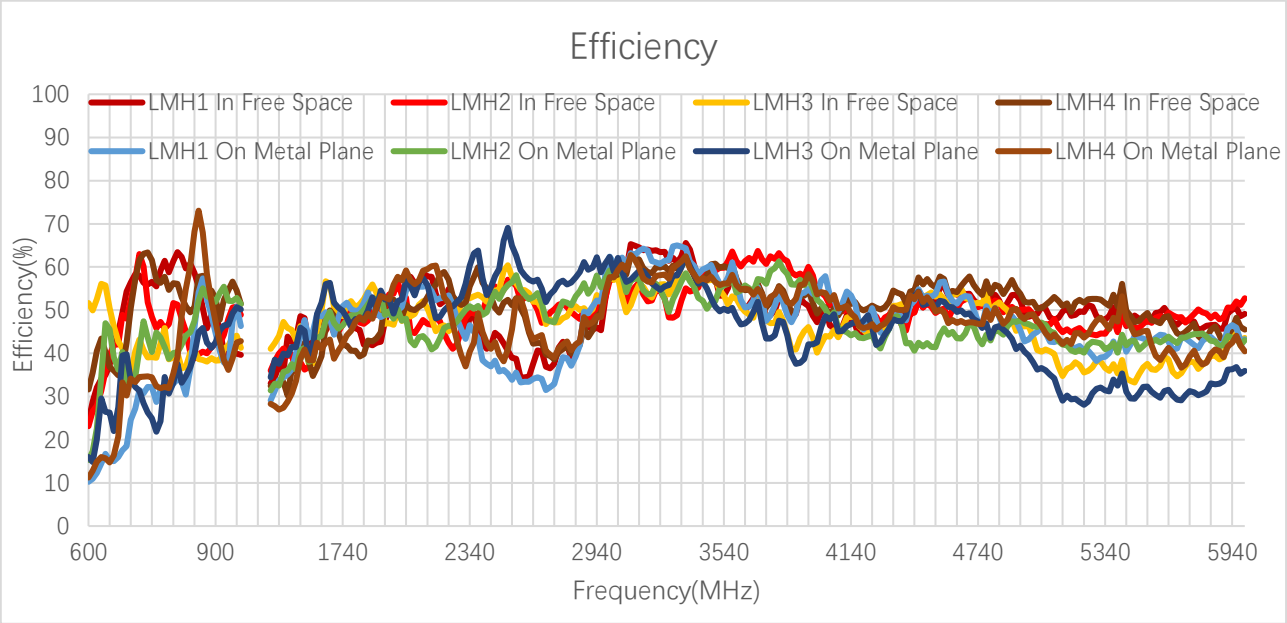


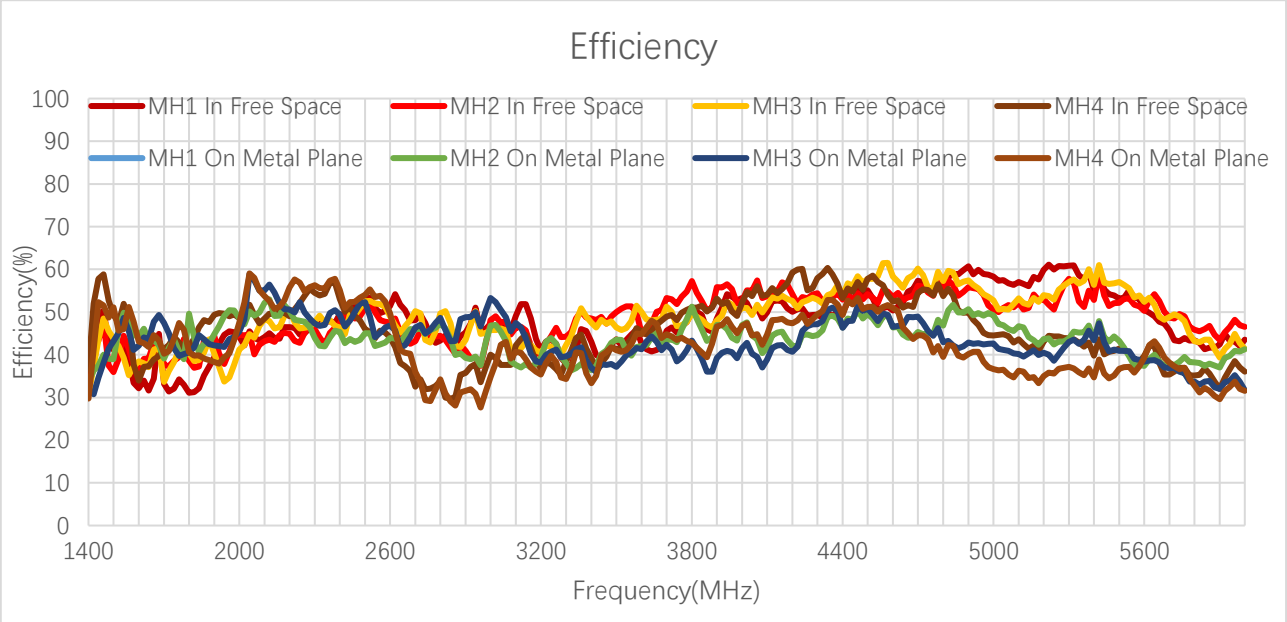
LNA Gain (dB)

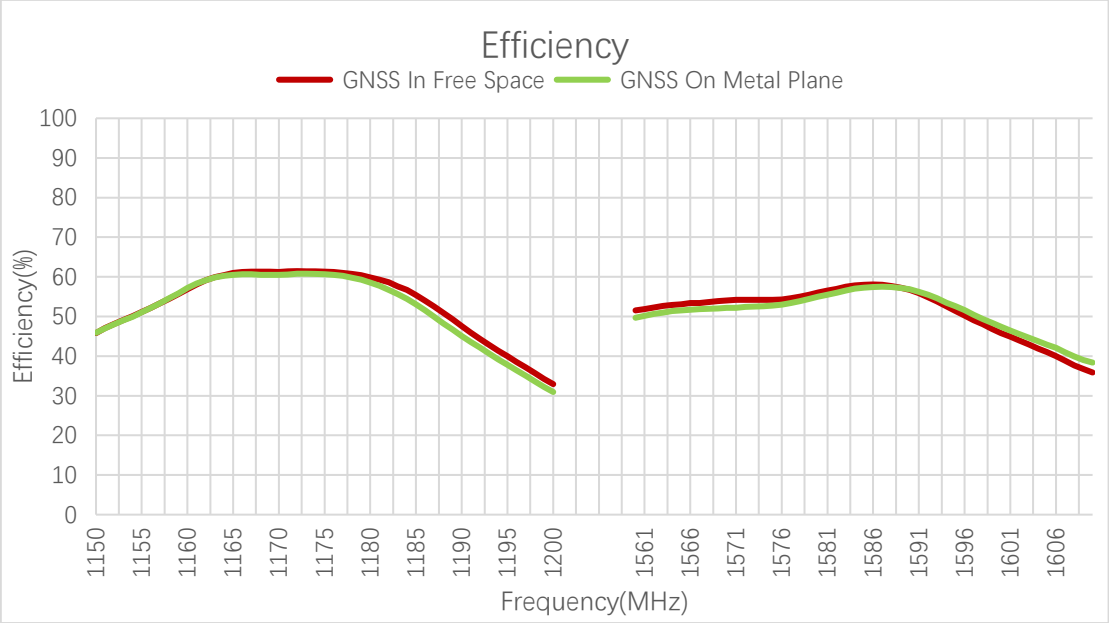
Frequency (MHz)	1176	1227	1561	1575	1602
GNSS	21.2	-	18.8	20.4	19.0

3.2. Radiation Performance Test

3.2.1. Efficiency







Efficiency (%)

Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
LMH1	FS	24.3	34.1	58.3	59.7	49.2	39.7	37.2	-	47.8	41.9
	MP	10.3	14.5	27.2	30.5	44.7	46.4	33.8	-	50.9	51.6
LMH2	FS	23.1	31.3	57.4	45.1	42.3	48.9	40.0	-	46.6	49.6
	MP	15.3	34.7	34.4	44.1	52.0	51.4	32.5	-	46.5	52.8
LMH3	FS	51.6	56.1	40.5	36.8	38.3	41.2	44.0	-	48.6	56.0
	MP	16.0	29.6	32.2	34.8	42.5	50.2	37.6	-	49.9	53.0
LMH4	FS	31.6	43.4	57.2	50.9	52.7	51.4	33.8	-	41.9	42.7
	MP	11.2	16.0	33.4	54.9	47.3	42.8	27.0	-	42.1	48.1
Frequency (MHz)		**1950**	**2140**	**2350**	**2450**	**2600**	**3600**	**4700**	**5000**	**5500**	**6000**
LMH1	FS	-	57.8	-	-	34.4	55.5	53.8	48.8	48.0	49.1
	MP	-	55.7	-	-	33.4	57.0	53.1	44.4	43.7	43.2
LMH2	FS	-	46.8	-	-	52.9	61.4	53.4	49.1	45.9	52.8
	MP	-	42.9	-	-	53.5	54.1	46.9	46.3	40.8	43.0
LMH3	FS	-	50.4	-	-	54.6	52.7	52.5	43.9	35.2	43.6
	MP	-	55.8	-	-	58.0	48.4	49.3	38.0	30.7	36.0

LMH4	FS	-	53.0	-	-	48.5	57.4	57.8	51.9	47.5	45.5
	MP	-	59.5	-	-	49.7	55.8	47.2	49.1	44.7	40.4

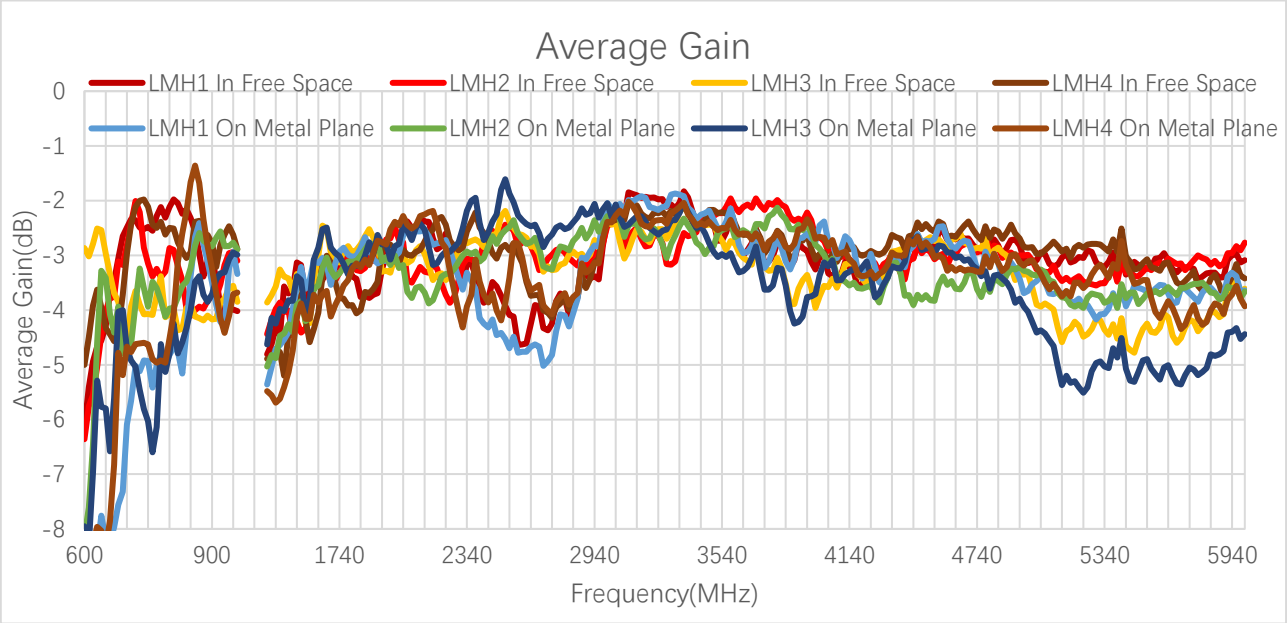
Efficiency (%)

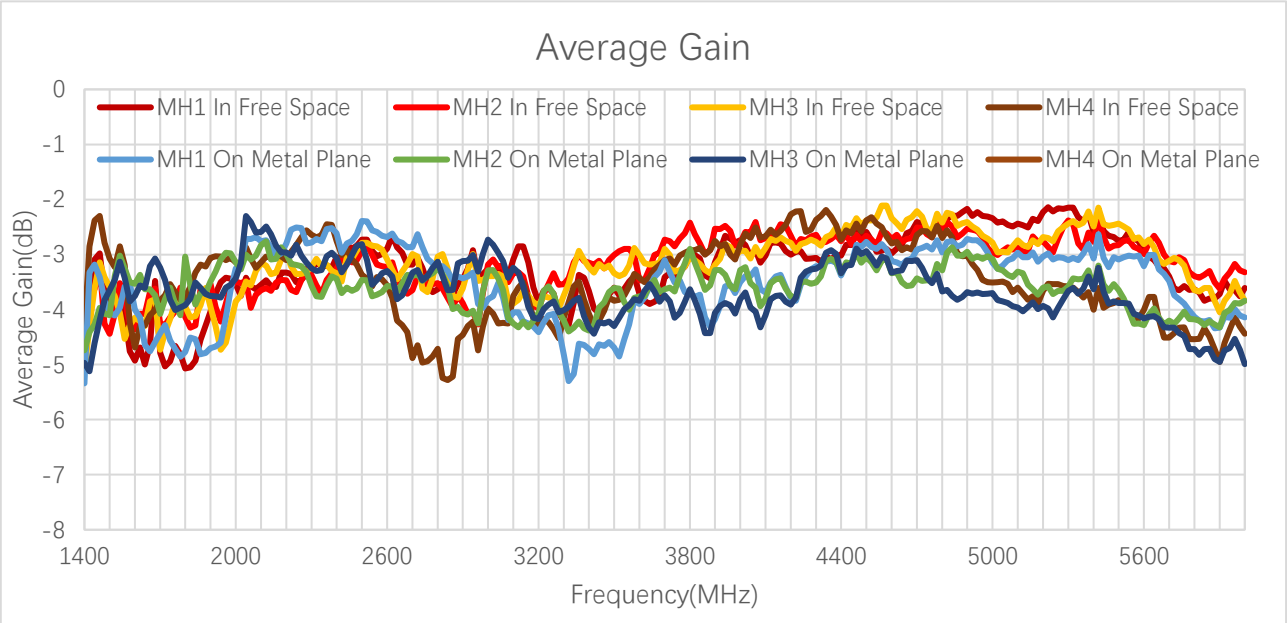
Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
MH1	FS	-	-	-	-	-	-	49.1	-	32.0	37.3
	MP	-	-	-	-	-	-	48.1	-	35.0	33.2
MH2	FS	-	-	-	-	-	-	43.4	-	38.6	43.2
	MP	-	-	-	-	-	-	37.5	-	43.6	42.6
MH3	FS	-	-	-	-	-	-	43.5	-	38.3	43.6
	MP	-	-	-	-	-	-	34.6	-	41.5	42.5
MH4	FS	-	-	-	-	-	-	57.8	-	44.2	47.6
	MP	-	-	-	-	-	-	52.3	-	43.7	38.7
Frequency (MHz)		**1950**	**2140**	**2350**	**2450**	**2600**	**3600**	**4700**	**5000**	**5500**	**6000**
MH1	FS	-	43.9	-	-	51.4	42.5	57.4	58.3	53.1	43.6
	MP	-	51.8	-	-	53.9	40.7	51.2	48.4	49.1	38.6
MH2	FS	-	43.0	-	-	47.6	44.9	56.1	50.5	52.2	46.5
	MP	-	49.1	-	-	43.9	42.1	45.4	49.3	43.3	41.3
MH3	FS	-	46.2	-	-	49.0	50.0	60.2	52.8	57.0	41.4
	MP	-	54.6	-	-	46.8	41.3	49.0	42.7	40.9	31.7
MH4	FS	-	49.6	-	-	44.0	45.5	54.5	44.5	41.4	36.0
	MP	-	50.7	-	-	49.7	44.8	44.6	36.6	36.7	31.6

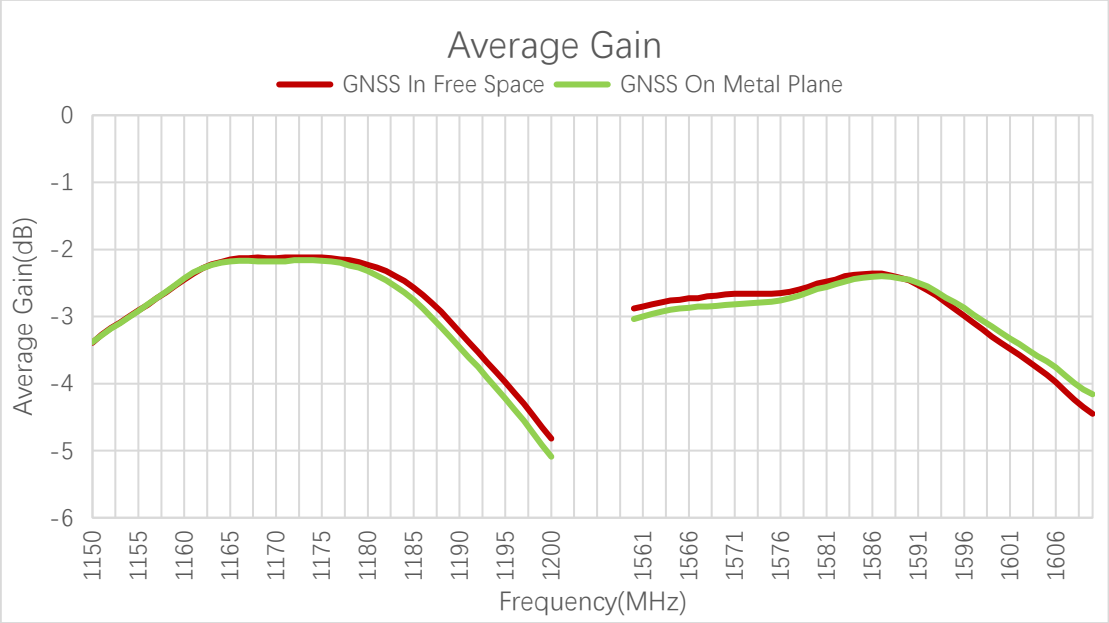
Efficiency (%)

Frequency (MHz)		1176	1227	1561	1575	1602
GNSS	FS	61.2	-	51.9	54.2	43.9
	MP	60.5	-	50.1	52.8	45.6

3.2.2. Average Gain







Average Gain (dB)

Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
LMH1	FS	-6.1	-4.7	-2.3	-2.2	-3.1	-4.0	-4.3	-	-3.2	-3.8
	MP	-9.9	-8.4	-5.7	-5.2	-3.5	-3.3	-4.7	-	-2.9	-2.9
LMH2	FS	-6.4	-5.0	-2.4	-3.5	-3.7	-3.1	-4.0	-	-3.3	-3.0
	MP	-8.2	-4.6	-4.6	-3.6	-2.8	-2.9	-4.9	-	-3.3	-2.8
LMH3	FS	-2.9	-2.5	-3.9	-4.3	-4.2	-3.9	-3.6	-	-3.1	-2.5
	MP	-8.0	-5.3	-4.9	-4.6	-3.7	-3.0	-4.3	-	-3.0	-2.8
LMH4	FS	-5.0	-3.6	-2.4	-2.9	-2.8	-2.9	-4.7	-	-3.8	-3.7
	MP	-9.5	-8.0	-4.8	-2.6	-3.3	-3.7	-5.7	-	-3.8	-3.2
Frequency (MHz)		1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
LMH1	FS	-	-2.4	-	-	-4.6	-2.6	-2.7	-3.1	-3.2	-3.1
	MP	-	-2.5	-	-	-4.8	-2.4	-2.8	-3.5	-3.6	-3.6
LMH2	FS	-	-3.3	-	-	-2.8	-2.1	-2.7	-3.1	-3.4	-2.8
	MP	-	-3.7	-	-	-2.7	-2.7	-3.3	-3.4	-3.9	-3.7
LMH3	FS	-	-3.0	-	-	-2.6	-2.8	-2.8	-3.6	-4.5	-3.6
	MP	-	-2.5	-	-	-2.4	-3.2	-3.1	-4.2	-5.1	-4.4

LMH4	FS	-	-2.8	-	-	-3.1	-2.4	-2.4	-2.9	-3.2	-3.4
	MP	-	-2.3	-	-	-3.0	-2.5	-3.3	-3.1	-3.5	-3.9

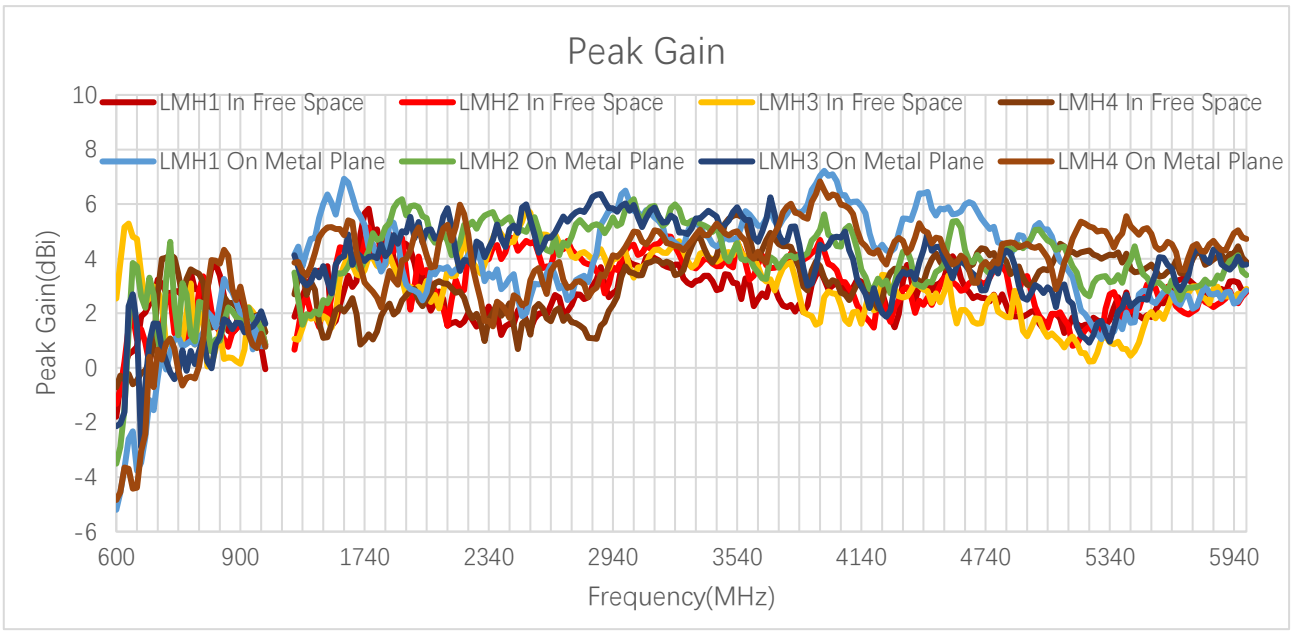
Average Gain (dB)

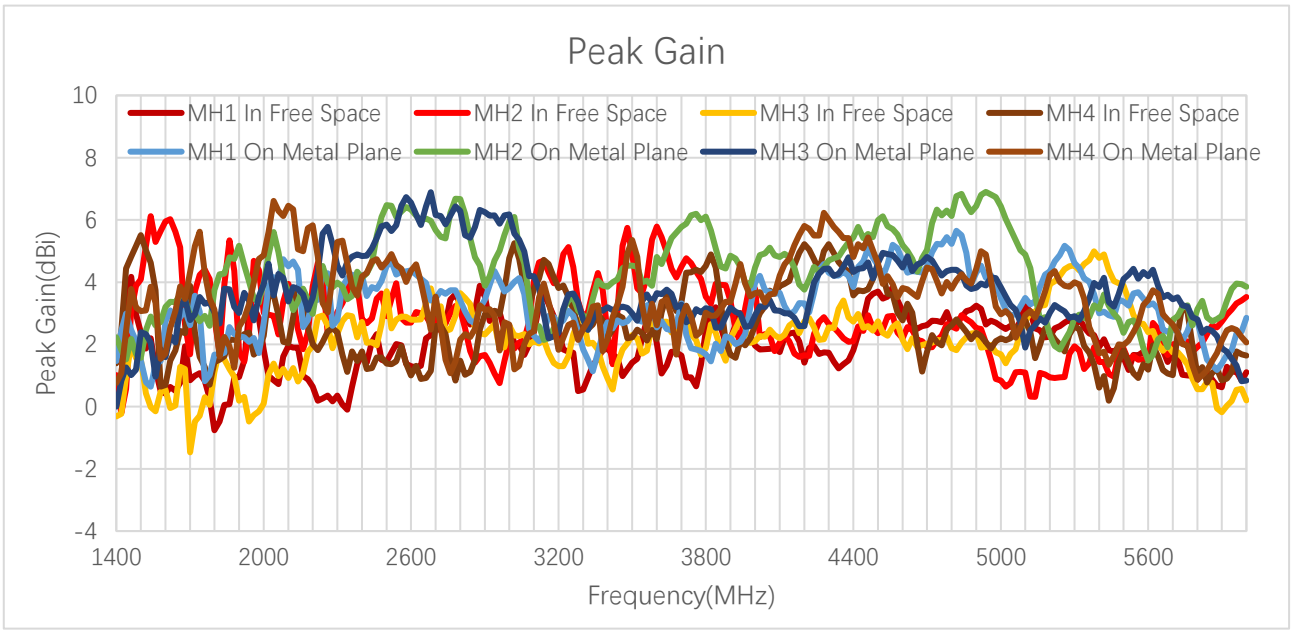
Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
MH1	FS	-	-	-	-	-	-	-3.1	-	-4.9	-4.3
	MP	-	-	-	-	-	-	-3.2	-	-4.6	-4.8
MH2	FS	-	-	-	-	-	-	-3.6	-	-4.1	-3.7
	MP	-	-	-	-	-	-	-4.3	-	-3.6	-3.7
MH3	FS	-	-	-	-	-	-	-3.6	-	-4.2	-3.6
	MP	-	-	-	-	-	-	-4.6	-	-3.8	-3.7
MH4	FS	-	-	-	-	-	-	-2.4	-	-3.5	-3.2
	MP	-	-	-	-	-	-	-2.8	-	-3.6	-4.1
Frequency (MHz)		**1950**	**2140**	**2350**	**2450**	**2600**	**3600**	**4700**	**5000**	**5500**	**6000**
MH1	FS	-	-3.6	-	-	-2.9	-3.7	-2.4	-2.3	-2.8	-3.6
	MP	-	-2.9	-	-	-2.7	-3.9	-2.9	-3.2	-3.1	-4.1
MH2	FS	-	-3.7	-	-	-3.2	-3.5	-2.5	-3.0	-2.8	-3.3
	MP	-	-3.1	-	-	-3.6	-3.8	-3.4	-3.1	-3.6	-3.8
MH3	FS	-	-3.4	-	-	-3.1	-3.0	-2.2	-2.8	-2.4	-3.8
	MP	-	-2.6	-	-	-3.3	-3.8	-3.1	-3.7	-3.9	-5.0
MH4	FS	-	-3.1	-	-	-3.6	-3.4	-2.6	-3.5	-3.8	-4.4
	MP	-	-3.0	-	-	-3.0	-3.5	-3.5	-4.4	-4.4	-5.0

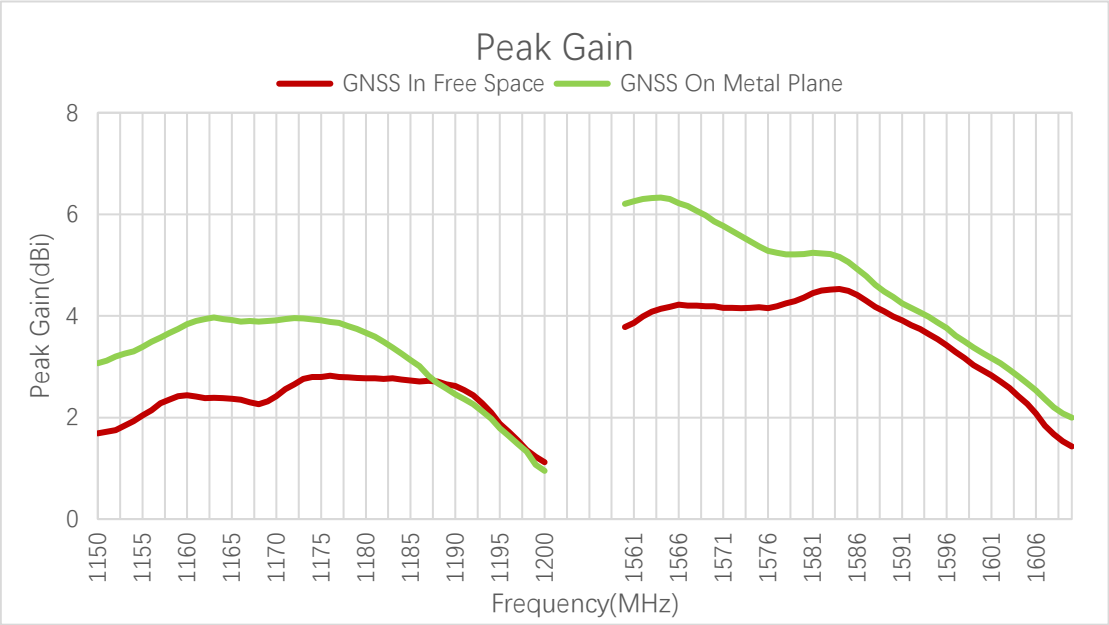
Average Gain (dB)

Frequency (MHz)		1176	1227	1561	1575	1602
GNSS	FS	-2.1	-	-2.9	-2.7	-3.6
	MP	-2.2	-	-3.0	-2.8	-3.4

3.2.3. Peak Gain







Peak Gain (dBi)

Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
LMH1	FS	-1.8	0.5	3.1	3.7	2.8	-0.1	2.6	-	5.7	4.0
	MP	-5.2	-2.6	0.6	1.9	2.0	0.8	3.7	-	5.2	5.3
LMH2	FS	-1.3	1.5	1.5	2.1	1.6	0.8	2.3	-	4.6	4.3
	MP	-3.5	1.3	0.3	0.6	1.8	0.9	1.6	-	4.0	5.9
LMH3	FS	2.5	5.3	2.4	0.1	0.2	1.3	1.5	-	3.6	3.7
	MP	-2.1	2.3	0.7	0.0	1.6	1.6	3.2	-	3.9	4.9
LMH4	FS	-0.7	-0.2	4.0	1.5	2.0	1.3	3.5	-	1.0	2.0
	MP	-4.8	-3.7	0.3	4.0	3.0	0.8	3.5	-	3.1	3.2
Frequency (MHz)		1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
LMH1	FS	-	1.6	-	-	2.0	3.1	2.6	1.6	1.8	2.9
	MP	-	3.7	-	-	3.1	5.6	5.7	5.3	2.8	2.8
LMH2	FS	-	1.6	-	-	3.7	3.2	3.3	1.9	2.6	2.8
	MP	-	4.7	-	-	4.5	4.0	4.1	5.1	3.4	3.4
LMH3	FS	-	3.6	-	-	4.9	4.2	1.6	1.8	1.4	2.9

	MP	-	5.9	-	-	4.4	5.4	3.3	2.9	2.5	3.8
LMH4	FS	-	3.1	-	-	2.2	4.8	4.2	3.5	3.6	3.9
	MP	-	5.2	-	-	3.1	4.1	3.1	4.5	5.1	4.7

Peak Gain (dBi)

Frequency (MHz)		600	630	710	830	900	960	1440	1710	1740	1880
MH1	FS	-	-	-	-	-	-	3.6	-	1.1	0.9
	MP	-	-	-	-	-	-	3.0	-	3.1	2.3
MH2	FS	-	-	-	-	-	-	0.6	-	4.2	4.4
	MP	-	-	-	-	-	-	1.5	-	2.7	4.8
MH3	FS	-	-	-	-	-	-	1.0	-	-0.3	1.0
	MP	-	-	-	-	-	-	1.3	-	3.5	3.2
MH4	FS	-	-	-	-	-	-	4.4	-	1.6	2.1
	MP	-	-	-	-	-	-	2.4	-	5.6	1.3

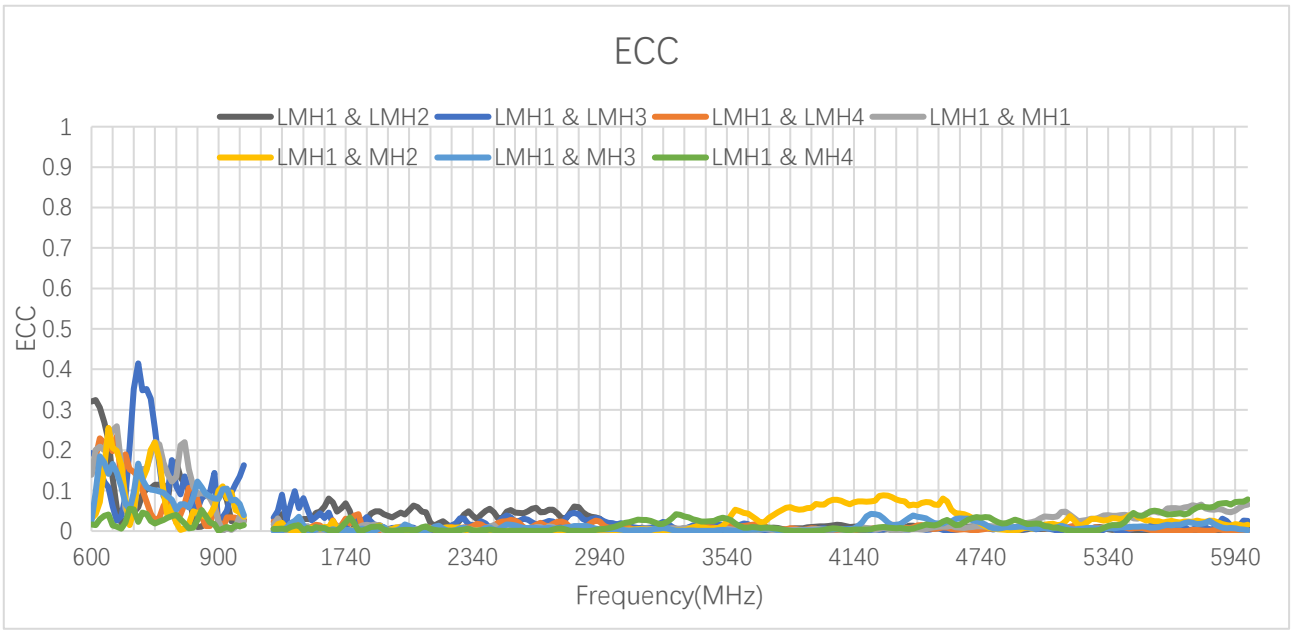
Frequency (MHz)		1950	2140	2350	2450	2600	3600	4700	5000	5500	6000
MH1	FS	-	1.9	-	-	1.3	2.0	2.6	2.6	1.6	1.1
	MP	-	4.4	-	-	4.4	2.5	4.5	3.5	3.4	2.9
MH2	FS	-	2.5	-	-	2.7	5.8	1.9	0.8	1.9	3.5
	MP	-	3.4	-	-	6.3	4.8	5.0	6.4	2.4	3.9
MH3	FS	-	0.8	-	-	2.8	2.8	2.0	1.7	3.9	0.2
	MP	-	3.8	-	-	6.6	3.7	4.8	3.8	4.1	0.8
MH4	FS	-	3.9	-	-	1.0	2.2	1.8	2.2	1.8	1.6
	MP	-	5.1	-	-	4.4	2.6	4.5	3.0	2.0	2.1

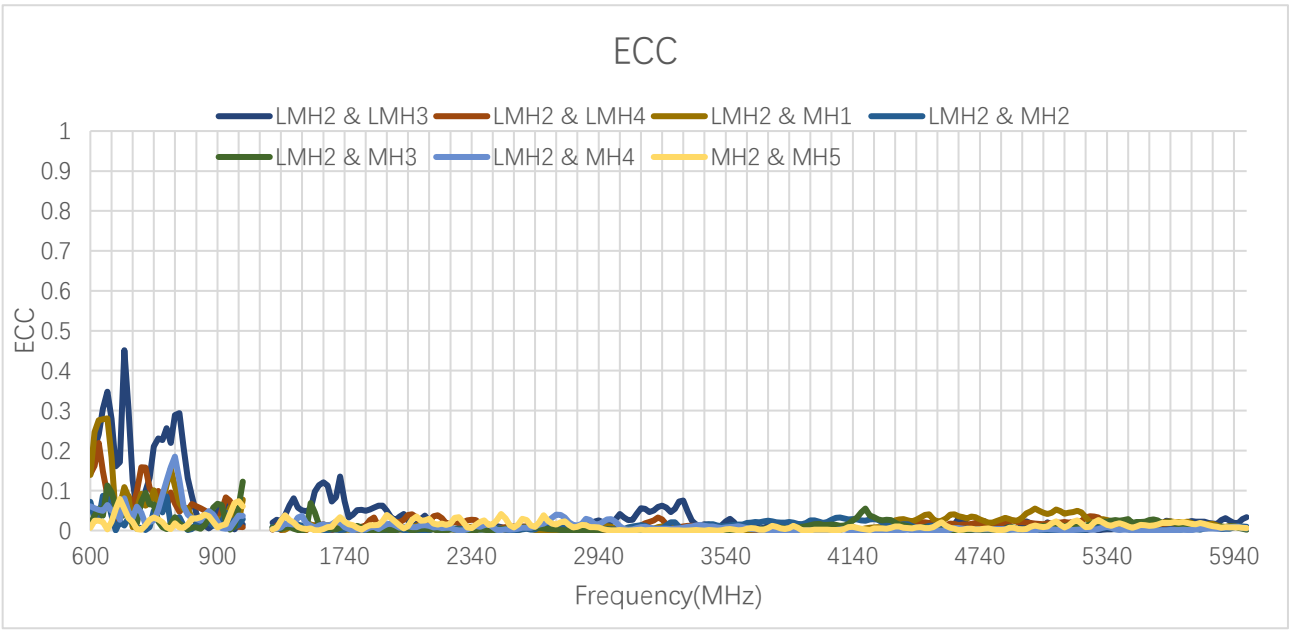
Peak Gain (dBi)

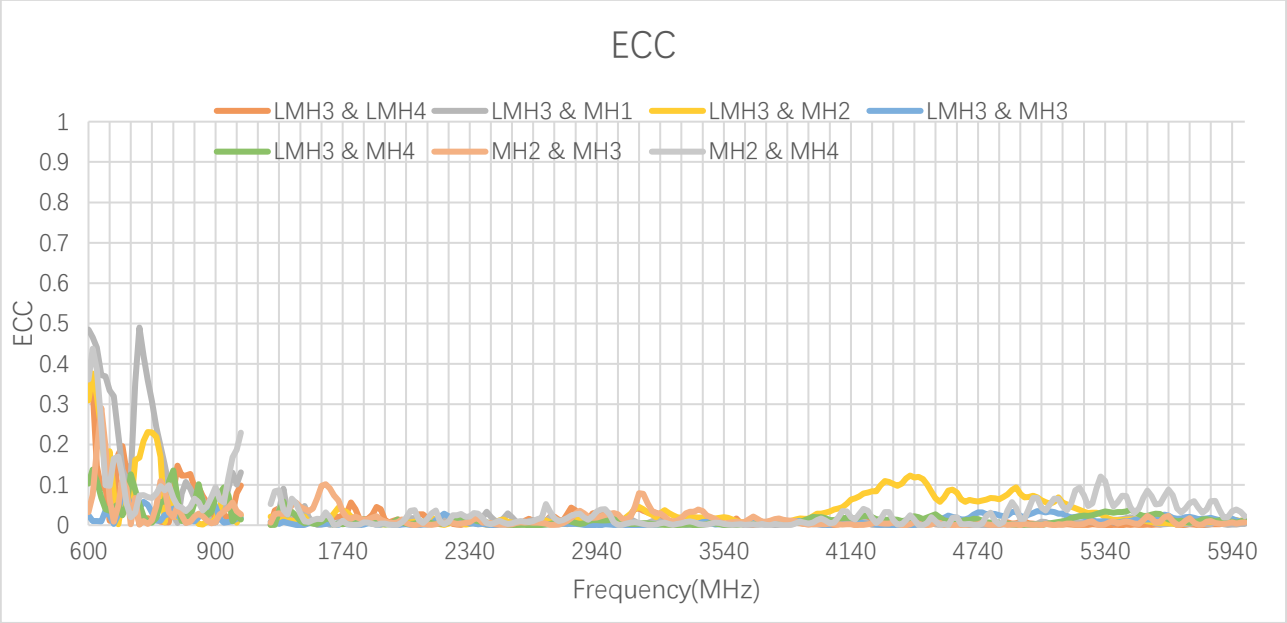
Frequency (MHz)		1176	1227	1561	1575	1602
GNSS	FS	2.8	-	3.9	4.2	2.7
	MP	3.9	-	6.3	5.4	3.1

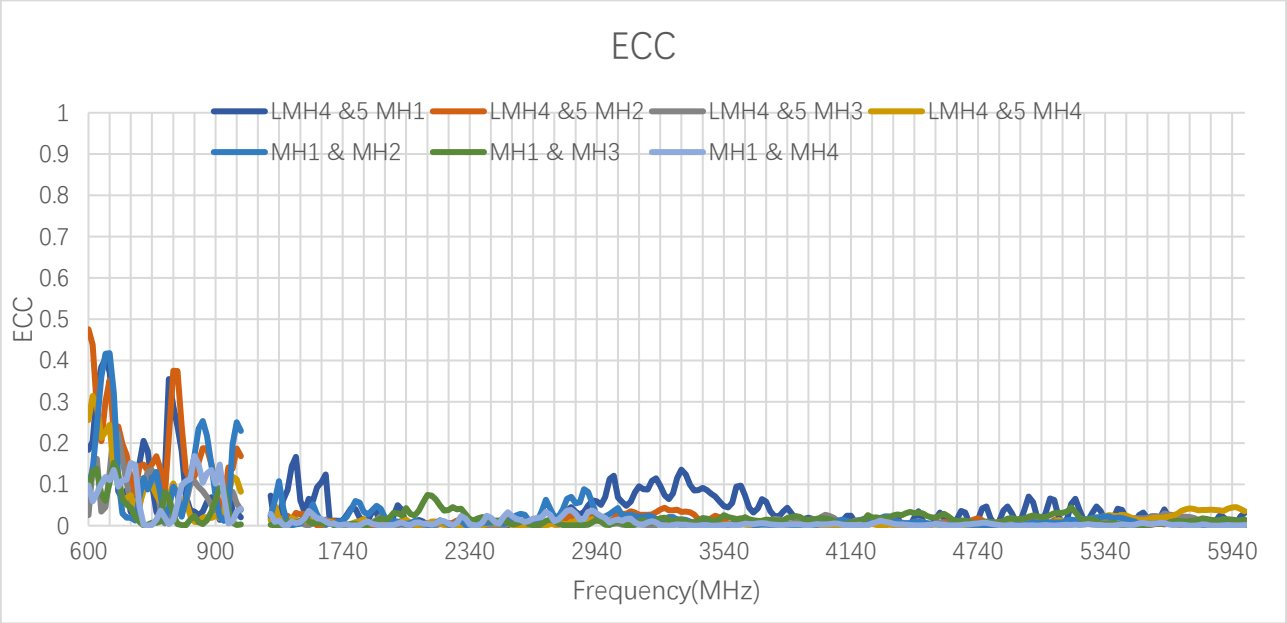
3.2.4. ECC

3.2.4.1. Test Status: In Free Space

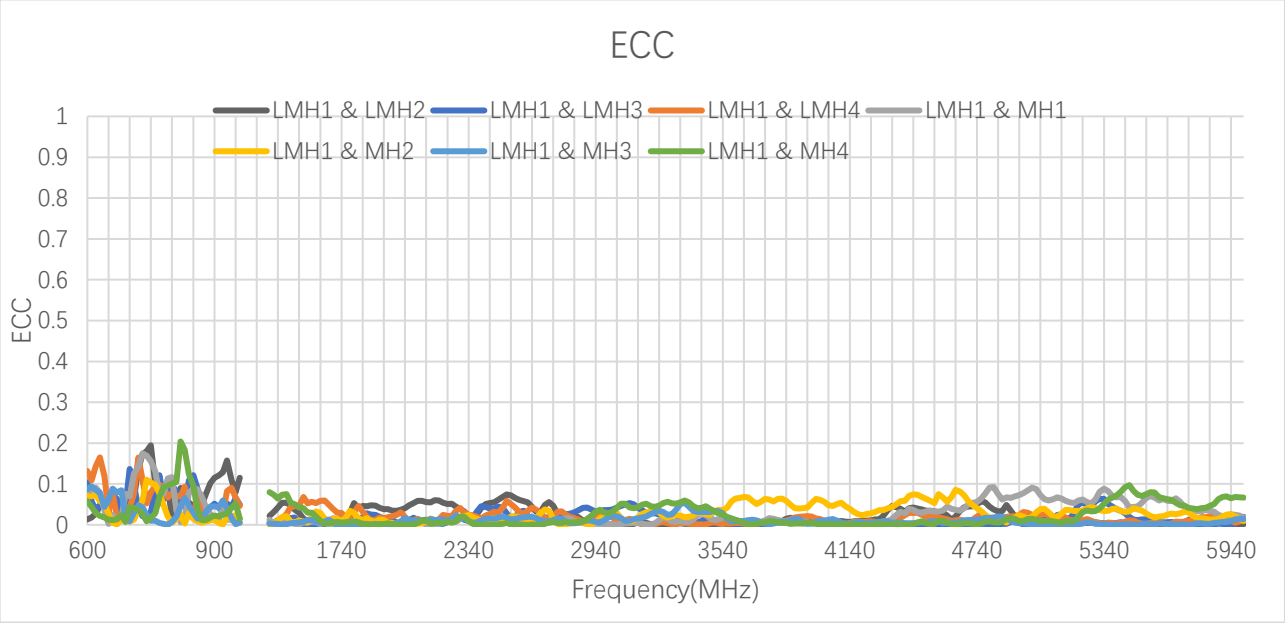


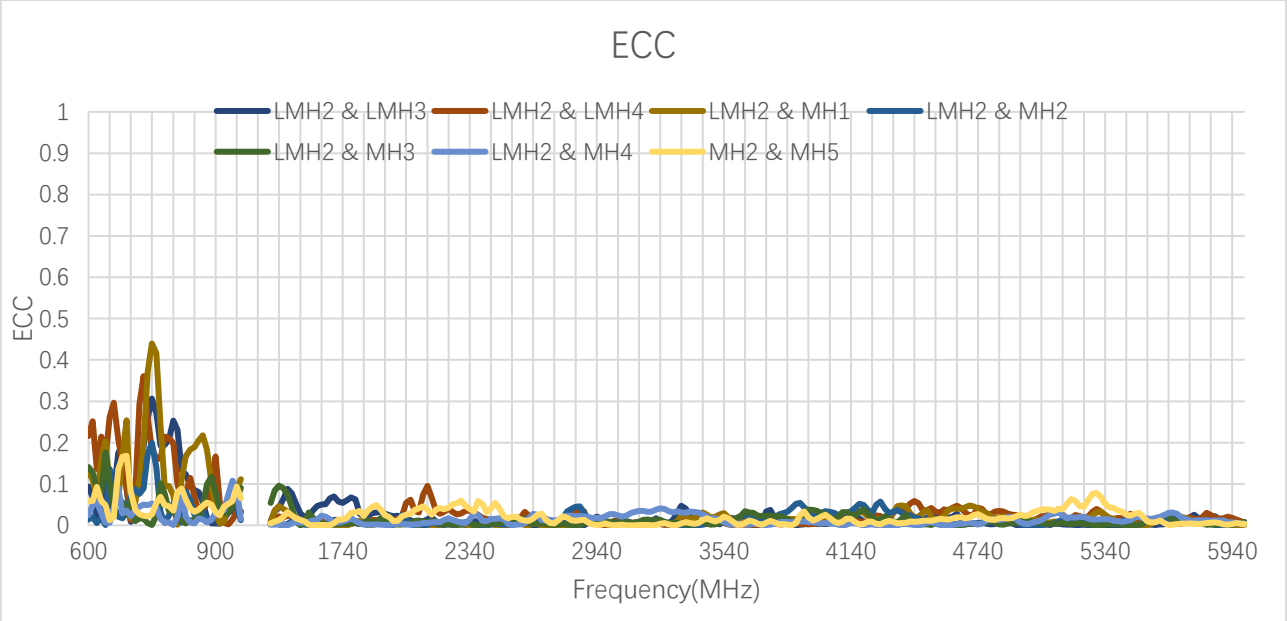


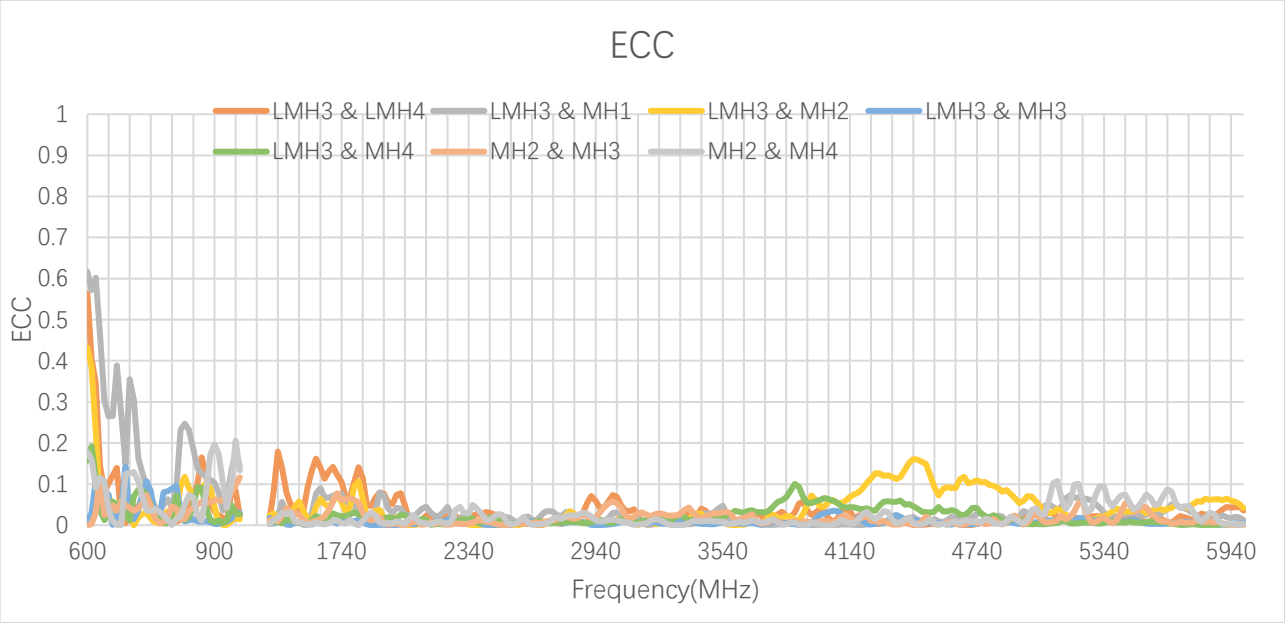

ECC
LMH3 & LMH4
LMH3 & MH1
LMH3 & MH2
LMH3 & MH3
LMH3 & MH4
MH2 & MH3
MH2 & MH4
ECC
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
600
900
1740
2340
2940
3540
4140
4740
5340
5940
Frequency(MHz)

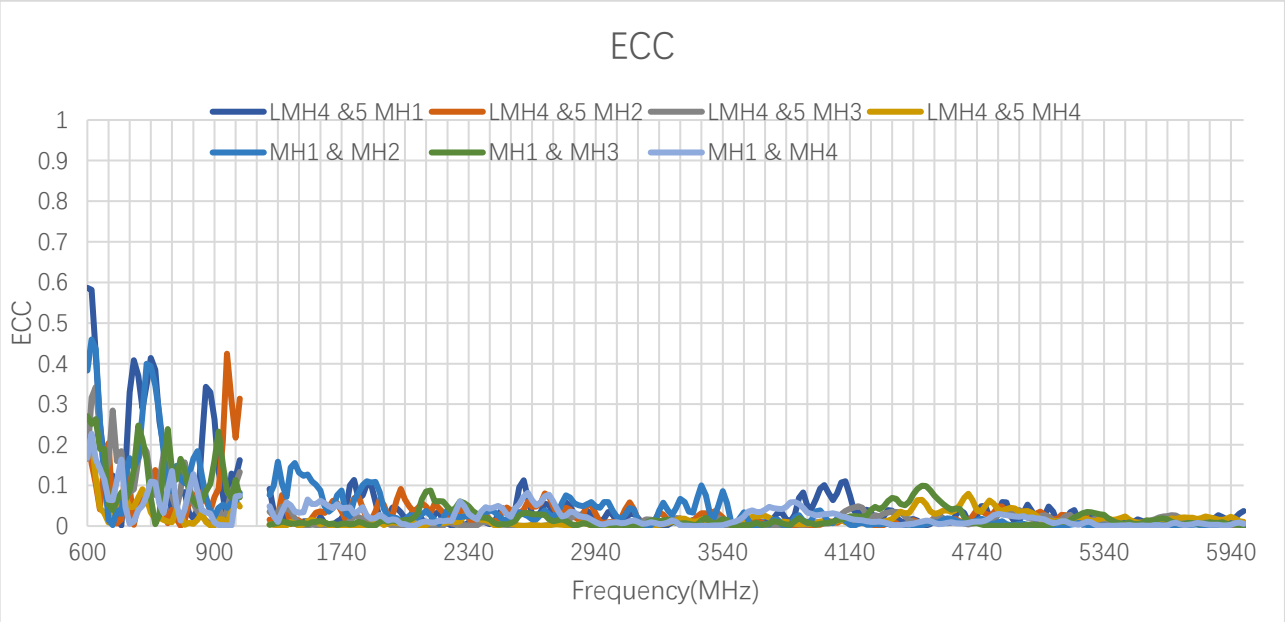

ECC
LMH4 &5 MH1
LMH4 &5 MH2
LMH4 &5 MH3
LMH4 &5 MH4
MH1 & MH2
MH1 & MH3
MH1 & MH4
ECC
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
600
900
1740
2340
2940
3540
4140
4740
5340
5940
Frequency(MHz)

3.2.4.2. Test Status: On 500 × 500 mm Metal Plane



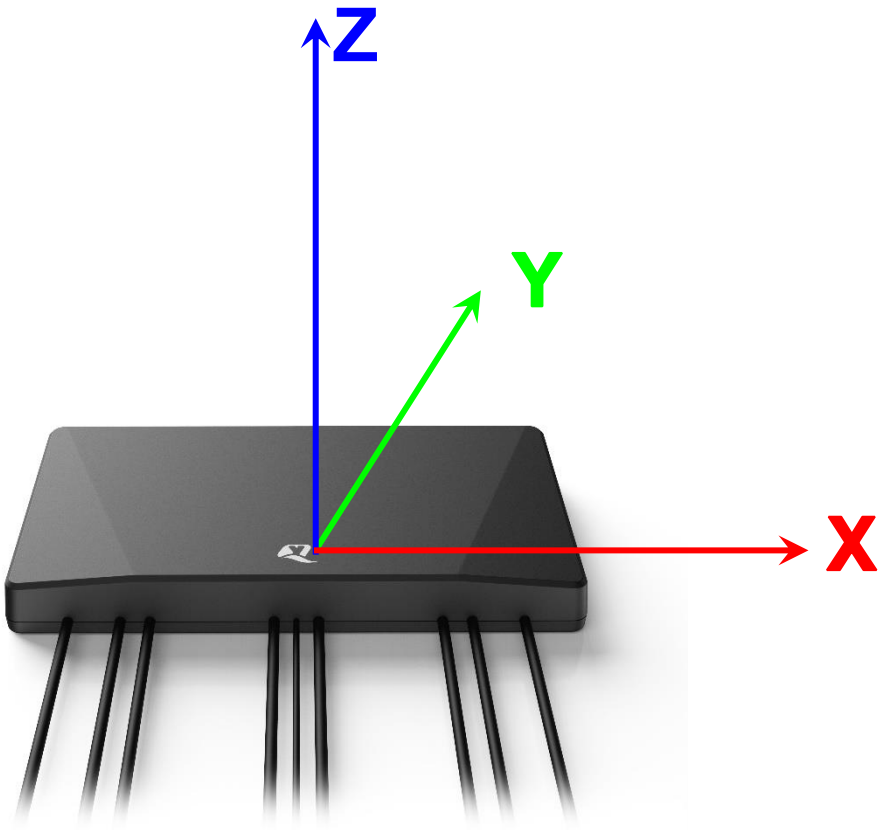



ECC
LMH3 & LMH4
LMH3 & MH1
LMH3 & MH2
LMH3 & MH3
LMH3 & MH4
MH2 & MH3
MH2 & MH4
ECC
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
600
900
1740
2340
2940
3540
4140
4740
5340
5940
Frequency(MHz)


ECC
LMH4 &5 MH1
LMH4 &5 MH2
LMH4 &5 MH3
LMH4 &5 MH4
MH1 & MH2
MH1 & MH3
MH1 & MH4
ECC
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
600
900
1740
2340
2940
3540
4140
4740
5340
5940
Frequency(MHz)

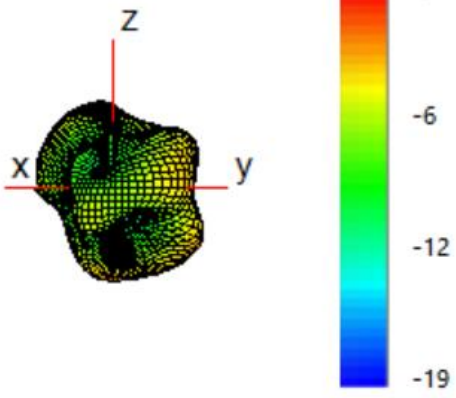
3.2.5. 3D & 2D Radiation Pattern

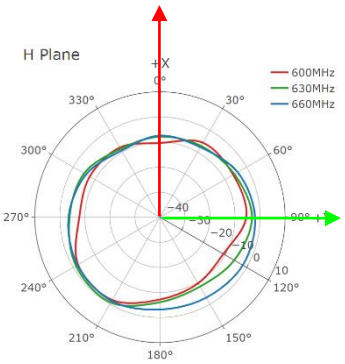
3.2.5.1. Test Status: In Free Space

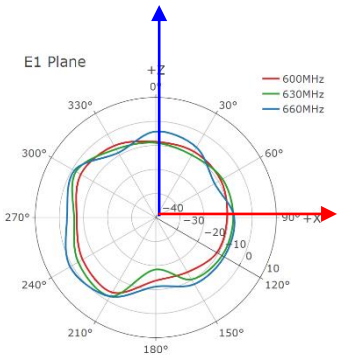


LMH1

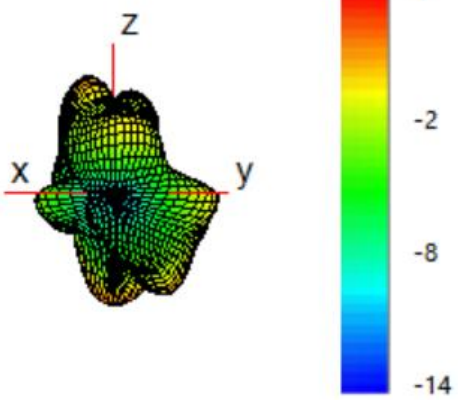
630 MHz

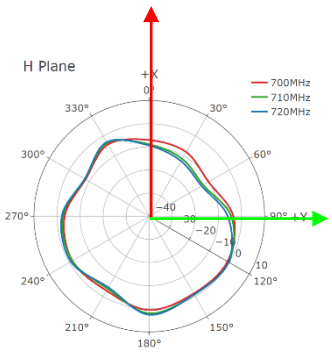


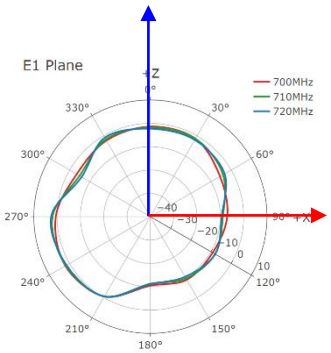




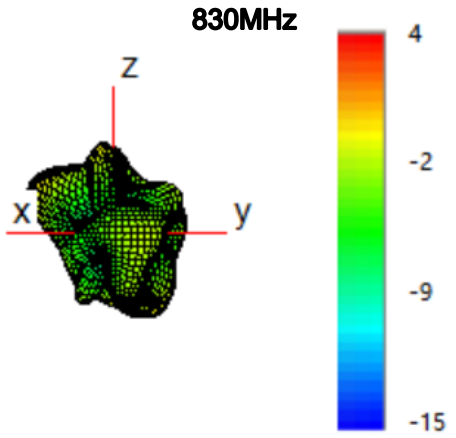
710 MHz

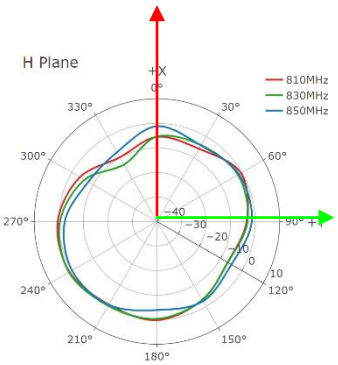


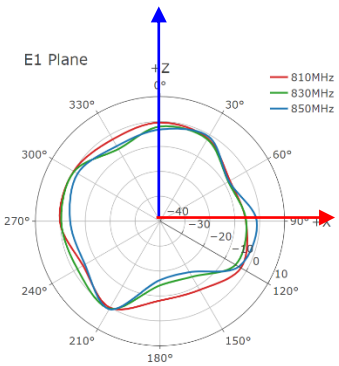




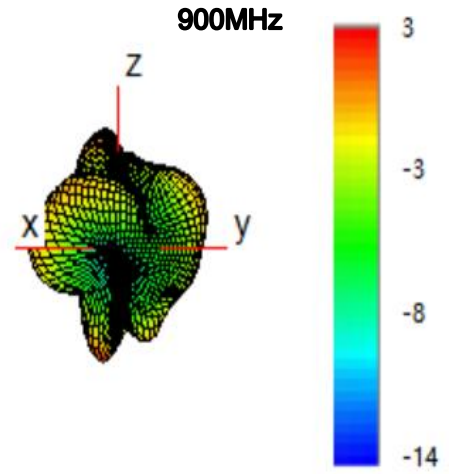
830MHz

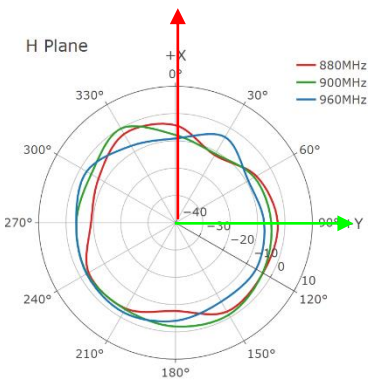


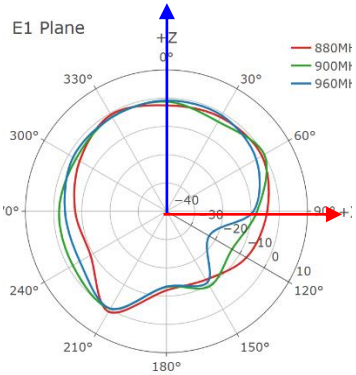




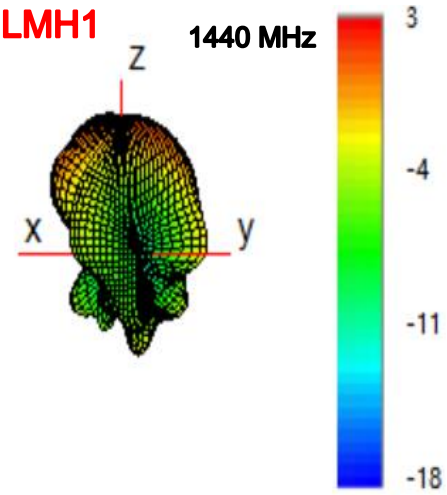
900MHz

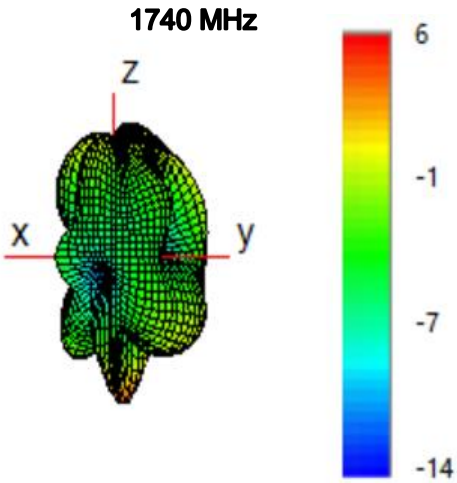


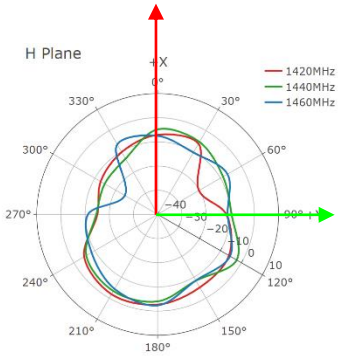


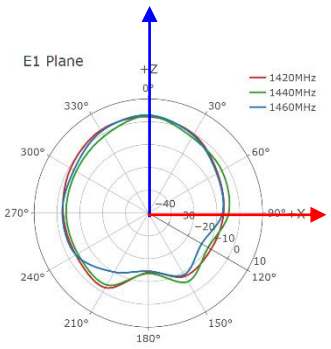


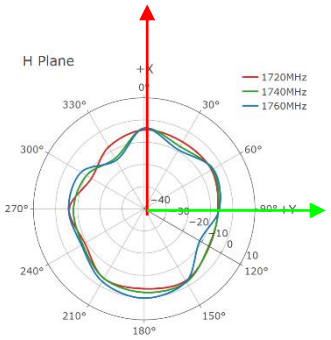
- **LMH1**

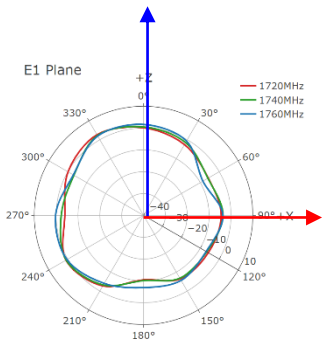

1440 MHz
Z
X
y
3
-4
-11
-18

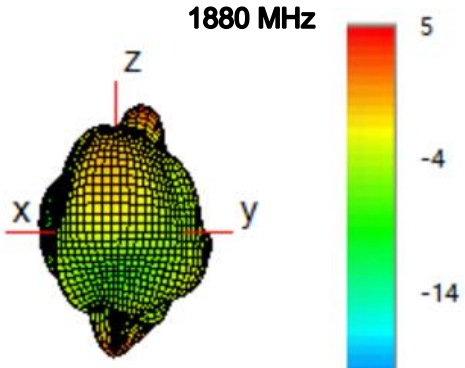

1740 MHz
Z
x
y
6
-1
-7
-14

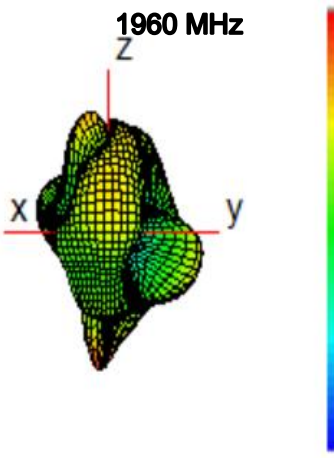

H Plane
1420MHz
1440MHz
1460MHz

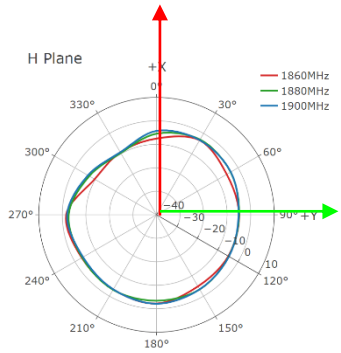

E1 Plane
1420MHz
1440MHz
1460MHz

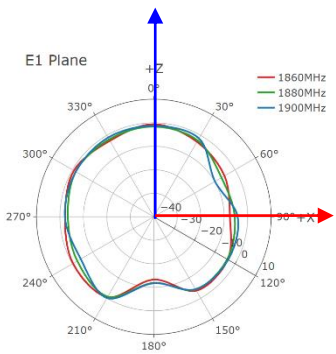

H Plane
1720MHz
1740MHz
1760MHz

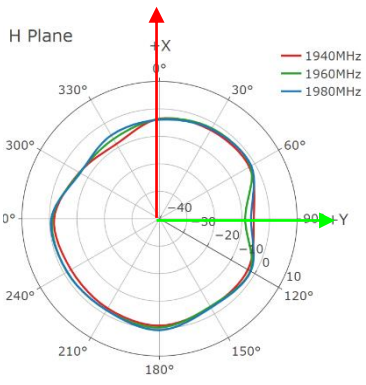

E1 Plane
1720MHz
1740MHz
1760MHz

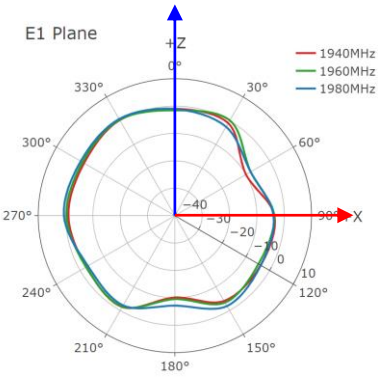

1880 MHz
Z
X
y
5
-4
-14
-23


1960 MHz
Z
X
y
5
-2
-9
-16

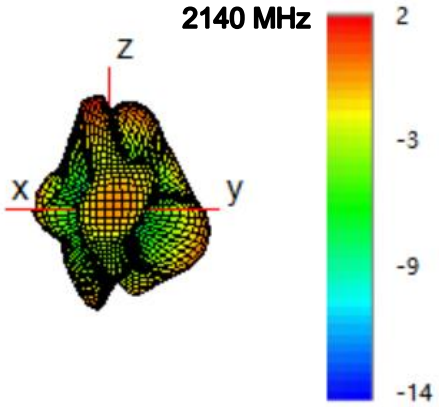

H Plane
1860MHz
1880MHz
1900MHz

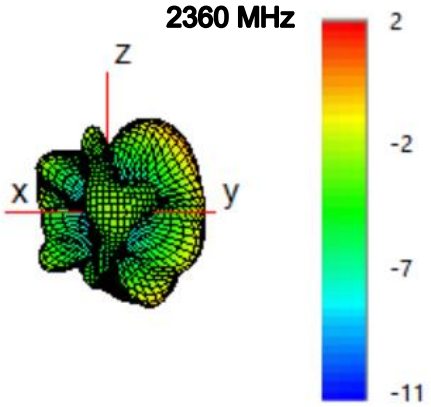

E1 Plane
1860MHz
1880MHz
1900MHz

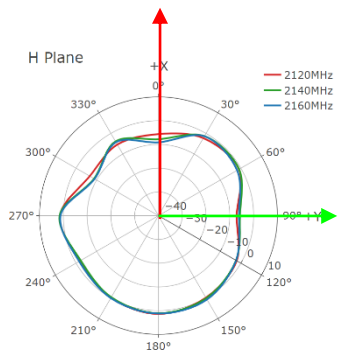

H Plane
1940MHz
1960MHz
1980MHz

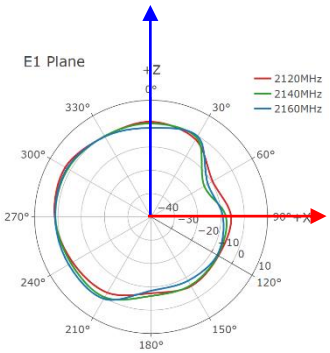

E1 Plane
1940MHz
1960MHz
1980MHz

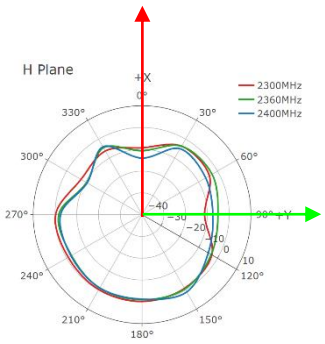
LMH1

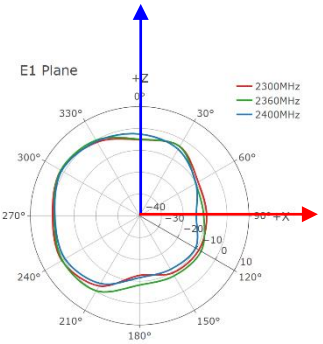

2140 MHz
Z
X
y
2
-3
-9
-14

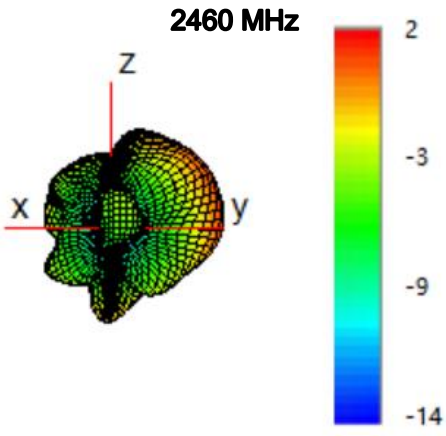

2360 MHz
Z
X
y
2
-2
-7
-11

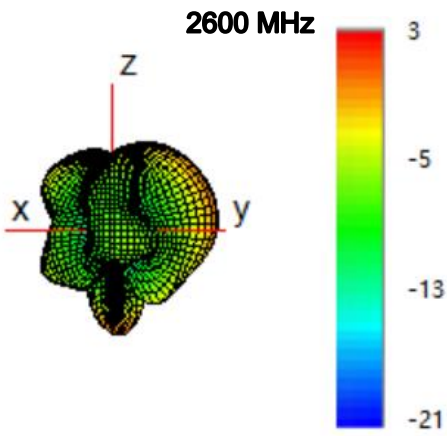

H Plane
2120MHz
2140MHz
2160MHz

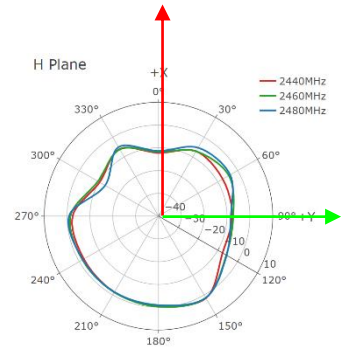

E1 Plane
2120MHz
2140MHz
2160MHz

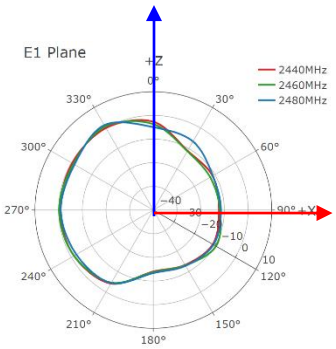

H Plane
2300MHz
2360MHz
2400MHz

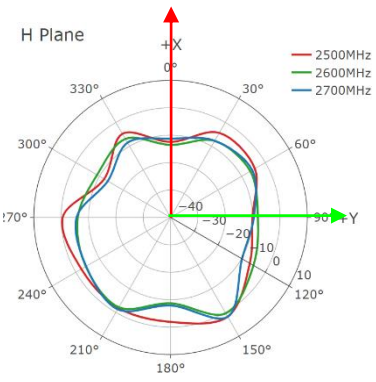

E1 Plane
2300MHz
2360MHz
2400MHz

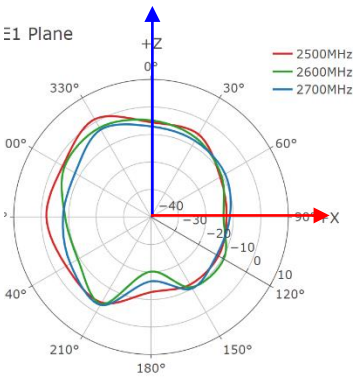

2460 MHz
Z
X
y
2
-3
-9
-14


2600 MHz
Z
X
y
3
-5
-13
-21

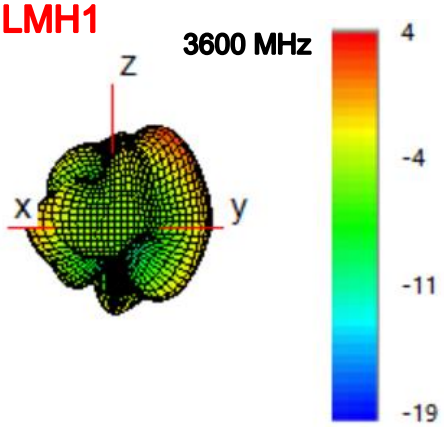

H Plane
2440MHz
2460MHz
2480MHz

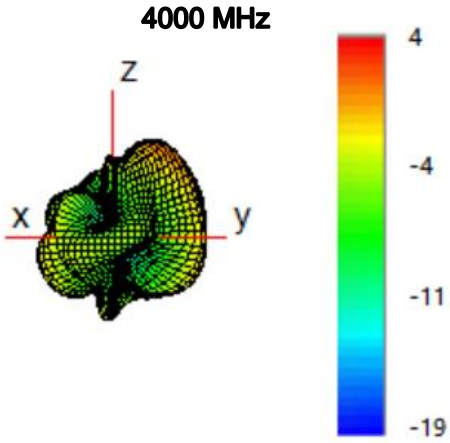

E1 Plane
2440MHz
2460MHz
2480MHz

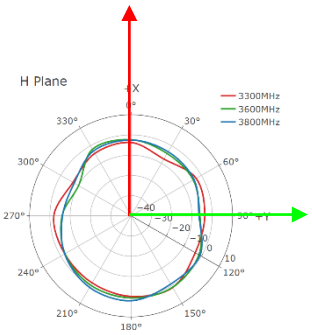

H Plane
2500MHz
2600MHz
2700MHz

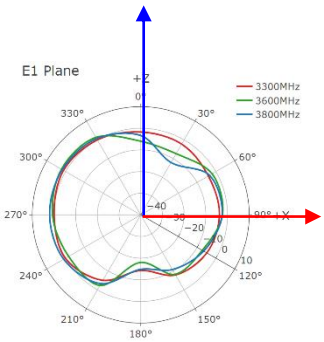

E1 Plane
2500MHz
2600MHz
2700MHz

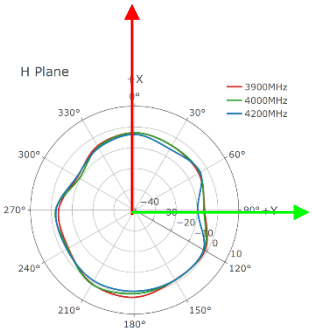
- **LMH1**

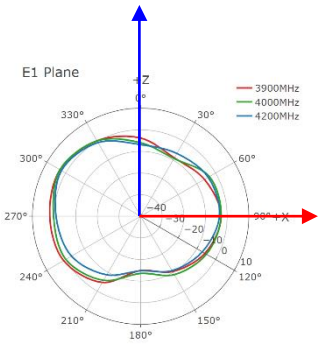

3600 MHz
Z
X
y
4
-4
-11
-19

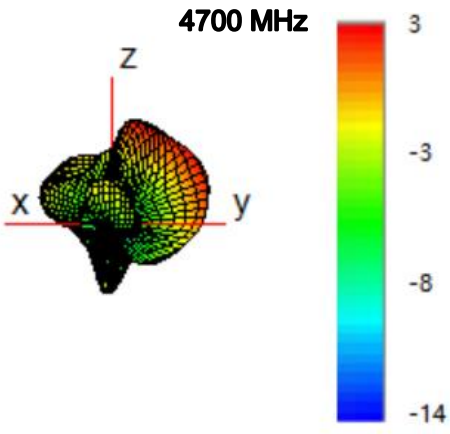

4000 MHz
Z
X
y
4
-4
-11
-19

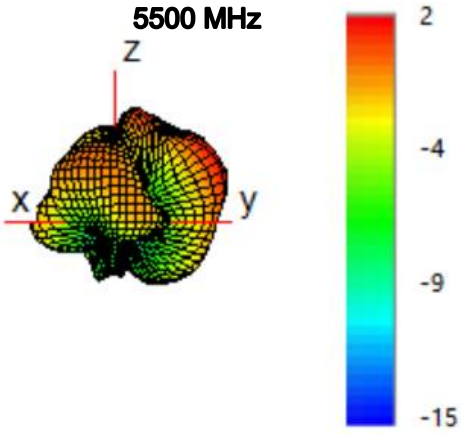

H Plane
3300MHz
3600MHz
3800MHz

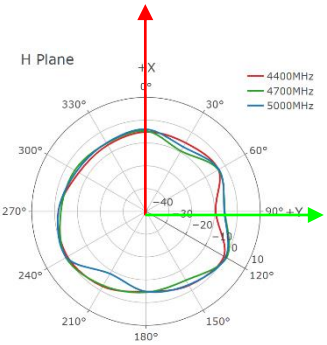

E1 Plane
3300MHz
3600MHz
3800MHz

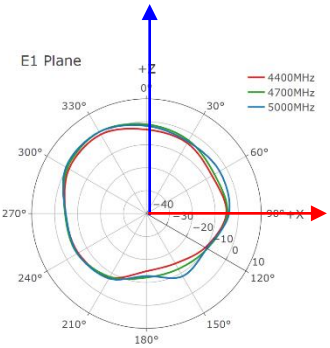

H Plane
3900MHz
4000MHz
4200MHz

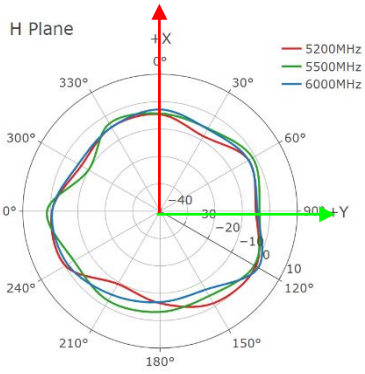

E1 Plane
3900MHz
4000MHz
4200MHz

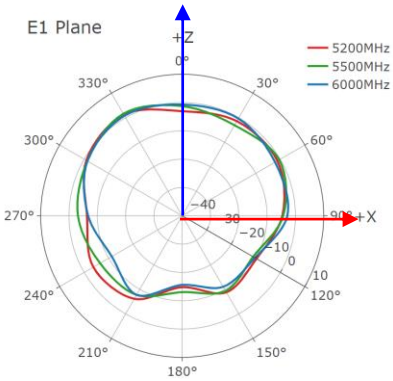

4700 MHz
Z
X
y
3
-3
-8
-14


5500 MHz
Z
X
y
2
-4
-9
-15


H Plane
4400MHz
4700MHz
5000MHz

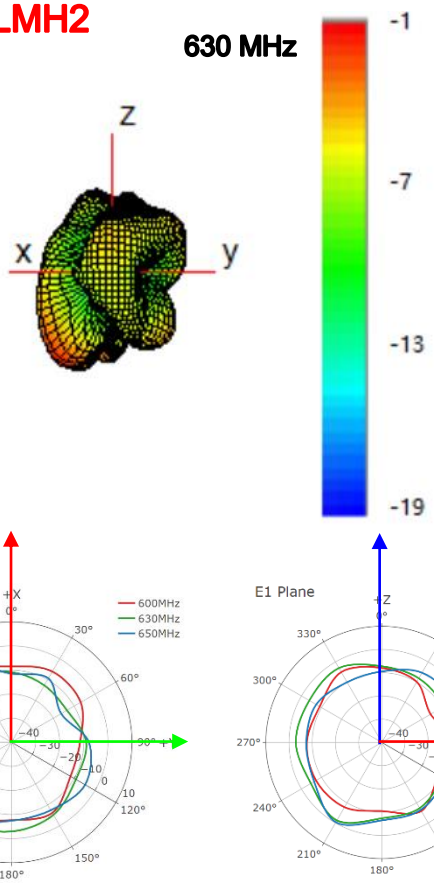

E1 Plane
4400MHz
4700MHz
5000MHz

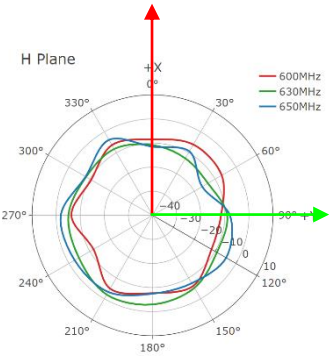

H Plane
5200MHz
5500MHz
6000MHz

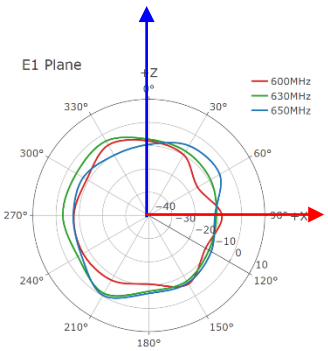

E1 Plane
5200MHz
5500MHz
6000MHz

- **LMH2**

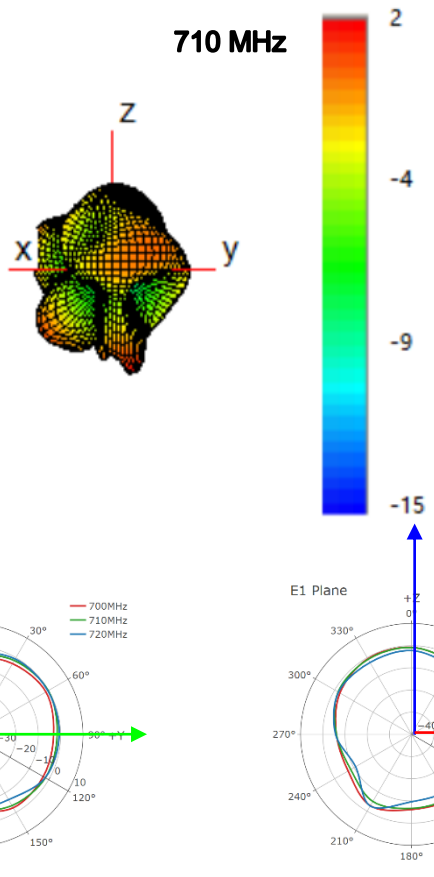
630 MHz

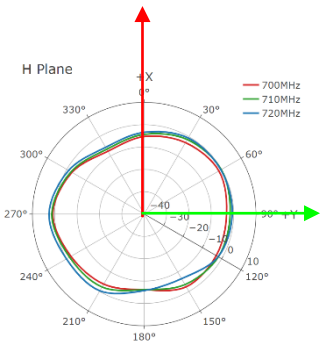


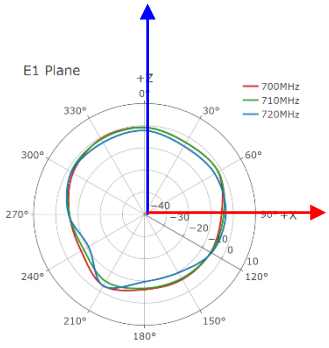




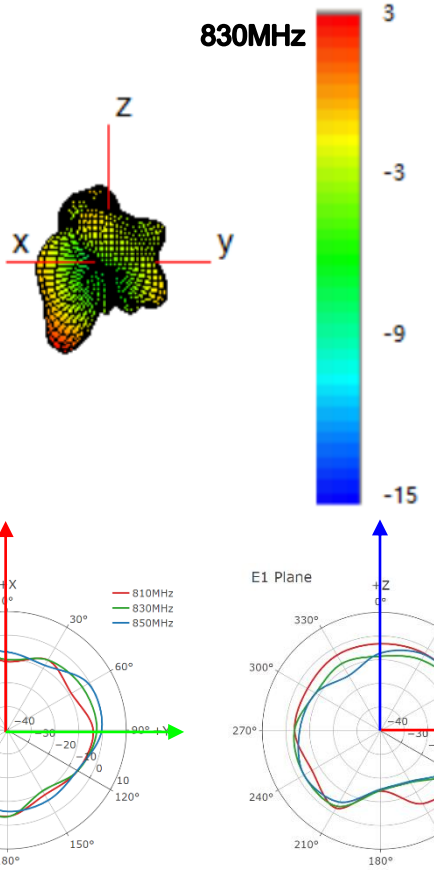
710 MHz

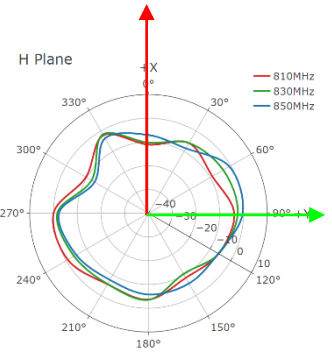


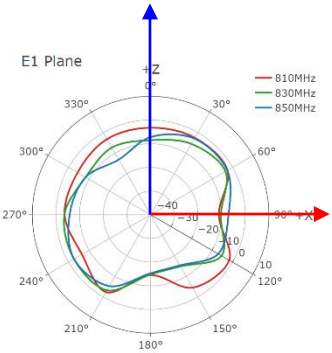




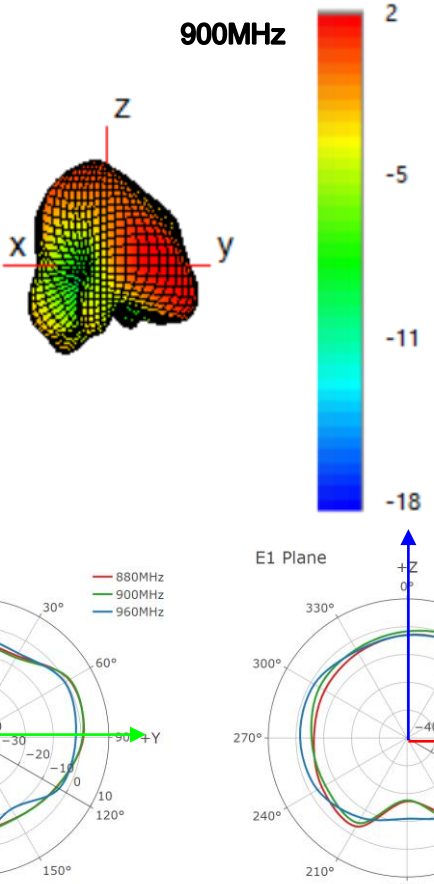
830MHz

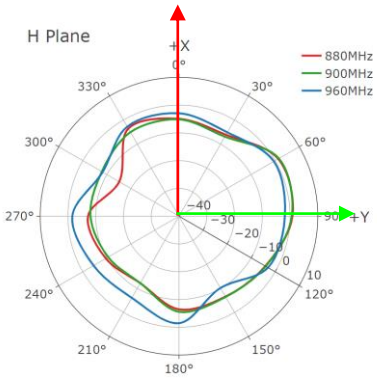


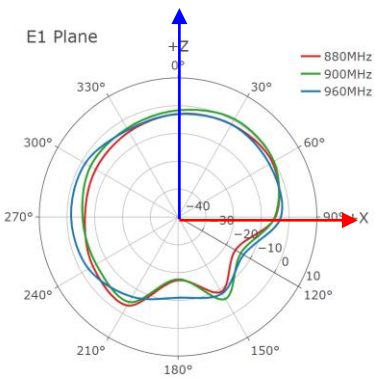




900MHz

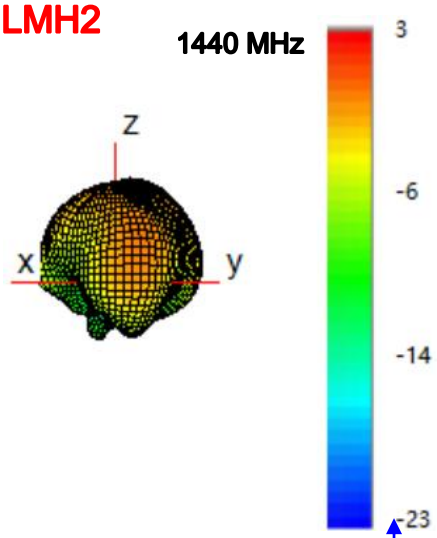


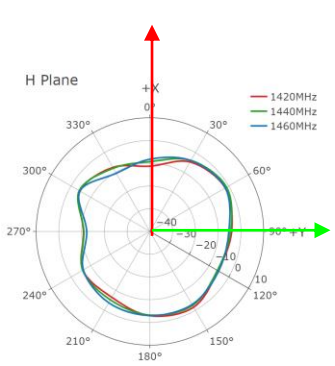


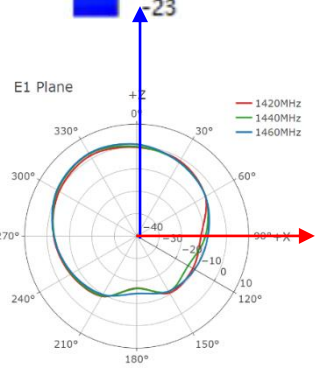


- **LMH2**

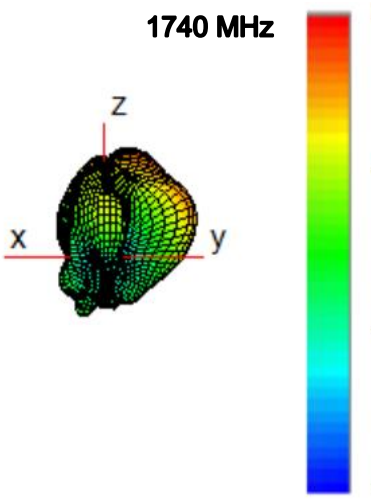
1440 MHz

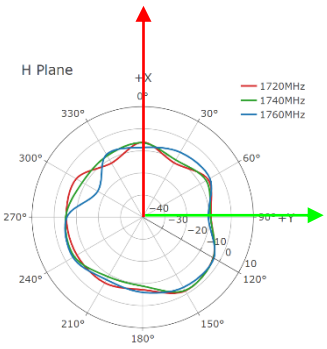


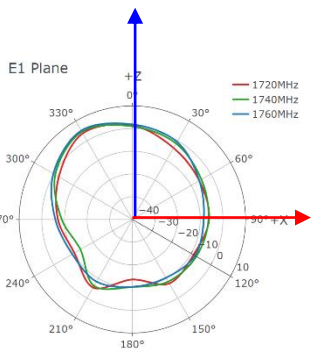




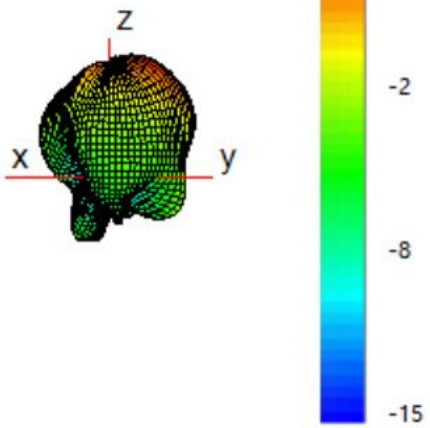
1740 MHz

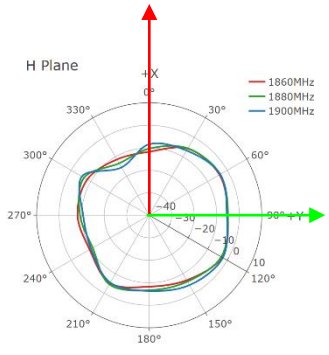


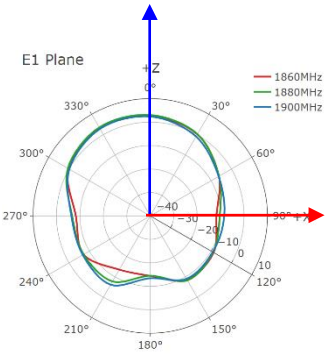




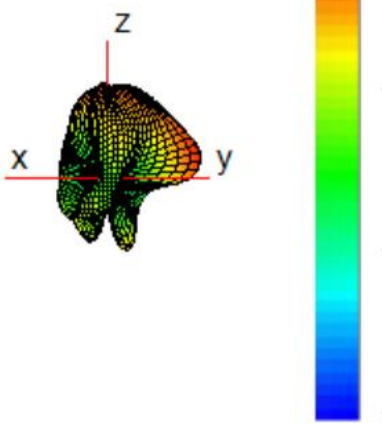
1880 MHz

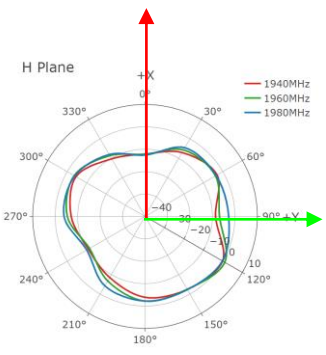


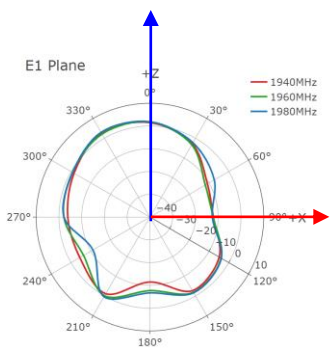




1960 MHz

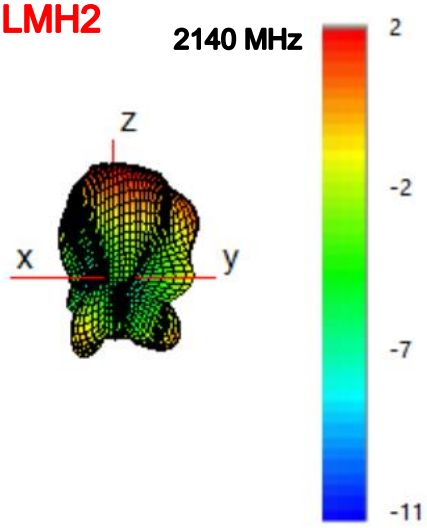


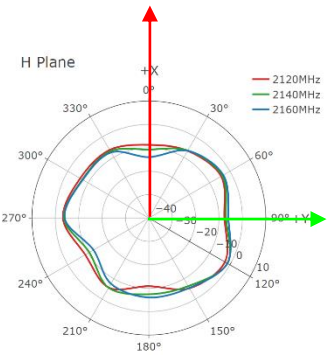


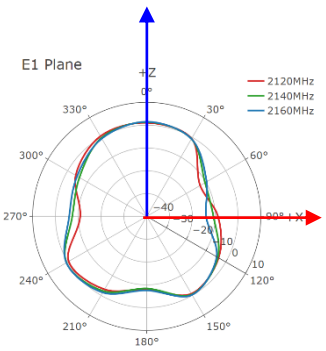


- **LMH2**

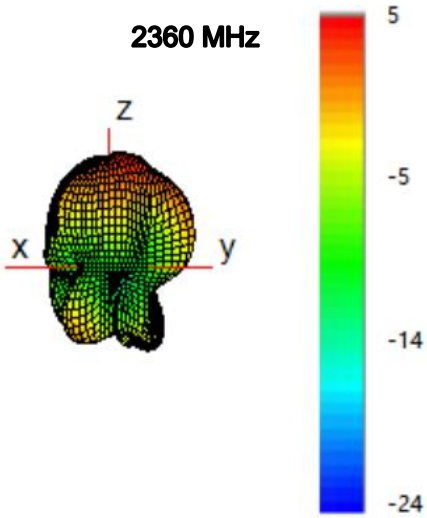
2140 MHz

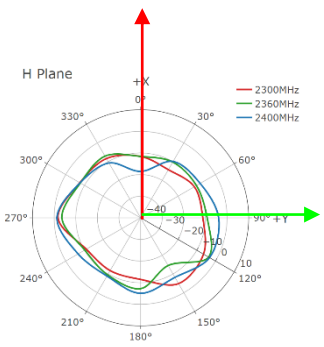


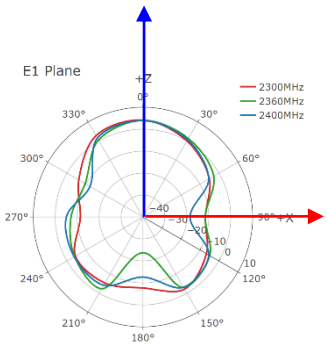




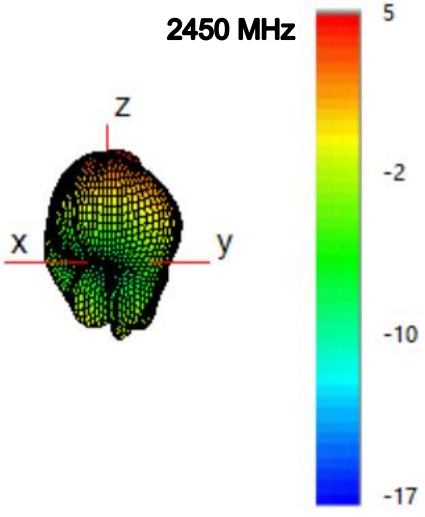
2360 MHz

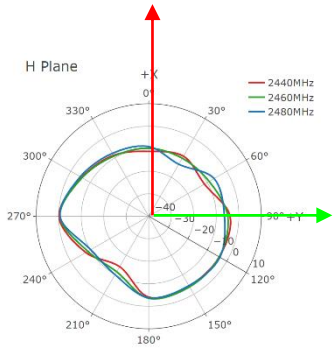


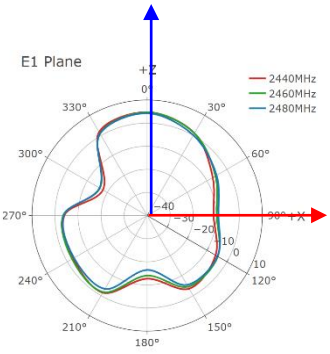




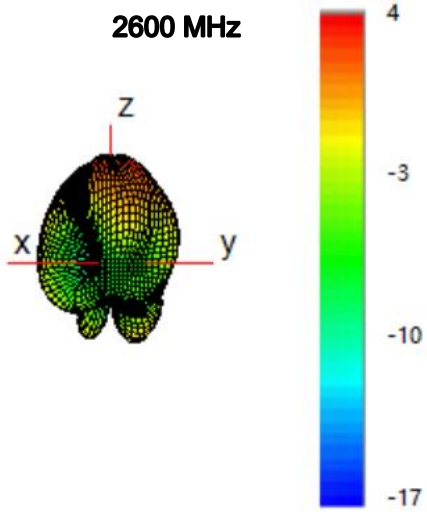
2450 MHz

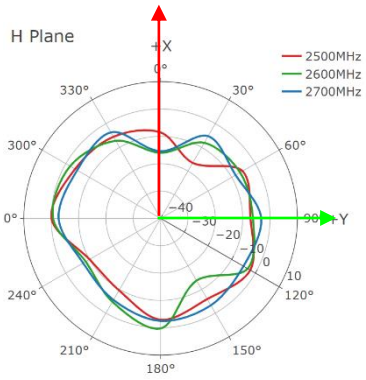


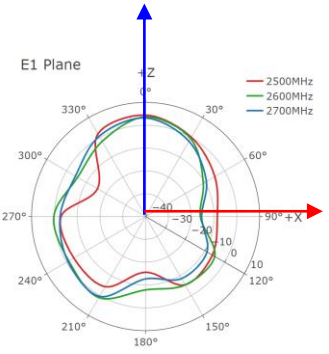




2600 MHz

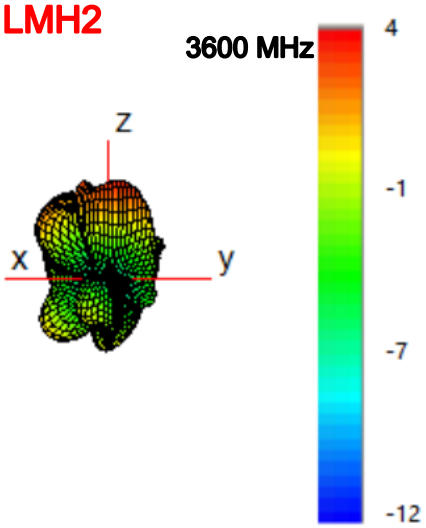


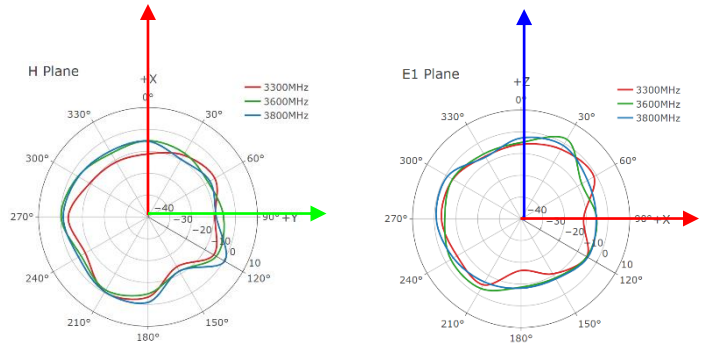




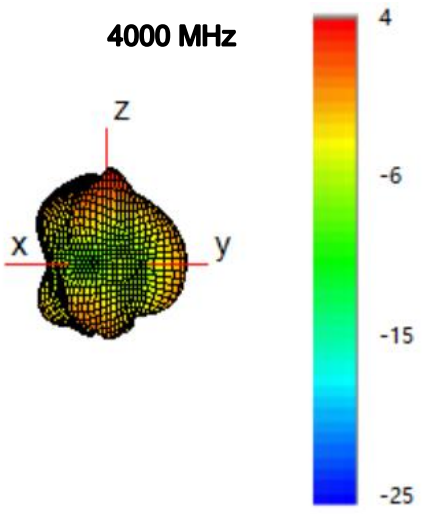
- **LMH2**

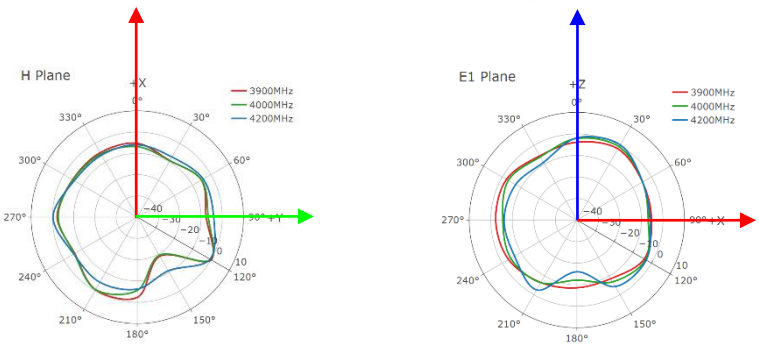
3600 MHz



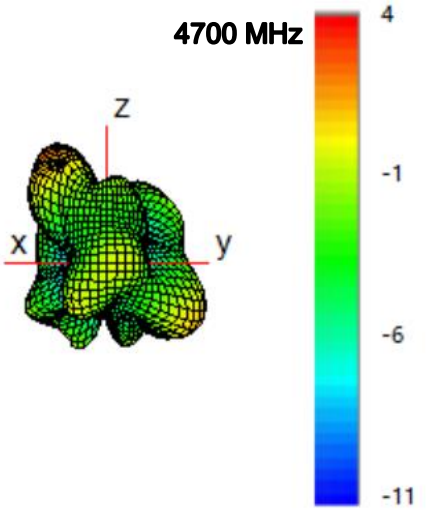


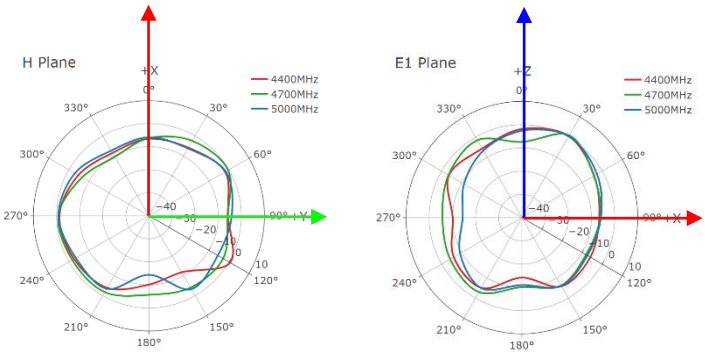
4000 MHz



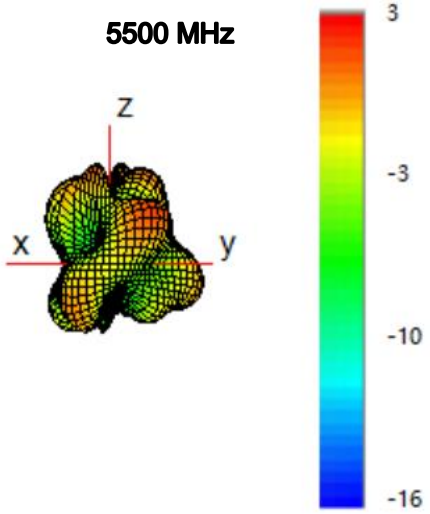


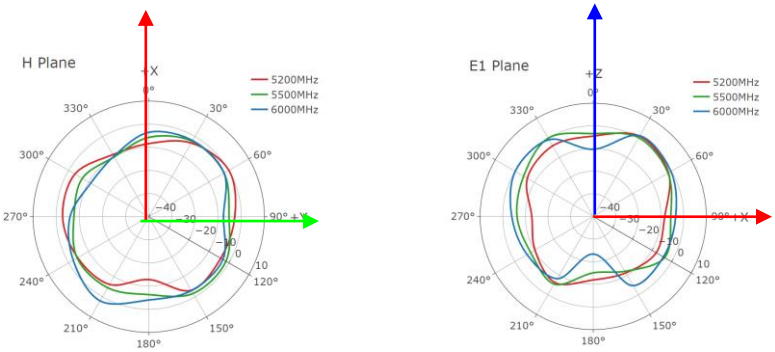
4700 MHz



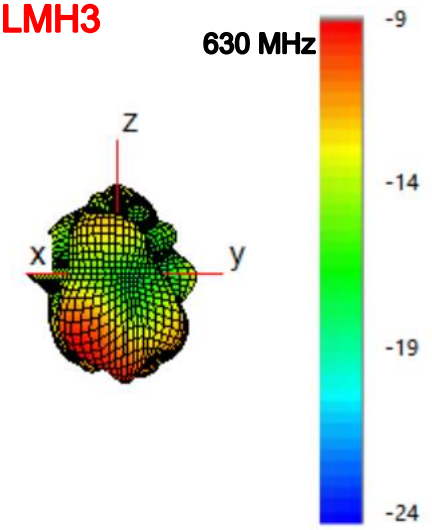


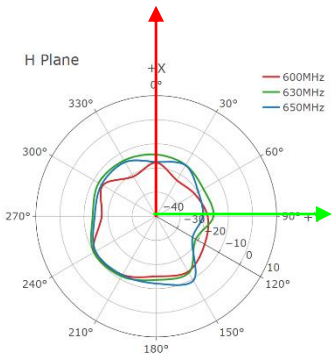
5500 MHz

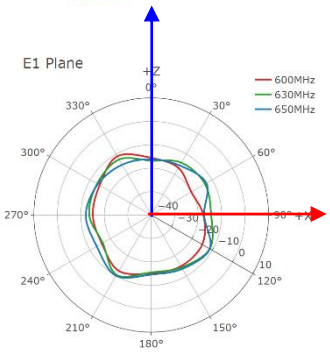


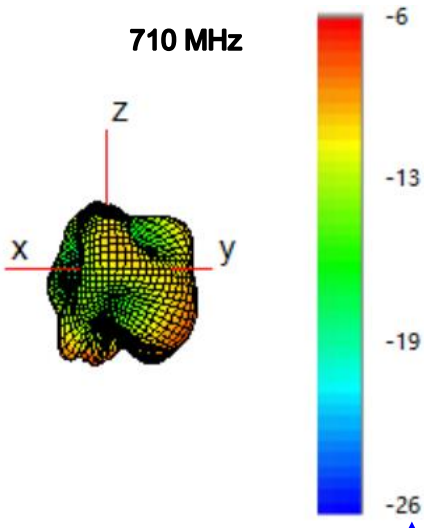


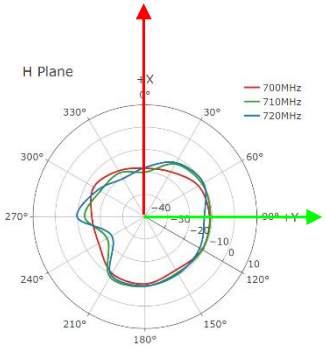
- **LMH3**

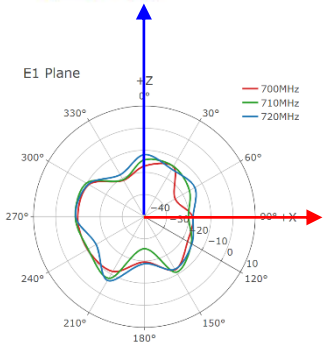

630 MHz
-9
-14
-19
-24
Z
X
y

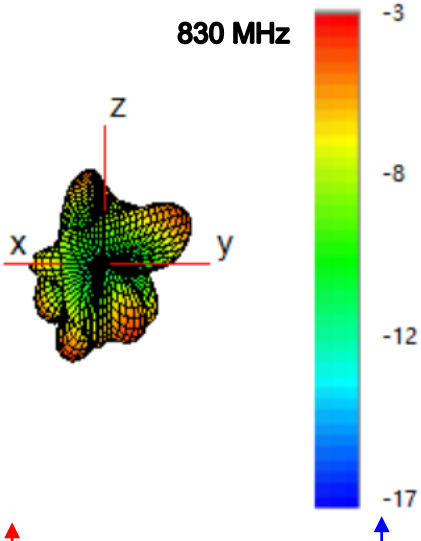

H Plane
600MHz
630MHz
650MHz

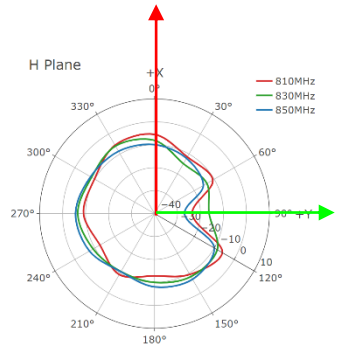

E1 Plane
600MHz
630MHz
650MHz

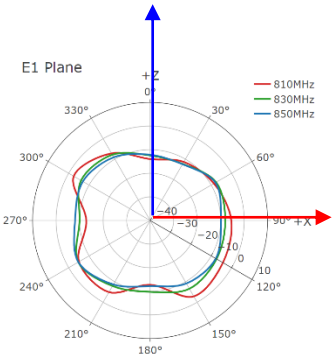

710 MHz
-6
-13
-19
-26
Z
X
y

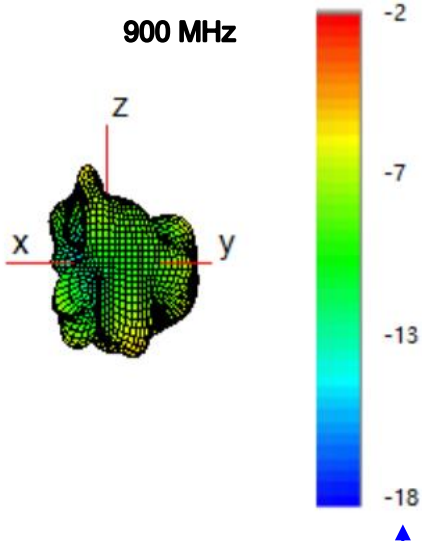

H Plane
700MHz
710MHz
720MHz

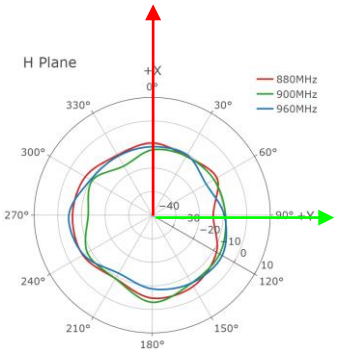

E1 Plane
700MHz
710MHz
720MHz

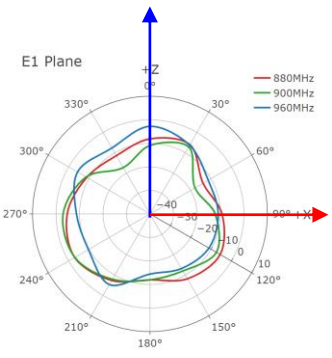

830 MHz
-3
-8
-12
-17
Z
X
y


H Plane
810MHz
830MHz
850MHz


E1 Plane
810MHz
830MHz
850MHz

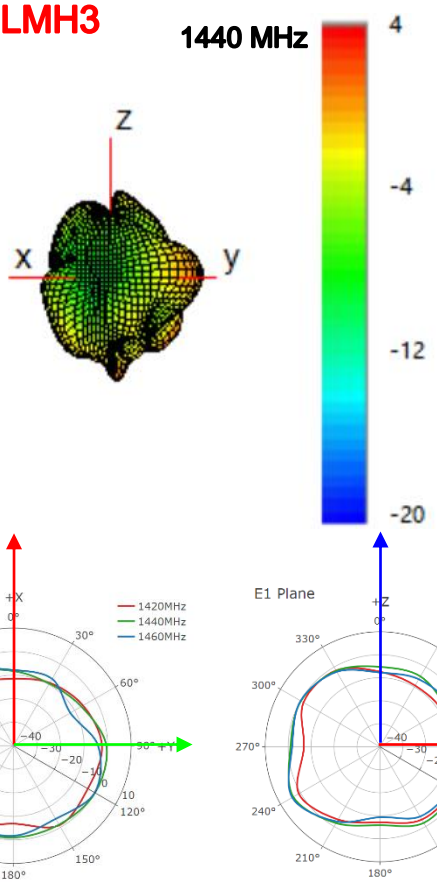

900 MHz
-2
-7
-13
-18
Z
X
y

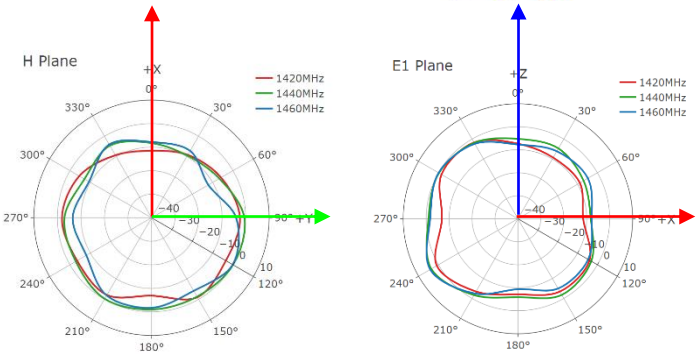

H Plane
880MHz
900MHz
960MHz


E1 Plane
880MHz
900MHz
960MHz

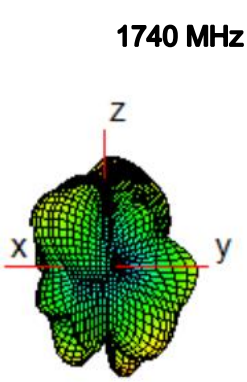
- **LMH3**

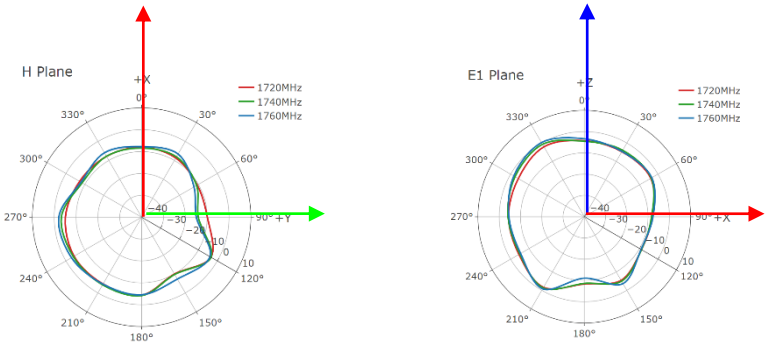
1440 MHz



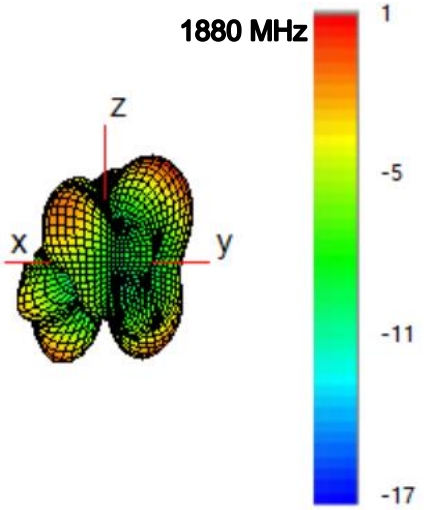


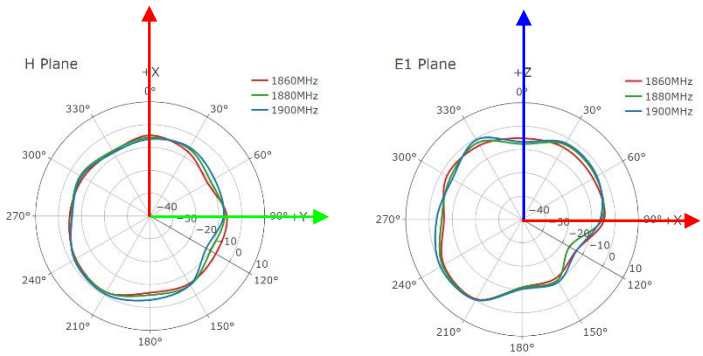
1740 MHz



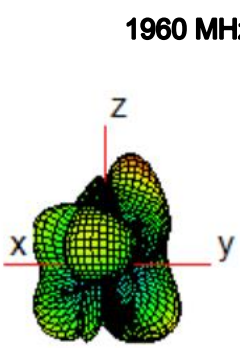


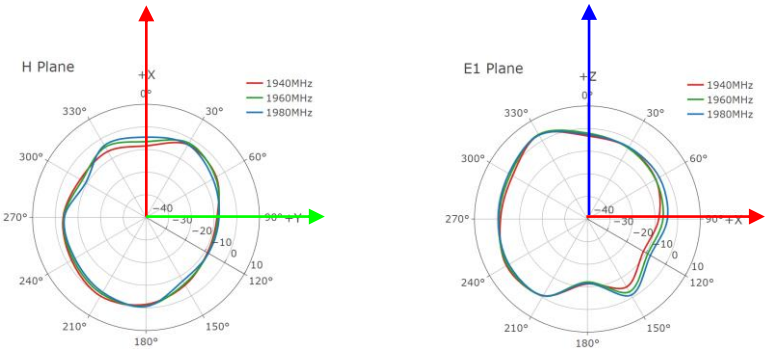
1880 MHz





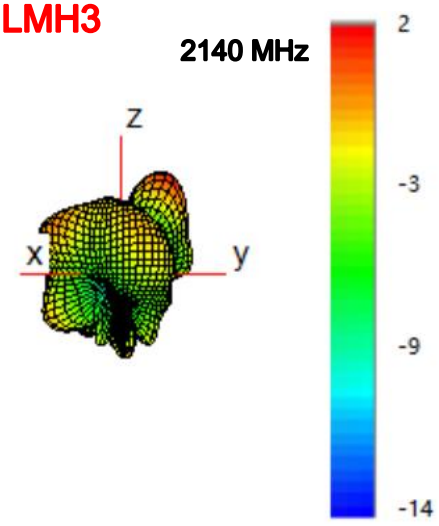
1960 MHz

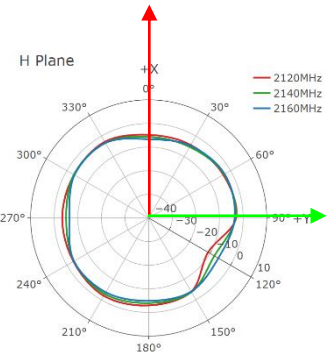


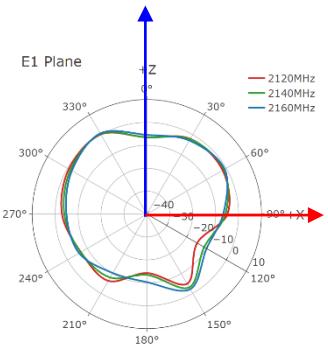


- **LMH3**

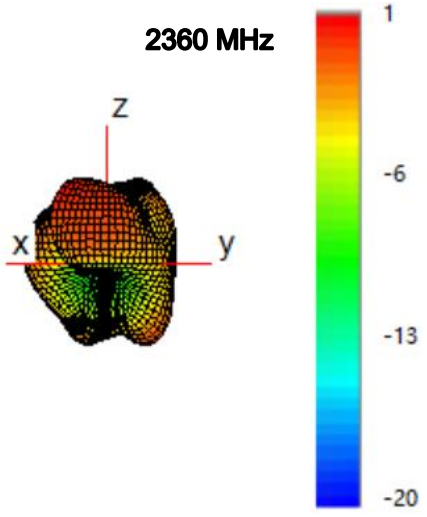
2140 MHz

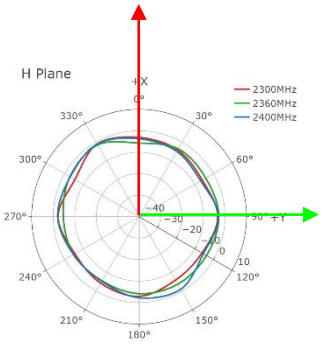


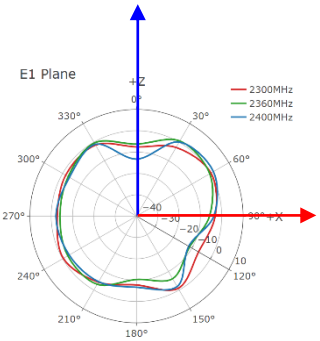




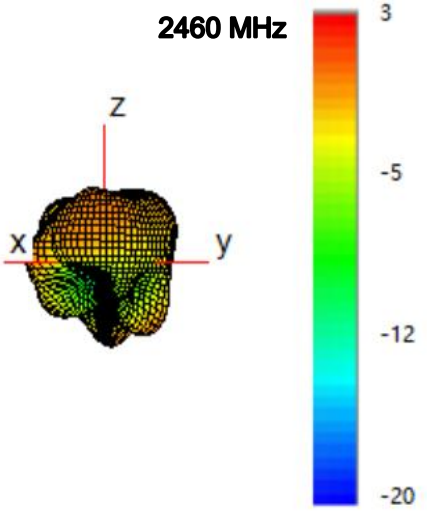
2360 MHz

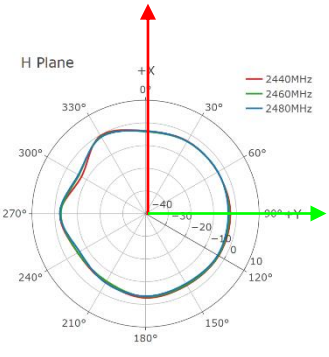


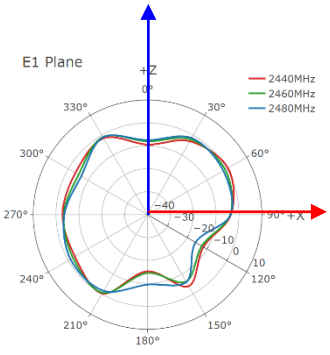




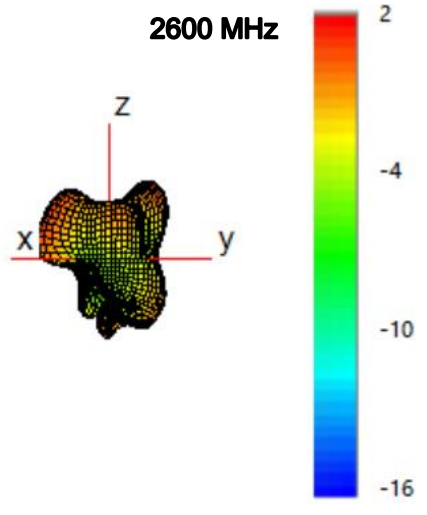
2460 MHz

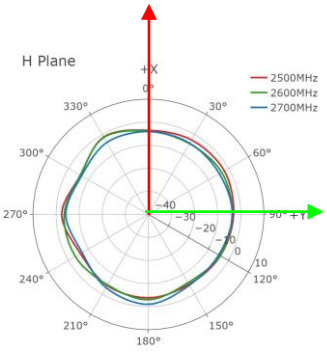


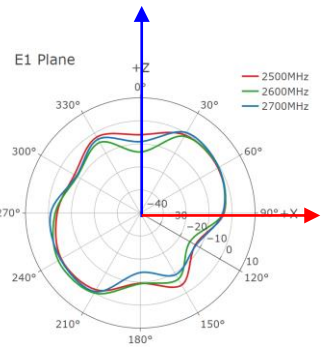




2600 MHz

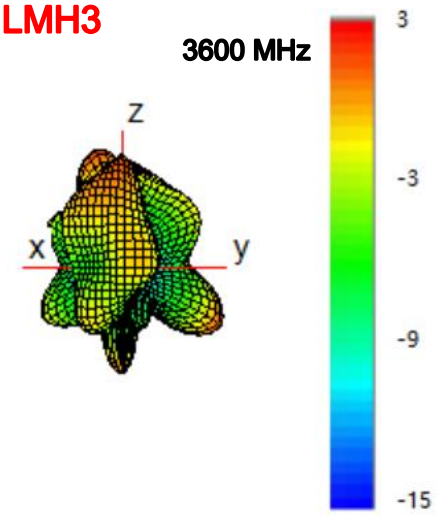


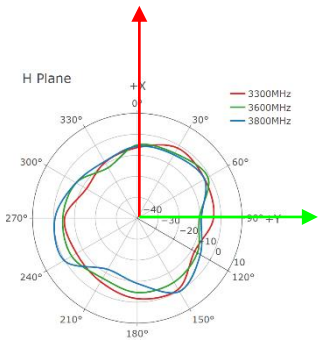


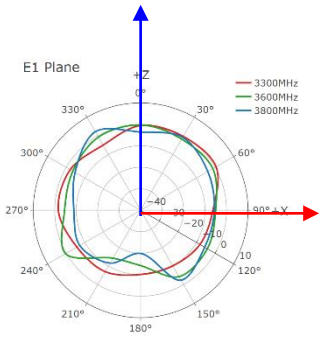


LMH3

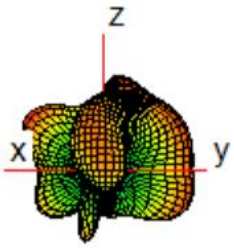
3600 MHz

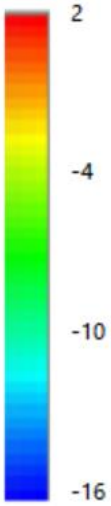


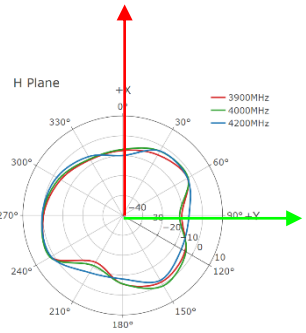


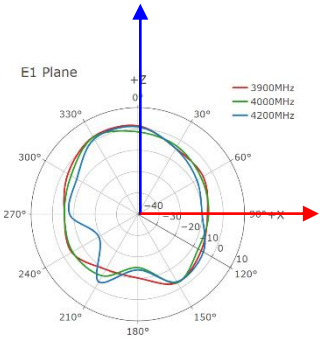


4000 MHz

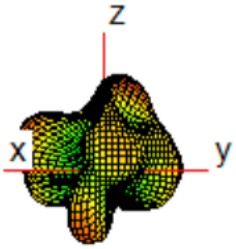


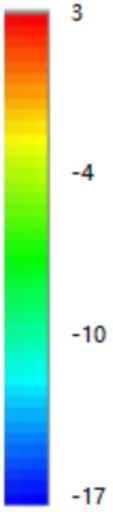


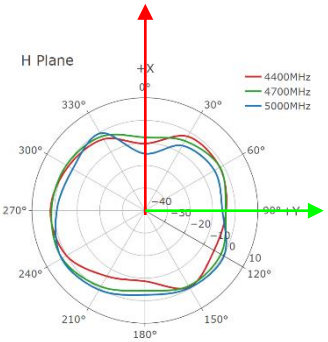


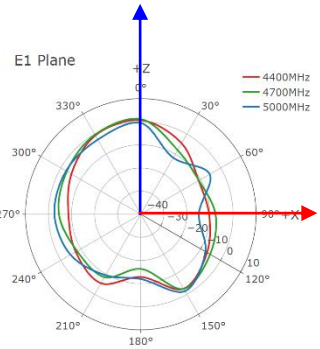


4700 MHz

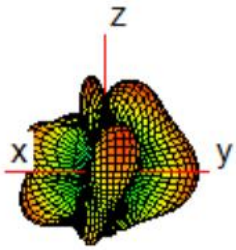


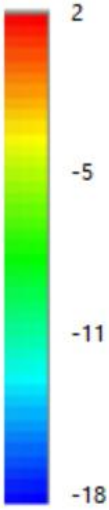


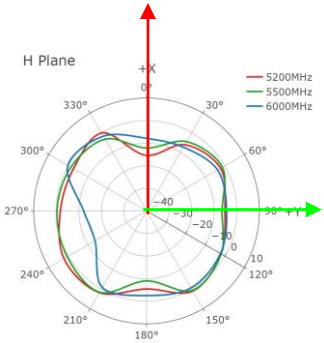


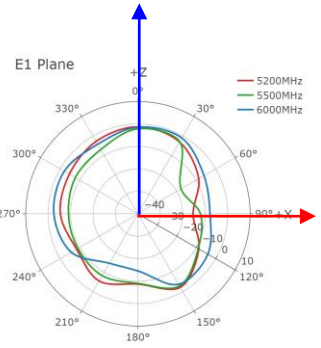


5500 MHz

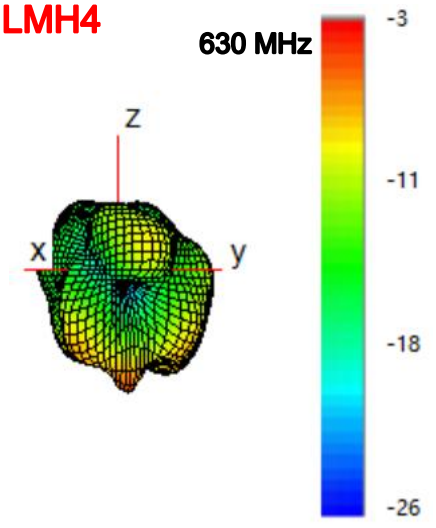


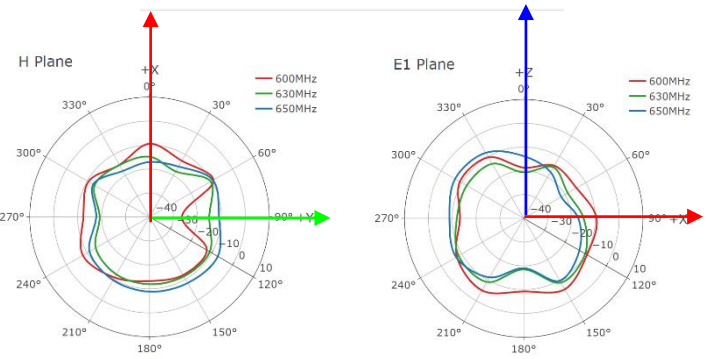


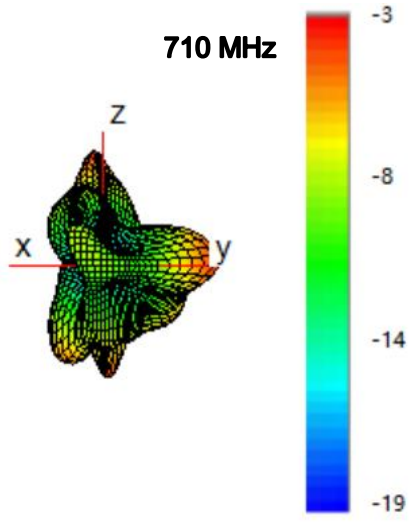


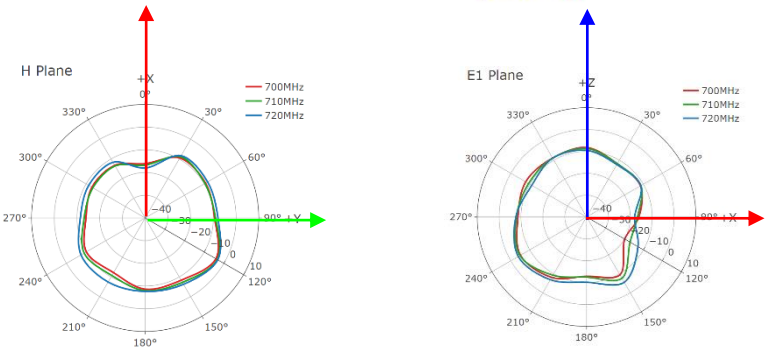


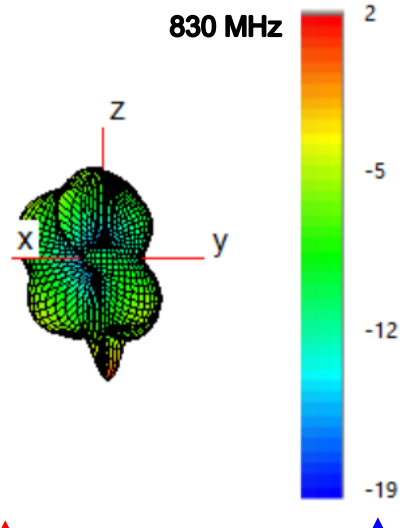
- **LMH4**

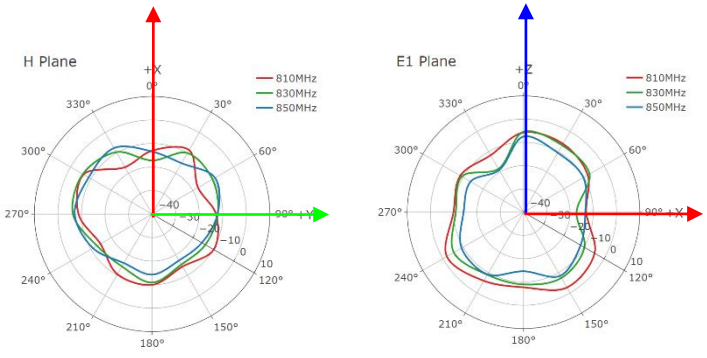

630 MHz
-3
-11
-18
-26
Z
X
y

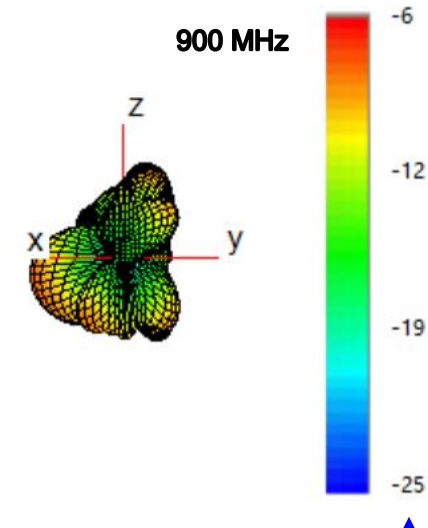

H Plane
600MHz
630MHz
650MHz
E1 Plane
600MHz
630MHz
650MHz

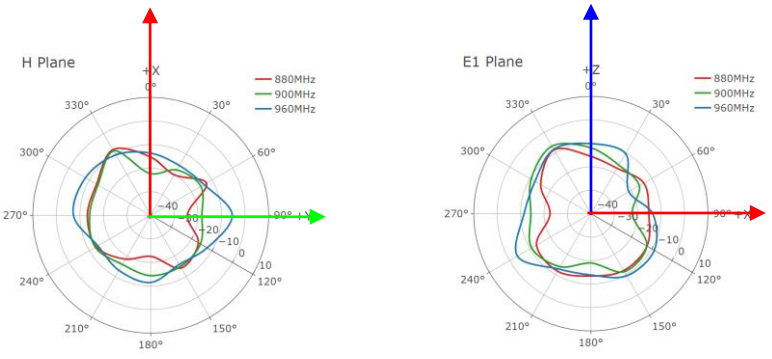

710 MHz
-3
-8
-14
-19
Z
X
y


H Plane
700MHz
710MHz
720MHz
E1 Plane
700MHz
710MHz
720MHz


830 MHz
2
-5
-12
-19
Z
X
y

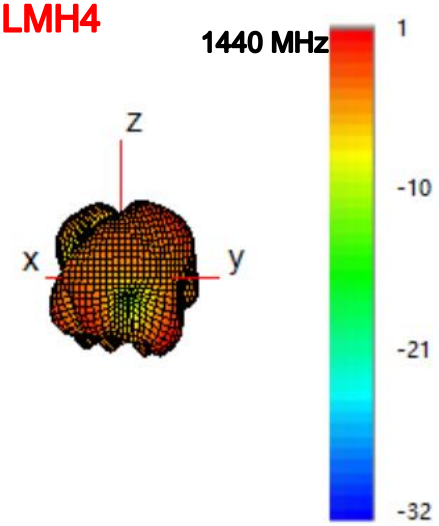

H Plane
810MHz
830MHz
850MHz
E1 Plane
810MHz
830MHz
850MHz

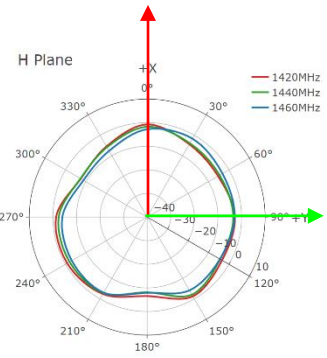

900 MHz
-6
-12
-19
-25
Z
X
y

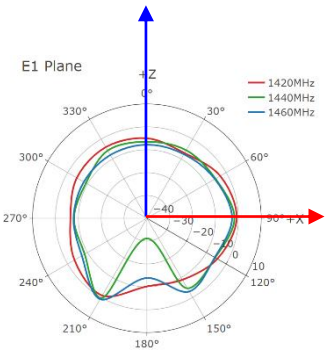

H Plane
880MHz
900MHz
960MHz
E1 Plane
880MHz
900MHz
960MHz

- **LMH4**

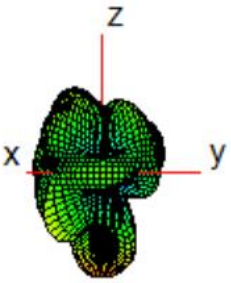
1440 MHz

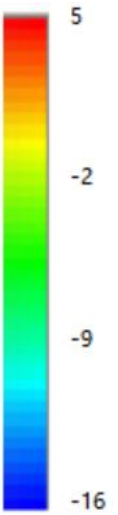


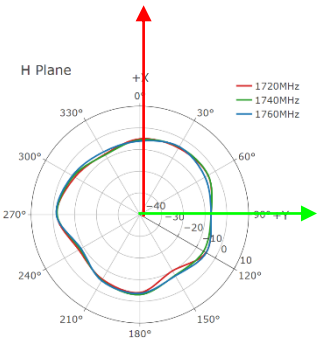


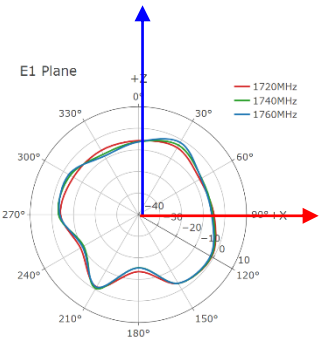


1740 MHz

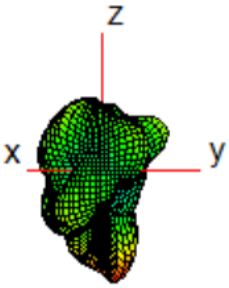


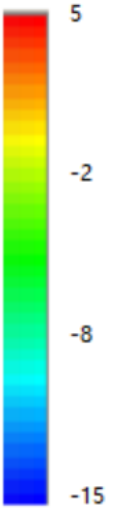


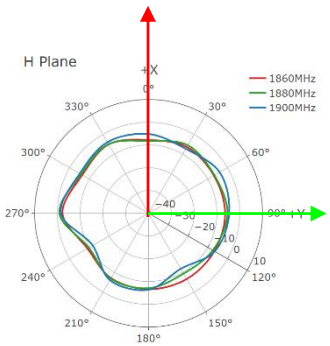


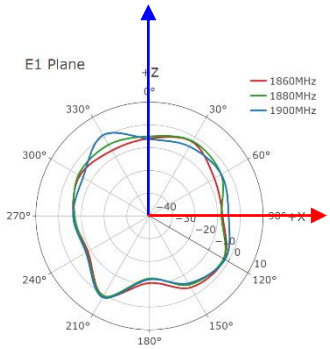


1880MHz

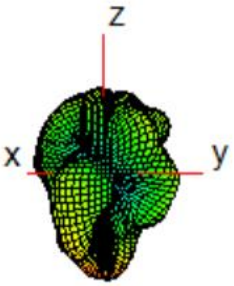


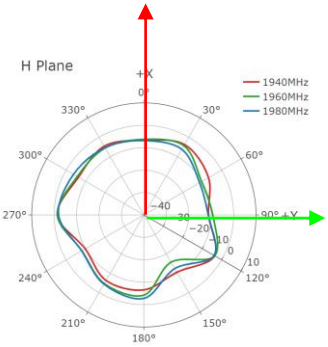


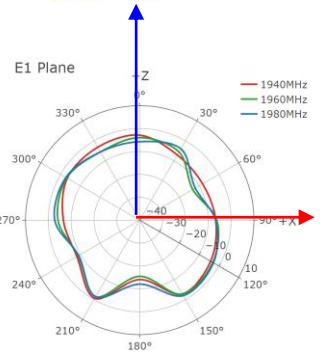




1960MHz

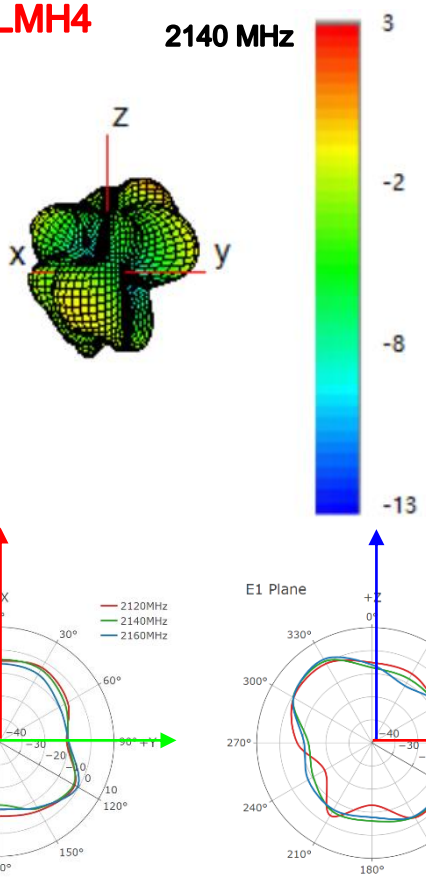


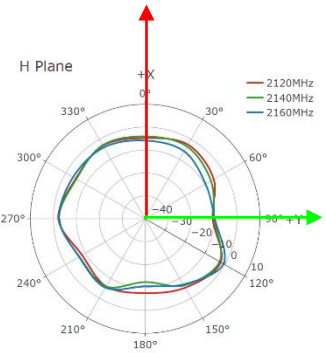


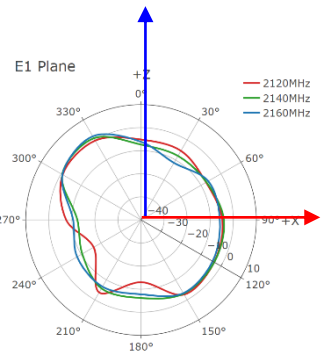


- **LMH4**

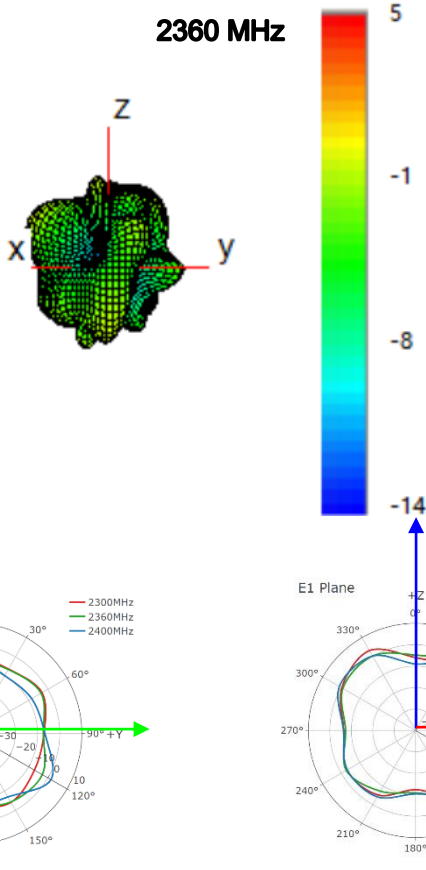
2140 MHz

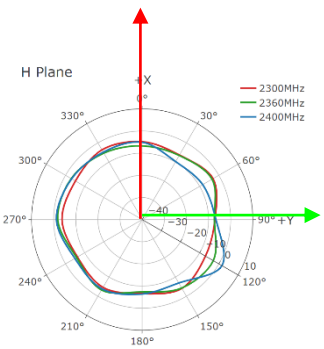


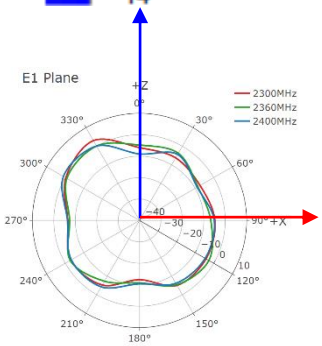




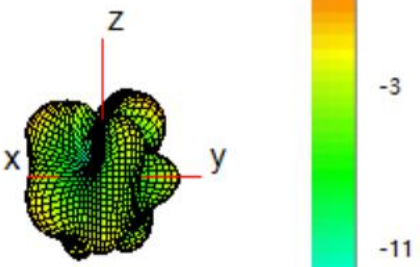
2360 MHz

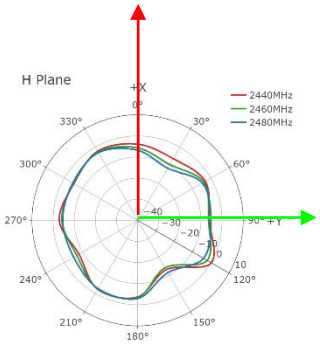


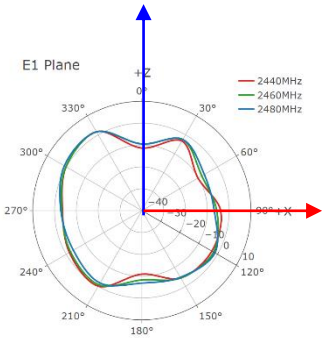




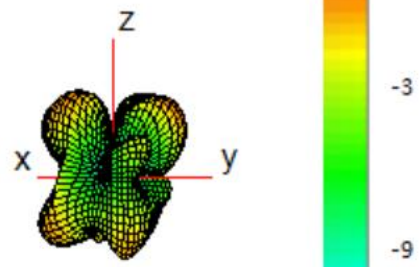
2460 MHz

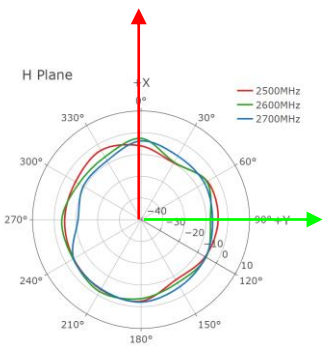


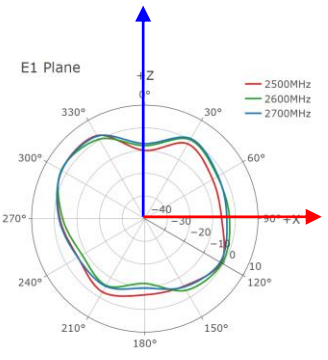




2600 MHz

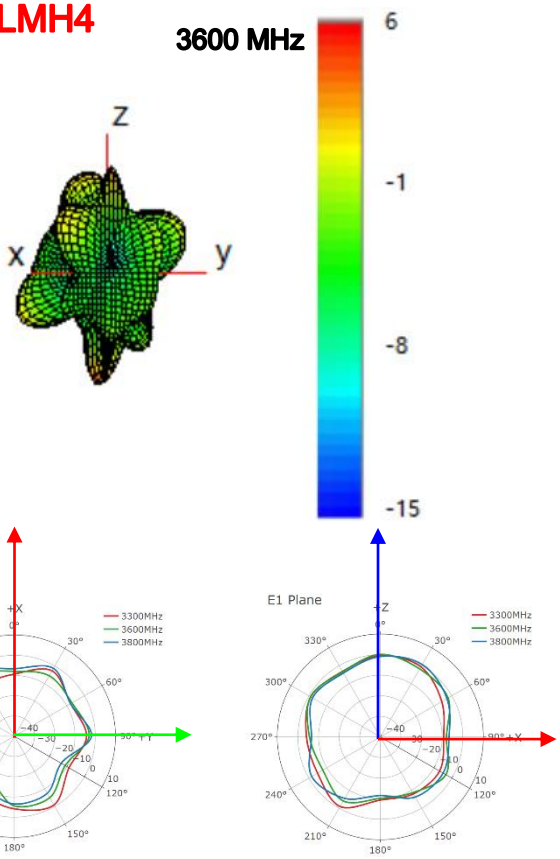




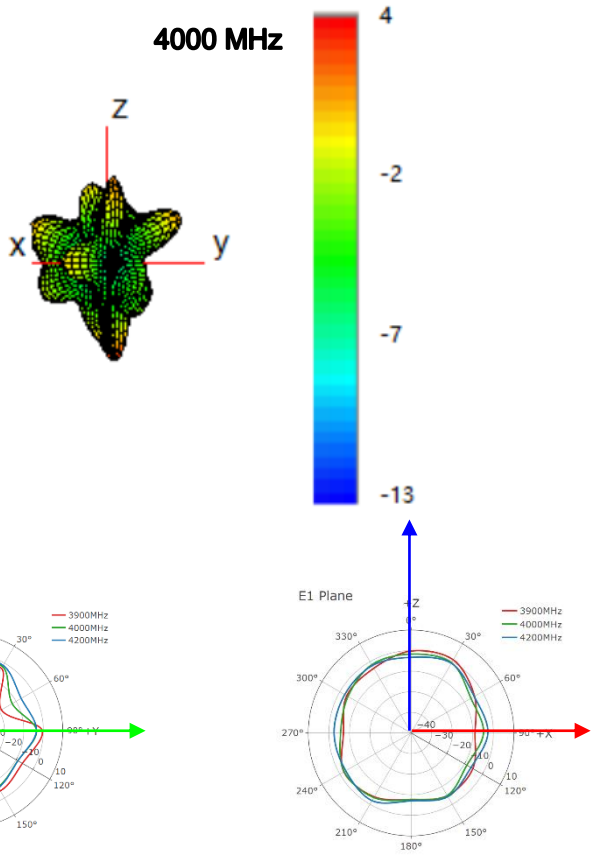


- **LMH4**

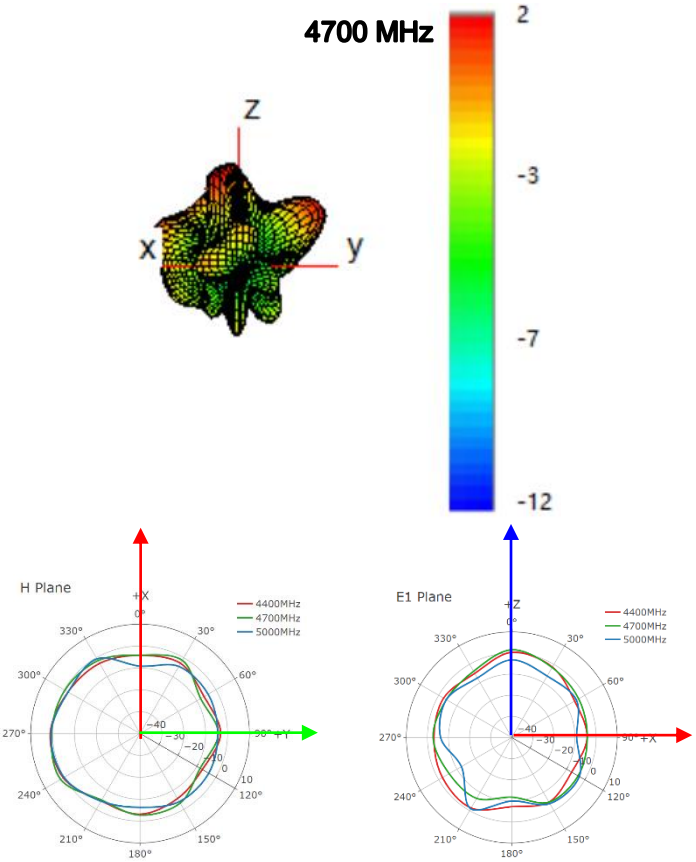
3600 MHz



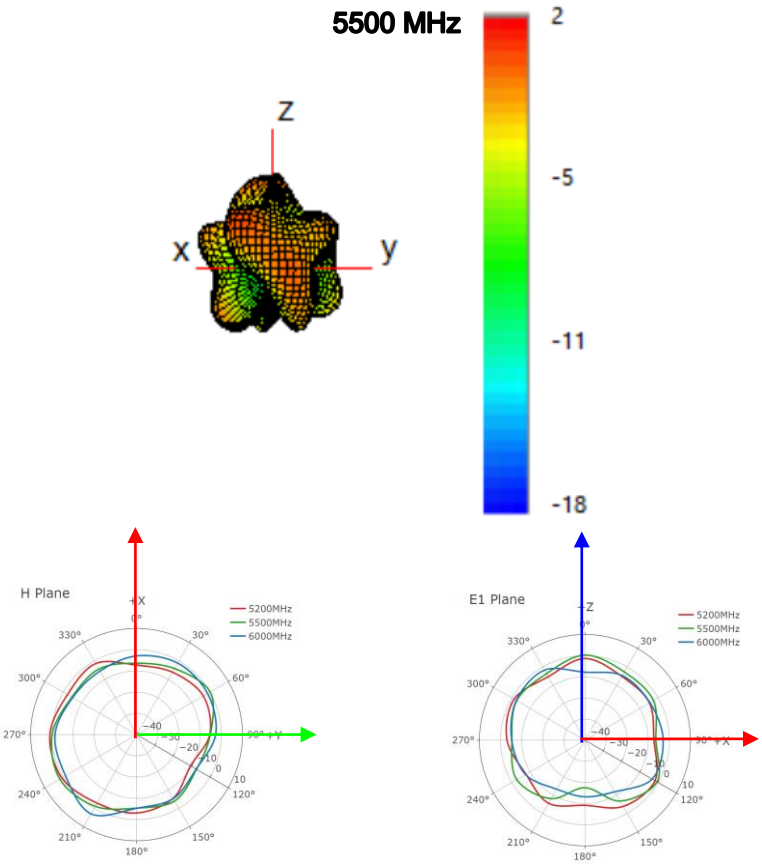
4000 MHz



4700 MHz

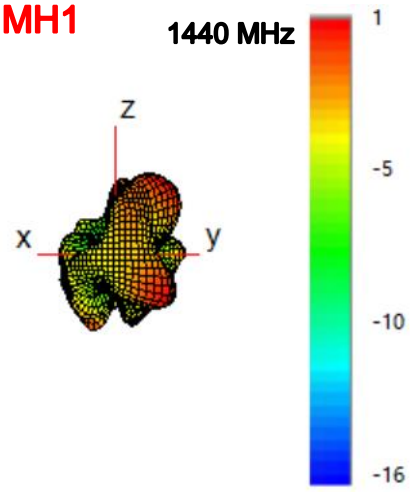


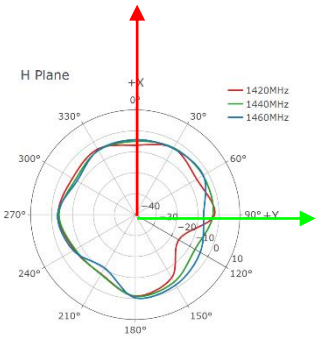
5500 MHz

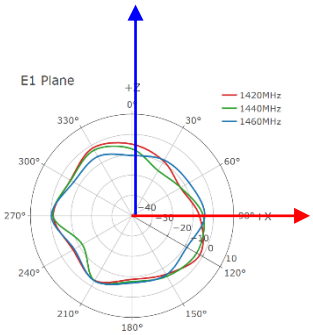


- **MH1**

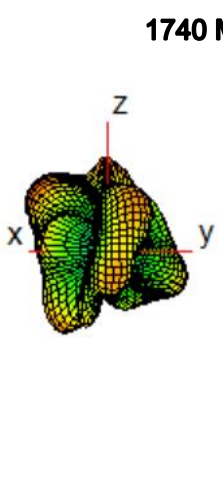
1440 MHz

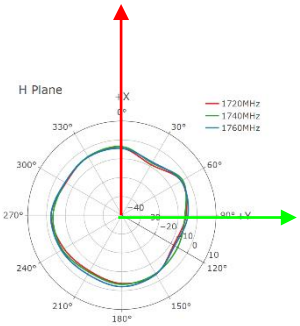


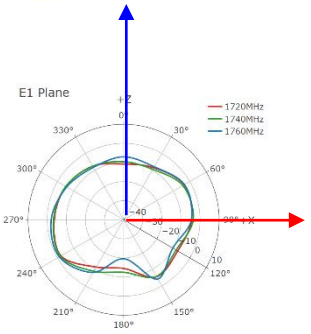




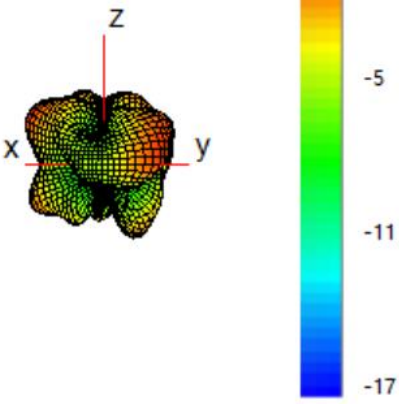
1740 MHz

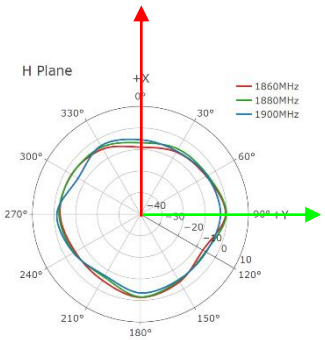


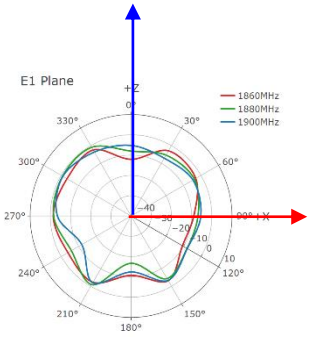




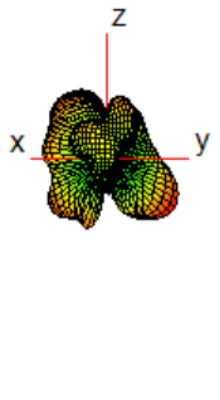
1880MHz

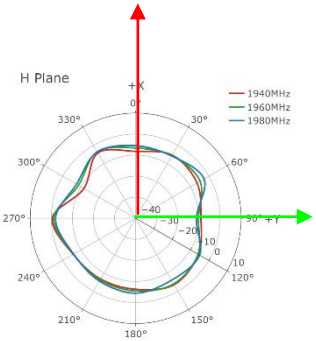


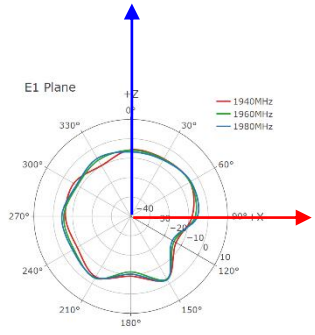




1960MHz

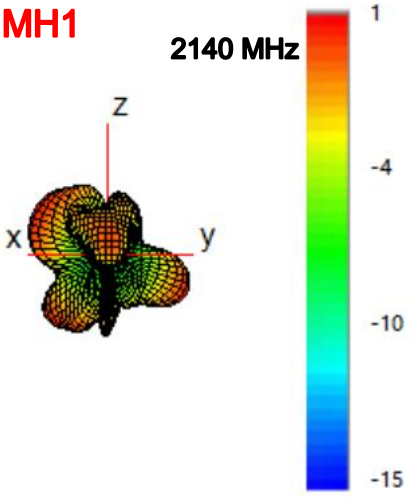


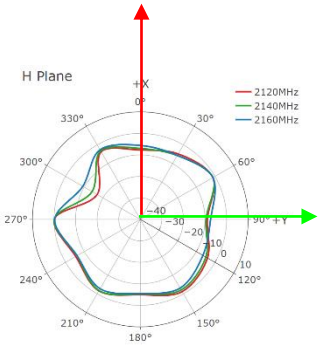


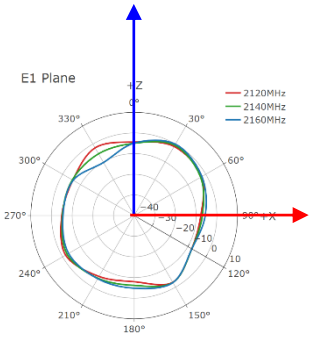


- **MH1**

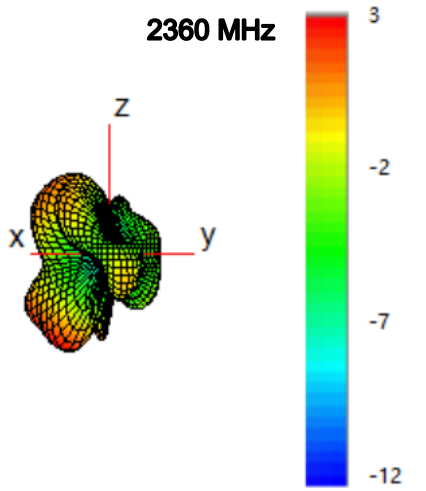
2140 MHz

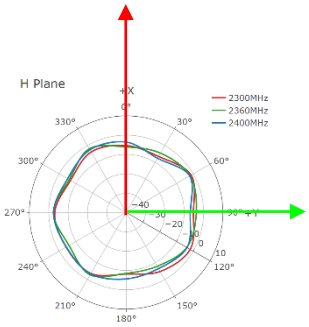


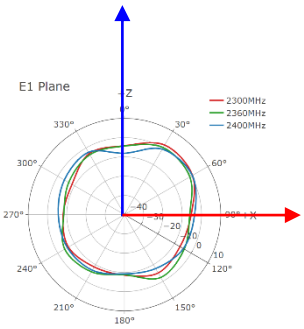




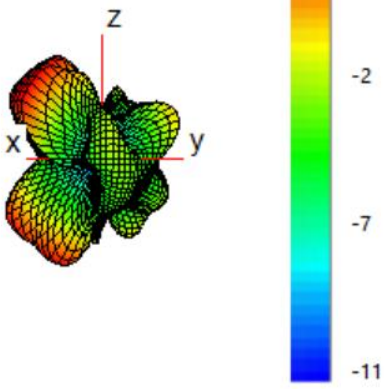
2360 MHz

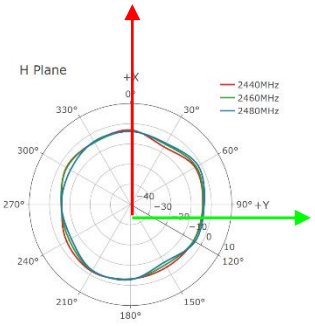


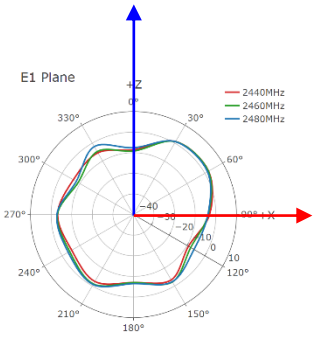




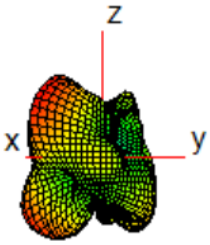
2460 MHz

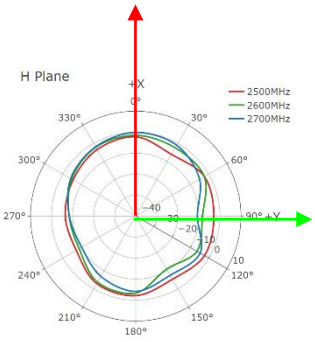


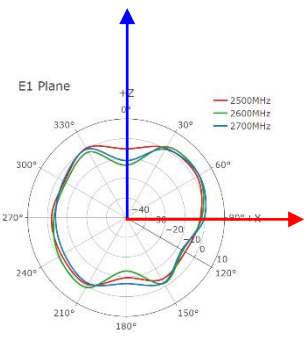




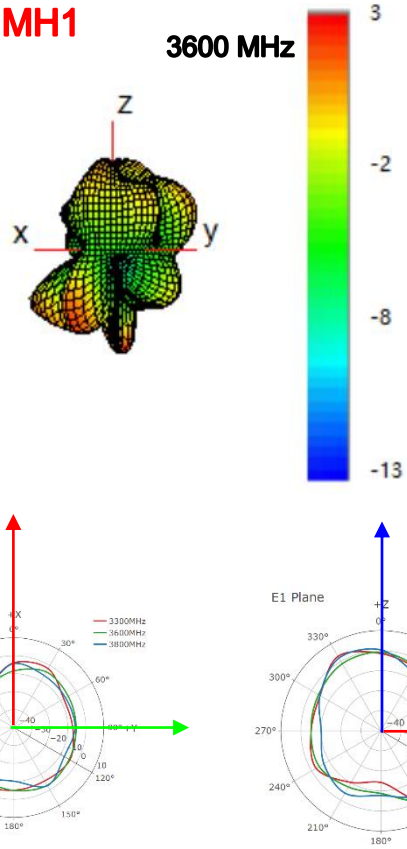
2600 MHz

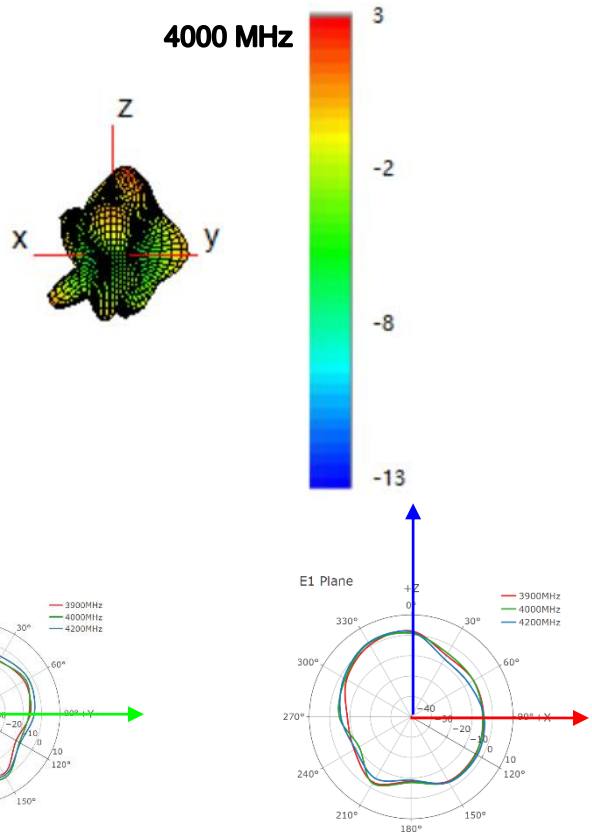


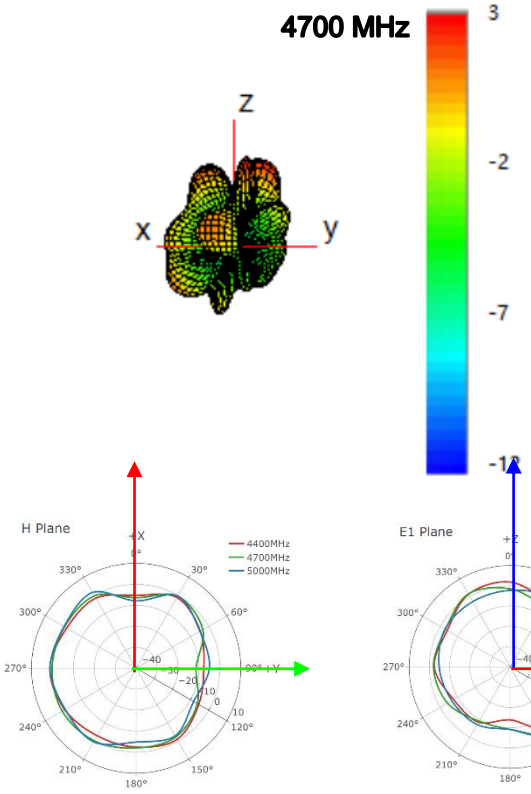


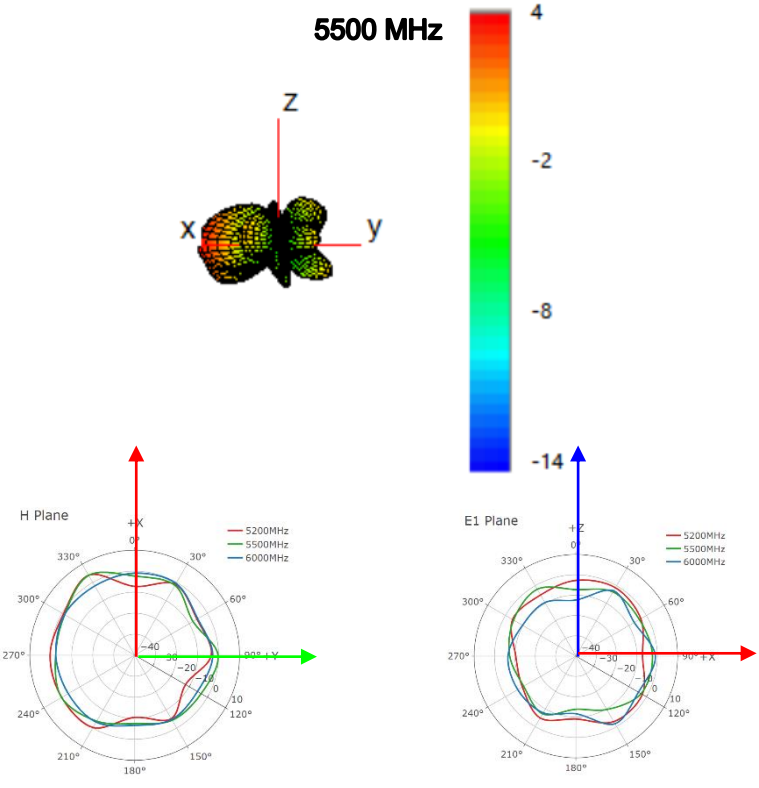


MH1


3600 MHz
3
-2
-8
-13
Z
x
y
H Plane
E1 Plane
3300MHz
3600MHz
3800MHz

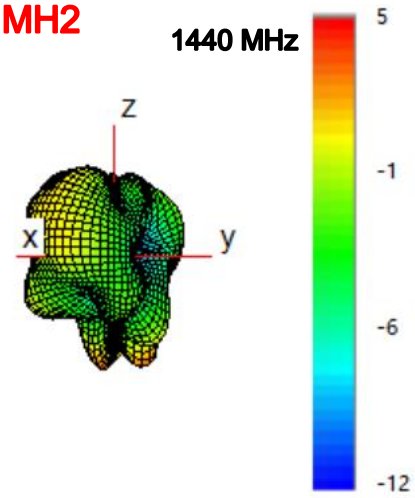

4000 MHz
3
-2
-8
-13
Z
x
y
H Plane
E1 Plane
3900MHz
4000MHz
4200MHz

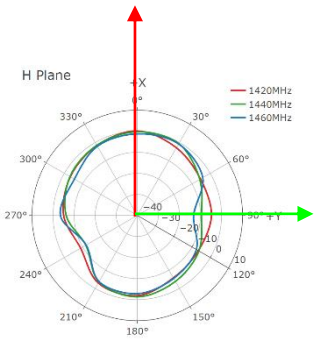

4700 MHz
3
-2
-7
Z
x
y
H Plane
E1 Plane
4400MHz
4700MHz
5000MHz

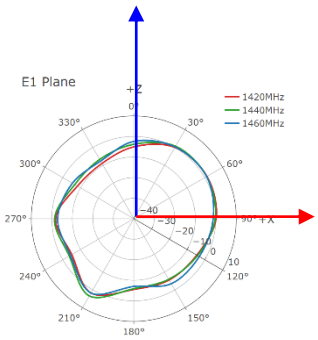

5500 MHz
4
-2
-8
-14
Z
x
y
H Plane
E1 Plane
5200MHz
5500MHz
6000MHz

- **MH2**

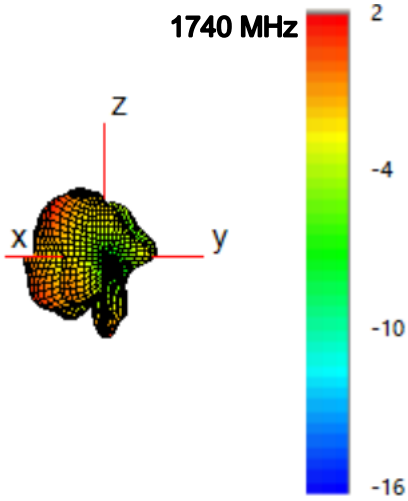
1440 MHz

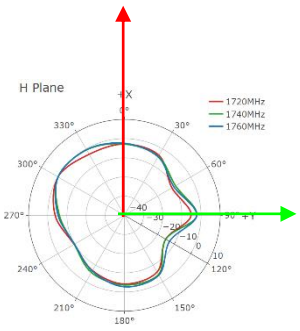


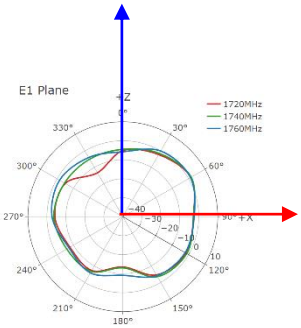




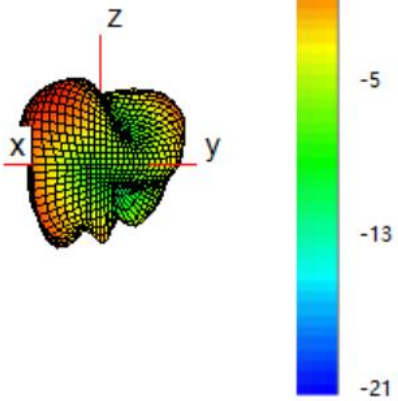
1740 MHz

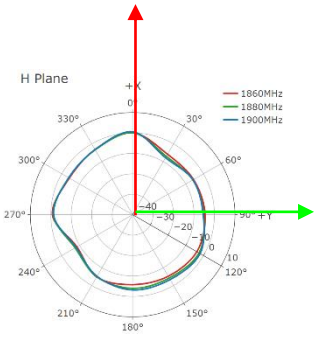


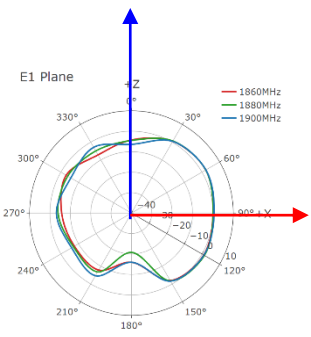




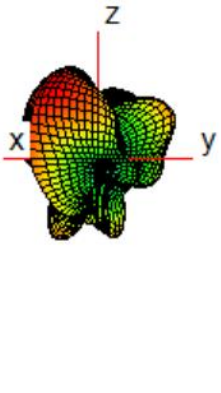
1880MHz

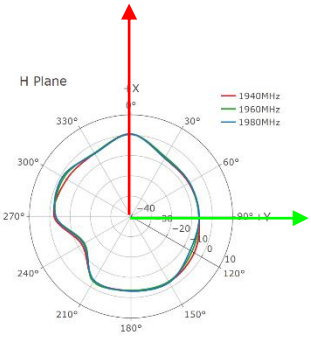


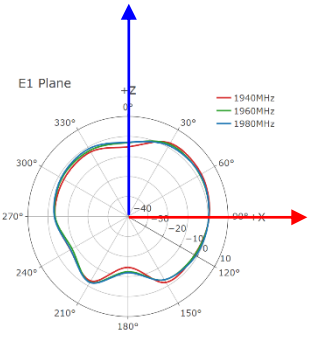




1960MHz

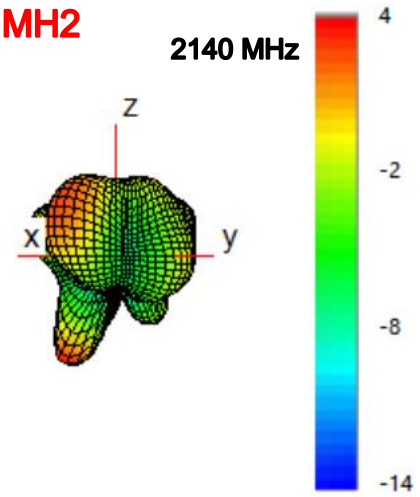


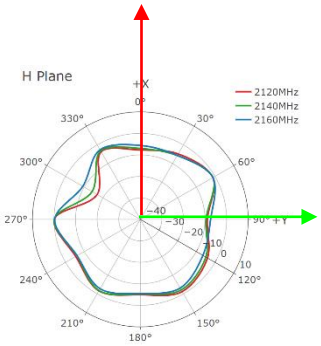


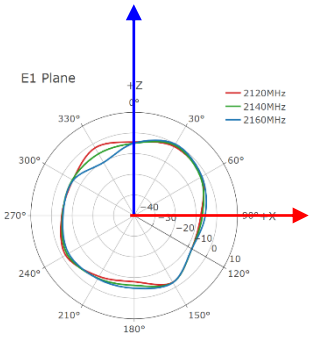


- **MH2**

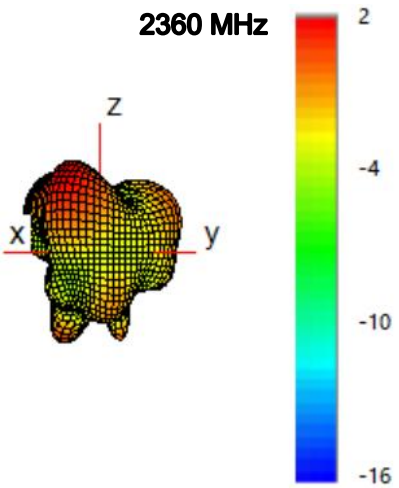
2140 MHz

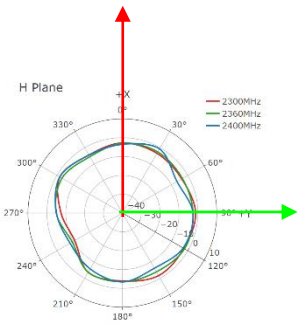


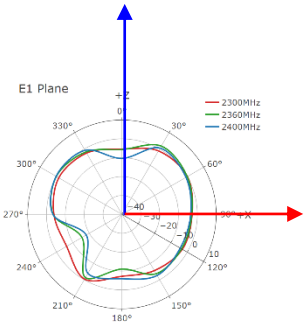




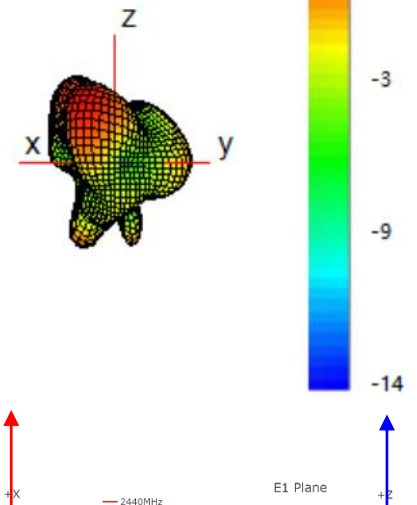
2360 MHz

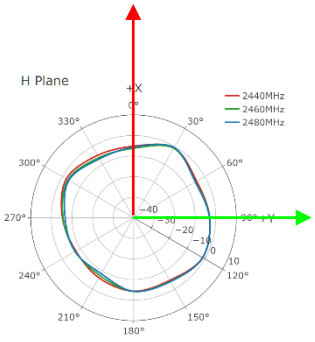


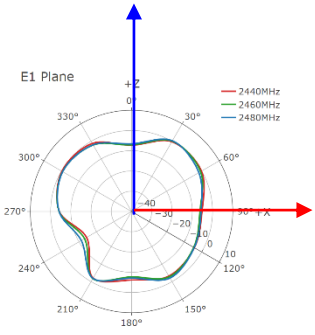




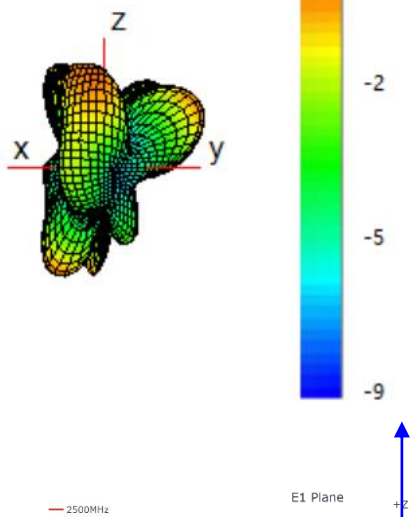
2460 MHz

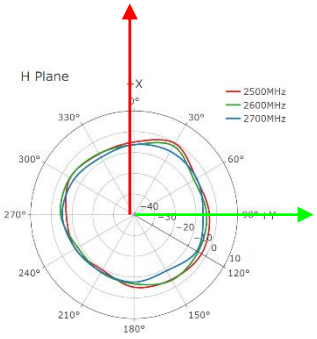


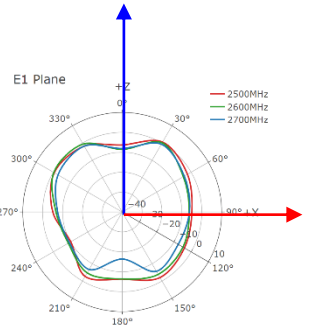




2600 MHz

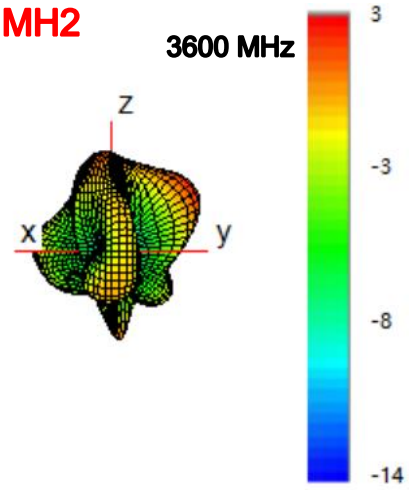


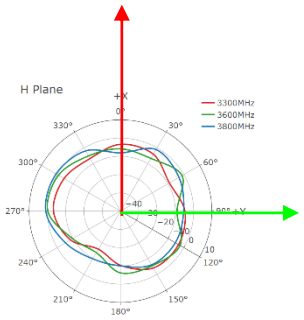


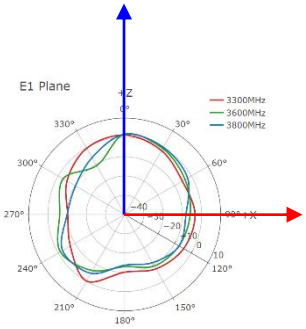


- **MH2**

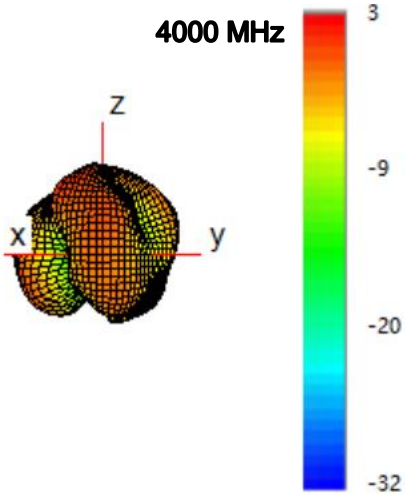
3600 MHz

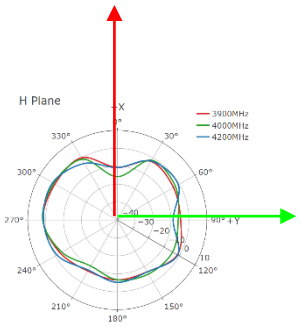


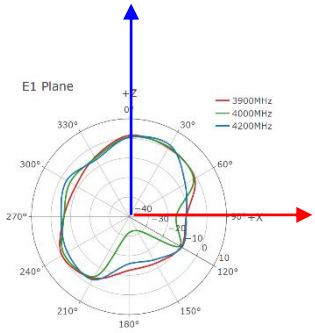




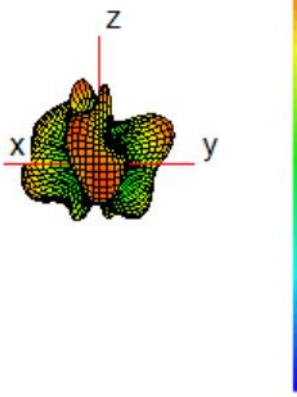
4000 MHz

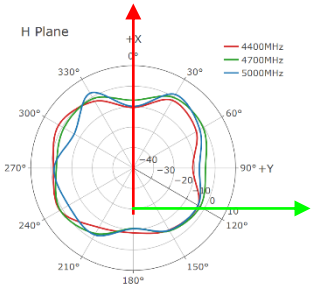


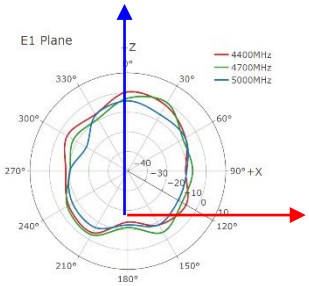




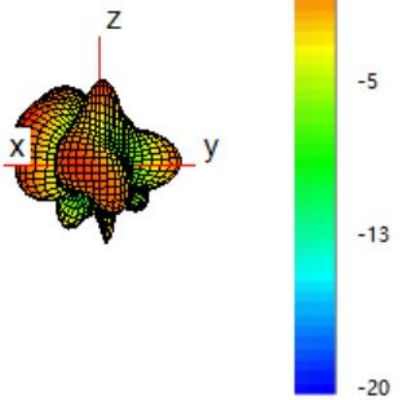
4700 MHz

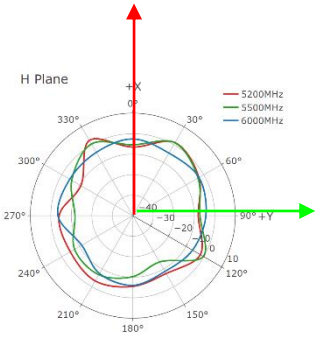


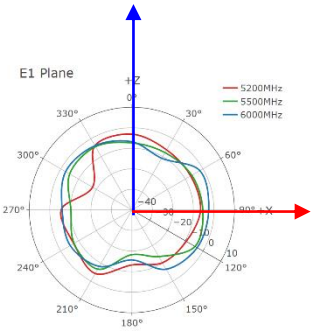




5500 MHz

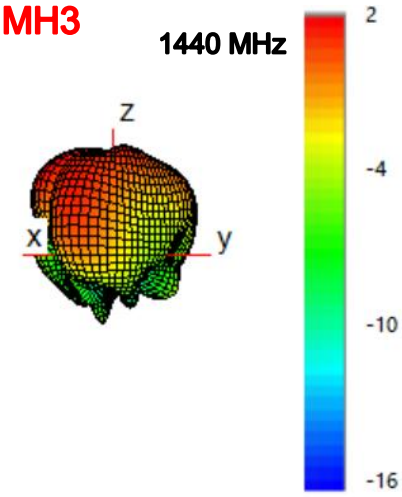


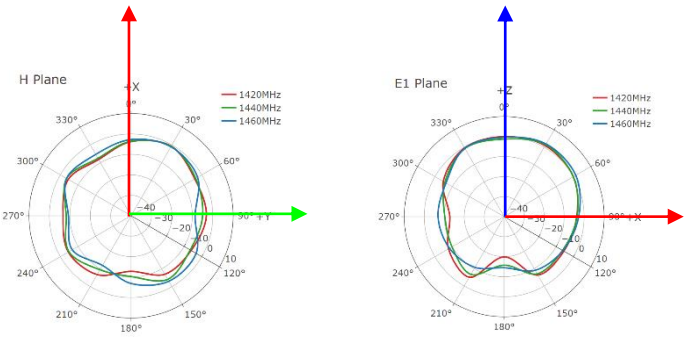




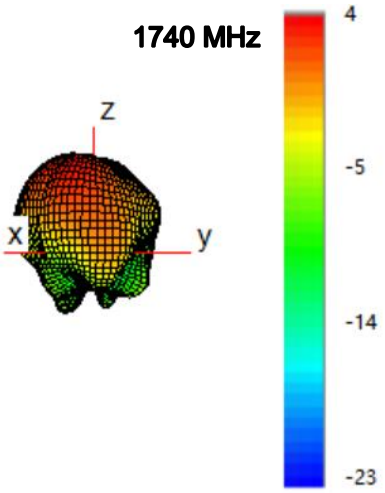
- **MH3**

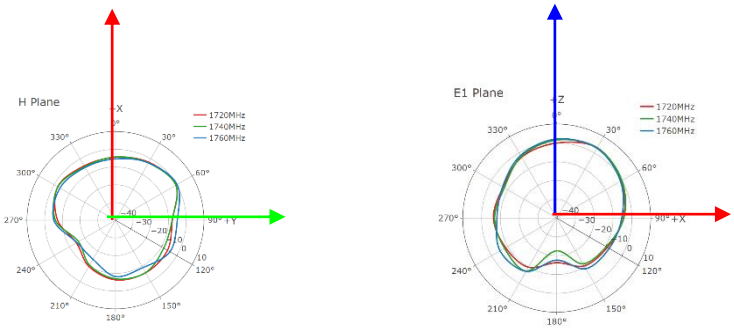
1440 MHz



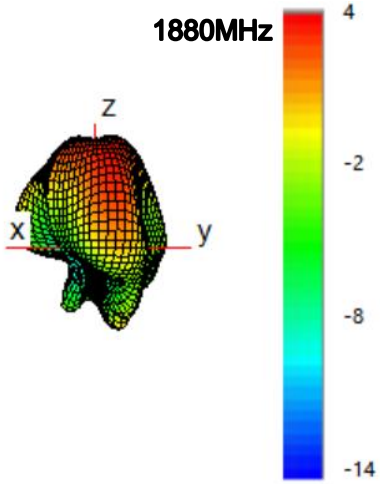


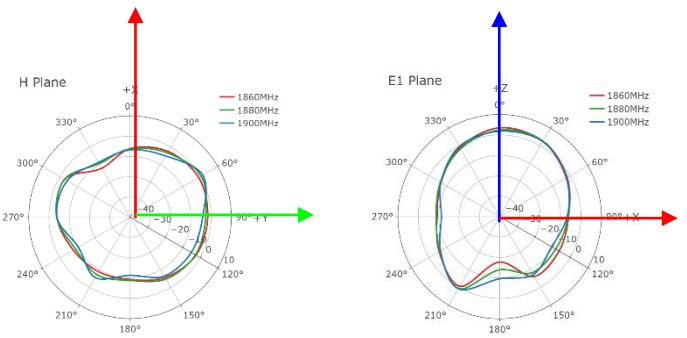
1740 MHz



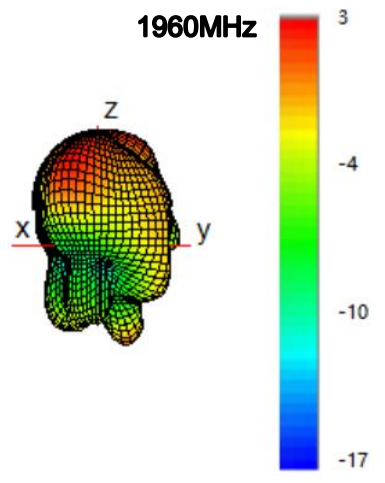


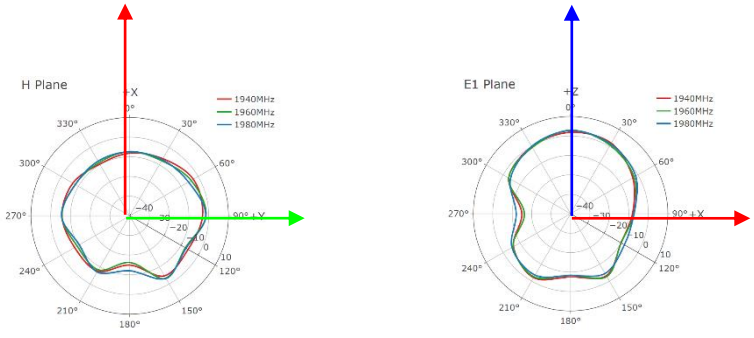
1880MHz





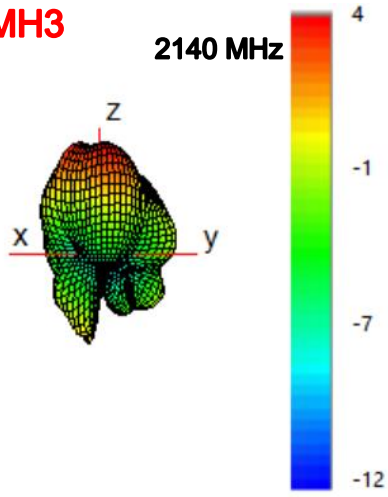
1960MHz

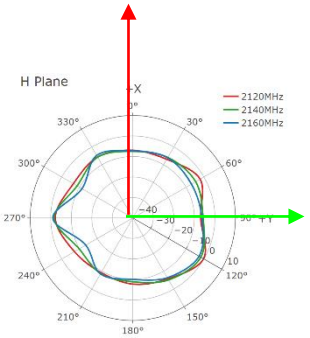


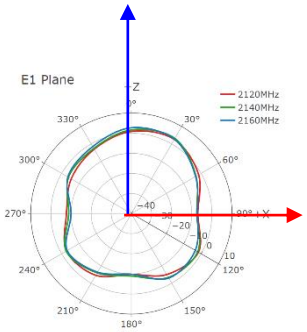


- **MH3**

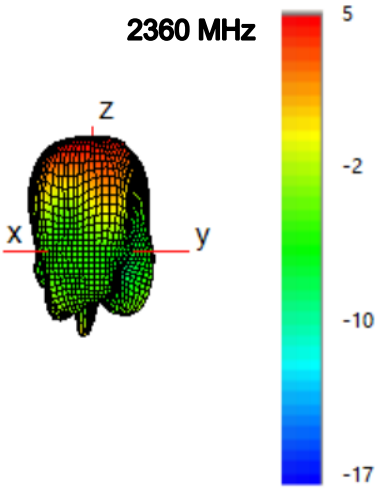
2140 MHz

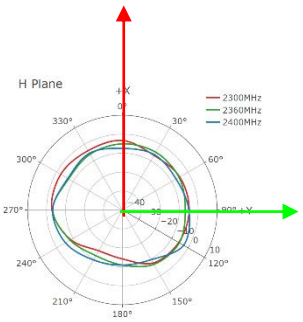


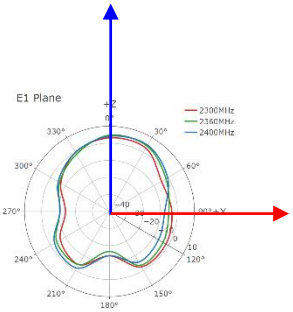




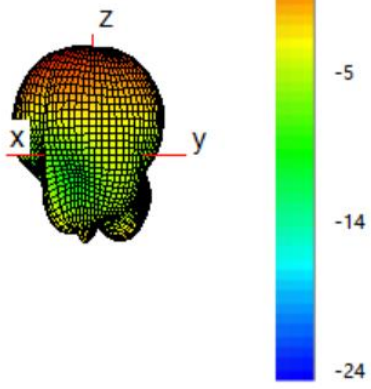
2360 MHz

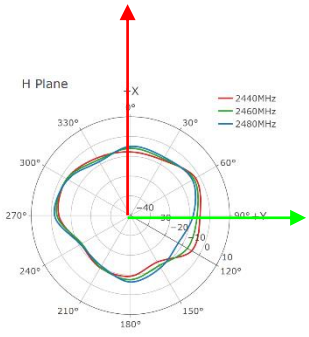


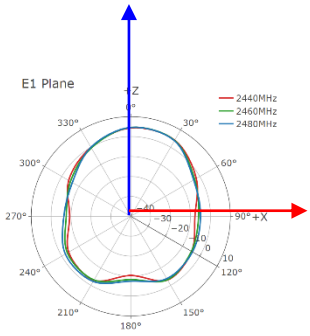




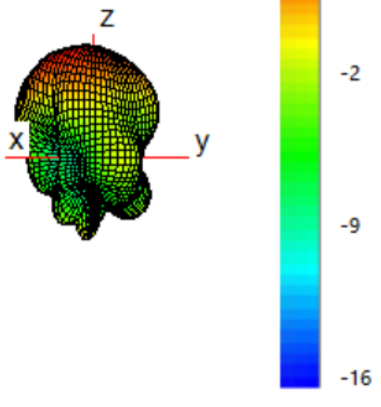
2460 MHz

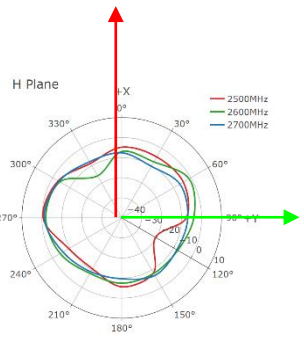


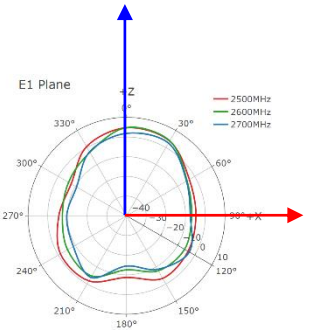




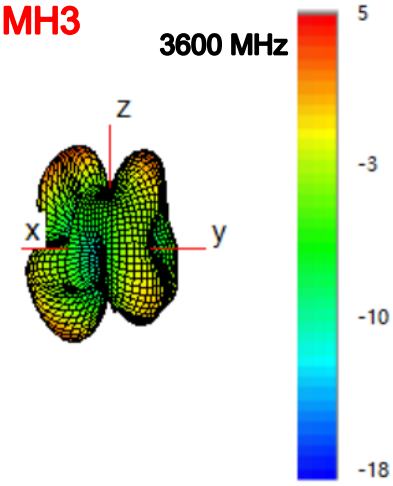
2600 MHz

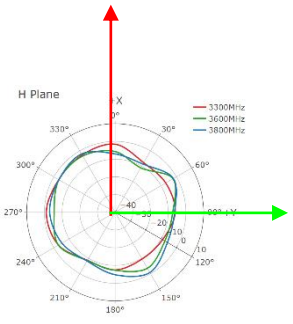


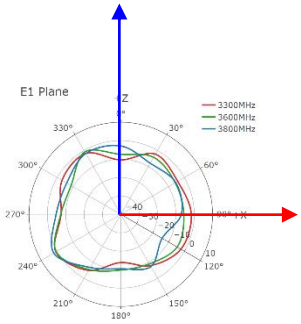


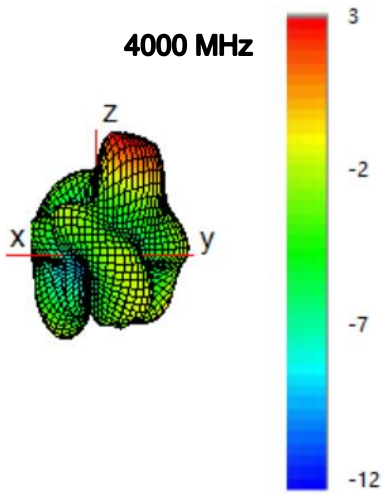


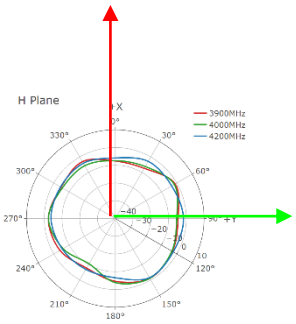
- **MH3**

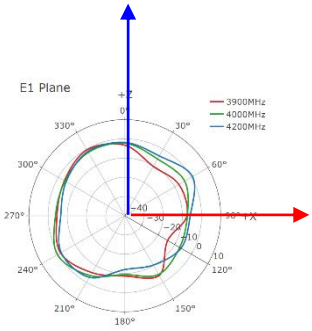

3600 MHz
Z
X
y
5
-3
-10
-18

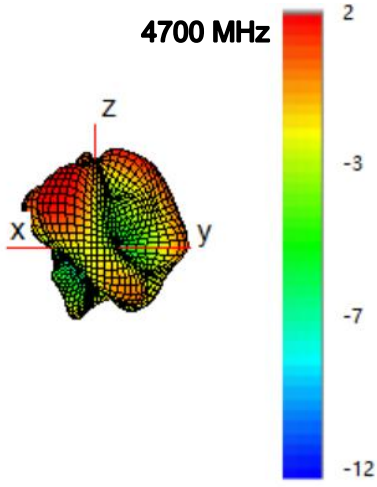

H Plane
3300MHz
3600MHz
3800MHz

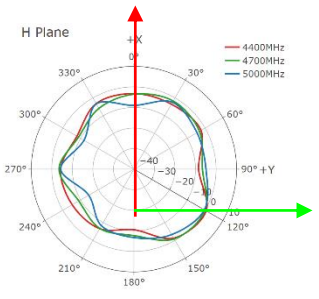

E1 Plane
3300MHz
3600MHz
3800MHz

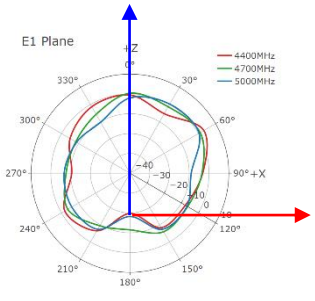

4000 MHz
Z
X
y
3
-2
-7
-12

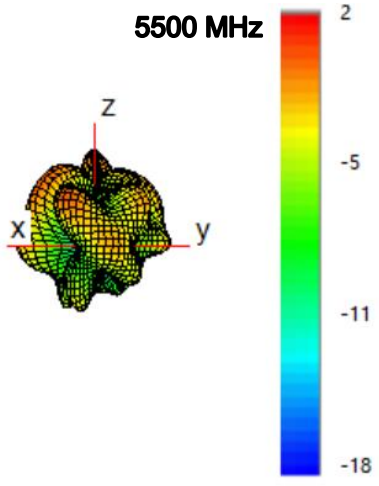

H Plane
3900MHz
4000MHz
4200MHz

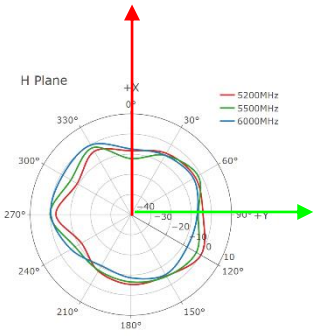

E1 Plane
3900MHz
4000MHz
4200MHz

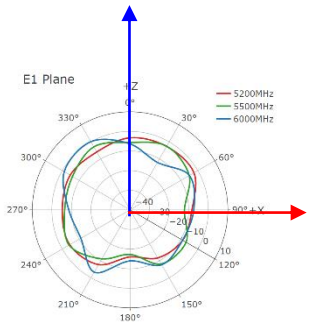

4700 MHz
Z
X
y
2
-3
-7
-12


H Plane
4400MHz
4700MHz
5000MHz


E1 Plane
4400MHz
4700MHz
5000MHz

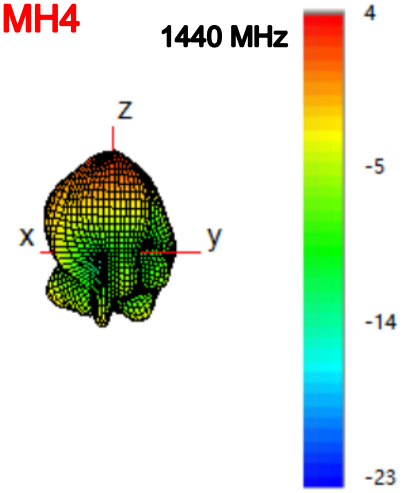

5500 MHz
Z
X
y
2
-5
-11
-18

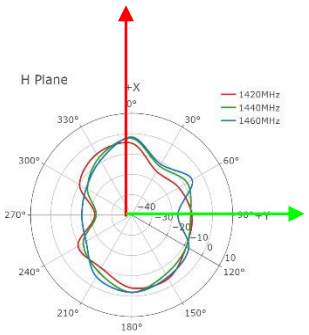

H Plane
5200MHz
5500MHz
6000MHz

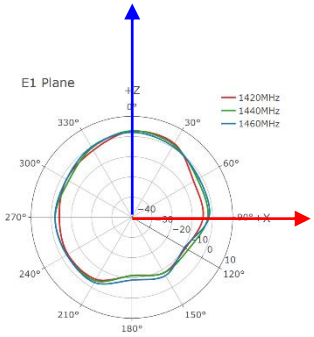

E1 Plane
5200MHz
5500MHz
6000MHz

- **MH4**

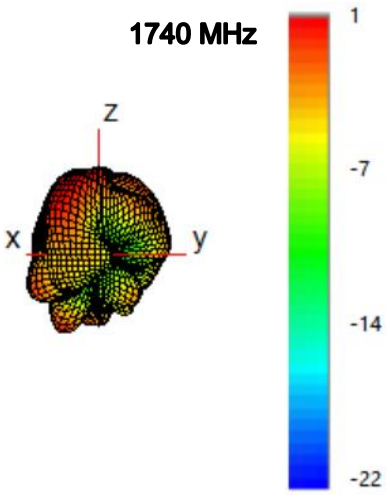
1440 MHz

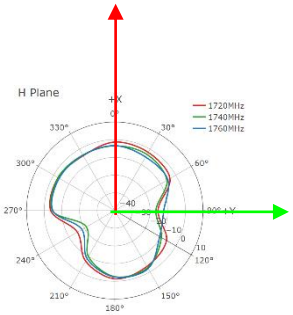


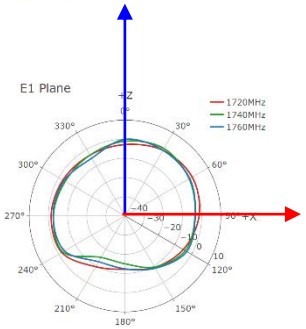




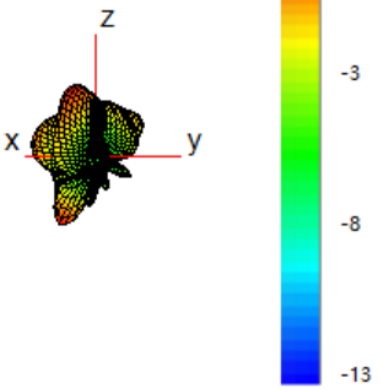
1740 MHz

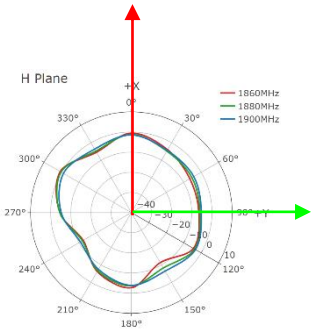


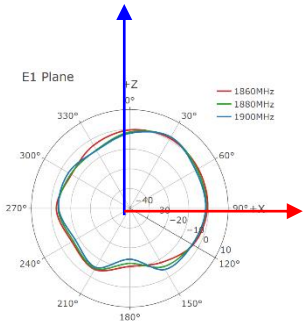




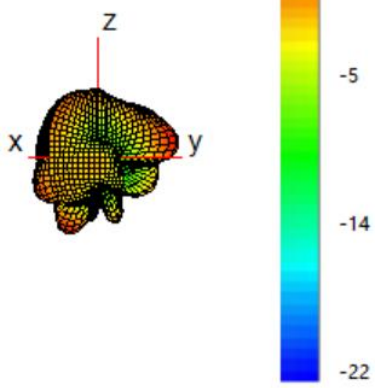
1880MHz

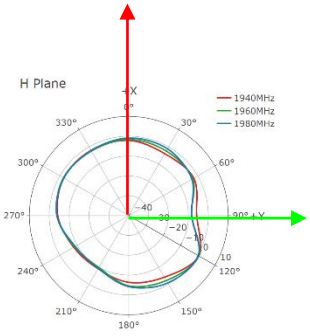


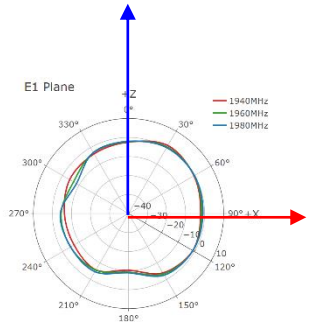




1960MHz

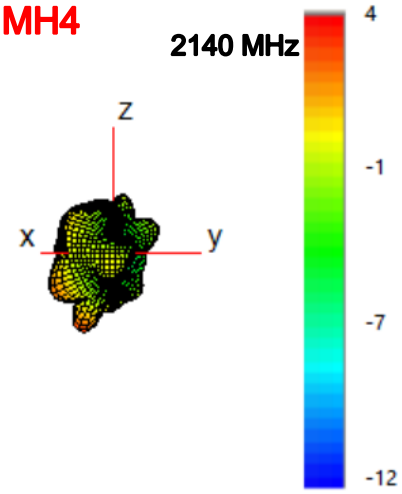


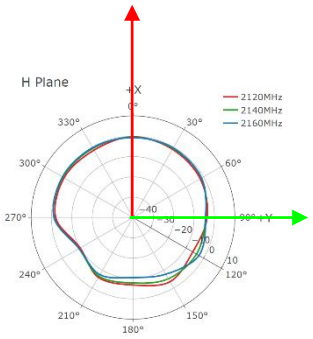


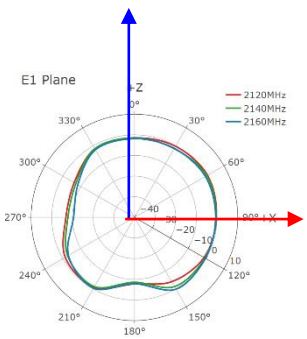


MH4

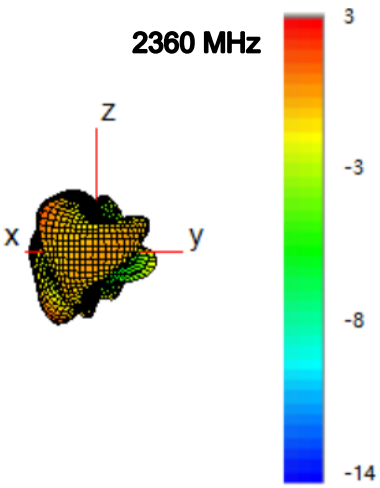
2140 MHz

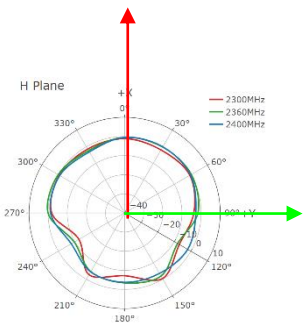


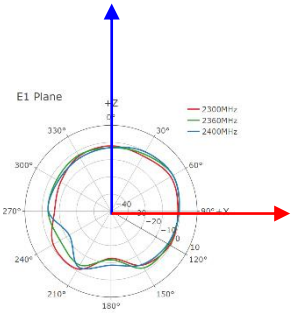




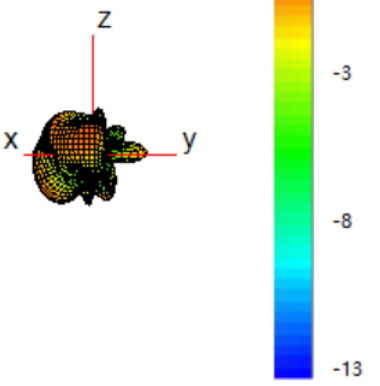
2360 MHz

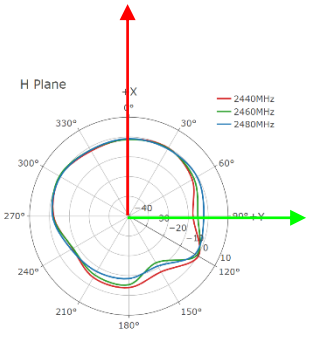


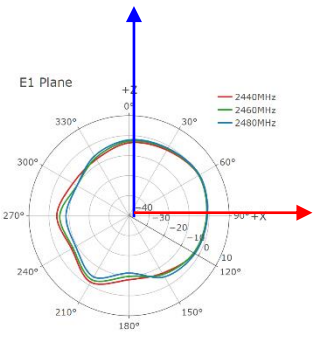




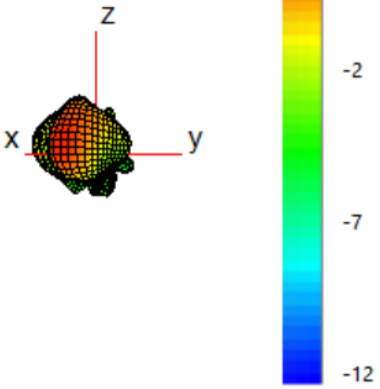
2460 MHz

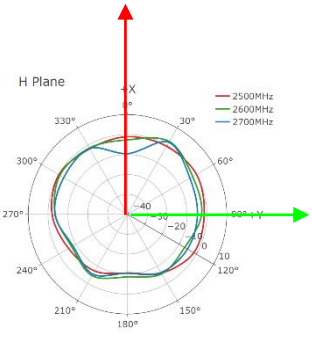


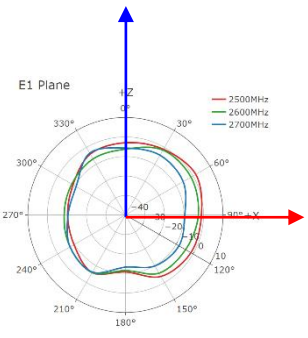




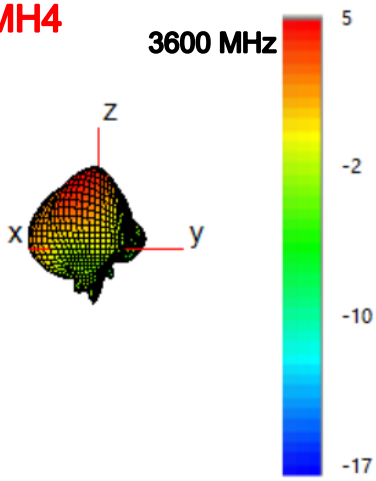
2600 MHz

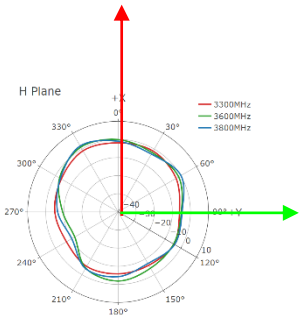


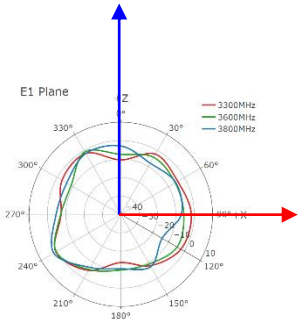


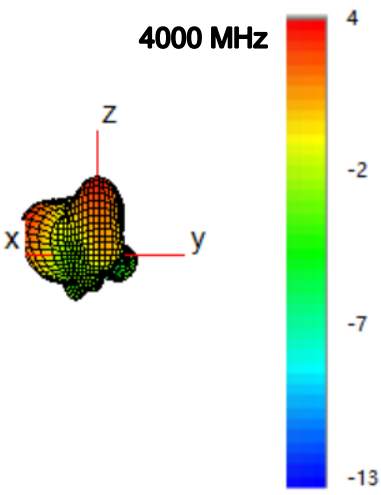


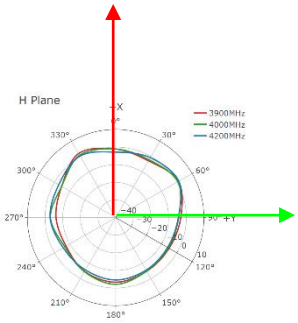
MH4

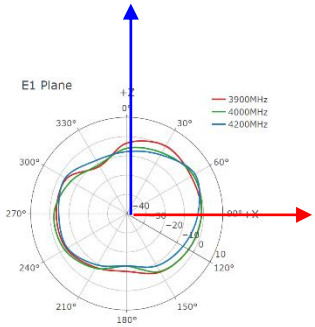

3600 MHz
5
-2
-10
-17
Z
X
y

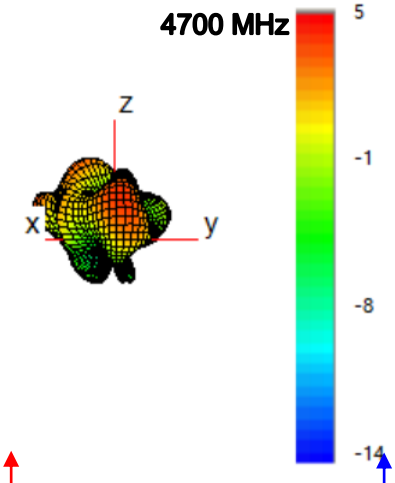

H Plane
3300MHz
3600MHz
3800MHz

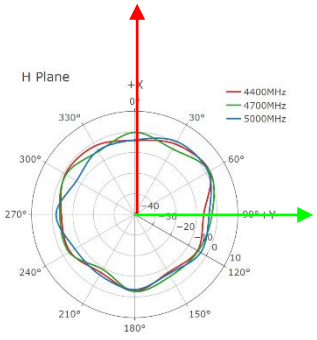

E1 Plane
3300MHz
3600MHz
3800MHz

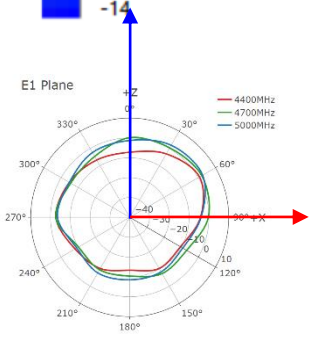

4000 MHz
4
-2
-7
-13
Z
X
y

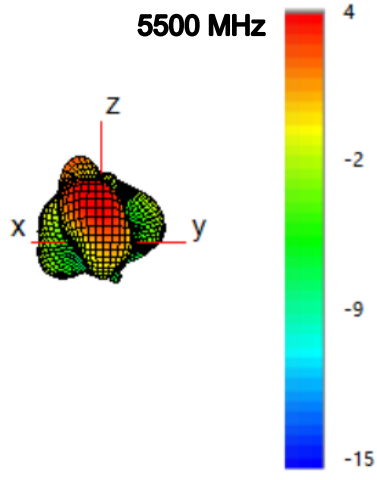

H Plane
3900MHz
4000MHz
4200MHz

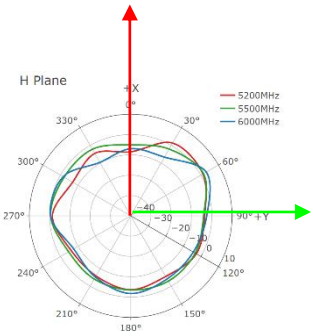

E1 Plane
3900MHz
4000MHz
4200MHz

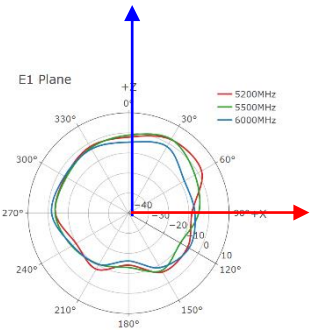

4700 MHz
5
-1
-8
-14
Z
X
y


H Plane
4400MHz
4700MHz
5000MHz


E1 Plane
4400MHz
4700MHz
5000MHz

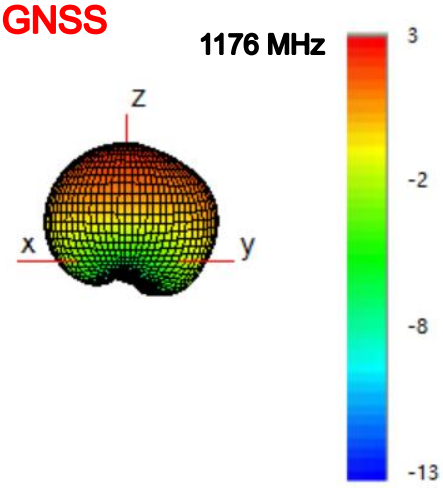

5500 MHz
4
-2
-9
-15
Z
X
y

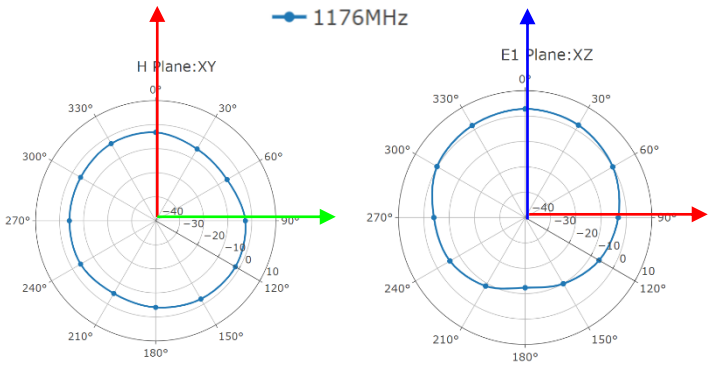

H Plane
5200MHz
5500MHz
6000MHz


E1 Plane
5200MHz
5500MHz
6000MHz

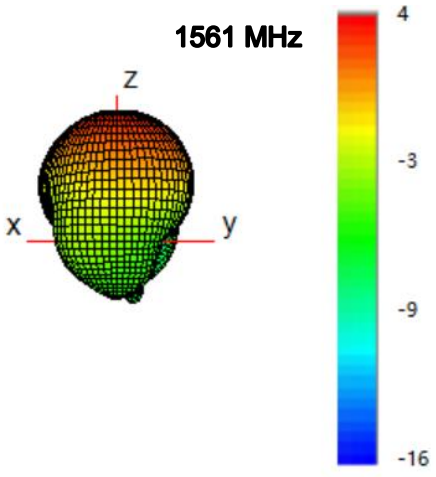
GNSS

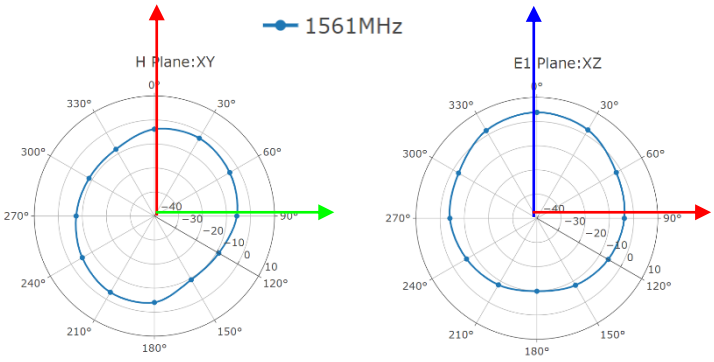
1176 MHz



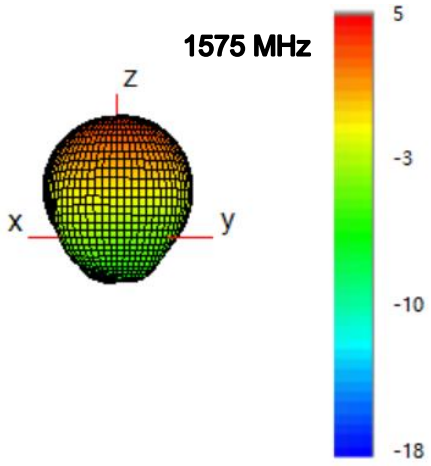


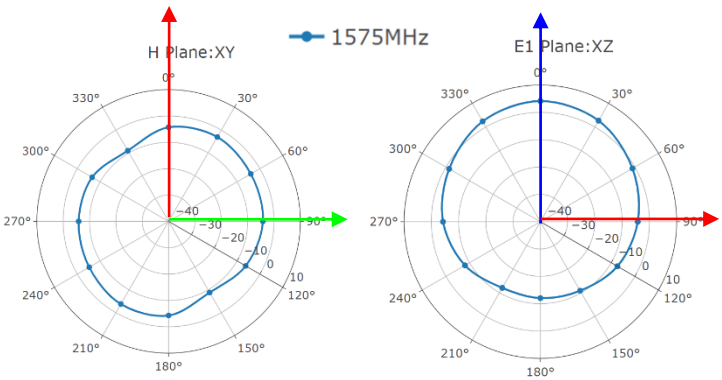
1561 MHz



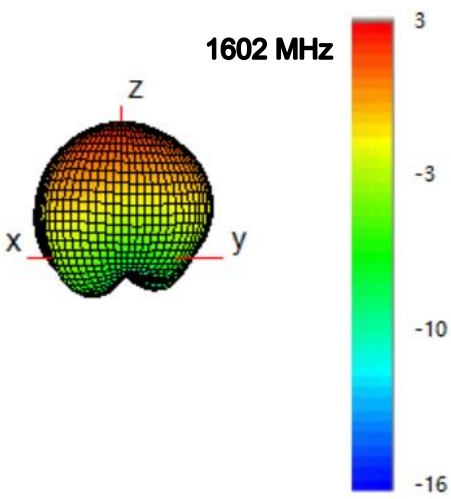


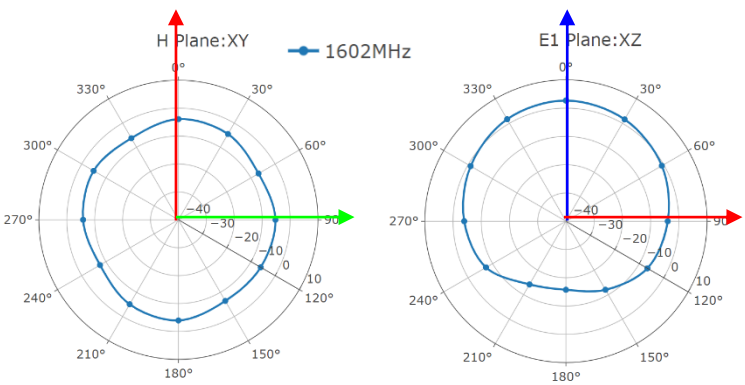
1575 MHz



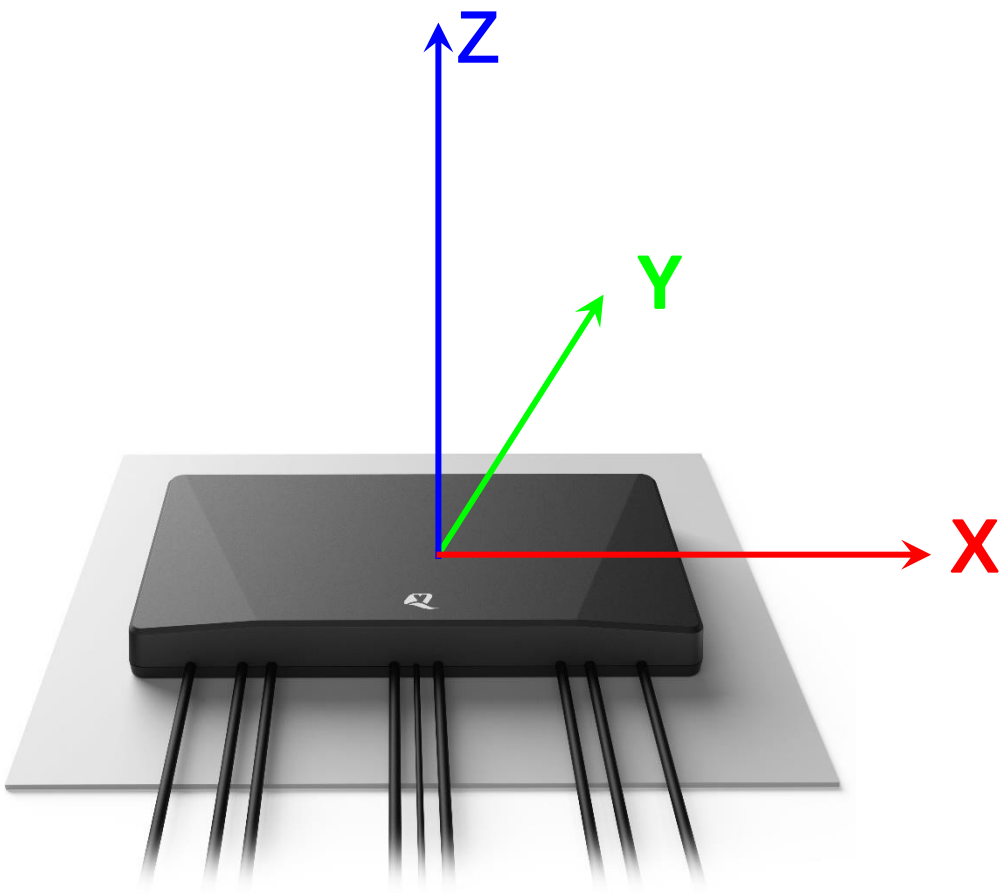


1602 MHz

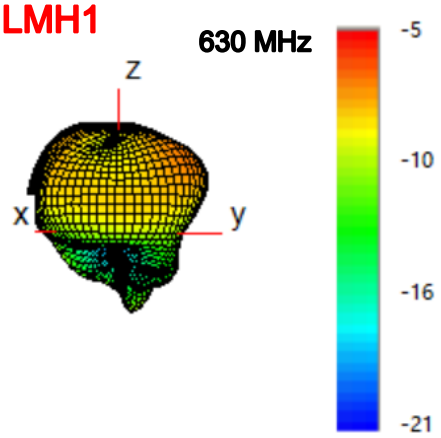


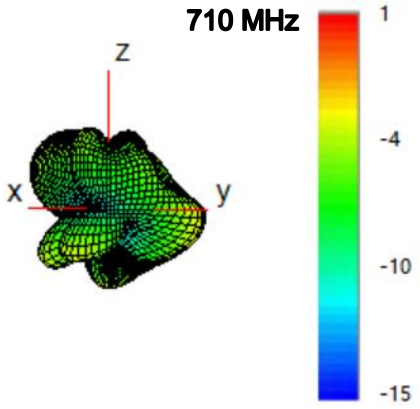


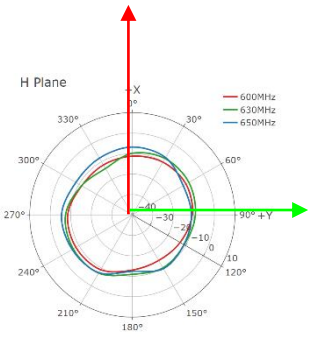
3.2.5.2. Test Status: On 500 ×500 mm Metal Plane

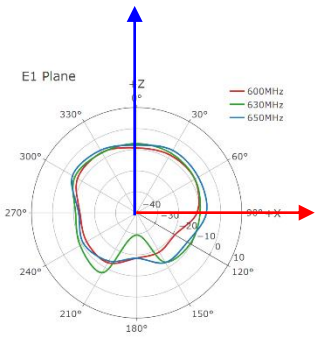


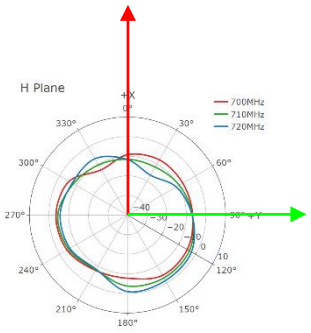
- **LMH1**

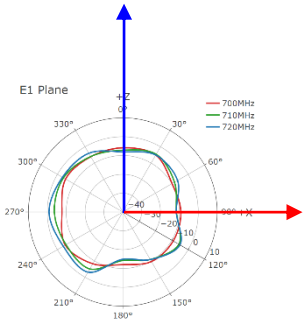

630 MHz
Z
X
y
-5
-10
-16
-21

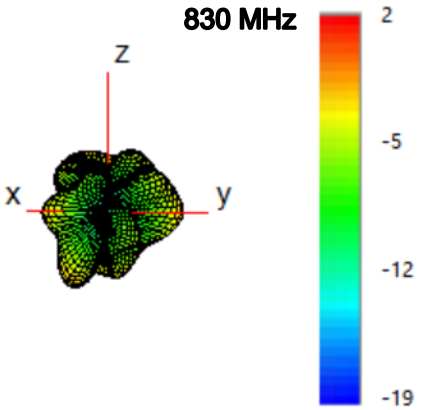

710 MHz
Z
X
y
1
-4
-10
-15

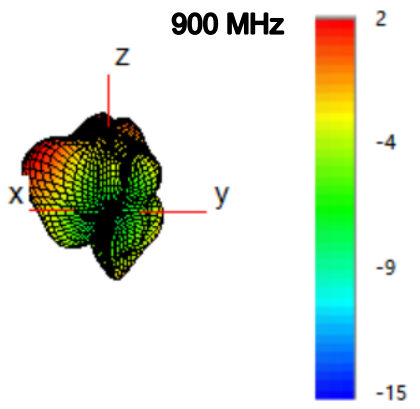

H Plane
600MHz
630MHz
650MHz

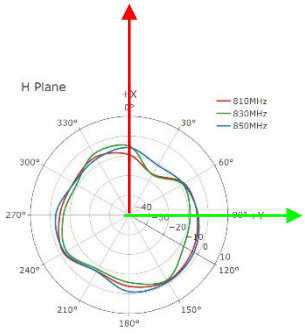

E1 Plane
600MHz
630MHz
650MHz

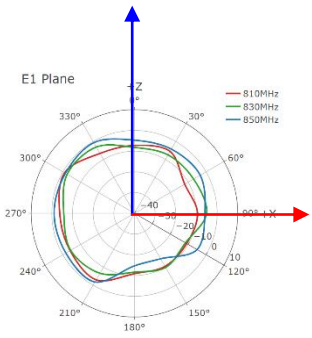

H Plane
700MHz
710MHz
720MHz

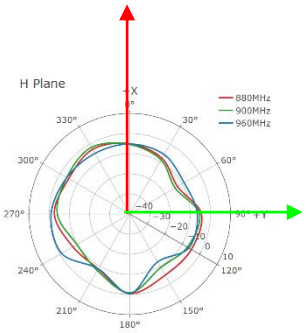

E1 Plane
700MHz
710MHz
720MHz

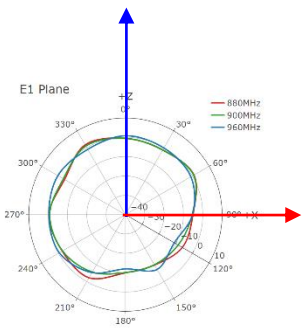

830 MHz
Z
X
y
2
-5
-12
-19


900 MHz
Z
X
y
2
-4
-9
-15

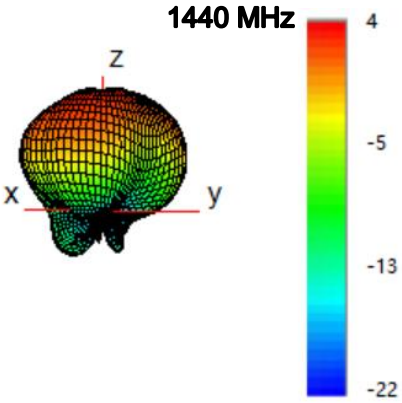

H Plane
810MHz
830MHz
850MHz

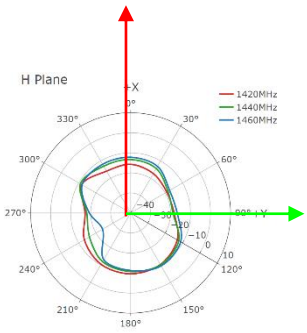

E1 Plane
810MHz
830MHz
850MHz

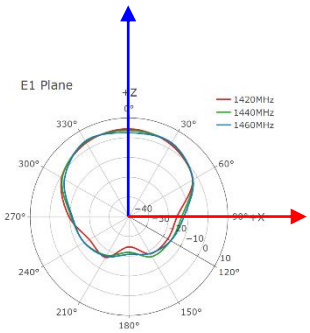

H Plane
880MHz
900MHz
960MHz

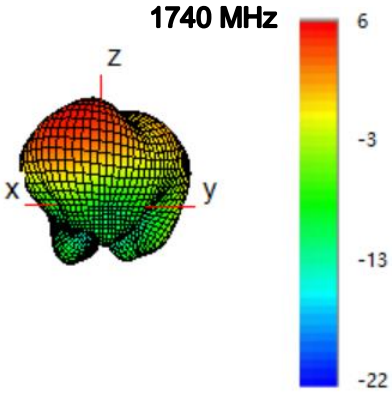

E1 Plane
880MHz
900MHz
960MHz

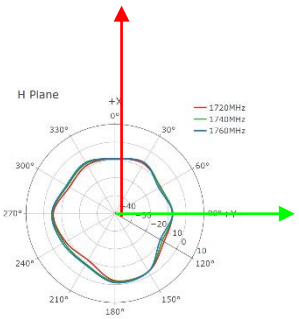
LMH1

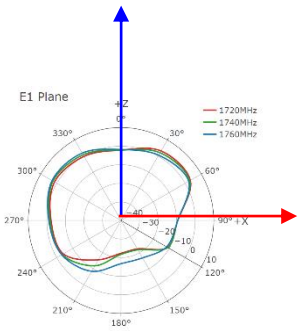

1440 MHz
Z
X
y
4
-5
-13
-22

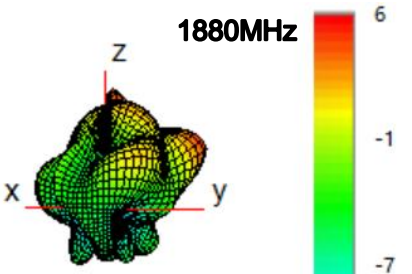

H Plane
1420MHz
1440MHz
1460MHz

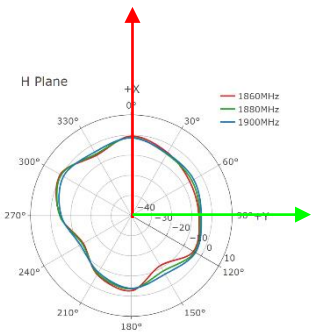

E1 Plane
1420MHz
1440MHz
1460MHz

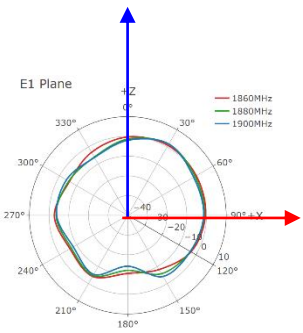

1740 MHz
Z
X
y
6
-3
-13
-22

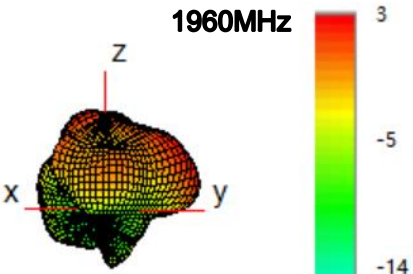

H Plane
1720MHz
1740MHz
1760MHz

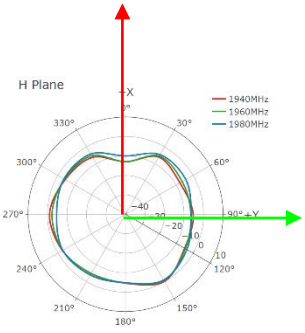

E1 Plane
1720MHz
1740MHz
1760MHz

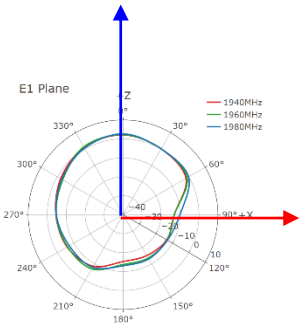

1880MHz
Z
X
y
6
-1
-7
-14


H Plane
1860MHz
1880MHz
1900MHz

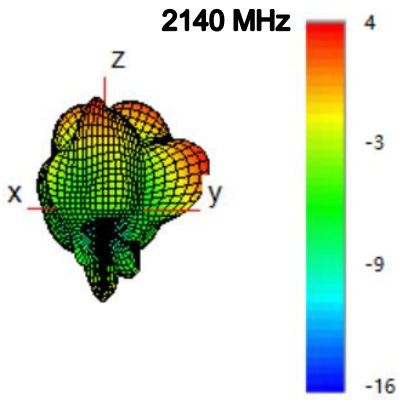

E1 Plane
1860MHz
1880MHz
1900MHz

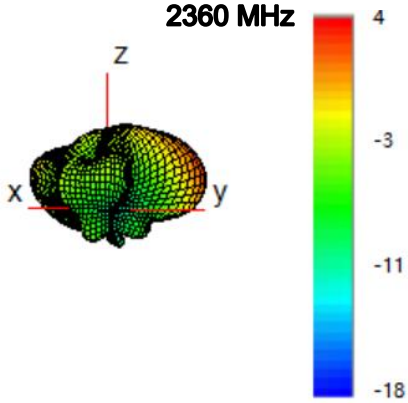

1960MHz
Z
X
y
3
-5
-14
-22

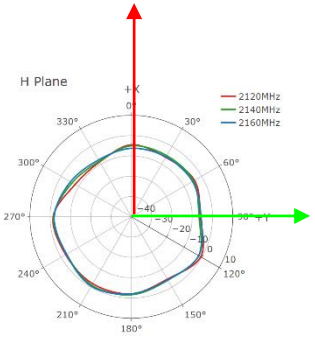

H Plane
1940MHz
1960MHz
1980MHz

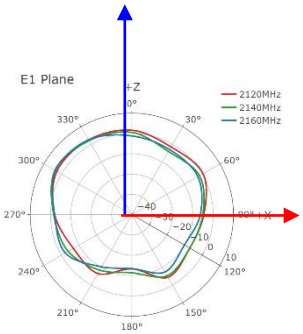

E1 Plane
1940MHz
1960MHz
1980MHz

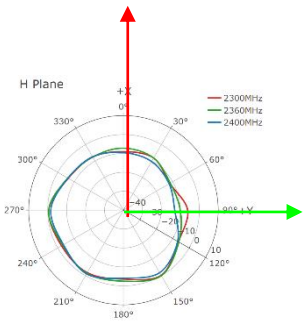
LMH1

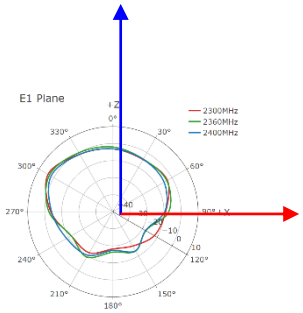

2140 MHz
Z
X
y
4
-3
-9
-16

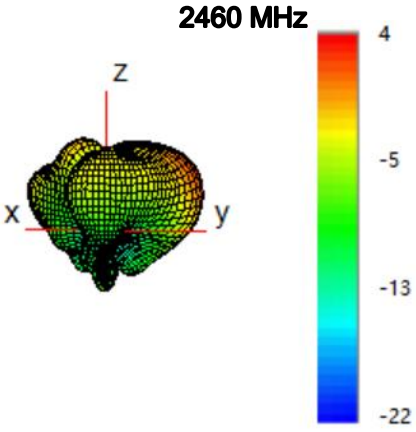

2360 MHz
Z
X
y
4
-3
-11
-18

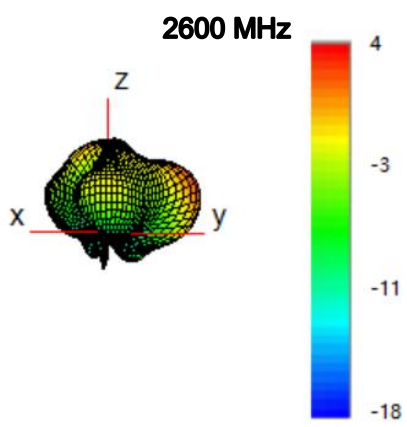

H Plane
2120MHz
2140MHz
2160MHz

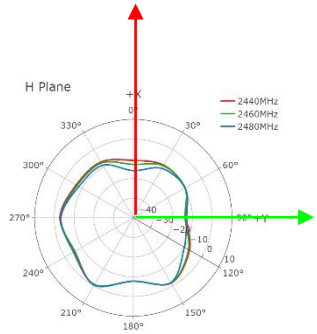

E1 Plane
2120MHz
2140MHz
2160MHz

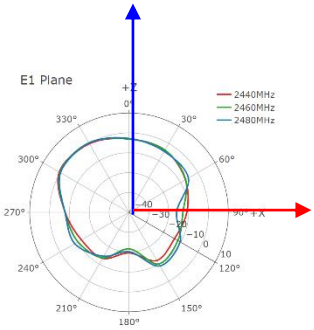

H Plane
2300MHz
2360MHz
2400MHz

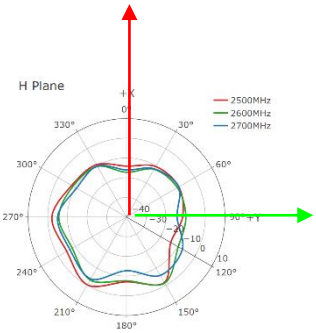

E1 Plane
2300MHz
2360MHz
2400MHz

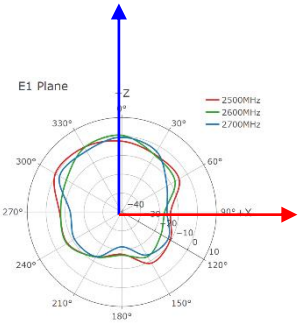

2460 MHz
Z
X
y
4
-5
-13
-22


2600 MHz
Z
X
y
4
-3
-11
-18


H Plane
2440MHz
2460MHz
2480MHz

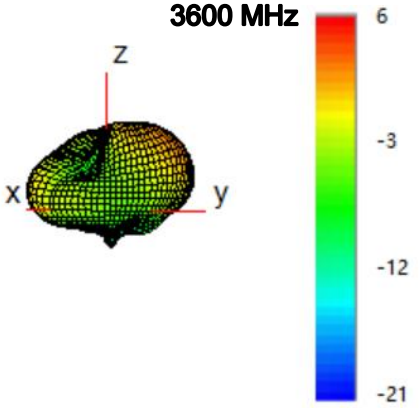

E1 Plane
2440MHz
2460MHz
2480MHz

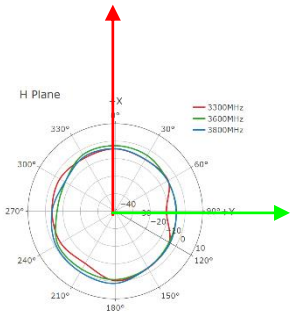

H Plane
2500MHz
2600MHz
2700MHz

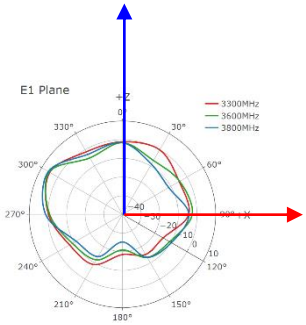

E1 Plane
2500MHz
2600MHz
2700MHz

LMH1

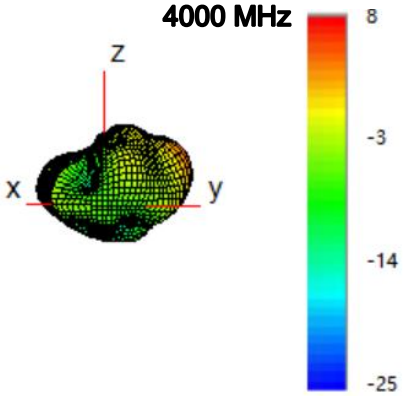
3600 MHz

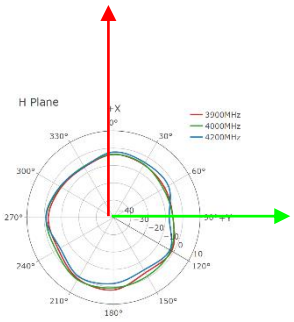


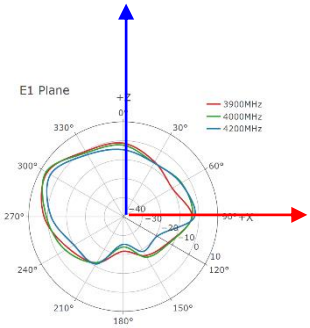




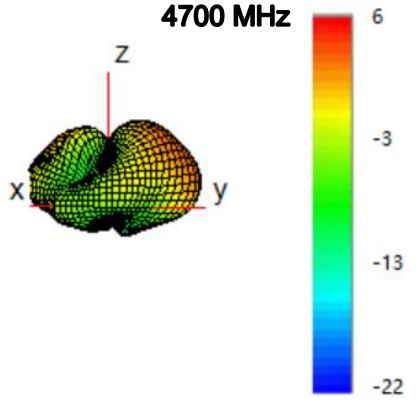
4000 MHz

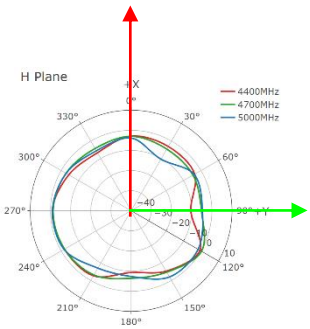


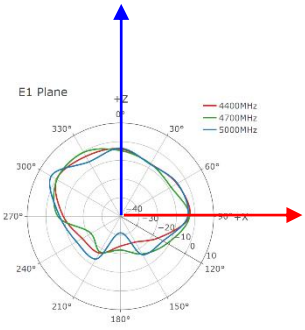




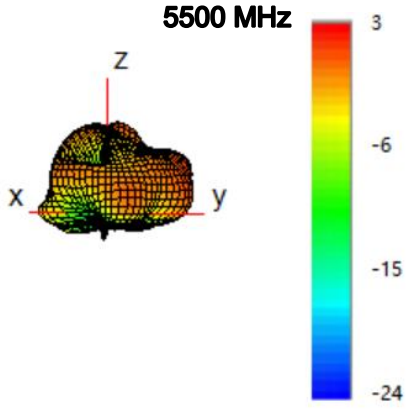
4700 MHz

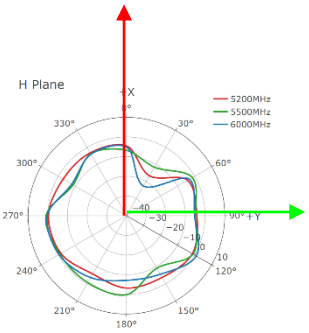


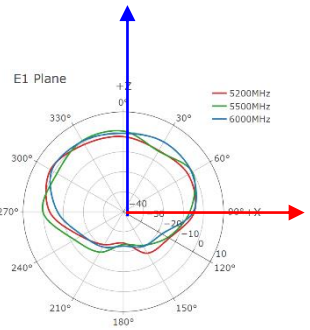




5500 MHz

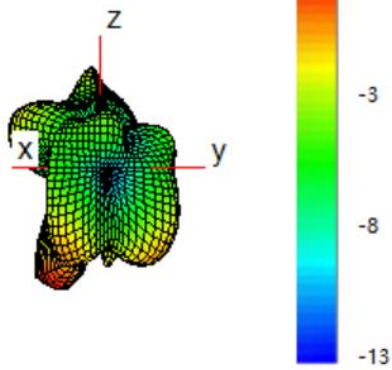


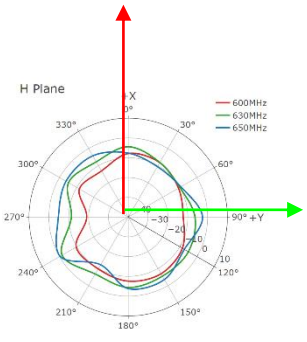


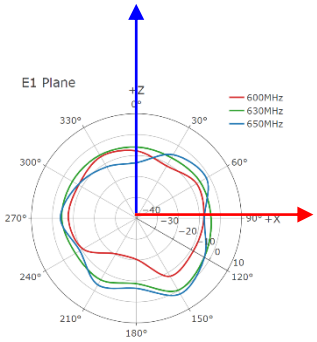


- **LMH2**

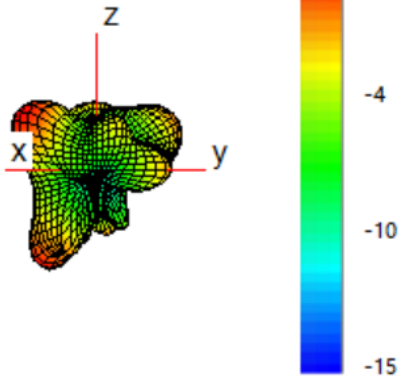
630 MHz

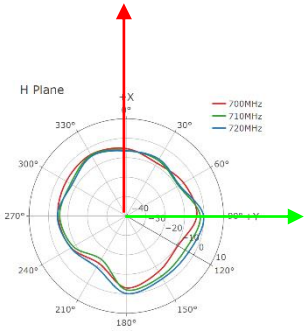


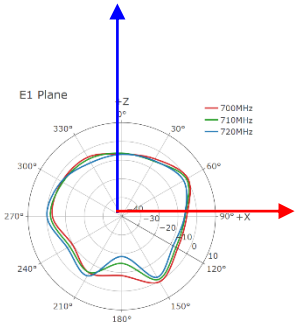




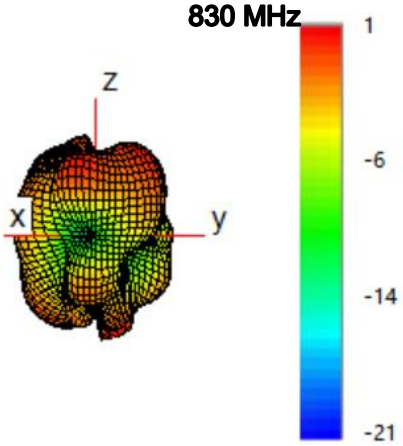
710 MHz

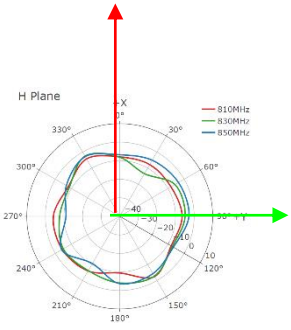


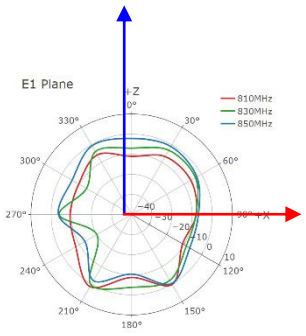




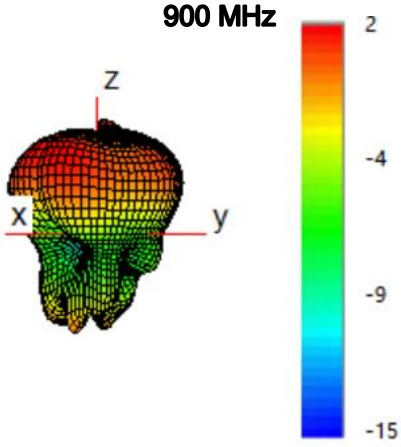
830 MHz

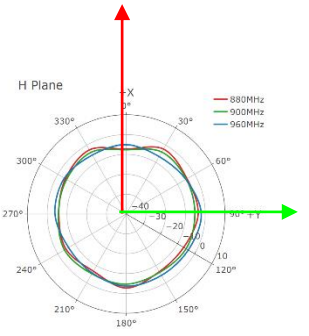


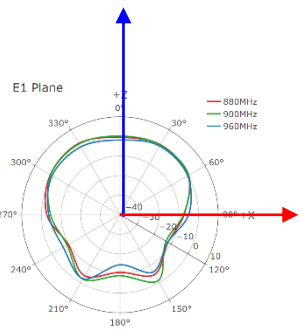




900 MHz

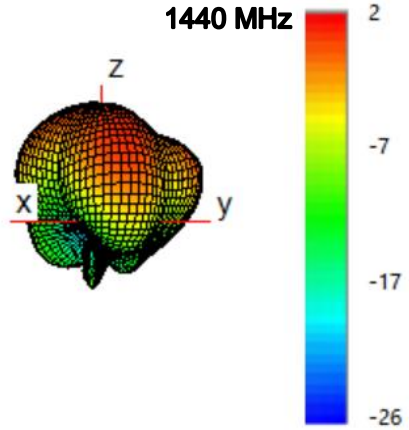


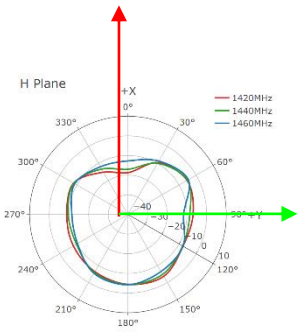


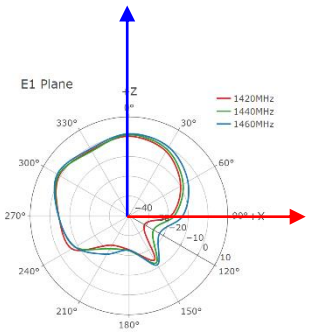


LMH2

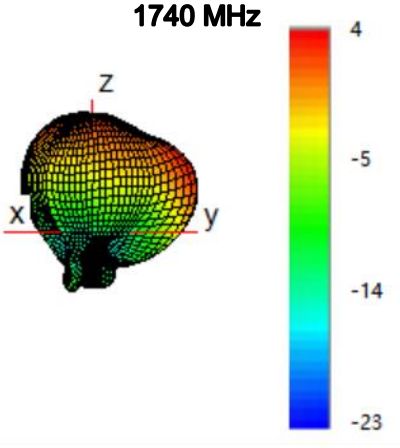
1440 MHz

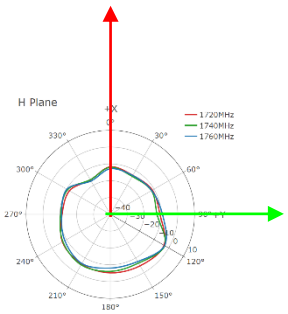


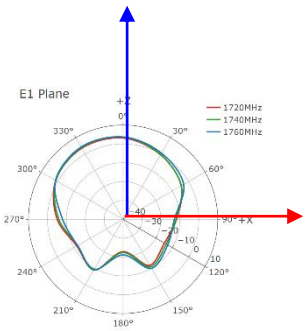




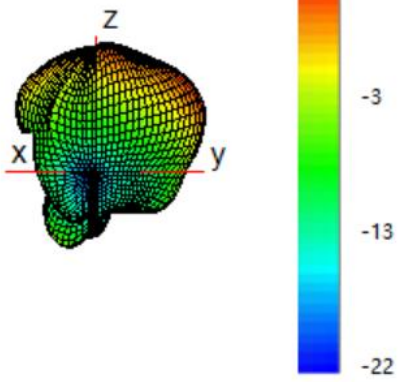
1740 MHz

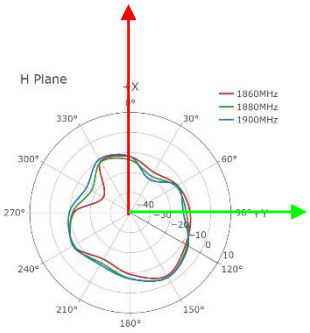


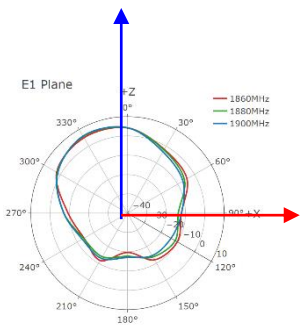




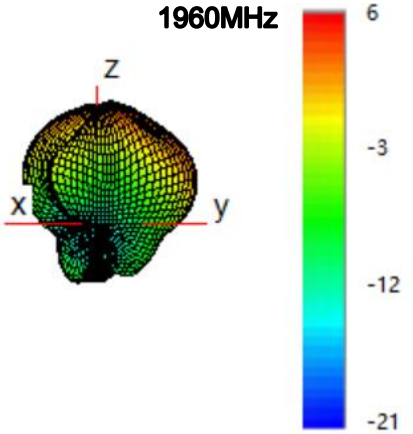
1880MHz

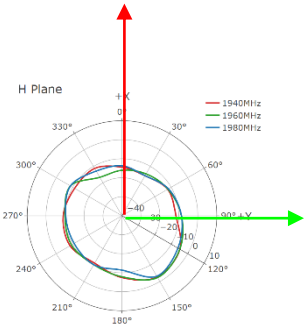


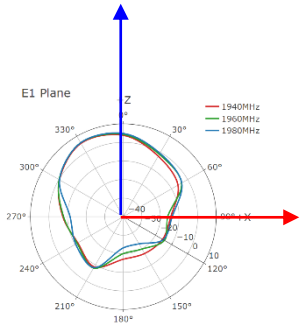




1960MHz

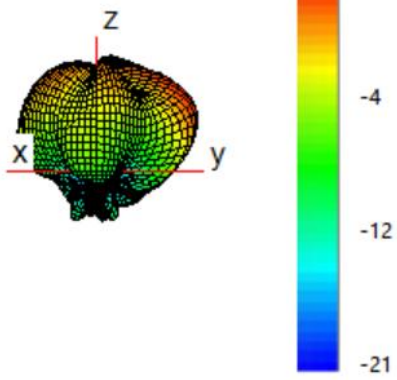


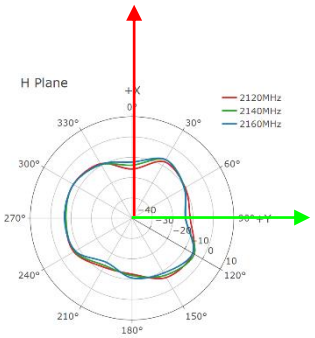


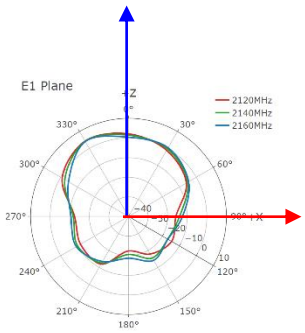


- **LMH2**

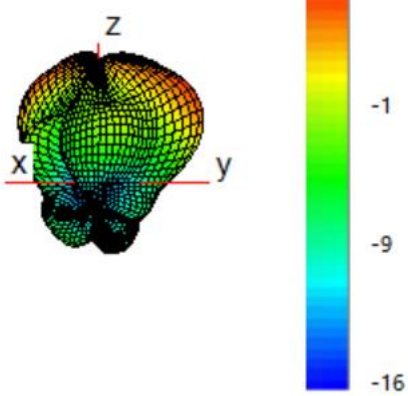
2140 MHz

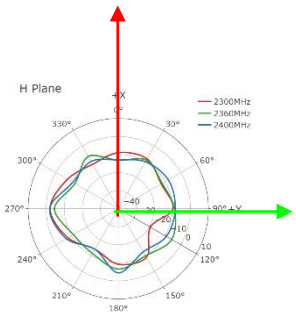


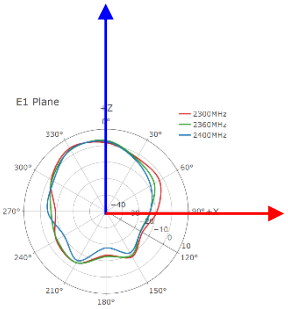




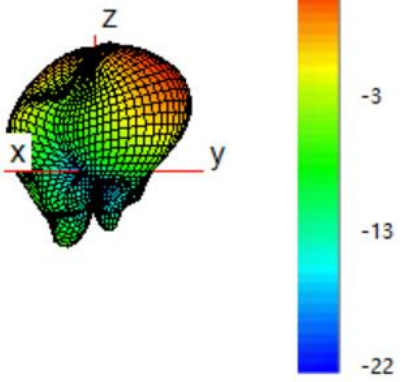
2360 MHz

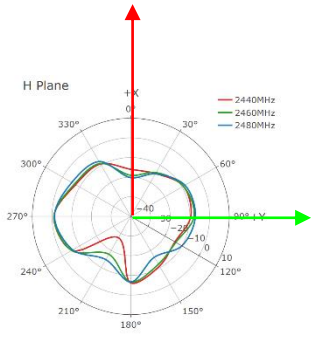


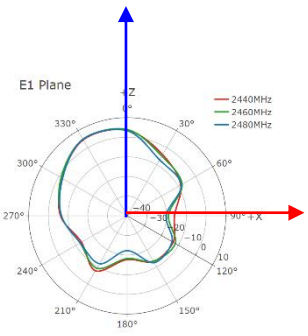




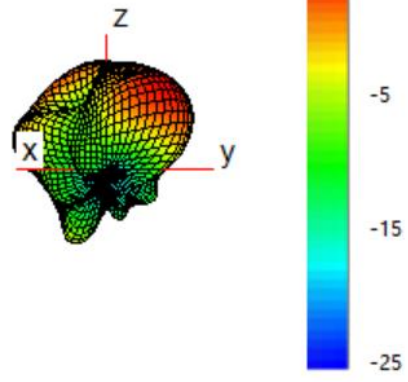
2460 MHz

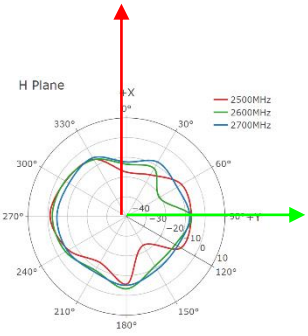


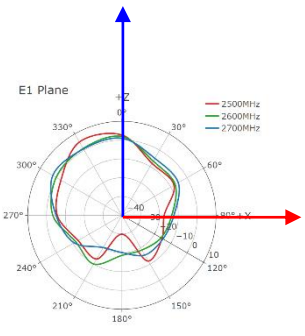




2600 MHz

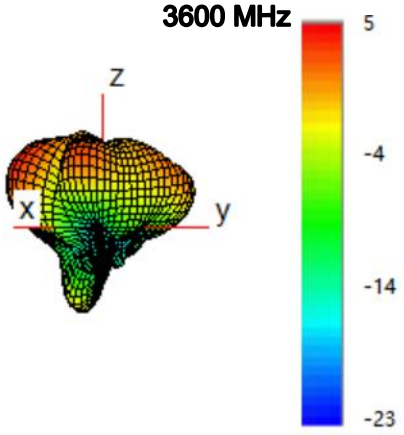


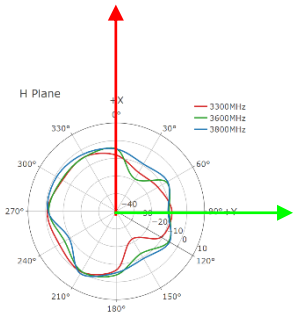


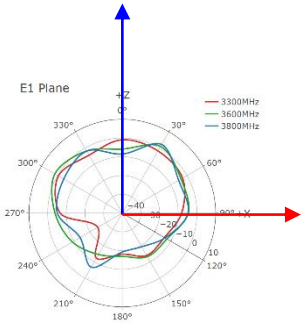


LMH2

3600 MHz







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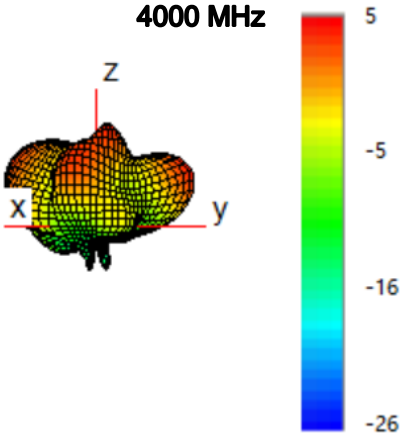

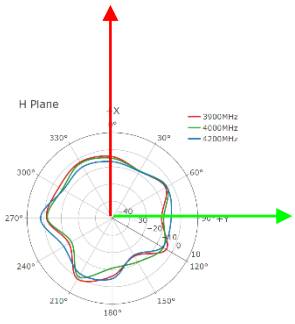

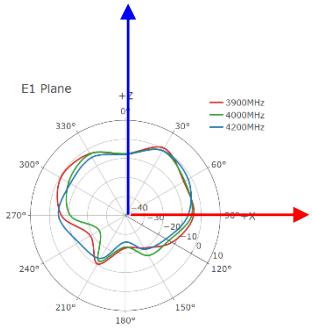

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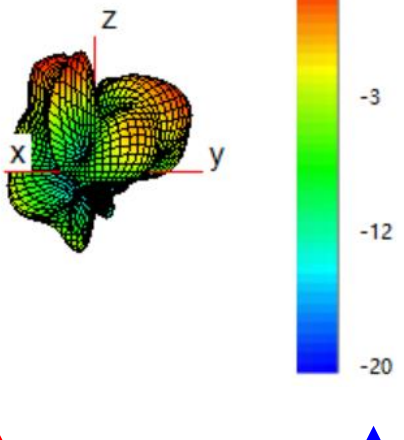

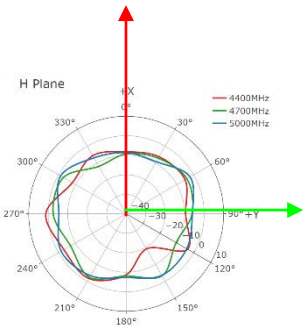

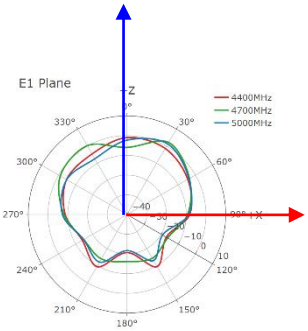

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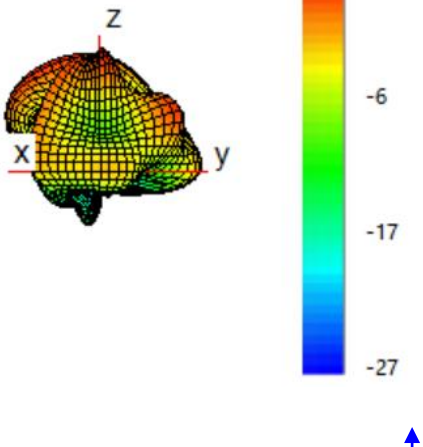
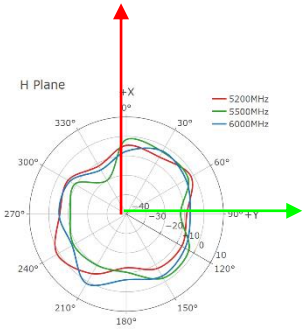
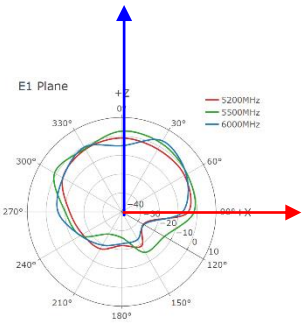
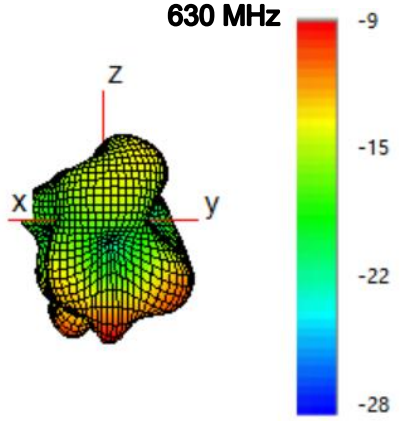


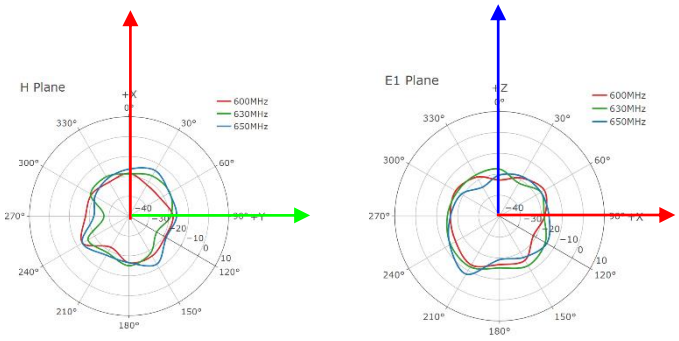




- **LMH3**

630 MHz





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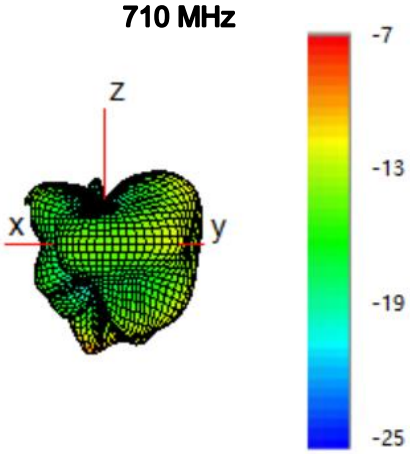

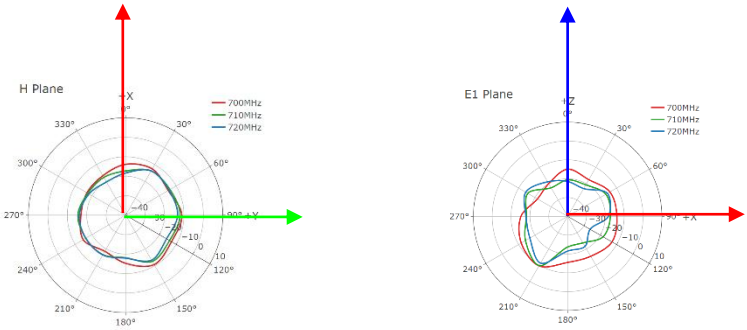

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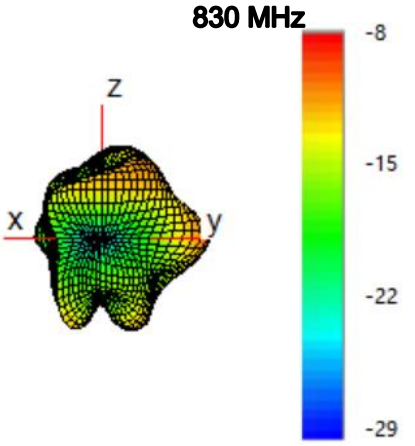

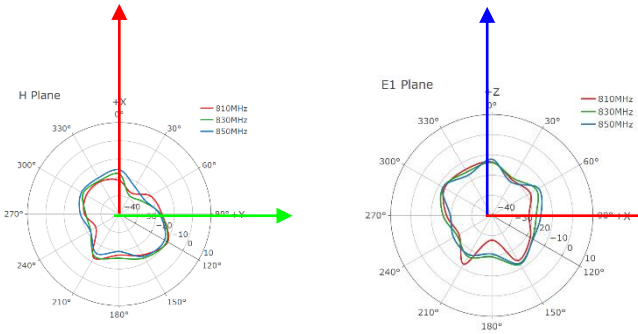

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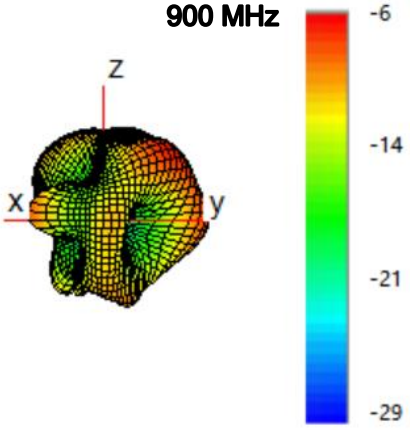
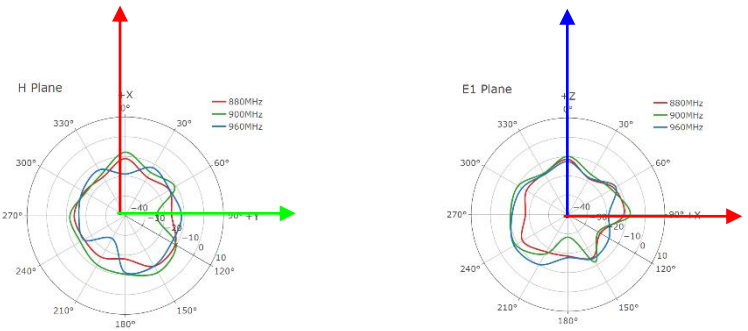
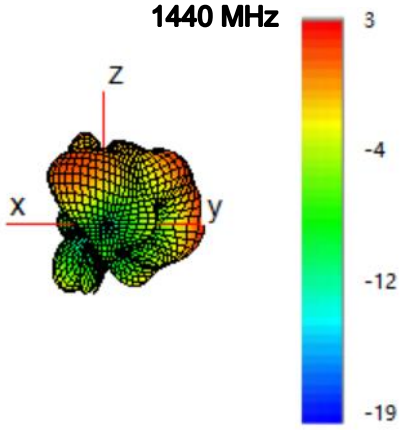
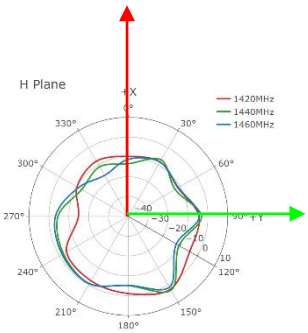


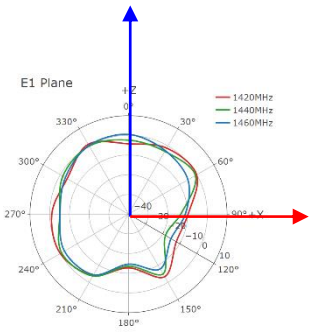


LMH3

1440 MHz







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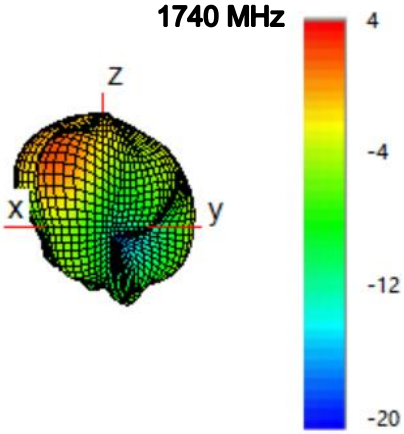

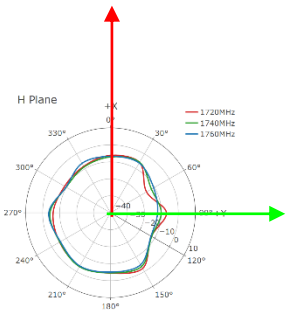

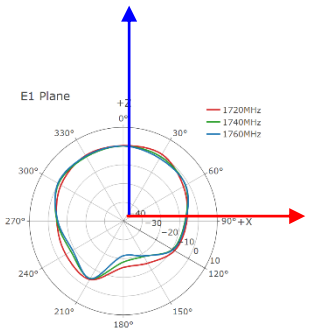

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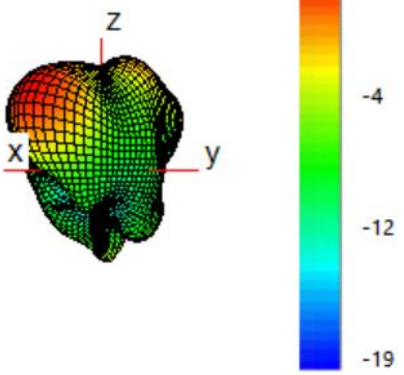
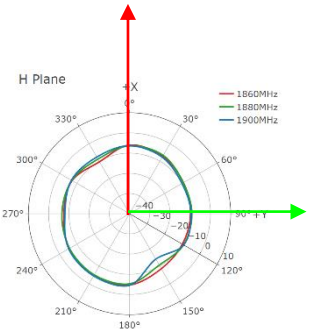
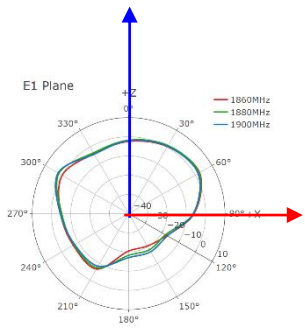
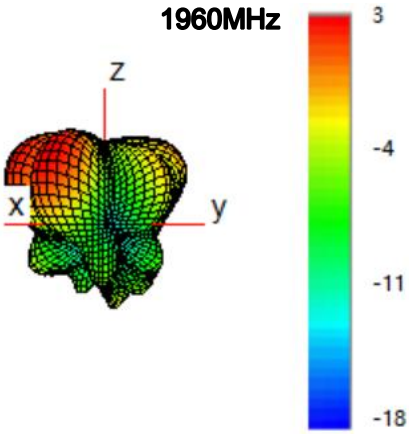
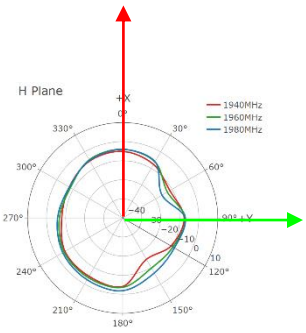


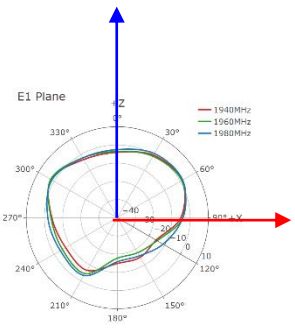




1960MHz

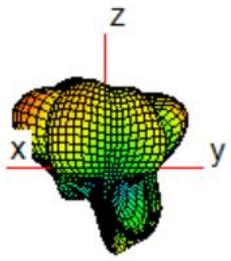


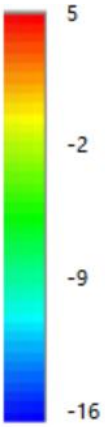


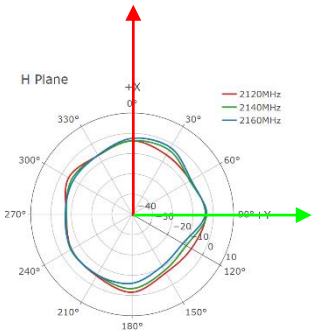


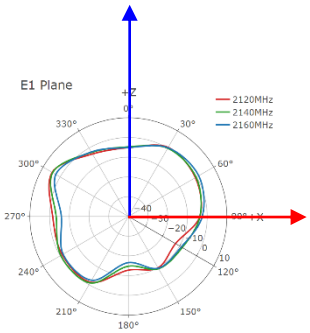
2140 MHz

- LMH3









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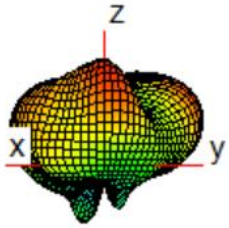

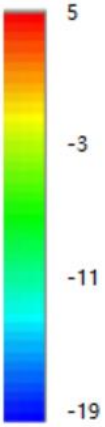

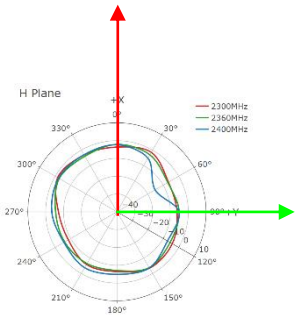

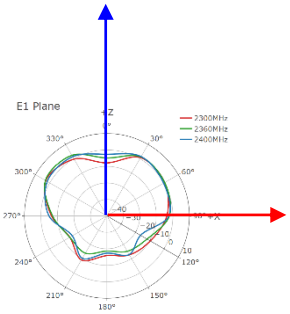

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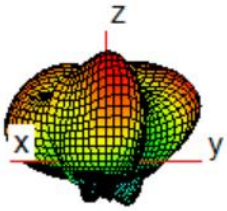

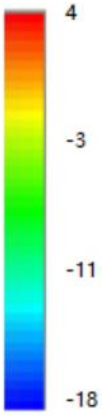

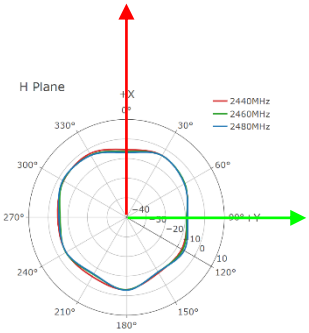

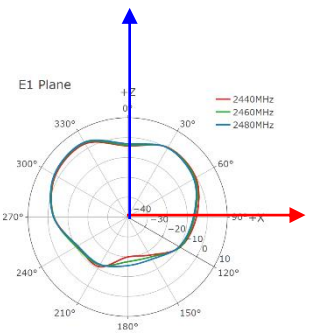

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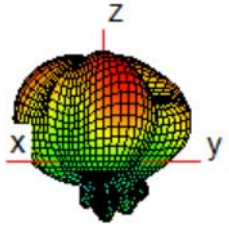
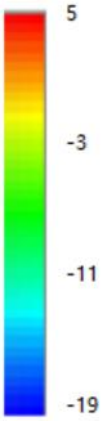
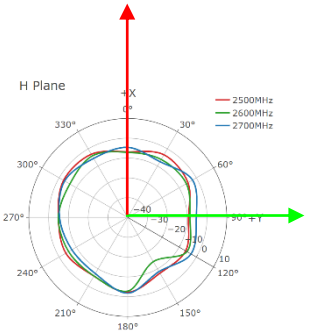
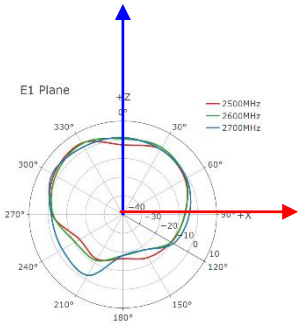


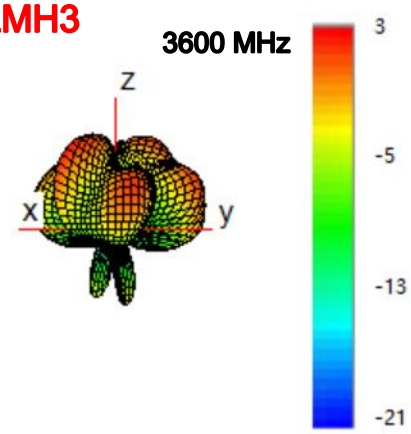


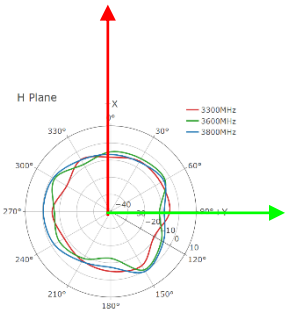


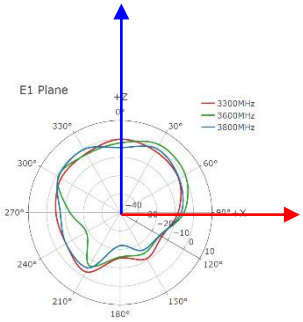


- **LMH3**

3600 MHz







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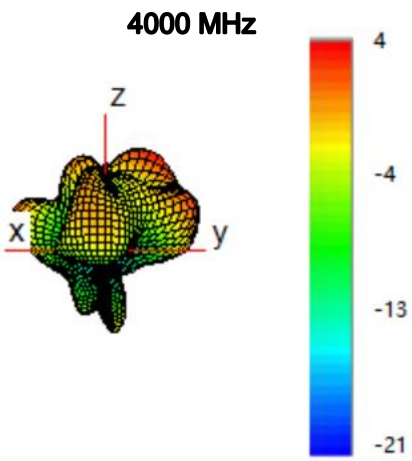

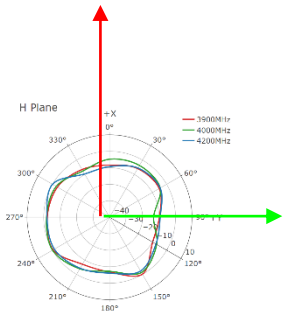

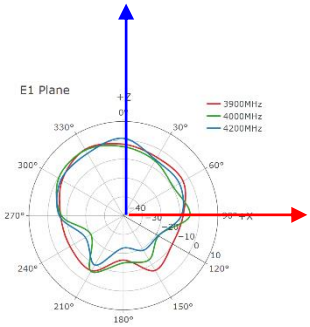

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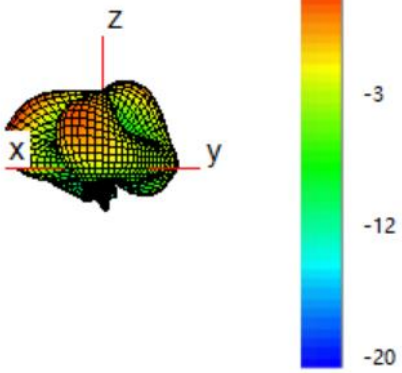

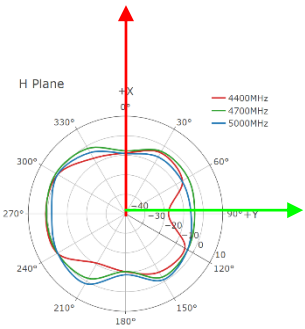

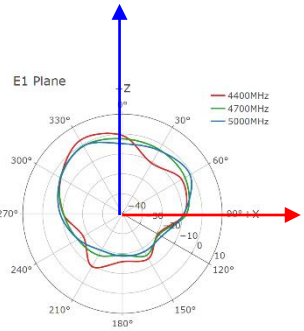

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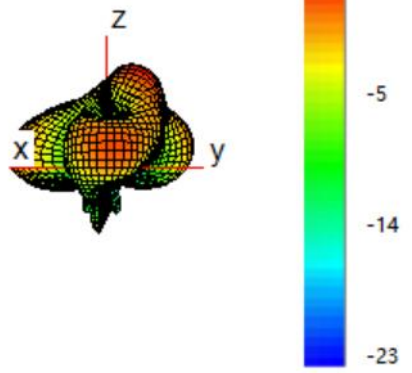
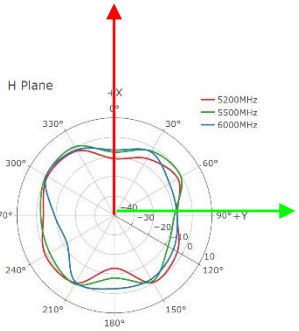
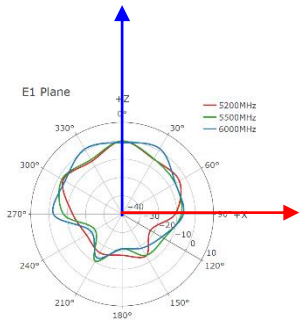
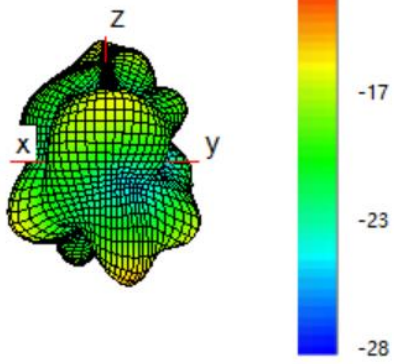


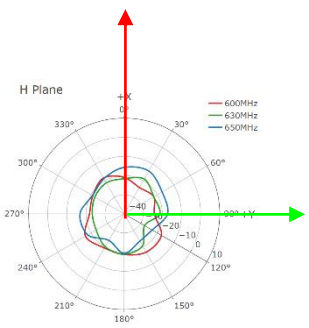


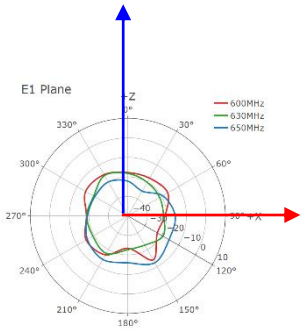


- **LMH4**

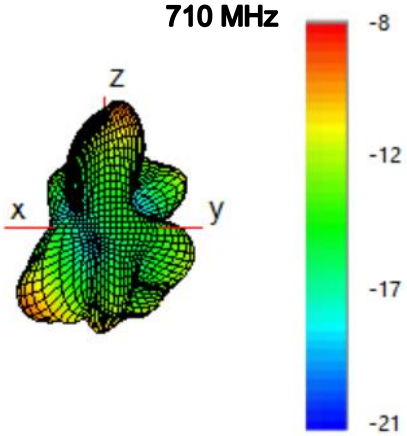
630 MHz

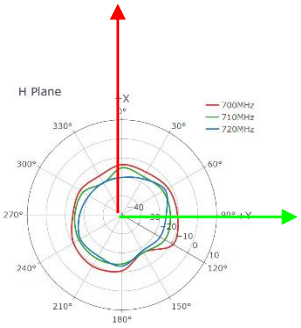


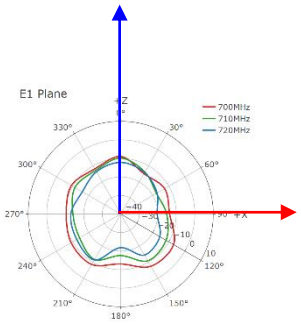




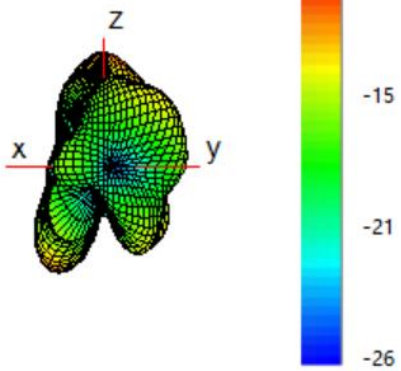
710 MHz

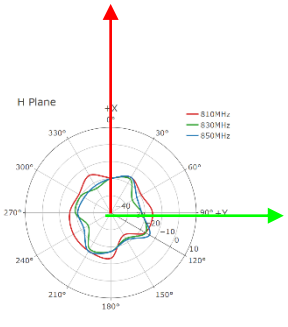


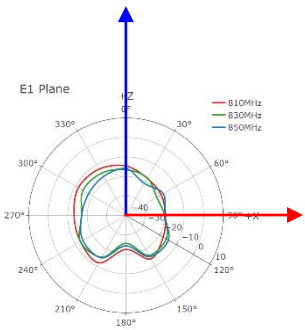




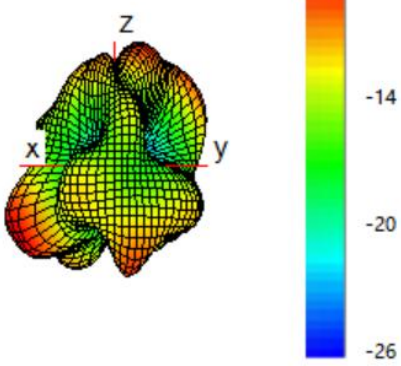
830 MHz

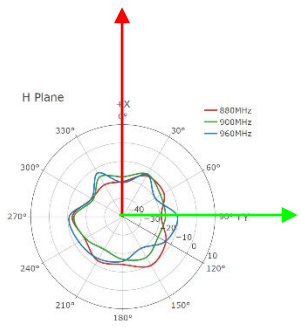


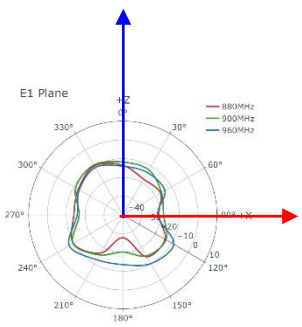




900 MHz

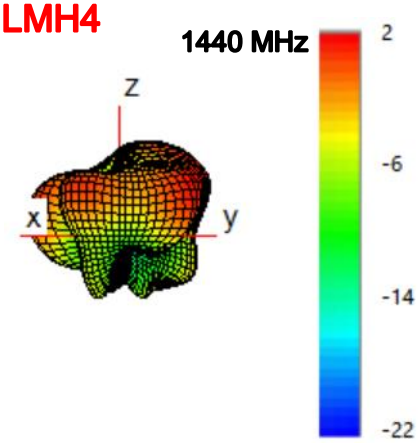




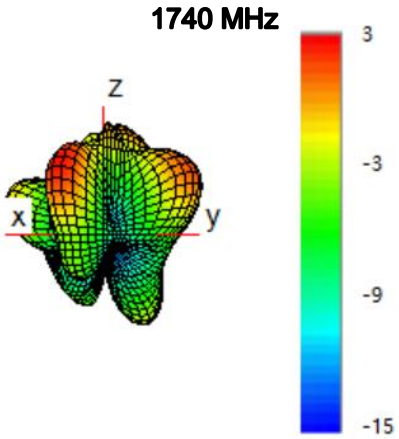


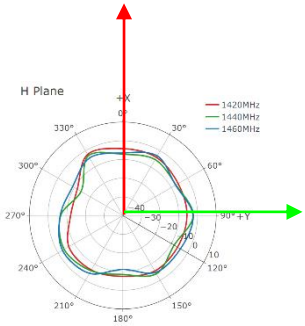
- **LMH4**

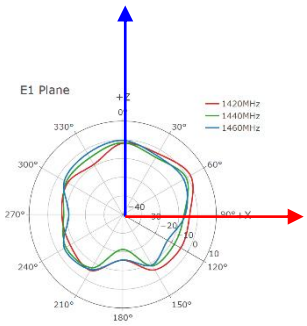
1440 MHz

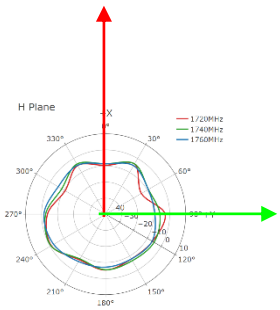


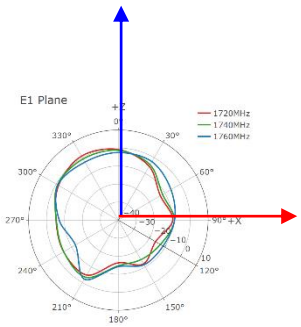
1740 MHz



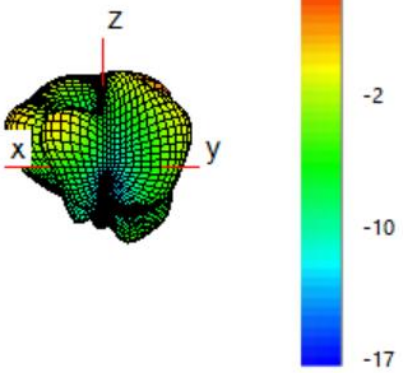




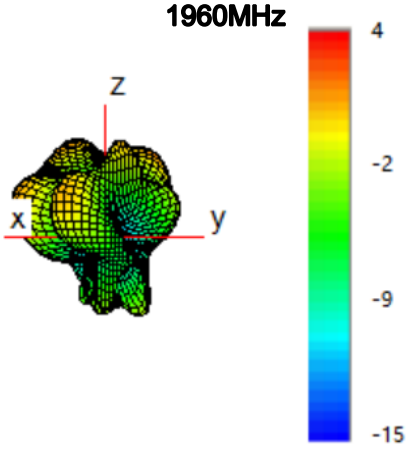


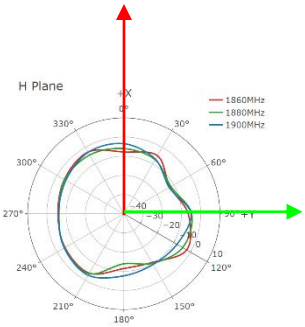


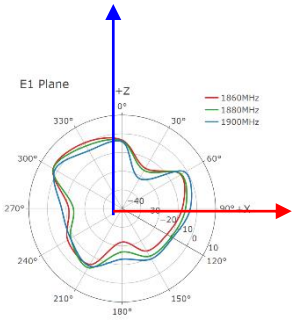
1880MHz

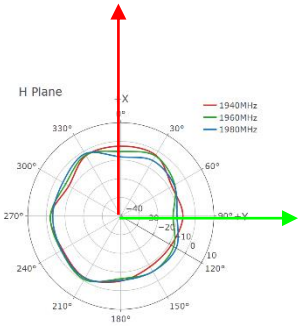


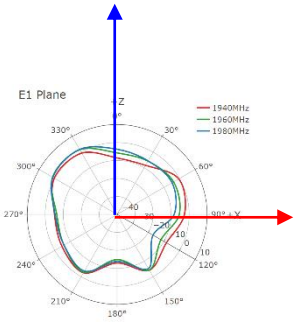
1960MHz





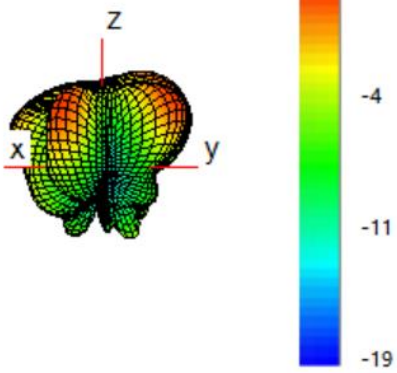


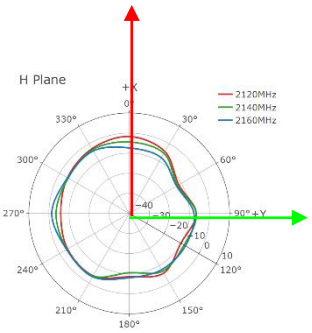


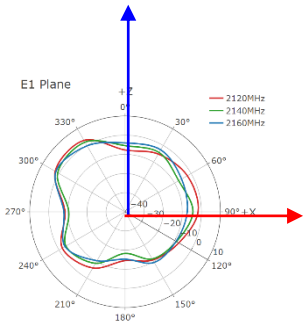


LMH4

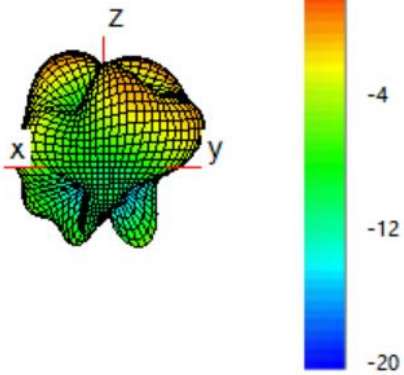
2140 MHz

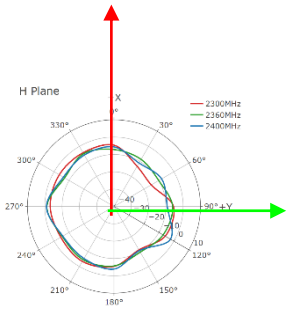


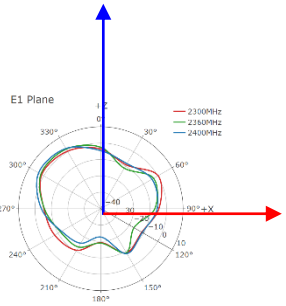




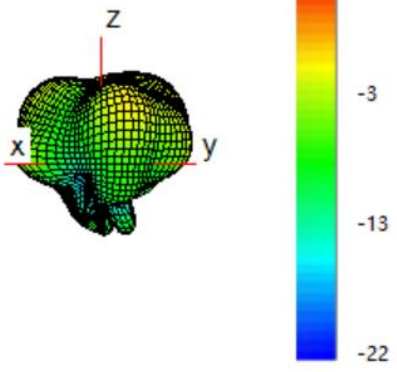
2360 MHz

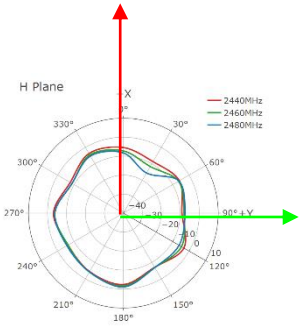


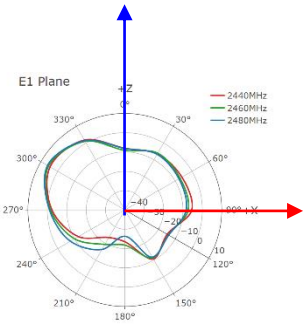




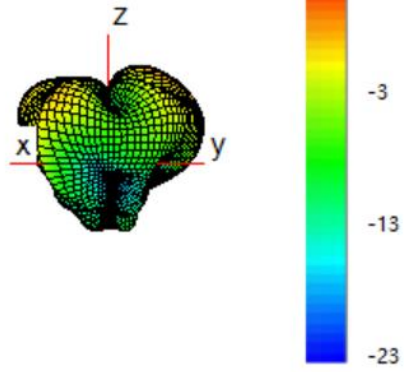
2460 MHz

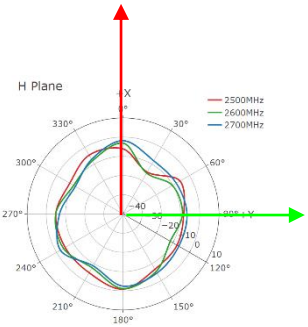


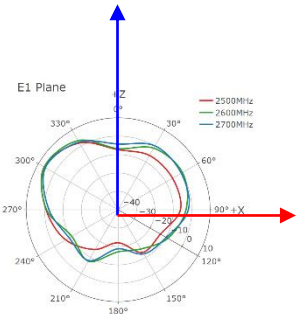




2600 MHz

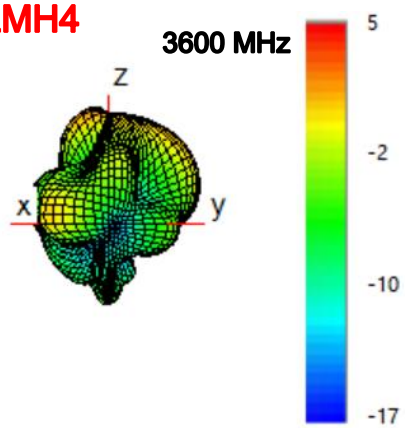


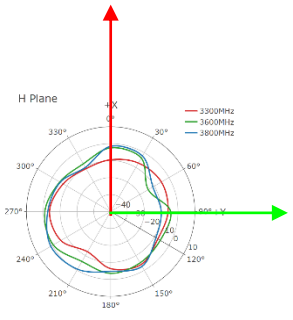


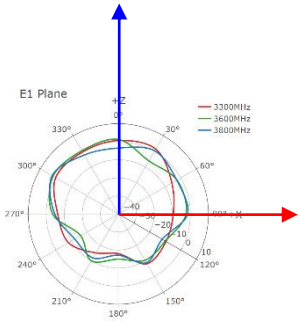


- **LMH4**

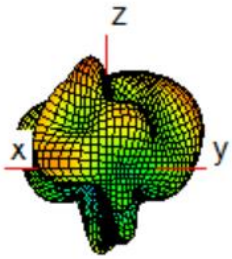
3600 MHz

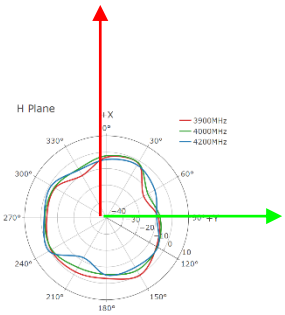


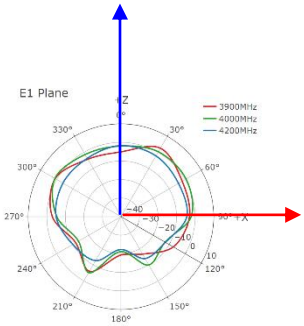




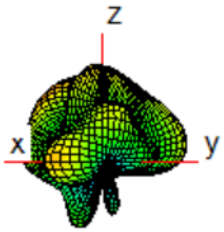
4000 MHz

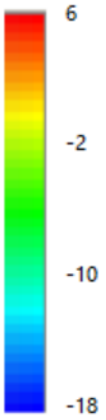


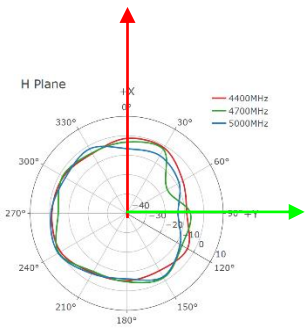


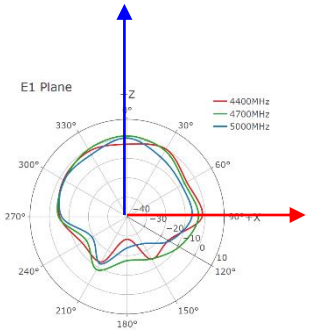


4700 MHz

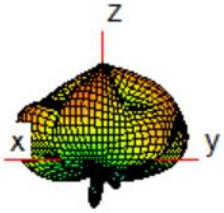


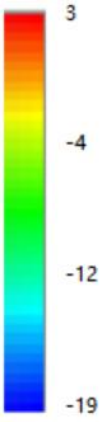


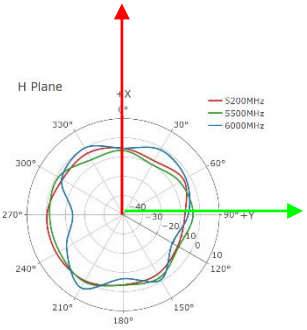


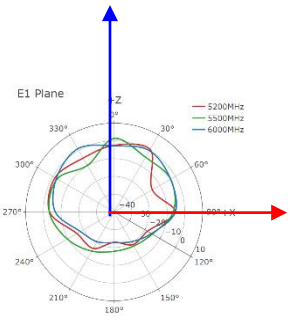


5500 MHz



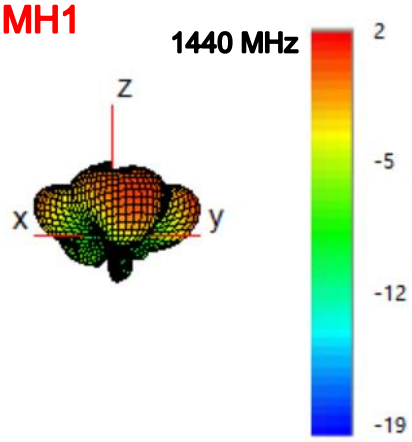




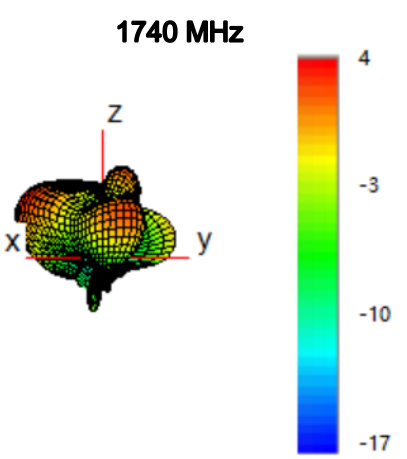


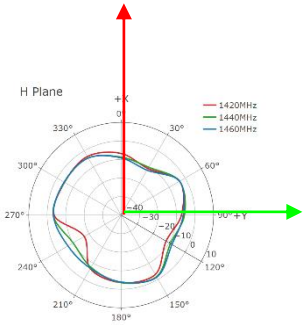
- **MH1**

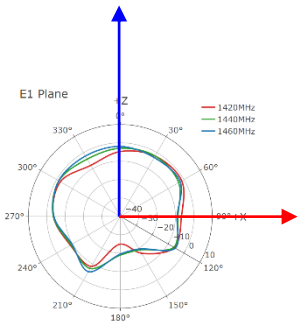
1440 MHz

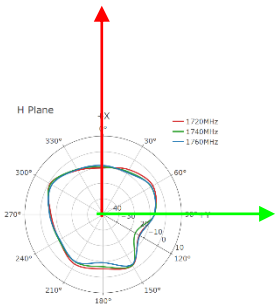


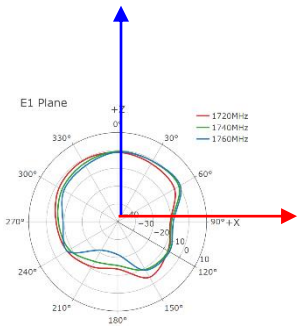
1740 MHz



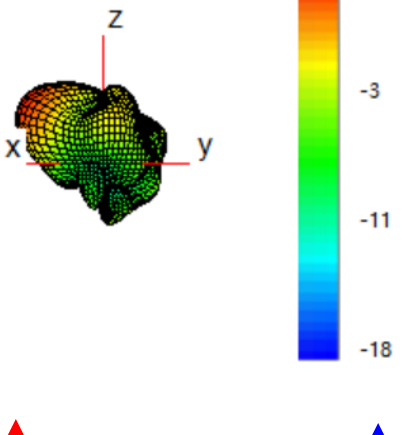




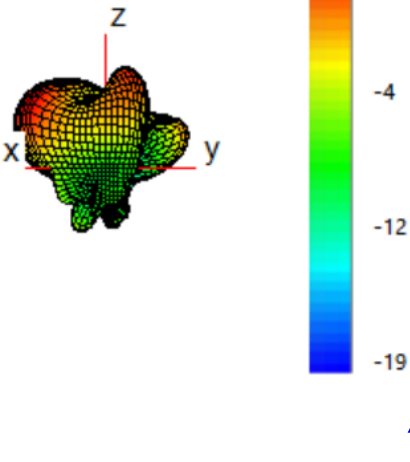


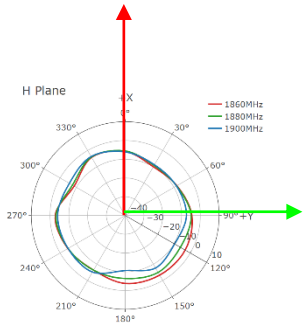


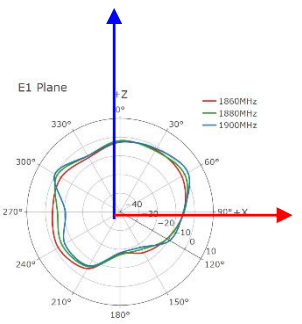
1880MHz

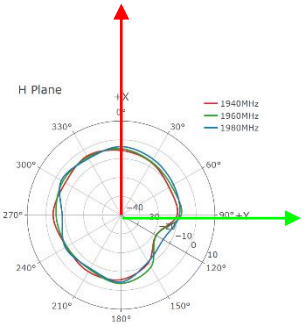


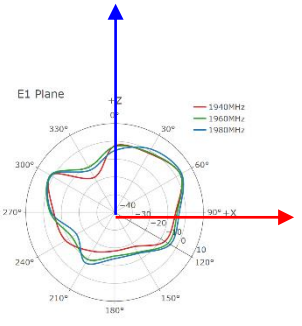
1960MHz





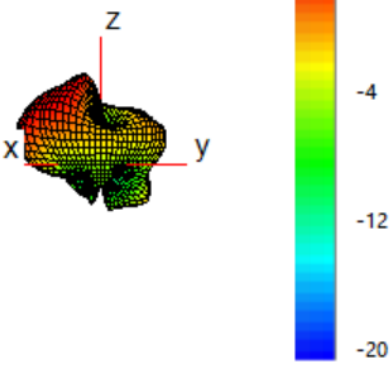


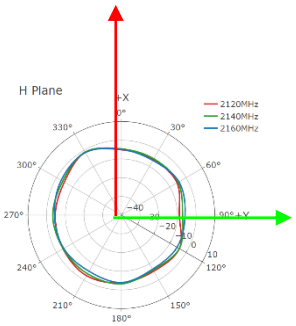


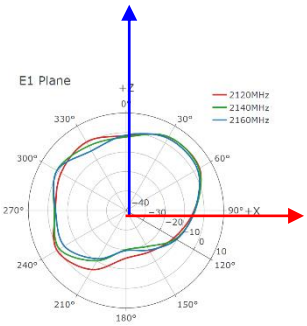


- **MH1**

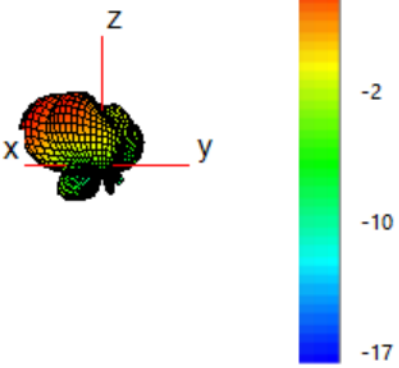
2140 MHz

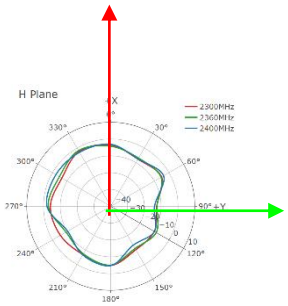


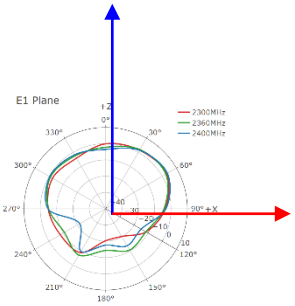




2360 MHz







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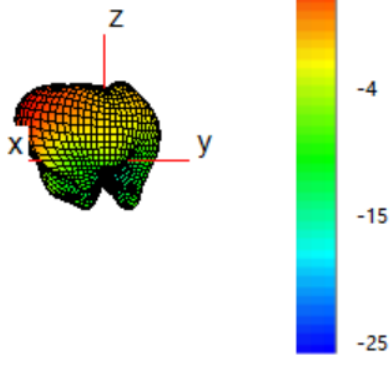
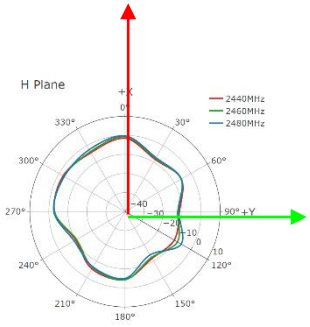
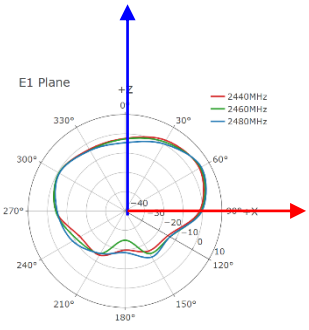
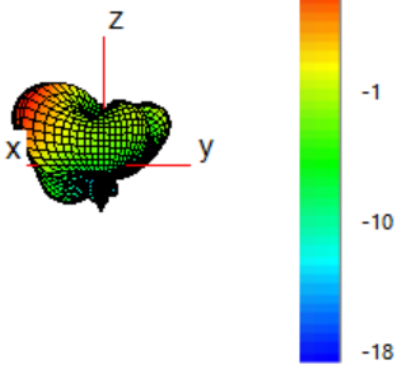
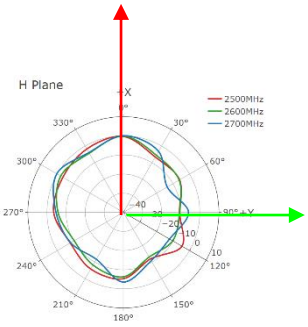


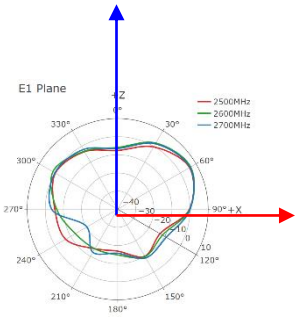




2600 MHz

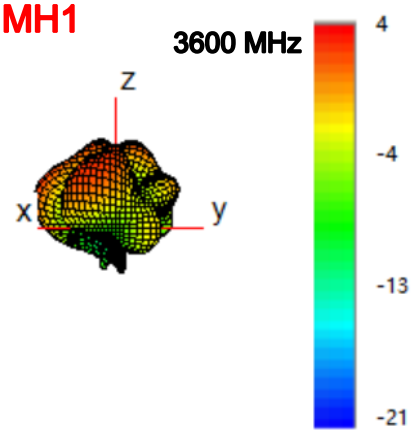






- **MH1**

3600 MHz



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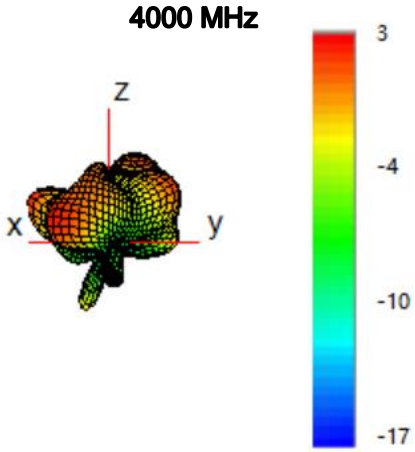

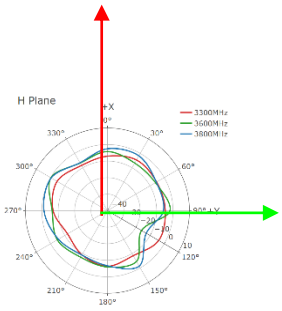

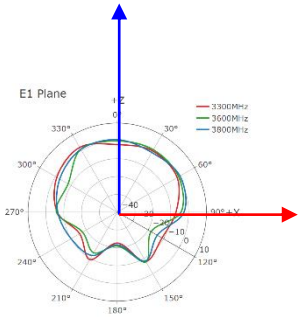

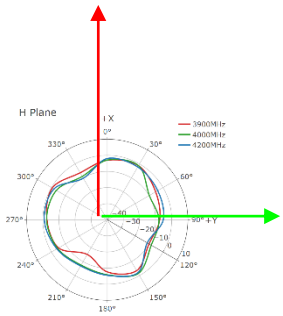

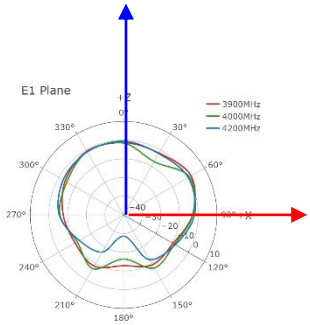

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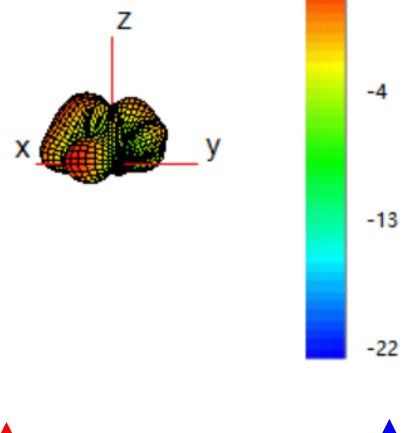

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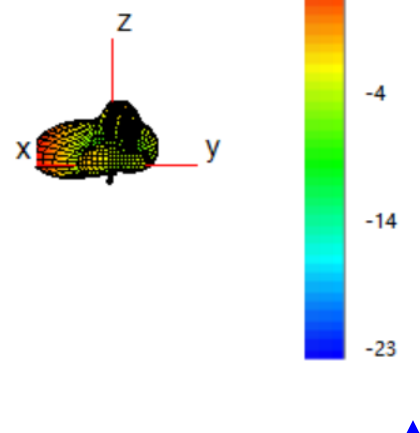
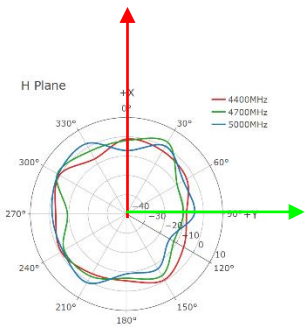
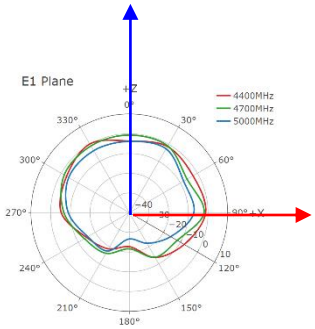
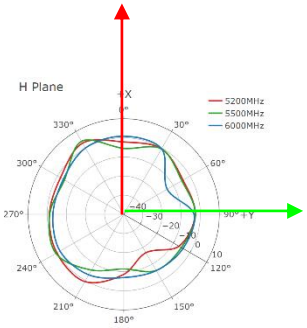
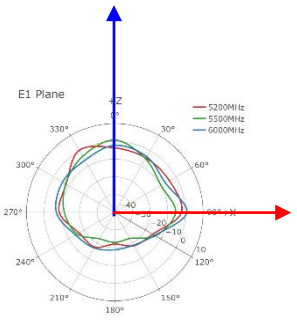




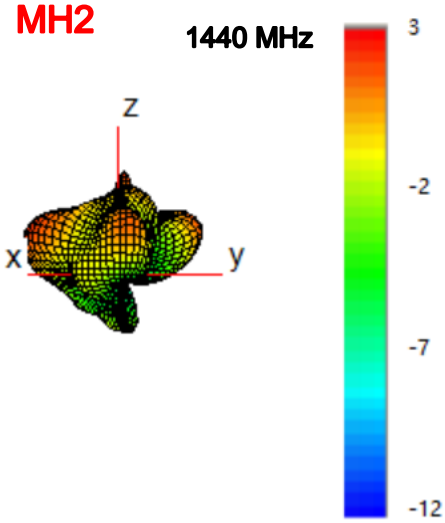




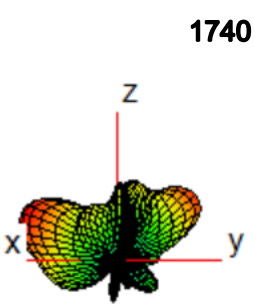


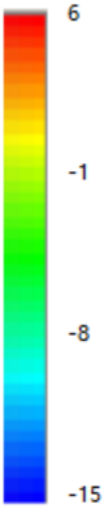
MH2

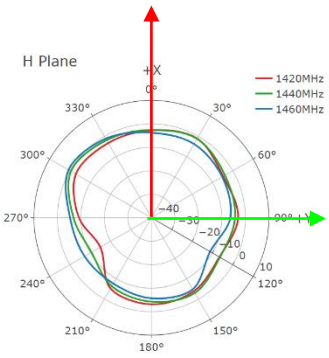
1440 MHz

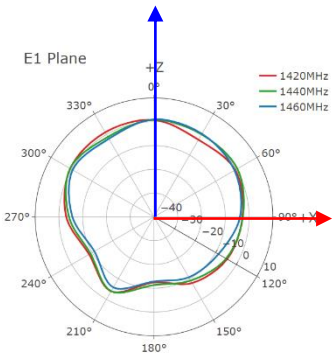


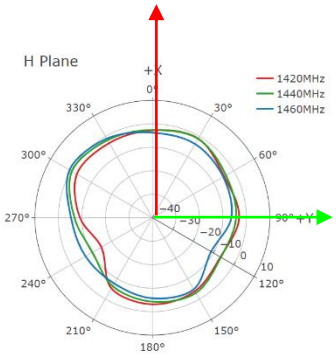
1740 MHz

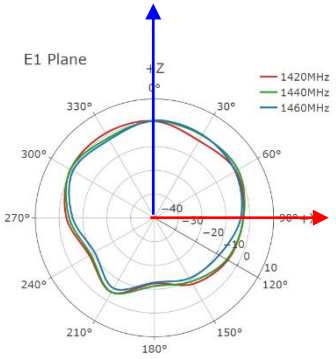




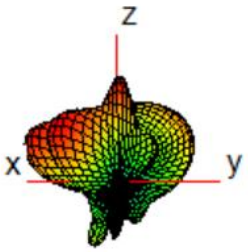


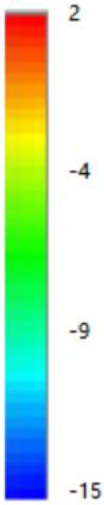




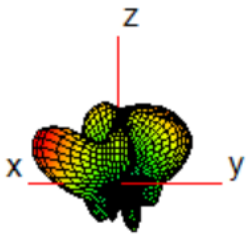


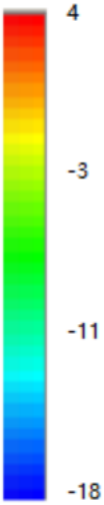
1880 MHz

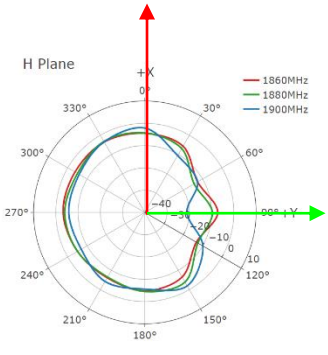


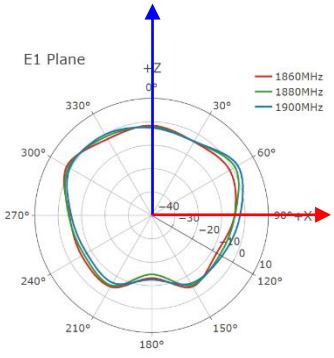


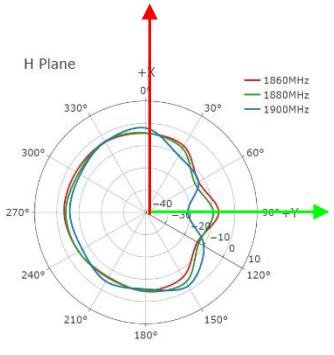
1960 MHz

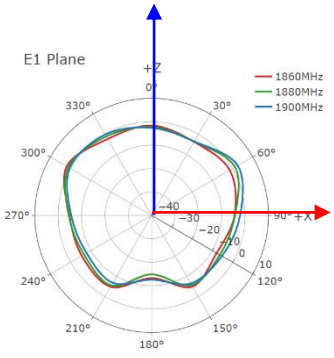






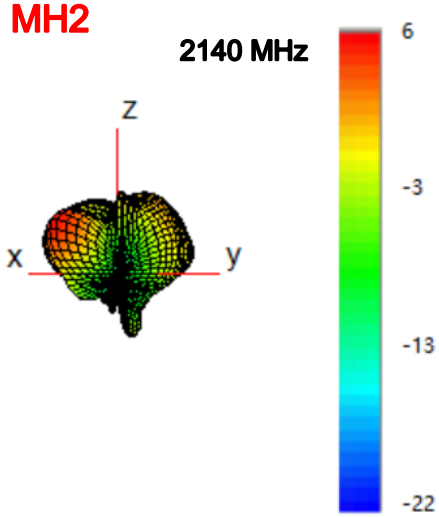


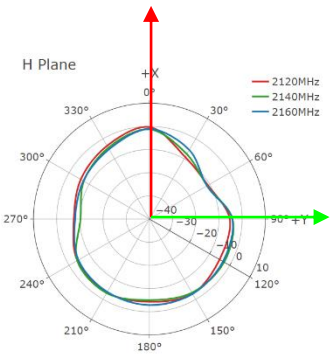


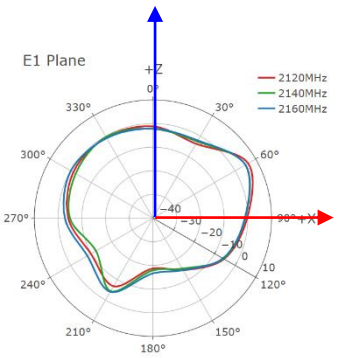


- **MH2**

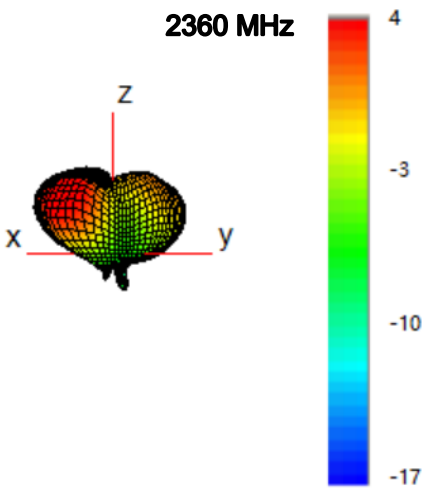
2140 MHz

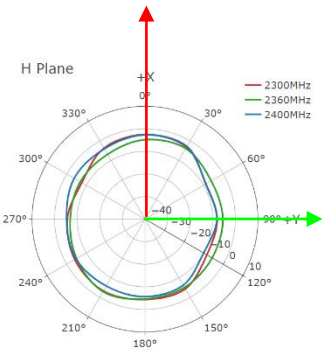


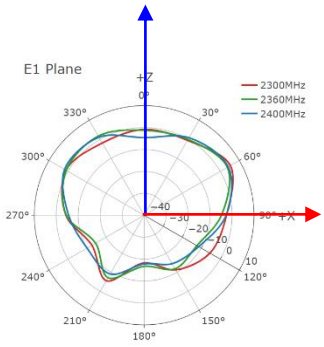




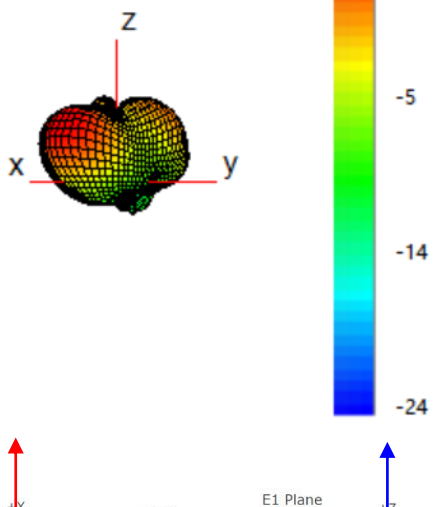
2360 MHz

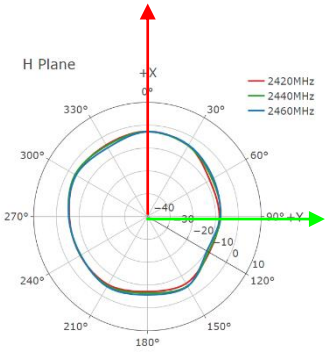


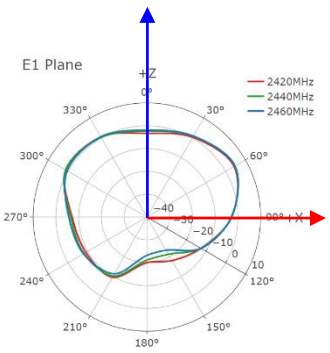




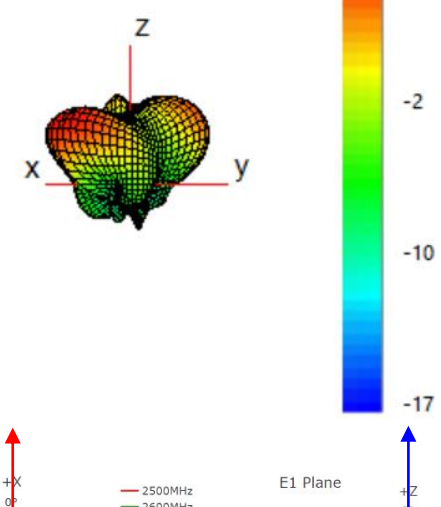
2460 MHz

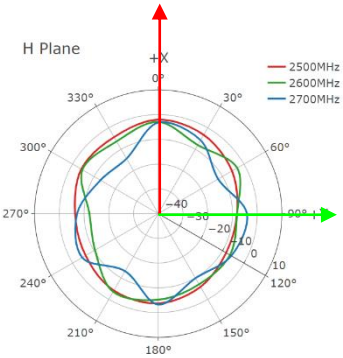


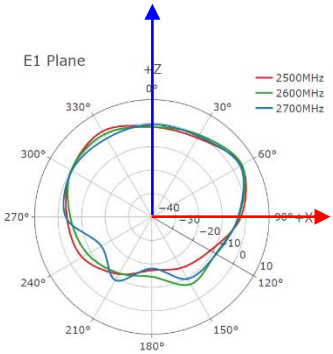




2600 MHz

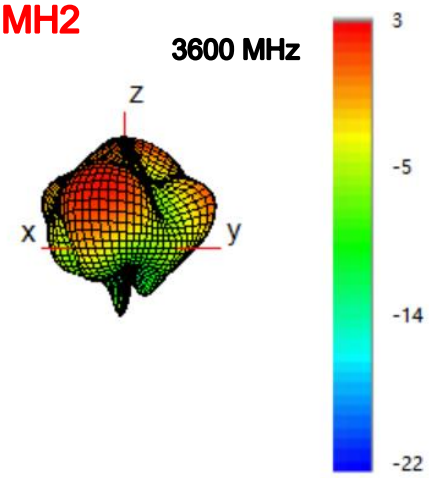


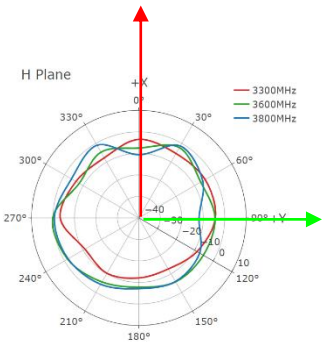


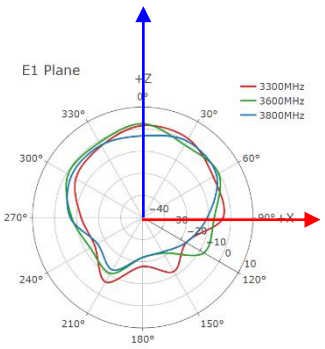


- **MH2**

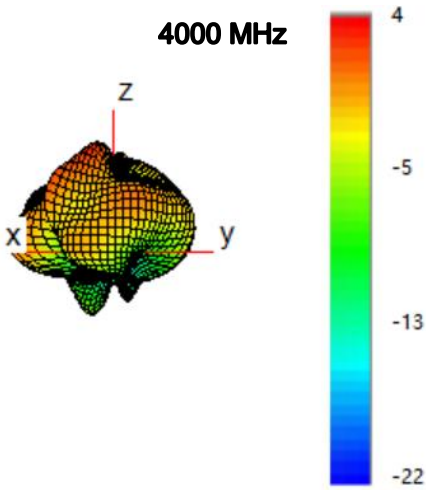
3600 MHz

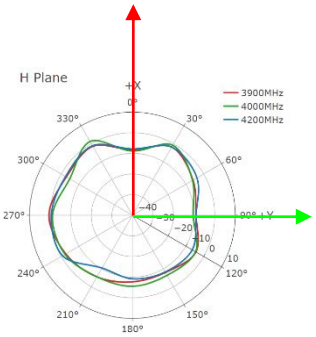


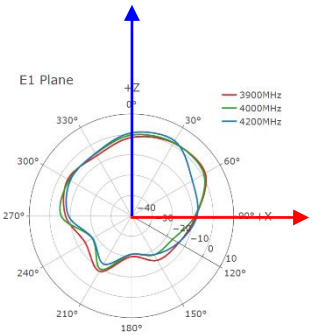




4000 MHz







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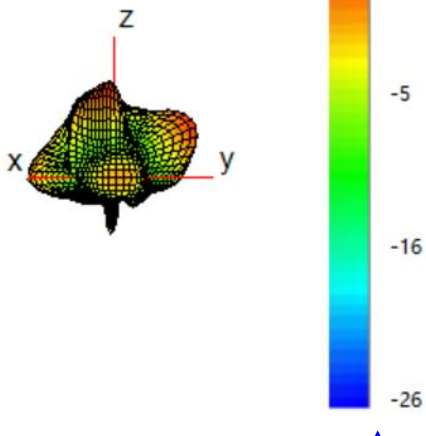

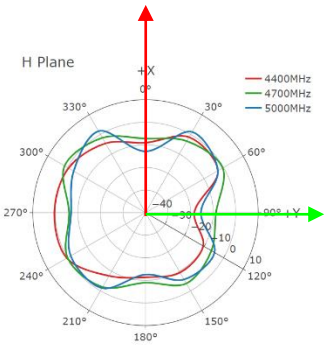

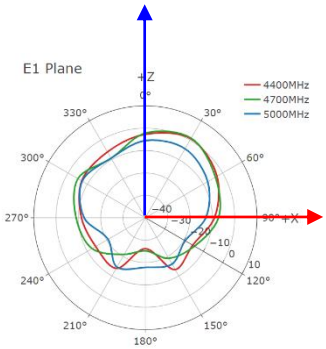

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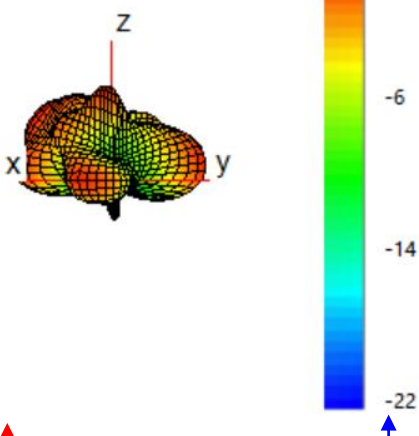

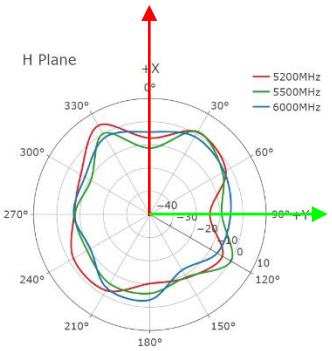

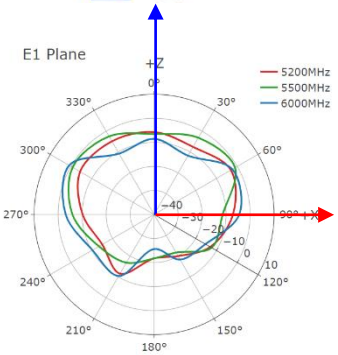

MH3

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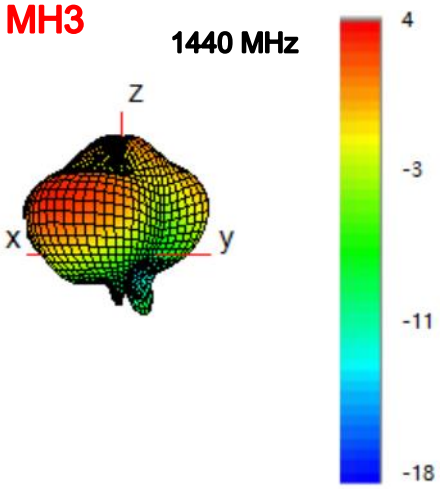

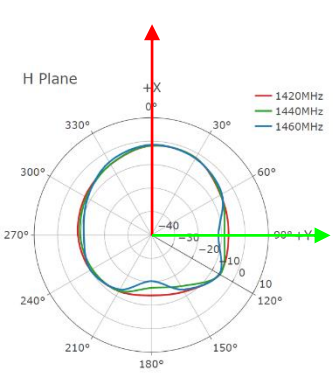

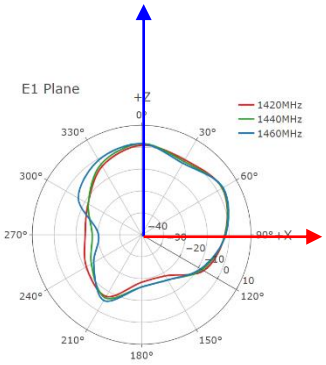

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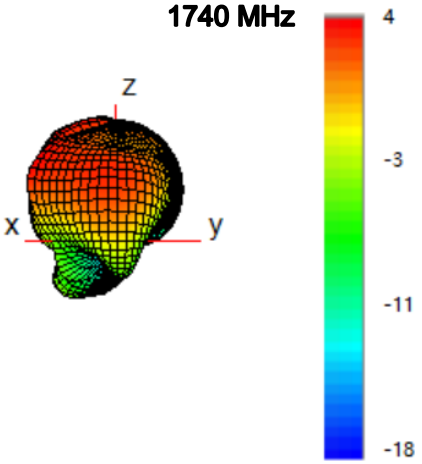

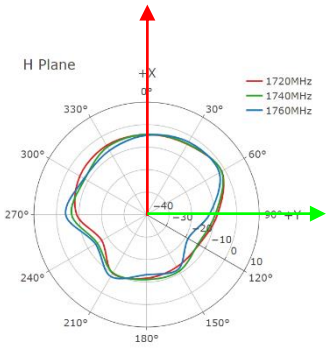

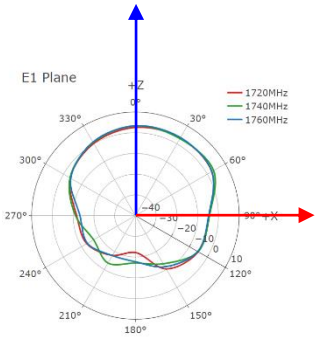

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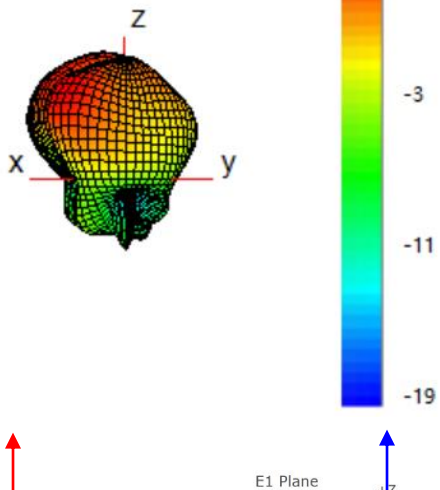

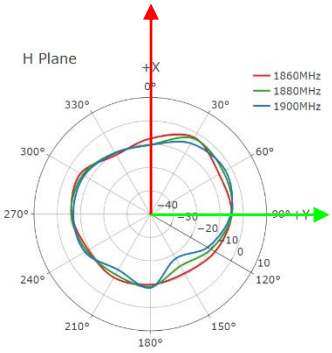

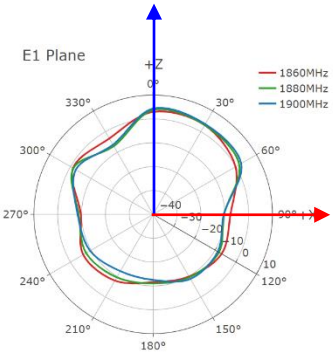

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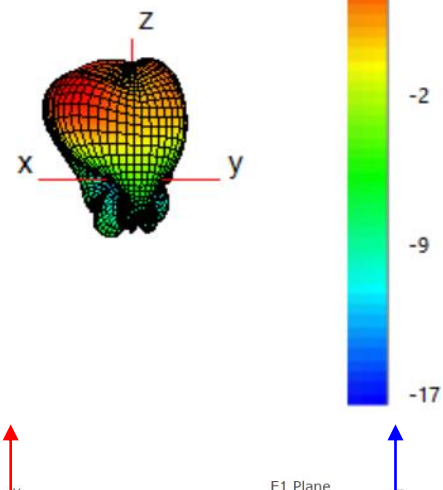

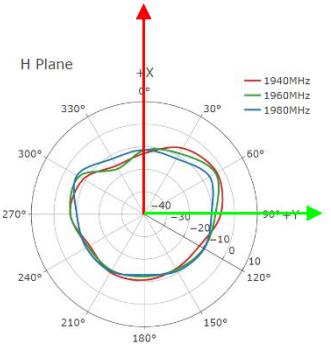

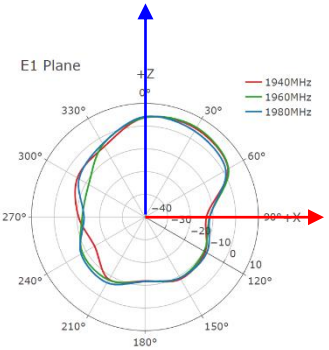

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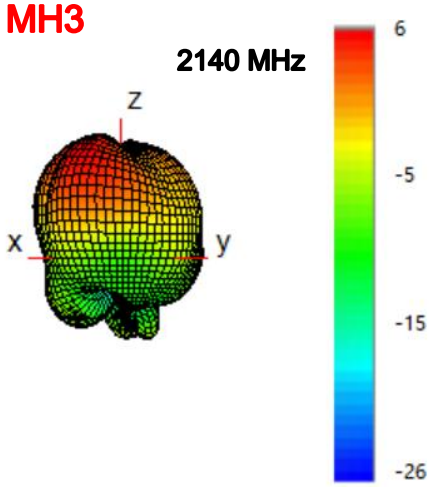

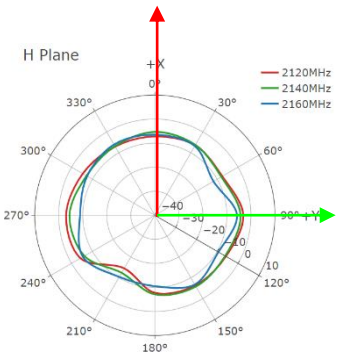

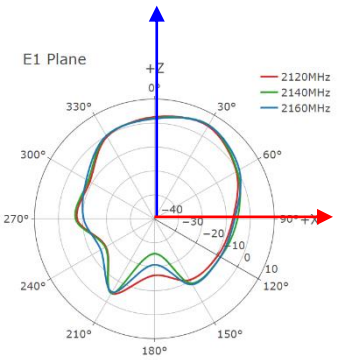

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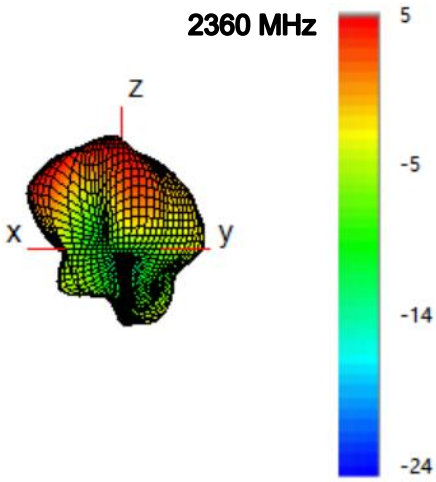

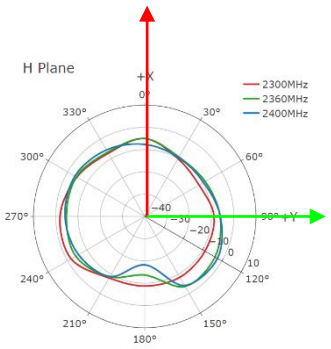

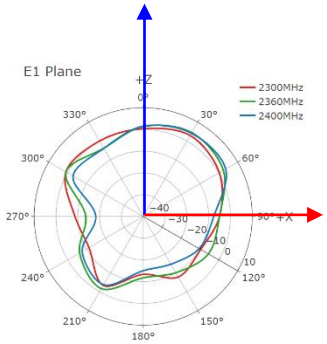

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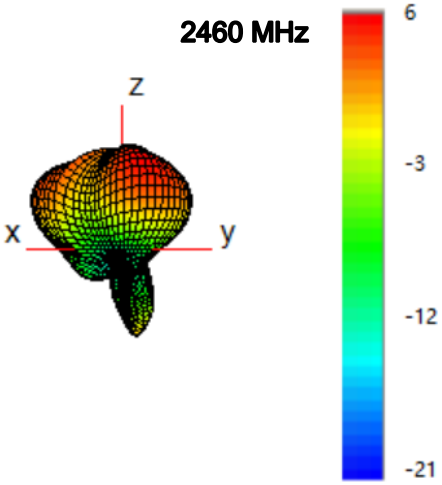

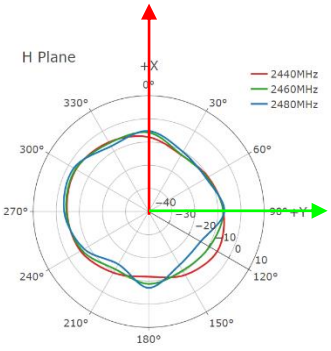

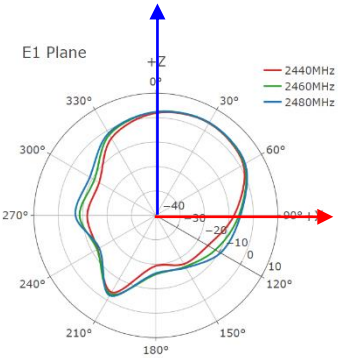

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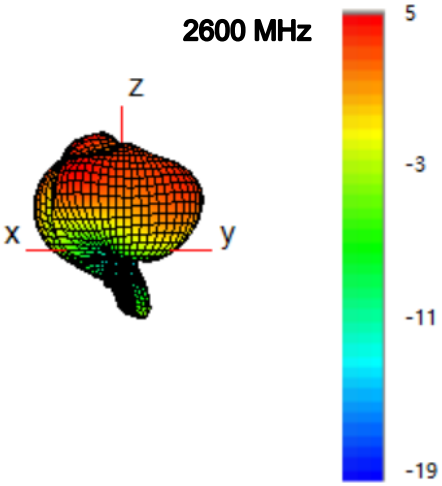

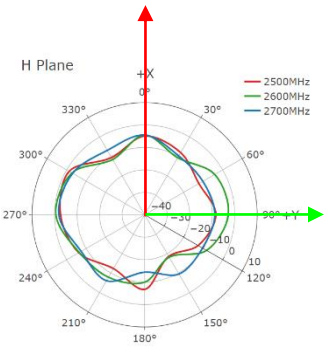

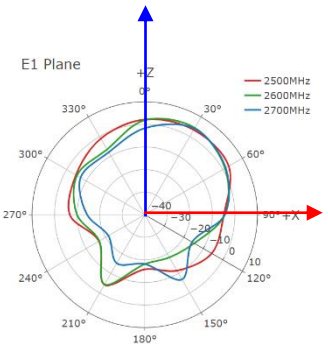

MH3

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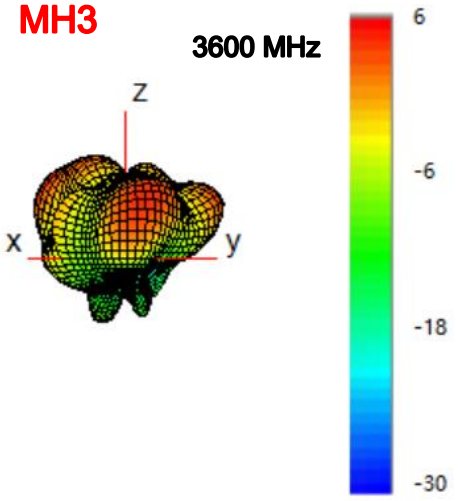

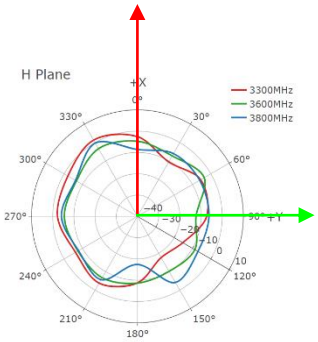

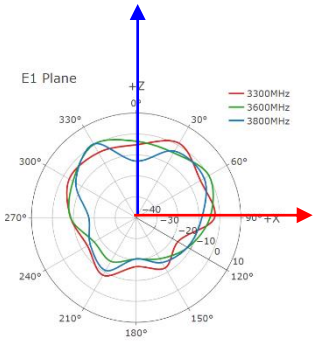

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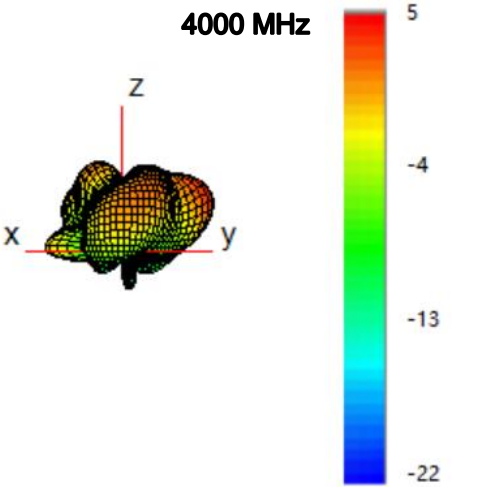

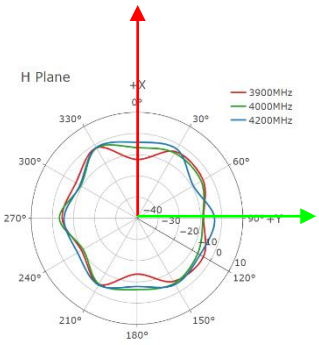

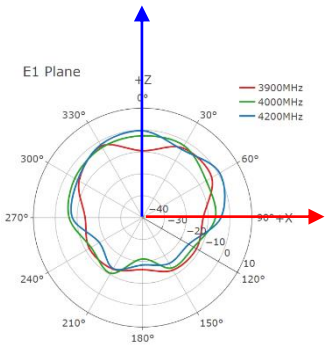

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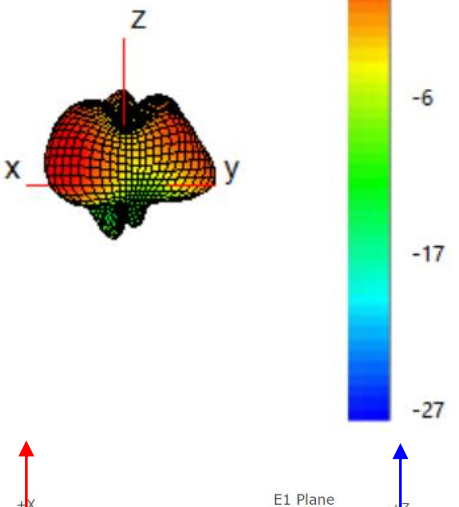

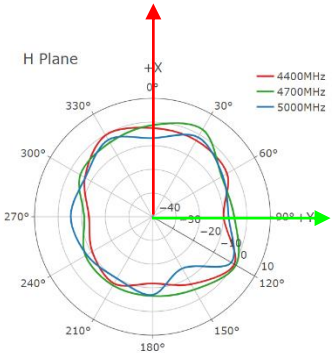

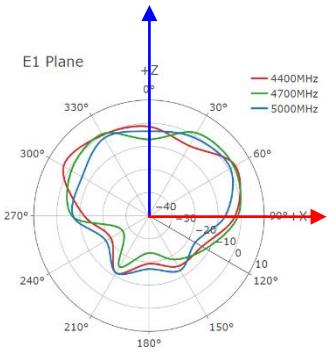

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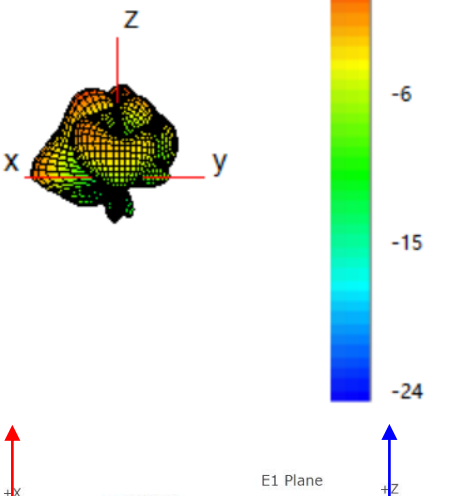
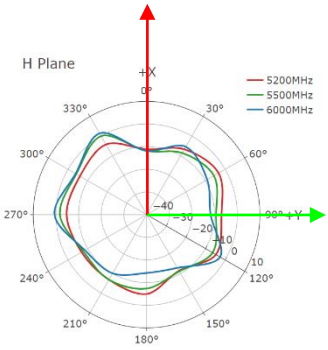
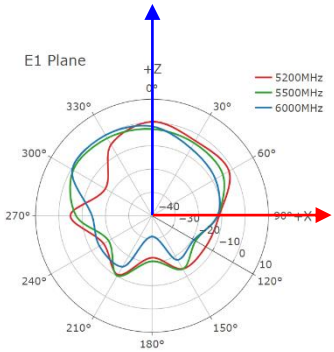
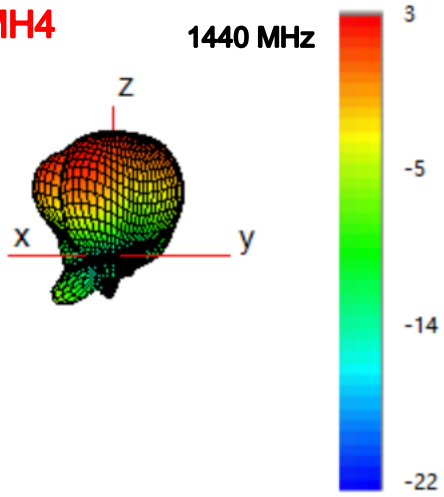


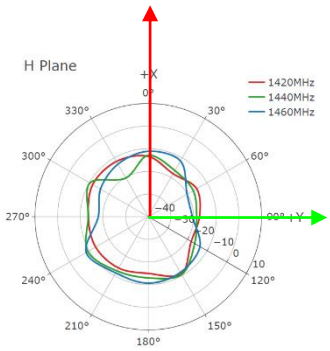


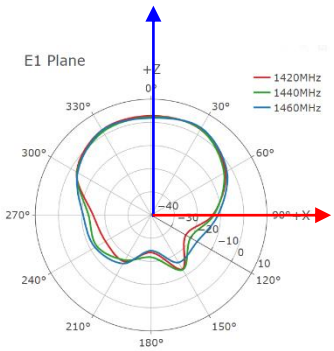


- **MH4**

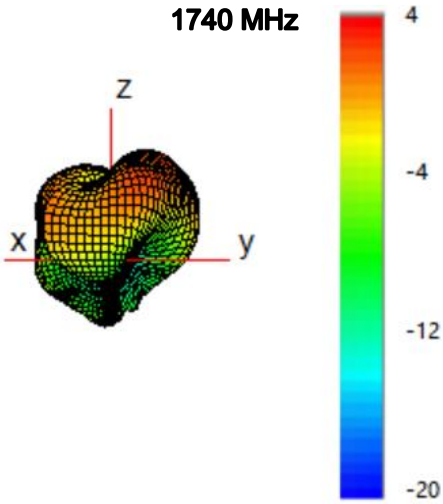
1440 MHz

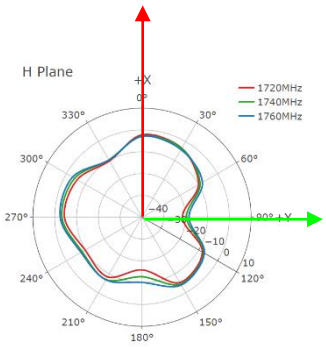


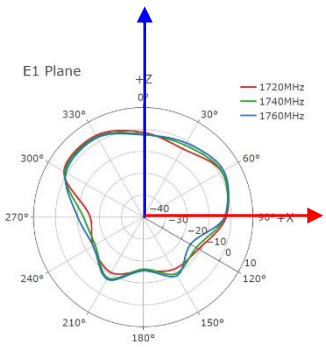




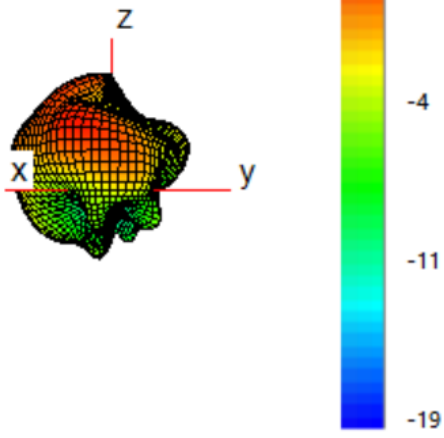
1740 MHz

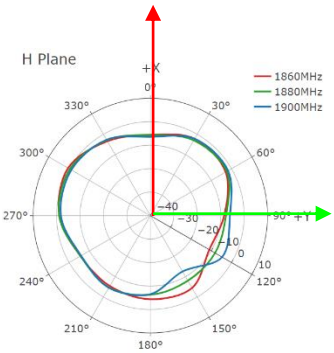


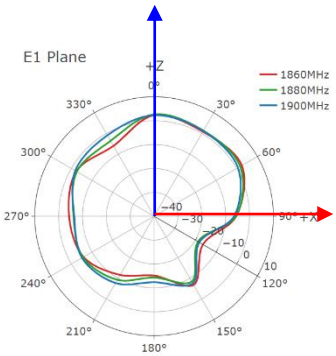




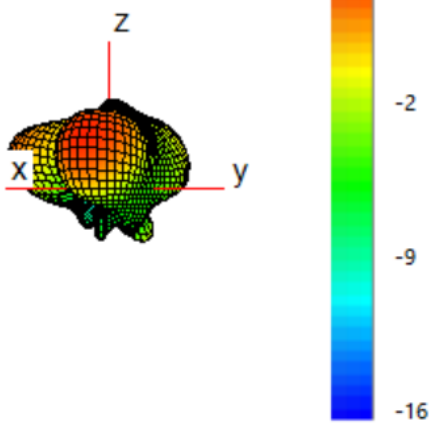
1880 MHz

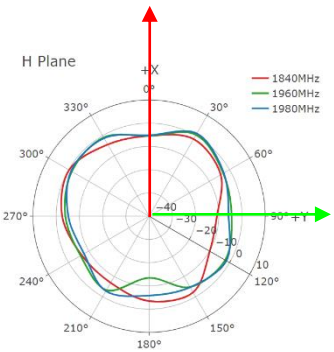


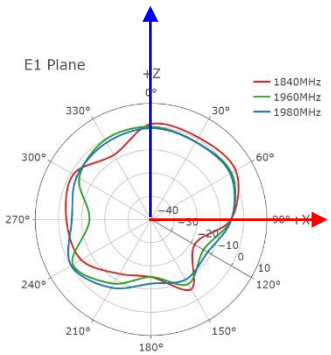




1960 MHz

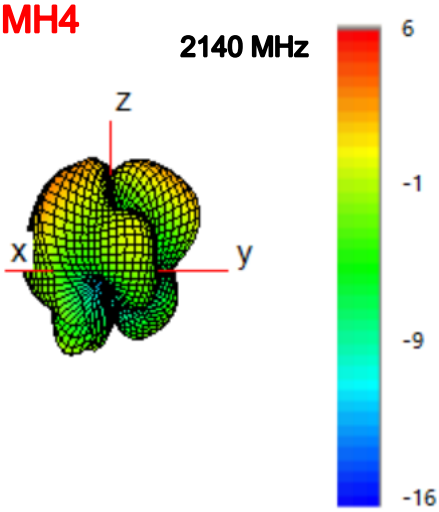


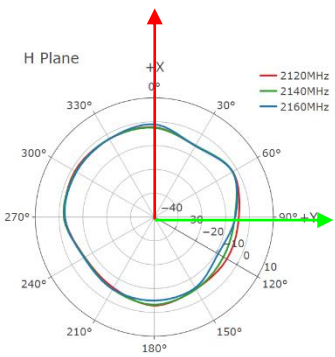


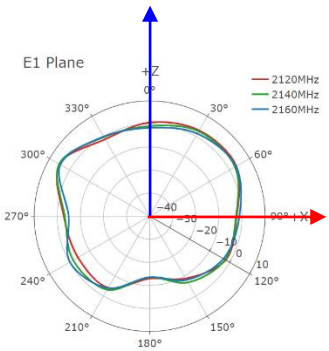


- **MH4**

2140 MHz







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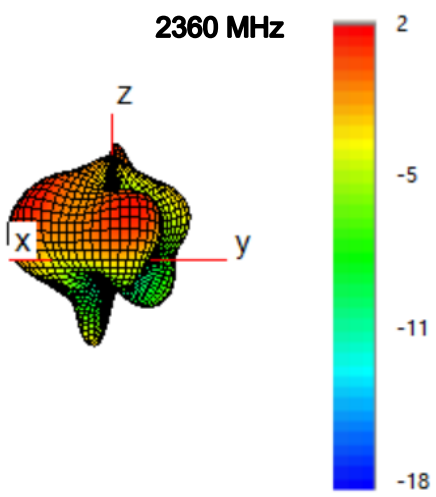

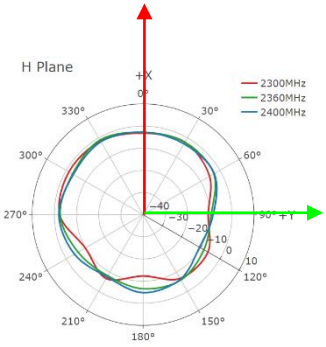

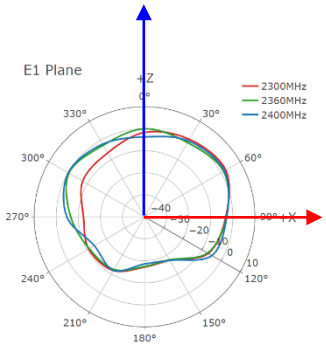

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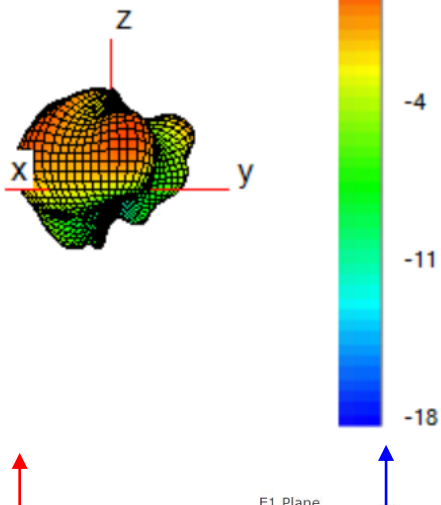

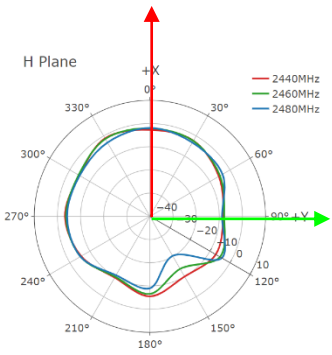

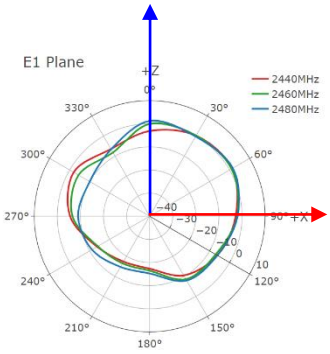

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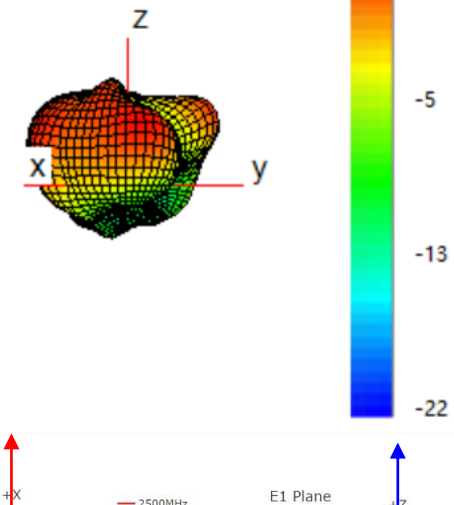
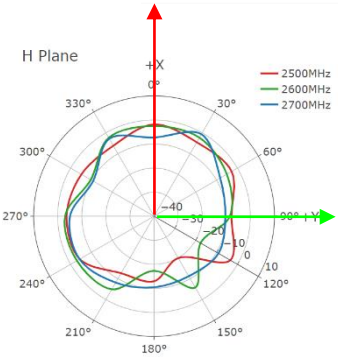
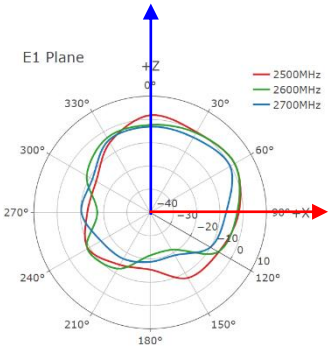
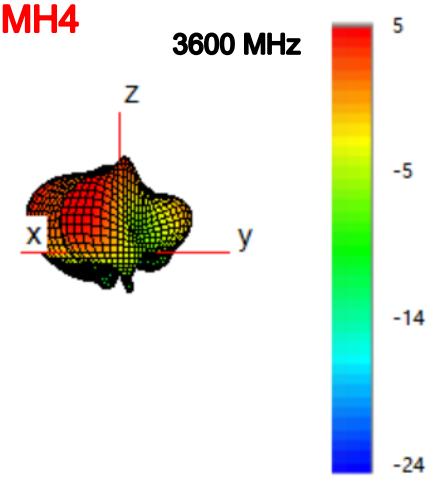
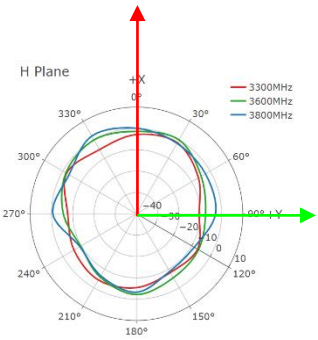


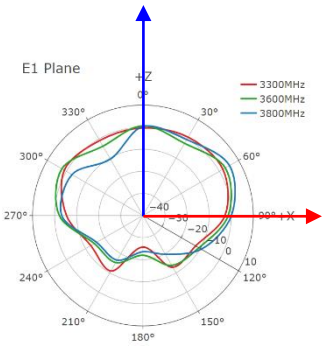


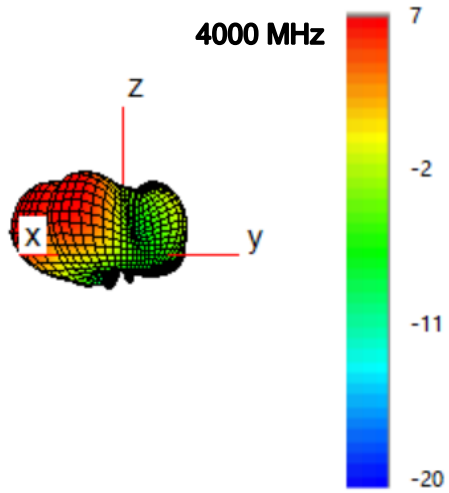


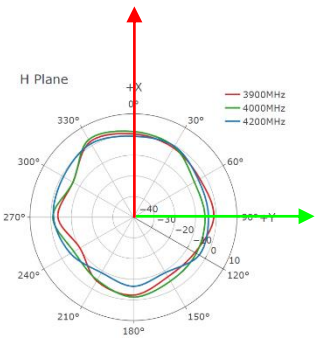
MH4

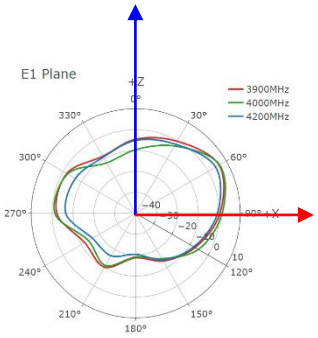

3600 MHz
Z
X
y
5
-5
-14
-24

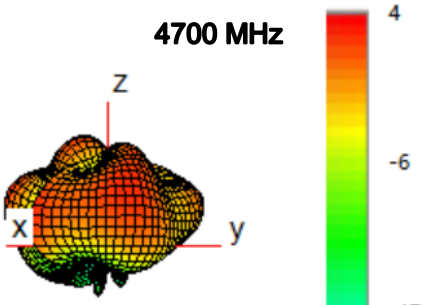

H Plane
3300MHz
3600MHz
3800MHz

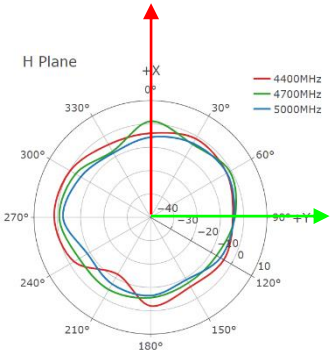

E1 Plane
3300MHz
3600MHz
3800MHz

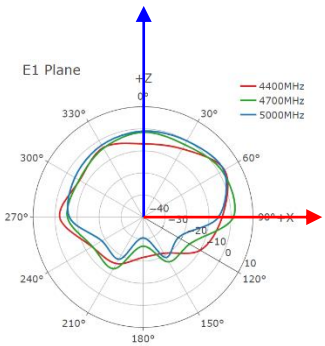

4000 MHz
Z
X
y
7
-2
-11
-20

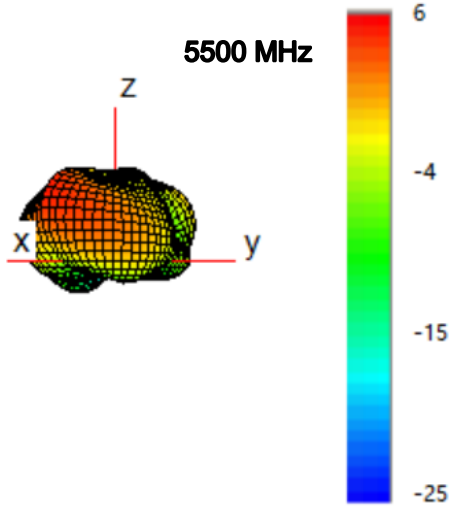

H Plane
3900MHz
4000MHz
4200MHz

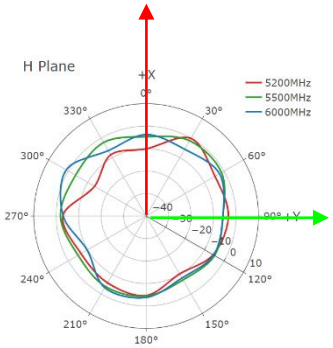

E1 Plane
3900MHz
4000MHz
4200MHz

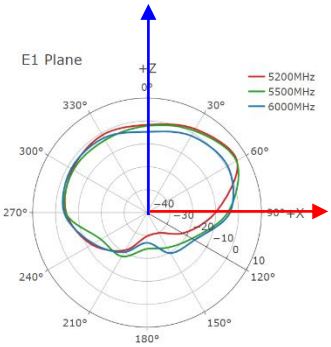

4700 MHz
Z
X
y
4
-6
-17
-27


H Plane
4400MHz
4700MHz
5000MHz


E1 Plane
4400MHz
4700MHz
5000MHz

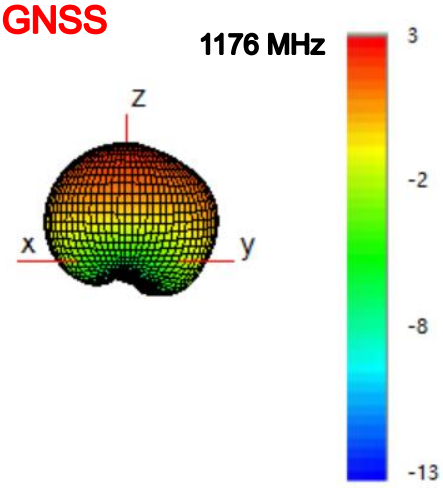

5500 MHz
Z
X
y
6
-4
-15
-25

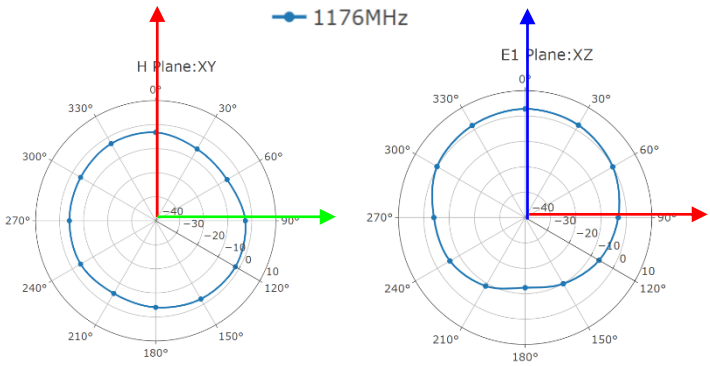

H Plane
5200MHz
5500MHz
6000MHz


E1 Plane
5200MHz
5500MHz
6000MHz

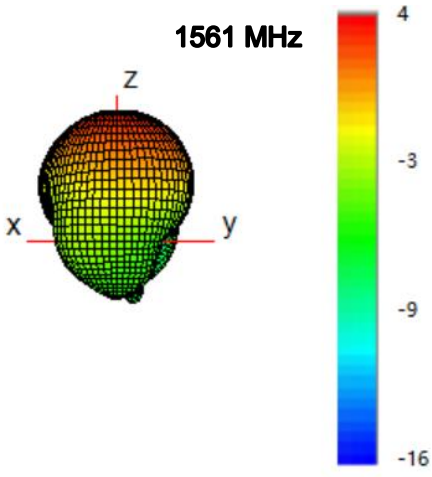
GNSS

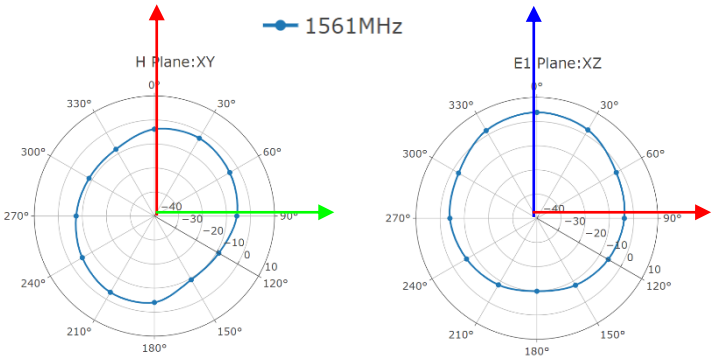
1176 MHz



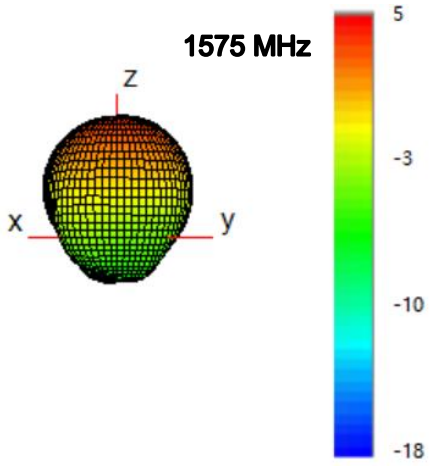


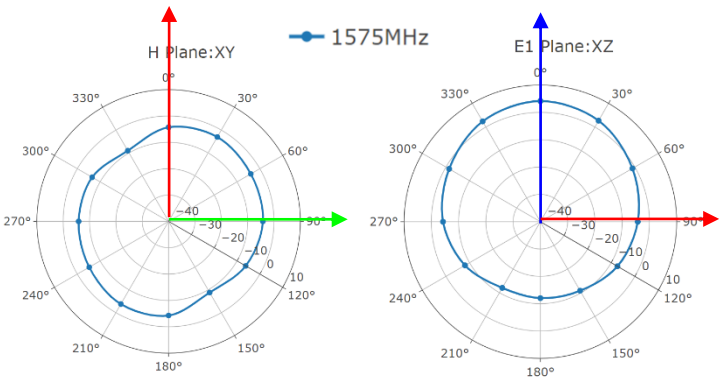
1561 MHz



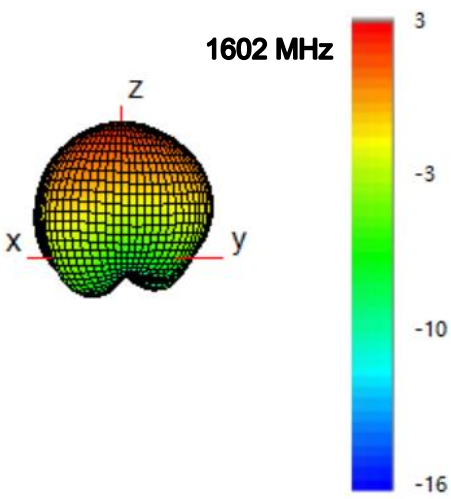


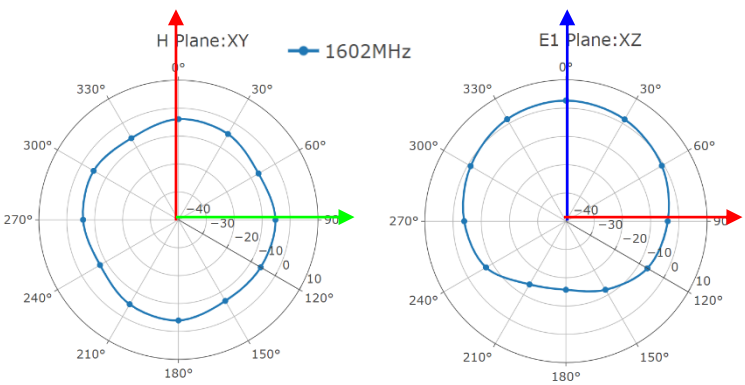
1575 MHz



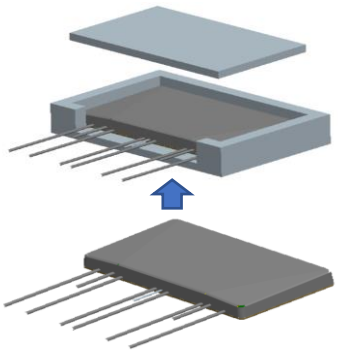
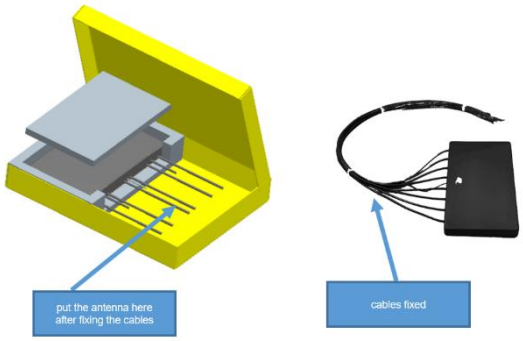
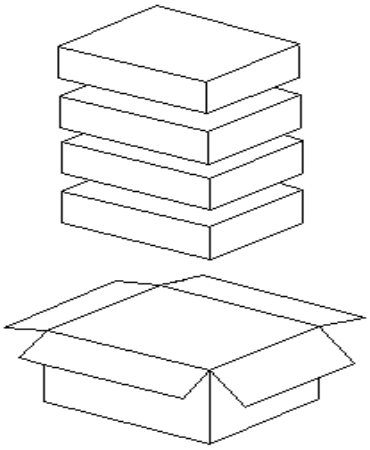


1602 MHz

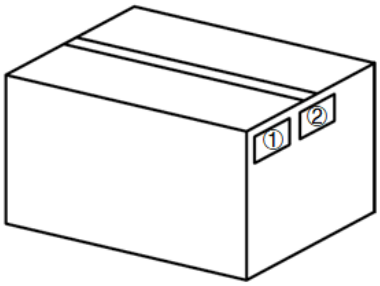




4 Packaging

Step	Packaging picture / 2D picture	Description
1		Put the product in the pearl cotton cavity with a PE bag; Cover the top of the product with pearl cotton liner PE bag Size: L*W= 320*220mm
2		Put the pearl cotton liner in the pizza box, the wire is wound and put in the box Pizza box Size: L*W*H= 410*310*60mm
3		Place the pizza boxes in the outer box and stack them in 4 layers (4pcs Antenna / Per Carton Box) Carton Size: L*W*H= 450*330*270mm

4

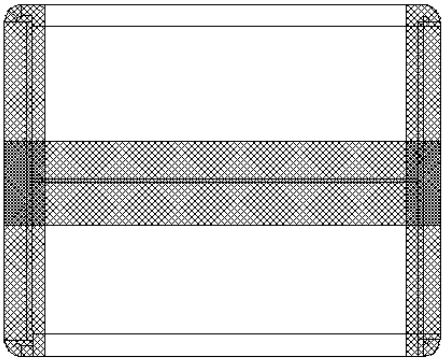


Position for Attaching Labels---

① Carton Label

② Quality Label

5



Sealing Cartons---

“工” type sealing cartons

Contact US

At Quectel, our aim is to provide timely and comprehensive services to our customers. If you require any assistance, please contact our headquarters:

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Email: info@quectel.com

Or our local offices. For more information, please visit:
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Revision History

Version	Date	Author	Note
-	2023-01-05	Wilson Bao	Creation of the document
1.0	2023-01-05	Wilson Bao	Initial Version

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