



TAOGLAS®

Datasheet

[PCUB77.A.07.A.001]

Part No:
PCUB77.A.07.A.001

Description

2*LTE MIMO

Features:

2* LTE MIMO 698 to 960MHz/1710 to 2170MHz/ 2490 to 2690MHz

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Introduction



LTE Antenna for Portable Box PC

Specification

Test Data

Frequency (MHz)	B12_TX 699-716	B28_TX 703-748	B12_RX 729-746	B13_RX 746-756	B28_RX 758-803	B13_TX 777-787	B20_RX 791-821	B5_TX 824-849	B20_TX 832-862	B5_RX 869-894	B8_TX 880-915	B8_RX 925-960	B32_RX 1452-1496	B3_TX 1710-1785	B3_RX 1805-1880	B2_TX 1850-1910	B1_TX 1920-1980	B2_RX 1930-1990	B1_RX 2110-2170	B41 2496-2690	B7_TX 2500-2570	B7_RX 2620-2690	B42 3400-3600	B43 3600-3800	B46 5150-5925
Efficiency (%)																									
Main	43.5	48.2	50.4	49.8	50.4	50.9	47.6	43.7	38.9	41.6	48.9	59.2	4.9	57.5	56.8	55.2	56.1	55.6	51.8	56.1	55.8	56.8	51.6	46.2	22.3
Aux	11.5	18.0	21.5	25.4	42.3	40.2	57.1	63.1	57.7	42.3	36.9	21.9	44.1	60.0	62.5	57.3	49.6	47.7	58.2	45.4	51.2	40.3	36.2	38.8	3.1
Average Gain (dB)																									
Main	-3.61	-3.17	-2.98	-3.03	-2.98	-2.93	-3.23	-3.60	-4.10	-3.81	-3.11	-2.28	-13.1	-2.40	-2.45	-2.58	-2.51	-2.55	-2.86	-2.51	-2.54	-2.46	-2.88	-3.35	-6.52
Aux	-9.38	-7.45	-6.68	-5.95	-3.73	-3.96	-2.43	-2.00	-2.39	-3.74	-4.32	-6.60	-3.56	-2.22	-2.04	-2.42	-3.04	-3.21	-2.35	-3.43	-2.91	-3.94	-4.42	-4.11	-15.1
Peak Gain (dBi)																									
Main	1.34	2.33	2.33	2.49	3.30	3.30	3.09	2.65	2.73	2.35	3.96	4.71	-6.92	3.21	3.60	3.21	3.20	3.15	3.85	3.53	3.37	3.53	7.13	7.13	2.86
Aux	-4.88	-2.31	-2.31	-1.86	1.69	0.21	2.10	2.35	2.35	1.64	1.05	-0.61	1.92	3.83	4.47	4.30	3.23	3.06	4.18	3.32	3.32	2.54	1.81	2.33	-3.26

Impedance	50 Ω
Polarization	Linear
Max. input power	10W

Mechanical

Dimensions	250*37.2*0.75 (w/o cable)
Weight	FR4
Material	I-PEX MFH4L
Connector	Cable 1: 263.5mm/Cable 2: 194.5mm
Cable	1.13mm coaxial cable

Environmental

Waterproof Rating	-40°C to 85°C
Temperature Range	-40°C to 85°C
Humidity	40% to 95%

Test Setup

S11 / VSWR / Return Loss

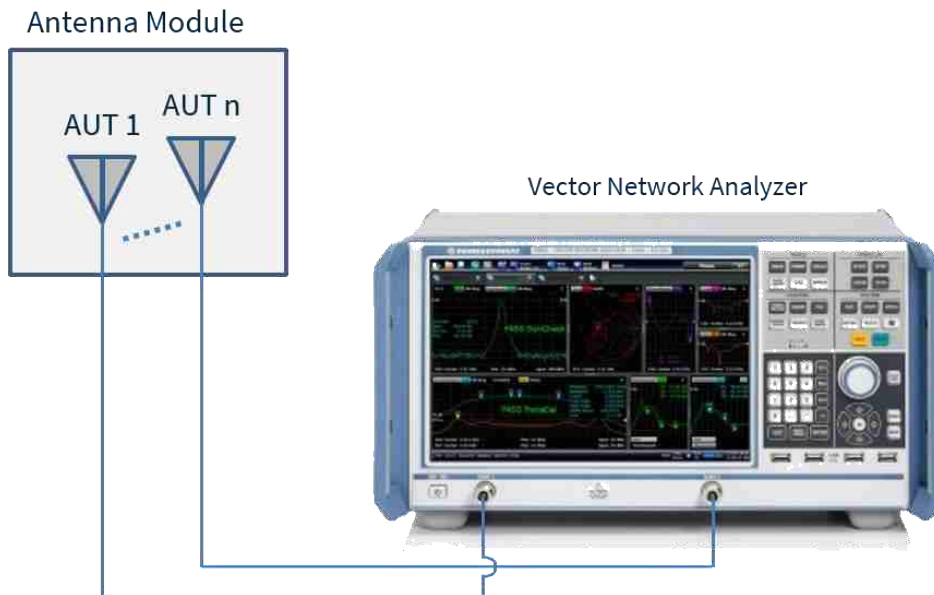
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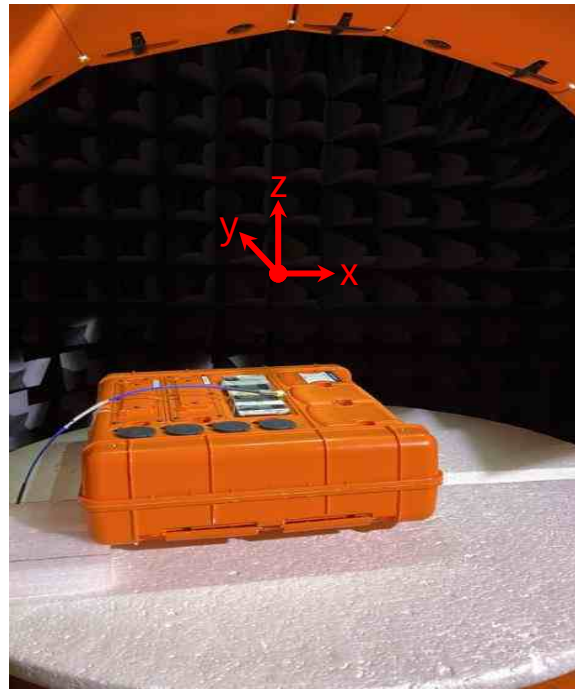
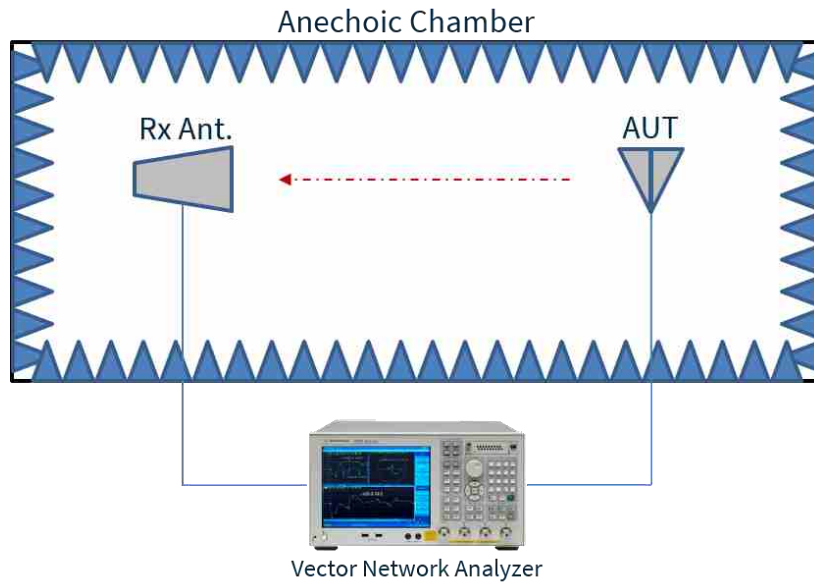
Vector Network Analyzer



S12 / Isolation

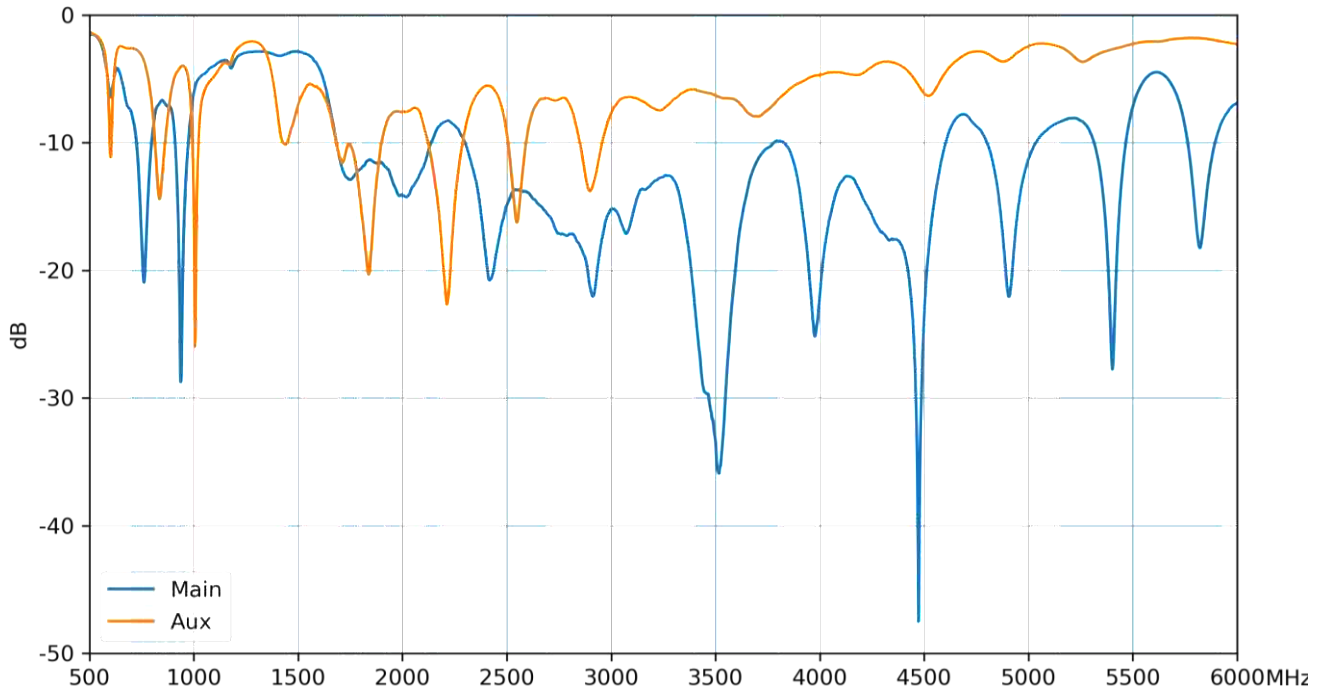


Radiation Performance

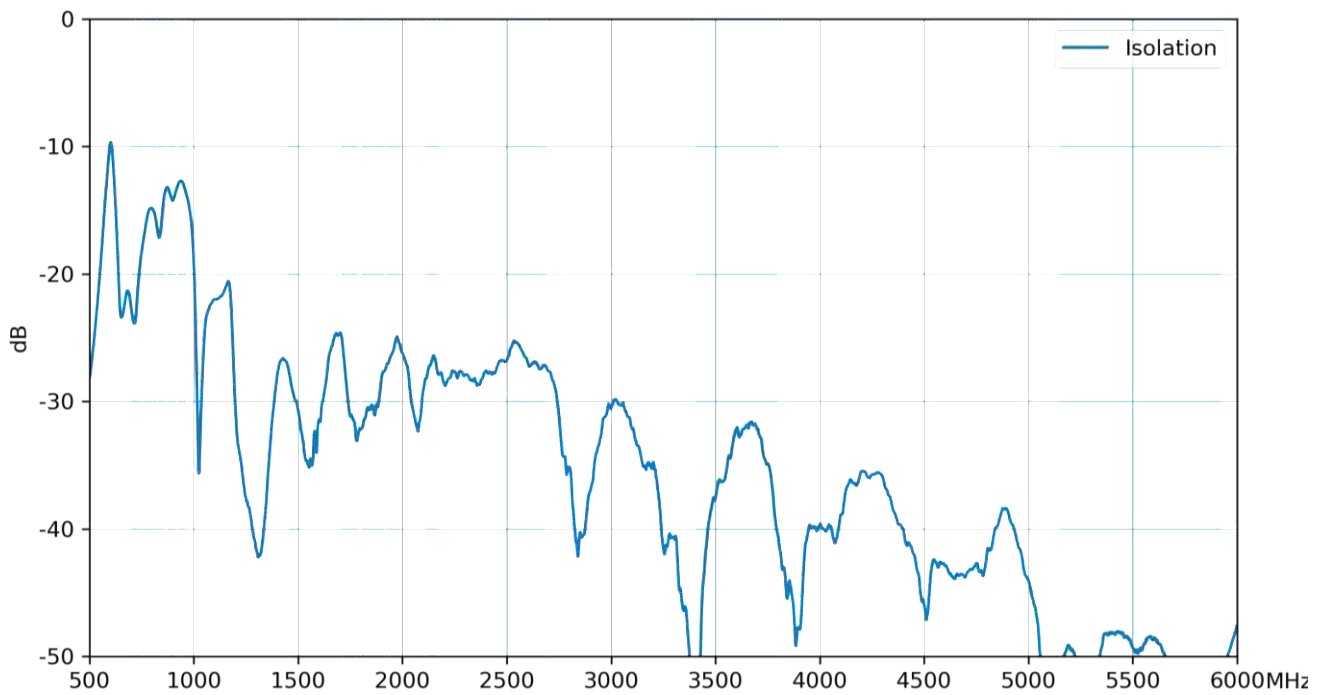


Antenna Characteristics

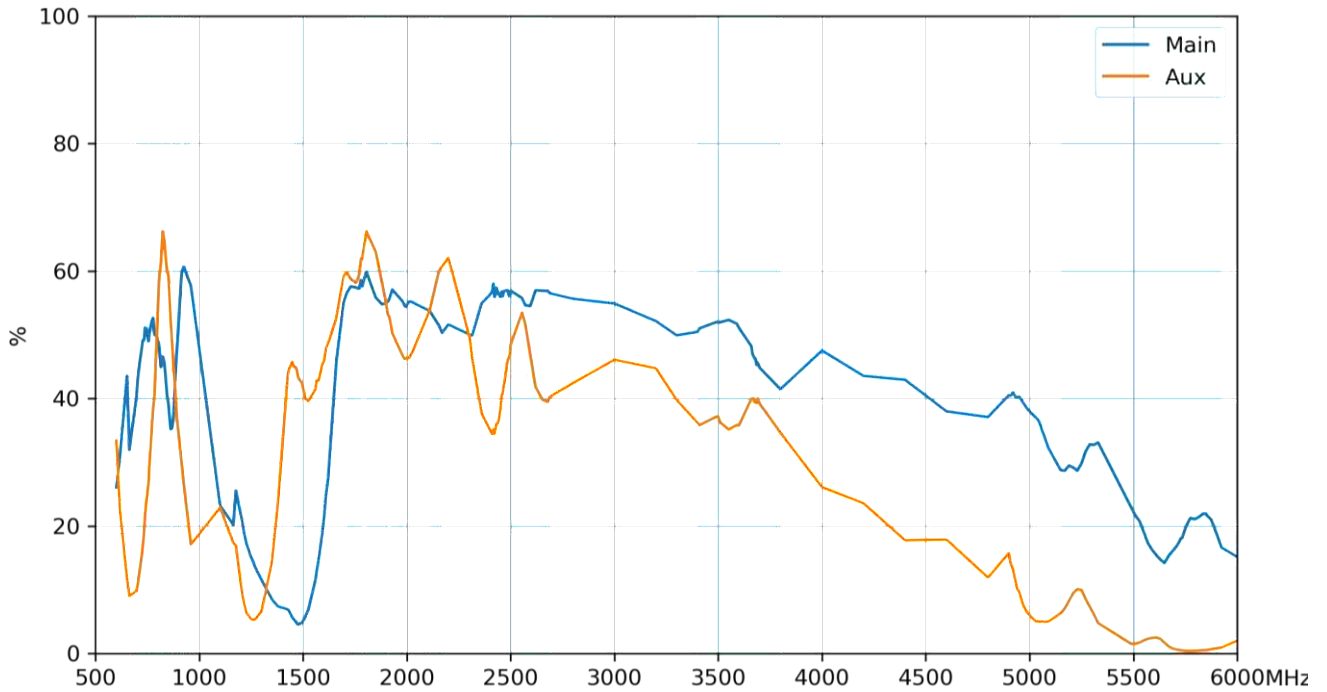
Return Loss



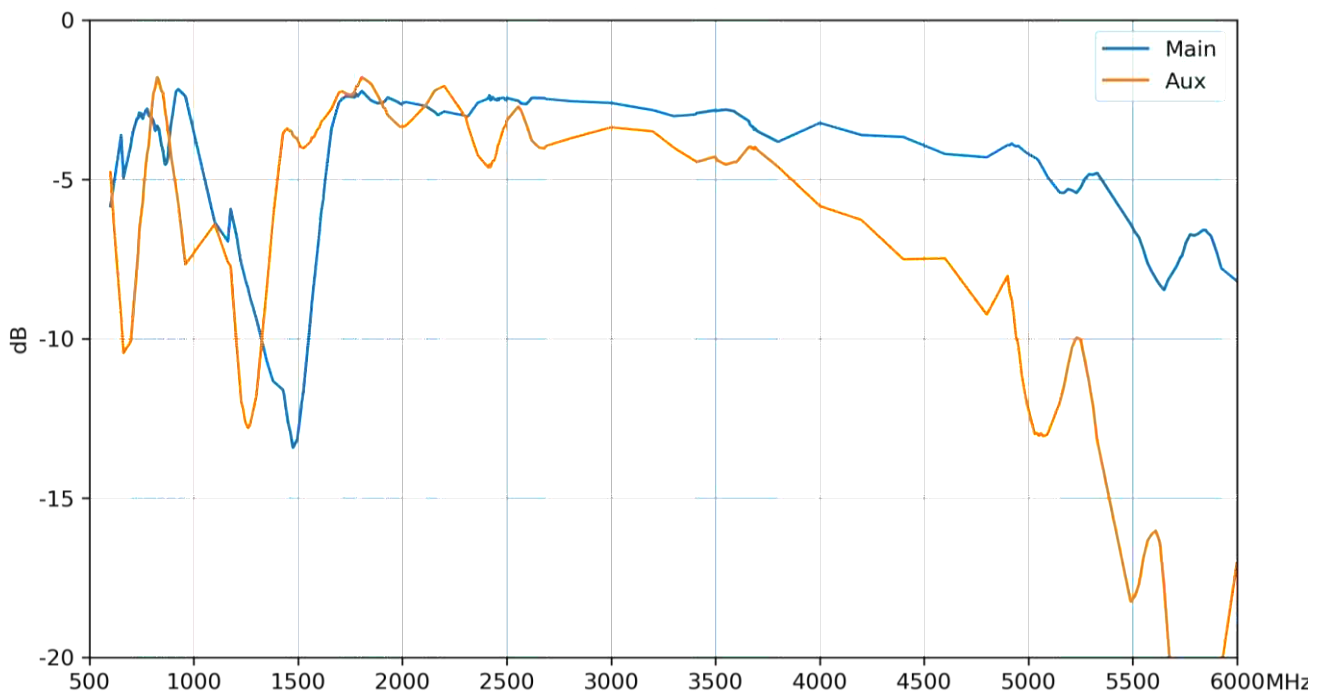
Isolation



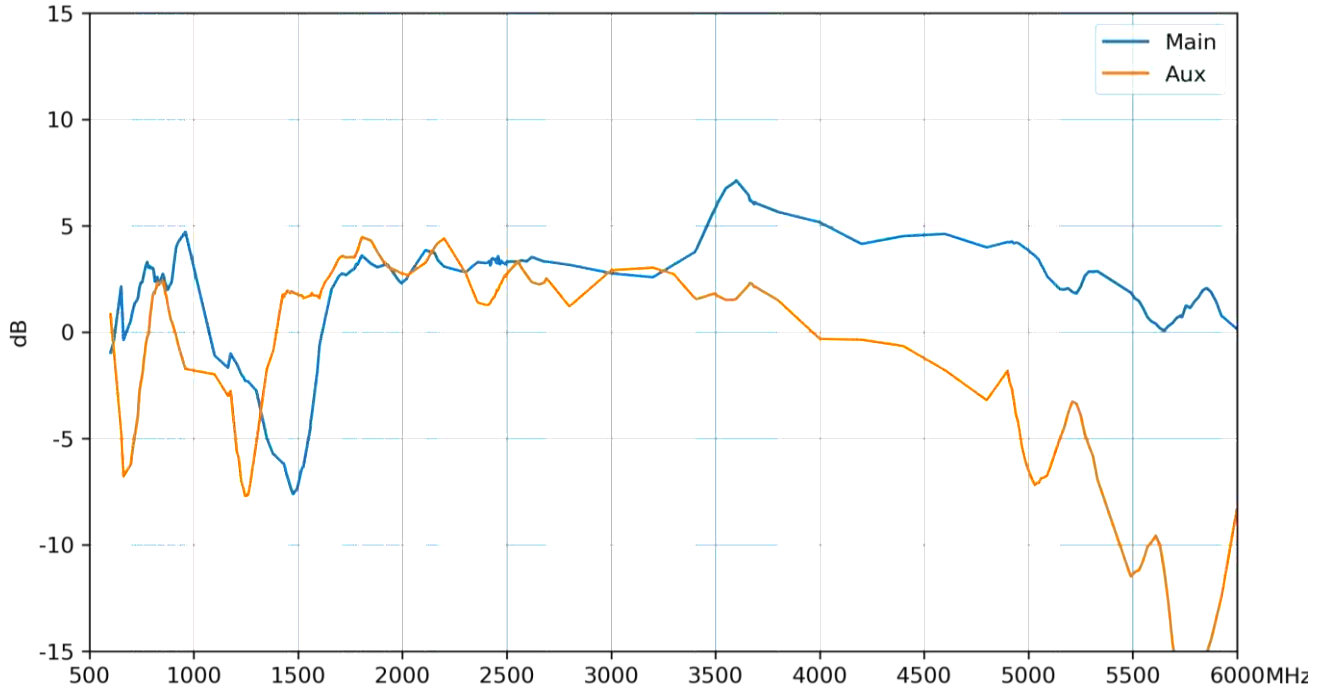
Efficiency



Average Gain



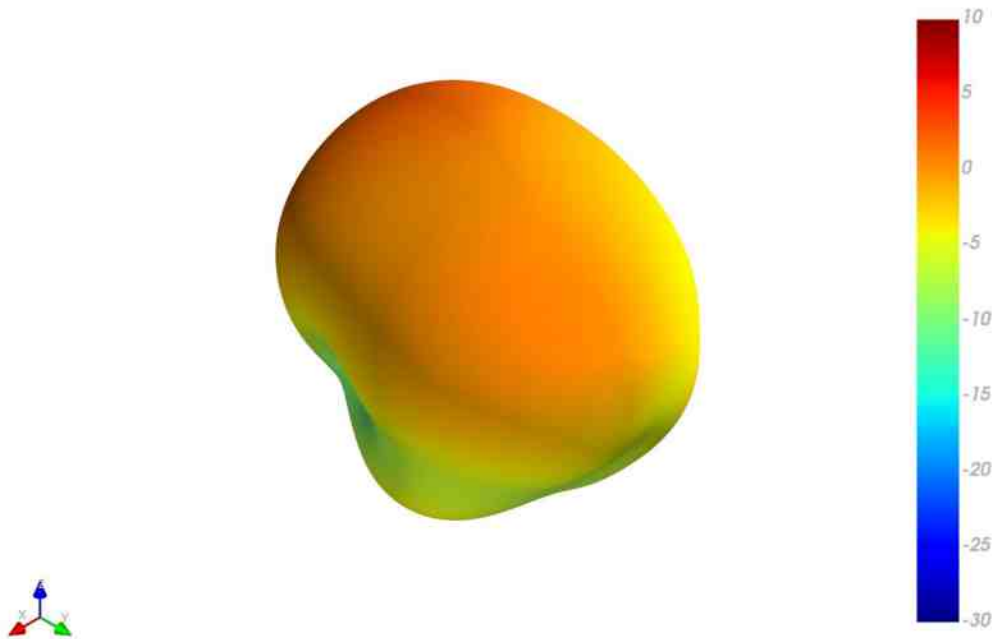
Peak Gain



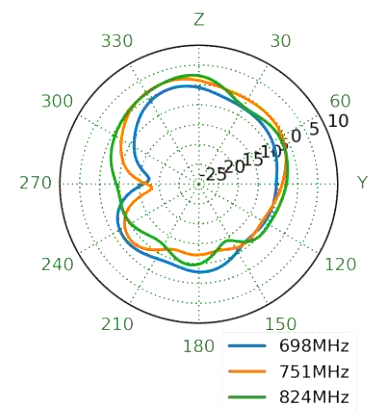
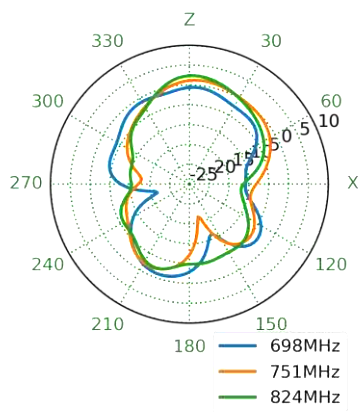
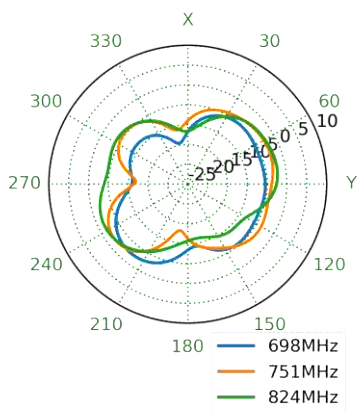
Radiation Patterns

Test Data Main 3D and 2D Radiation Patterns

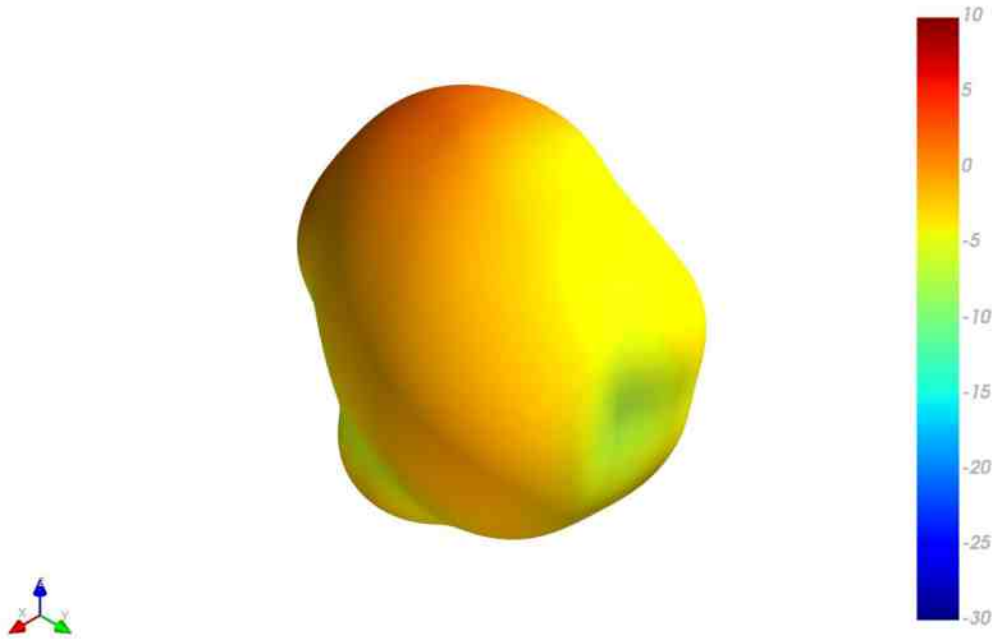
Gain total, 751MHz



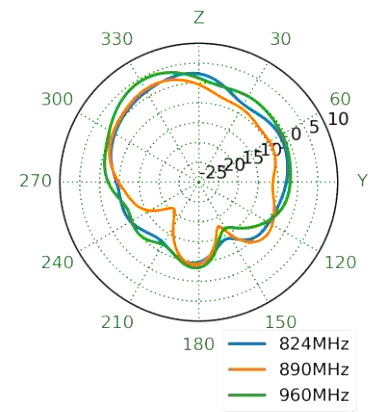
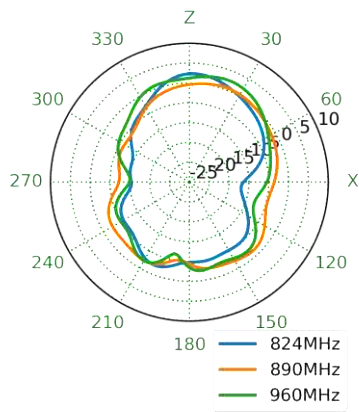
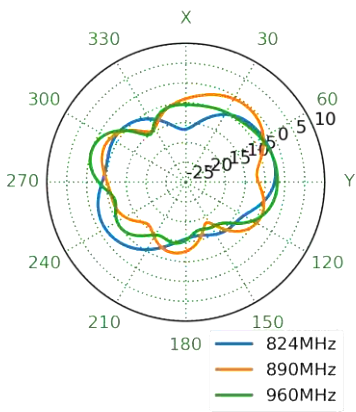
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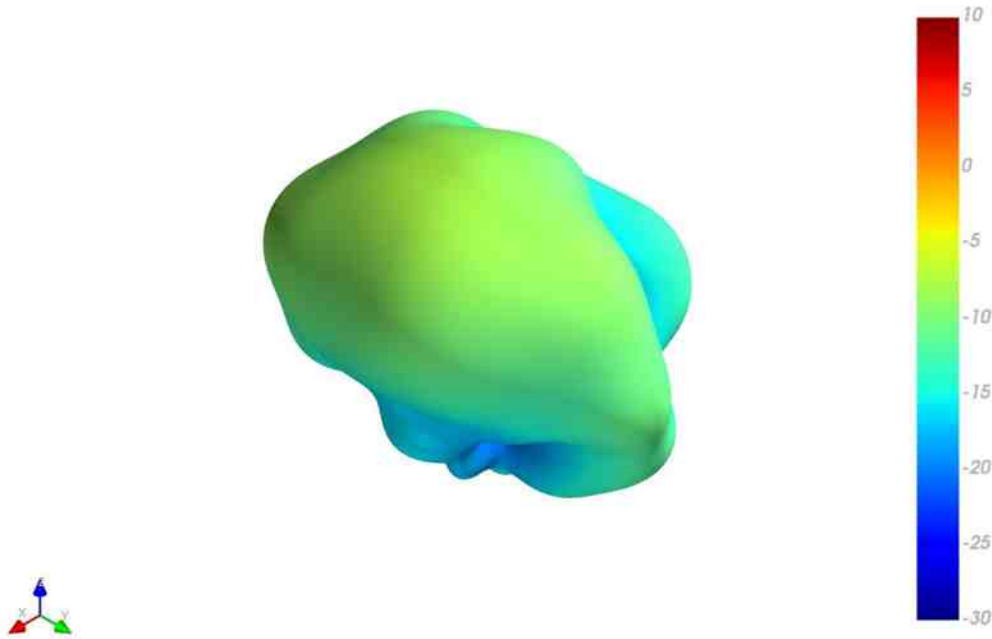
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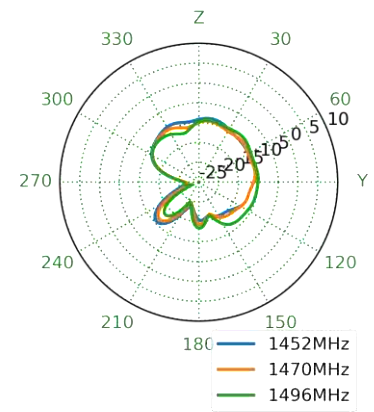
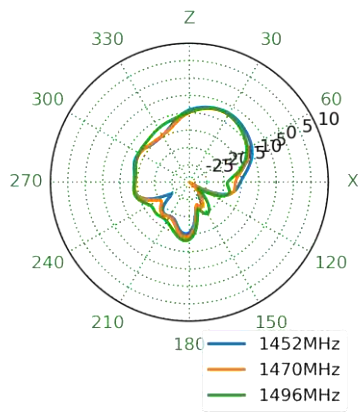
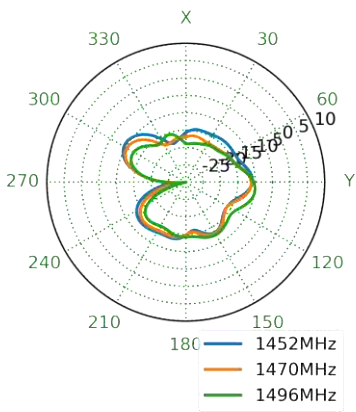
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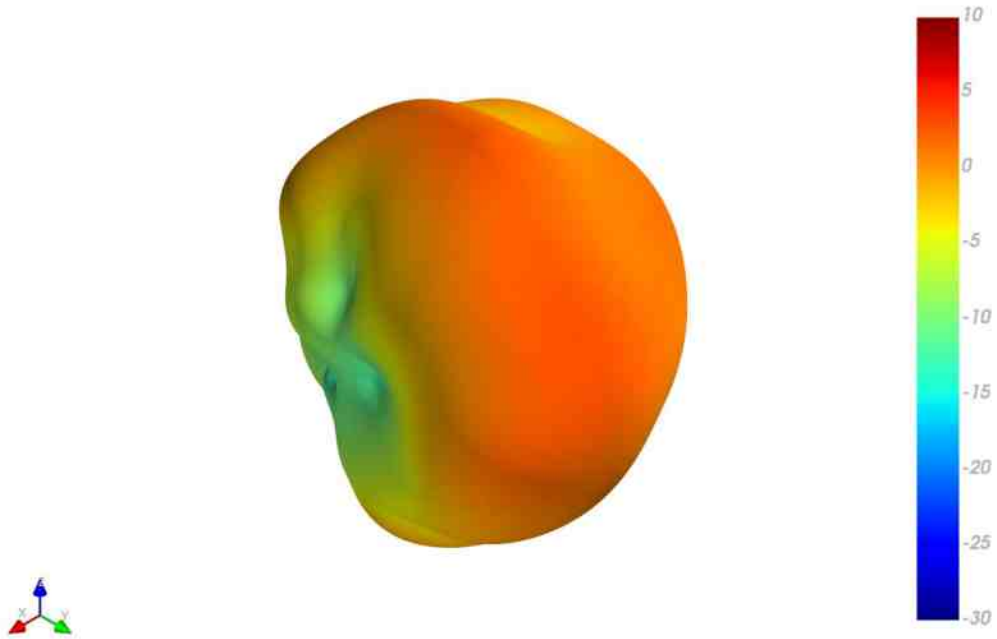
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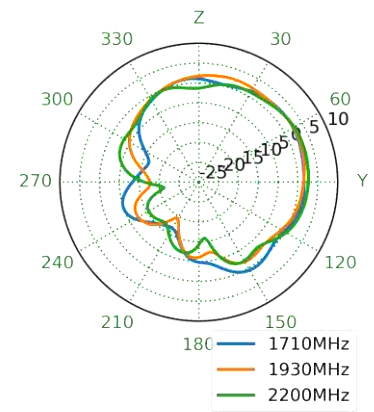
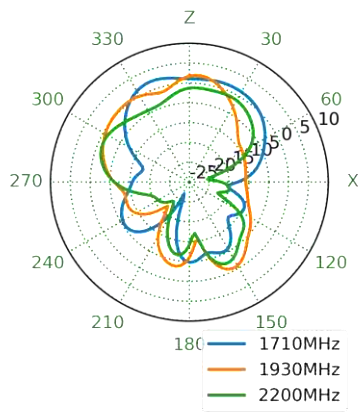
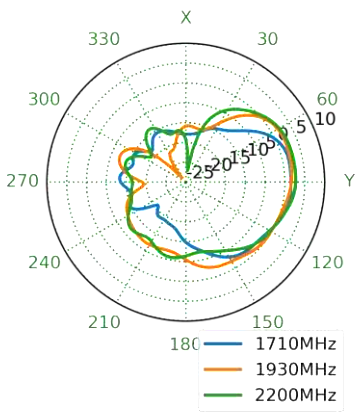
XY Plane XZ Plane YZ Plane



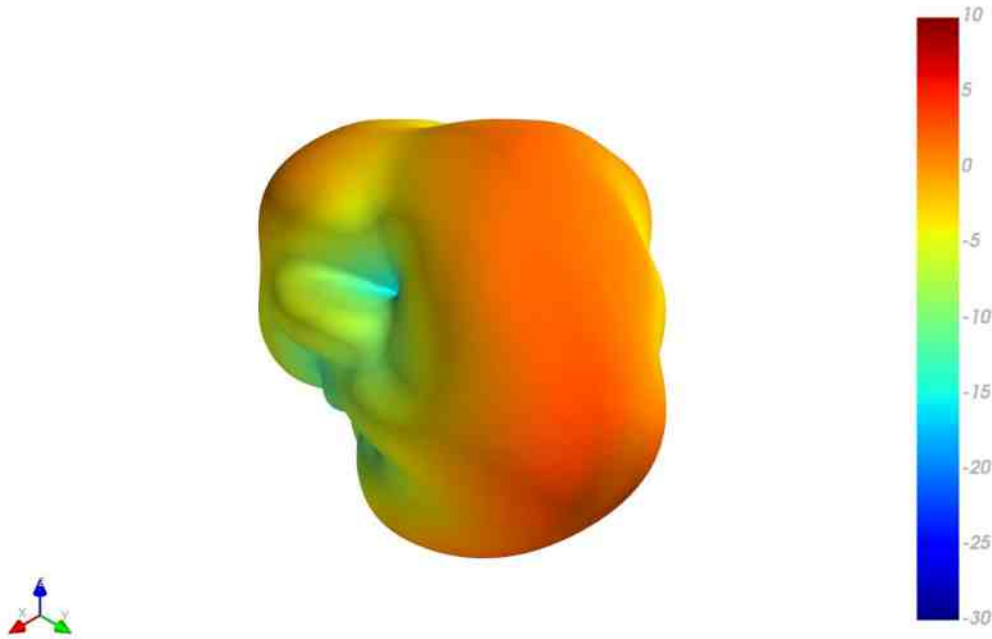
Gain total, 1930MHz



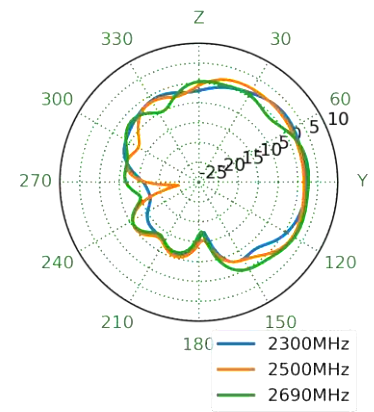
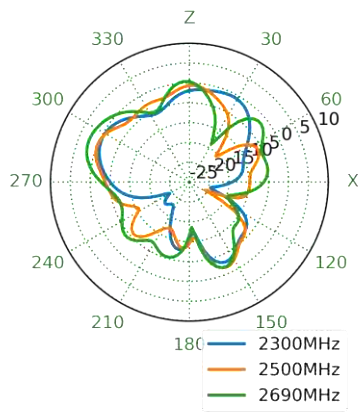
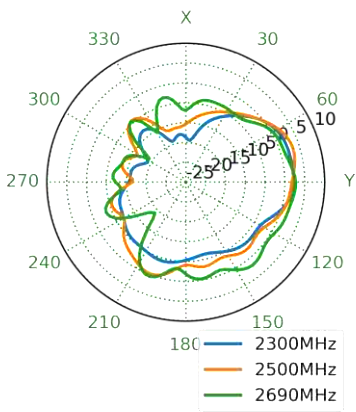
XY Plane XZ Plane YZ Plane



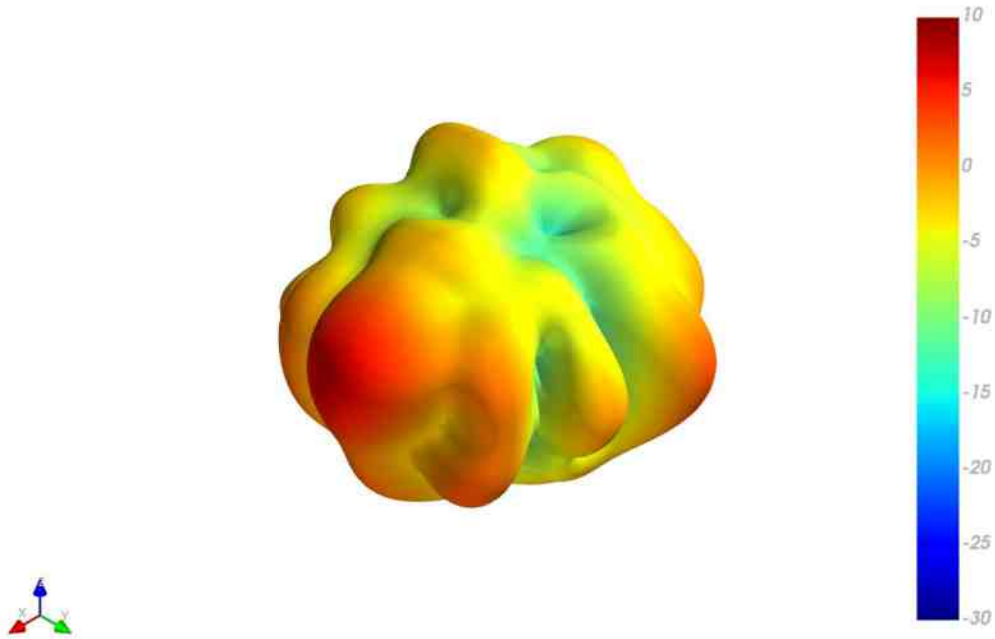
Gain total, 2500MHz



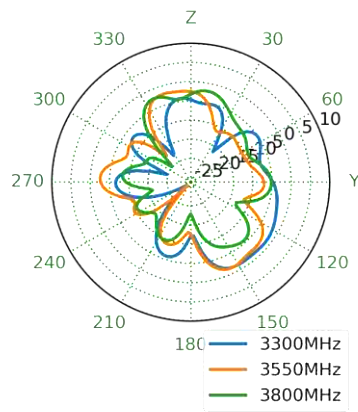
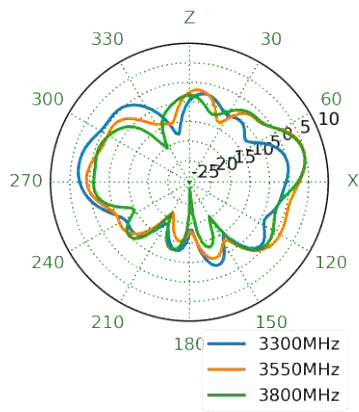
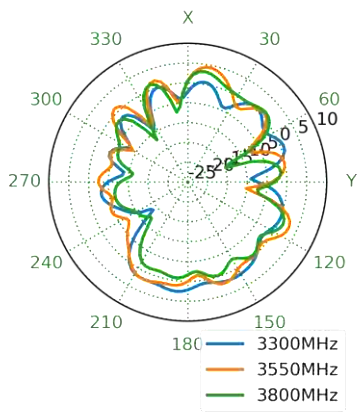
XY Plane XZ Plane YZ Plane



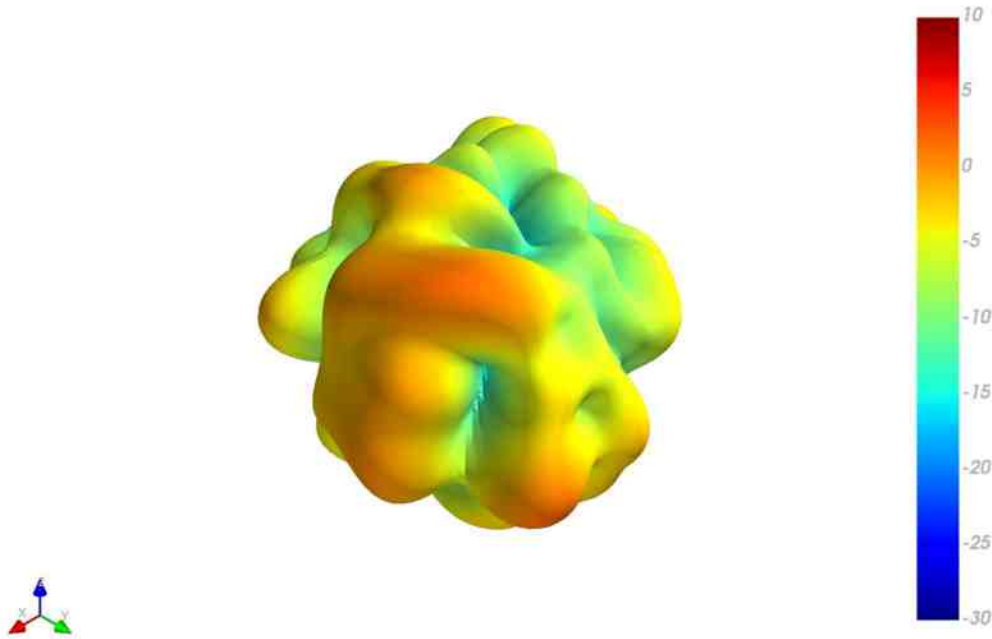
Gain total, 3550MHz



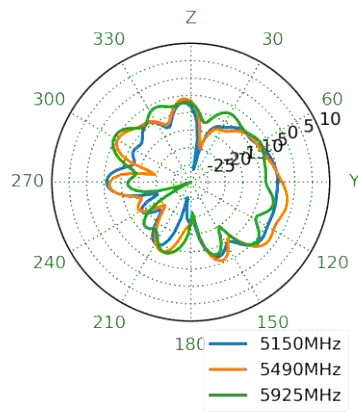
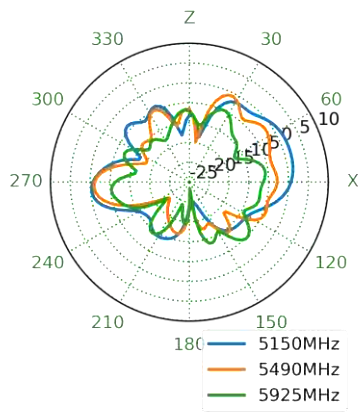
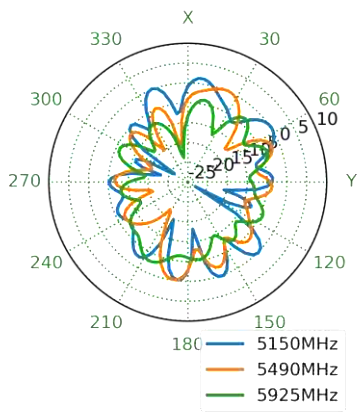
XY Plane XZ Plane YZ Plane



Gain total, 5490MHz

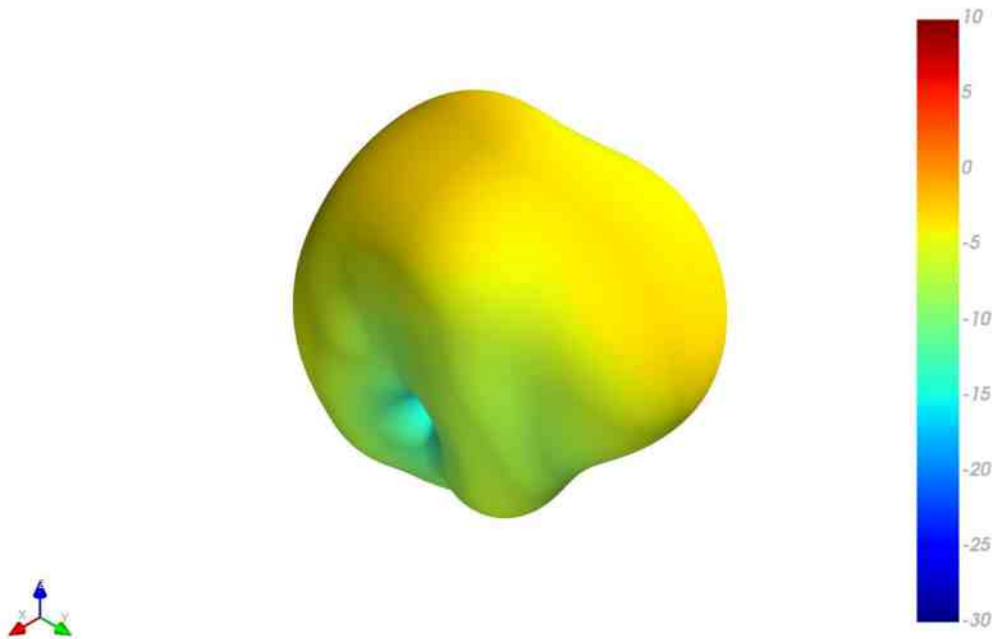


XY Plane XZ Plane YZ Plane

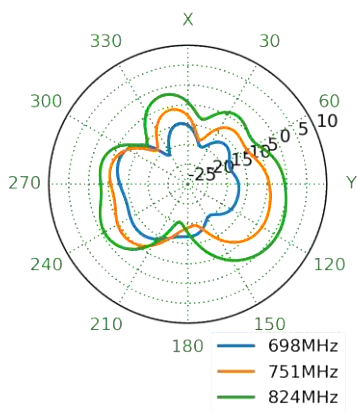


Test Data Aux 3D and 2D Radiation Patterns

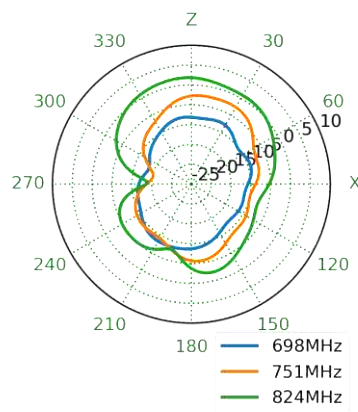
Gain total, 751MHz



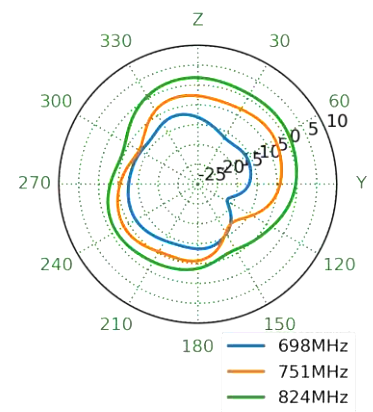
XY Plane



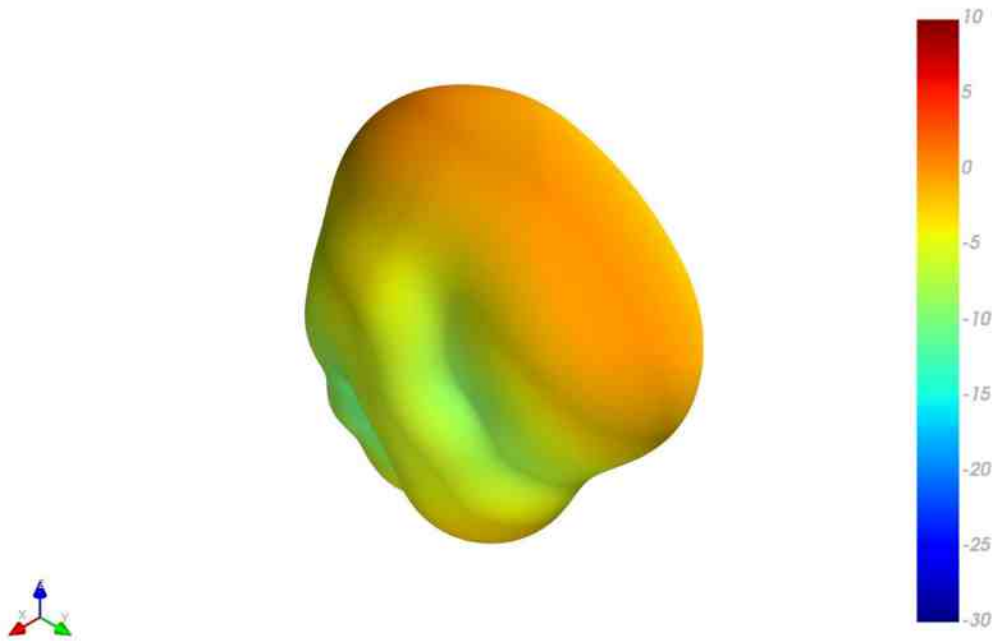
XZ Plane



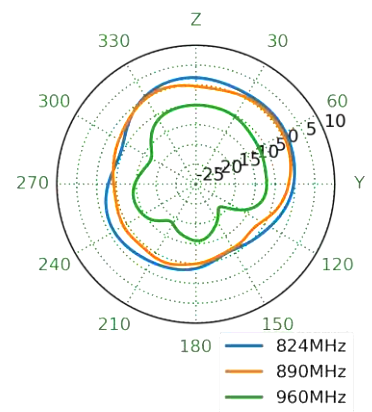
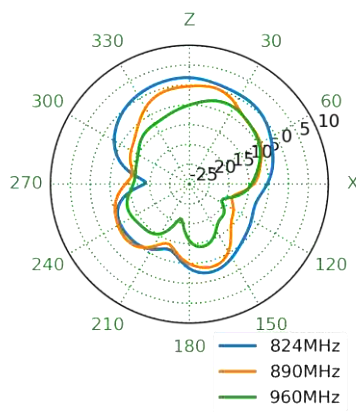
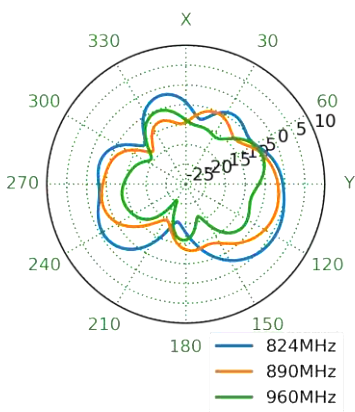
YZ Plane



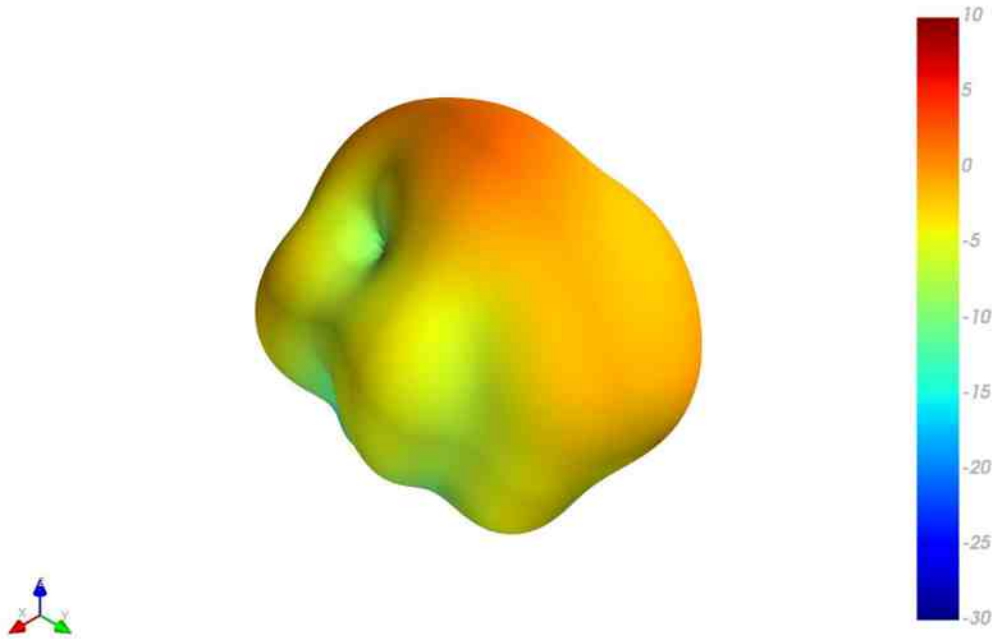
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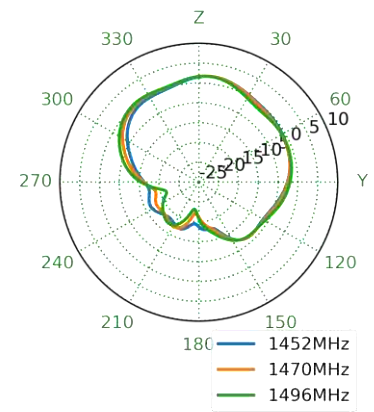
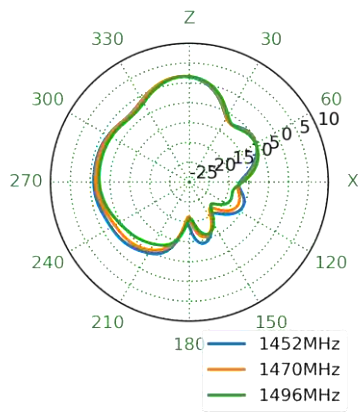
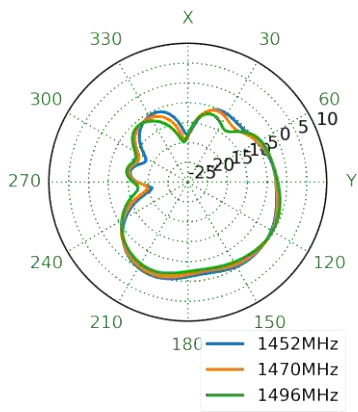
XY Plane XZ Plane YZ Plane



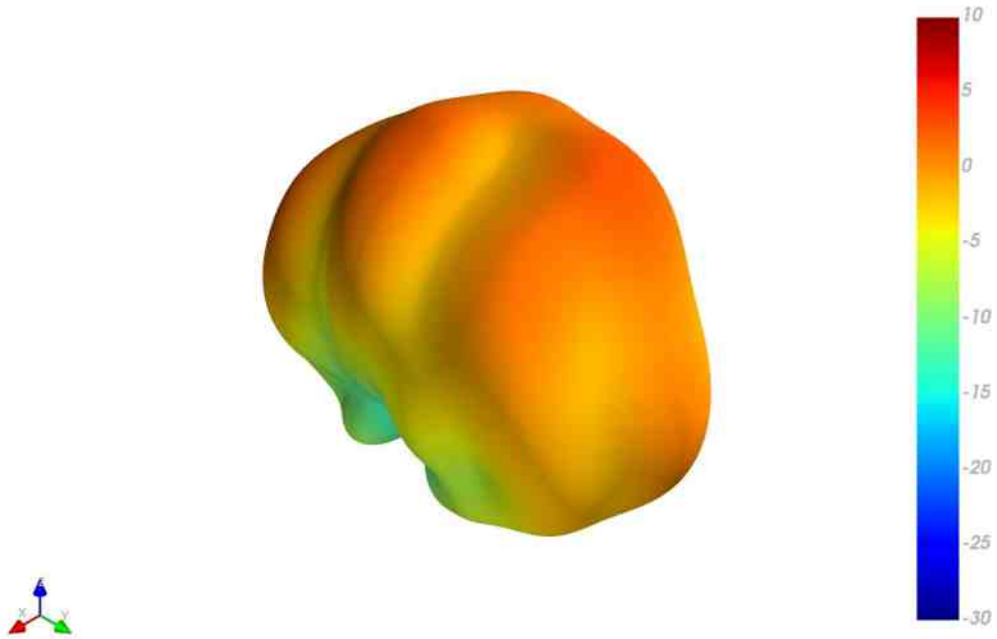
Gain total, 1470MHz



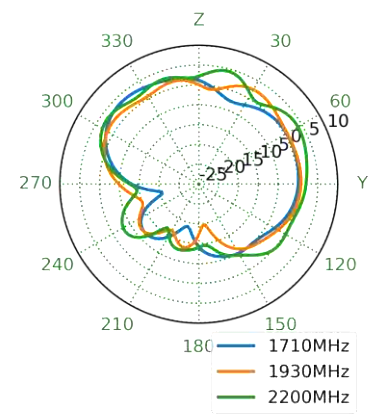
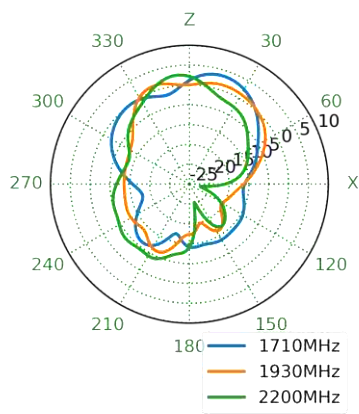
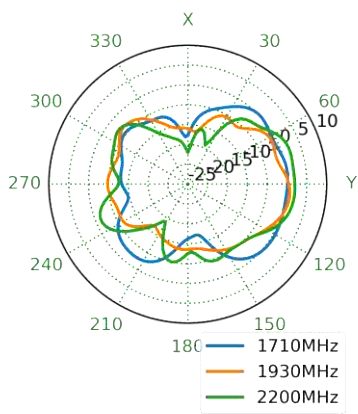
XY Plane XZ Plane YZ Plane



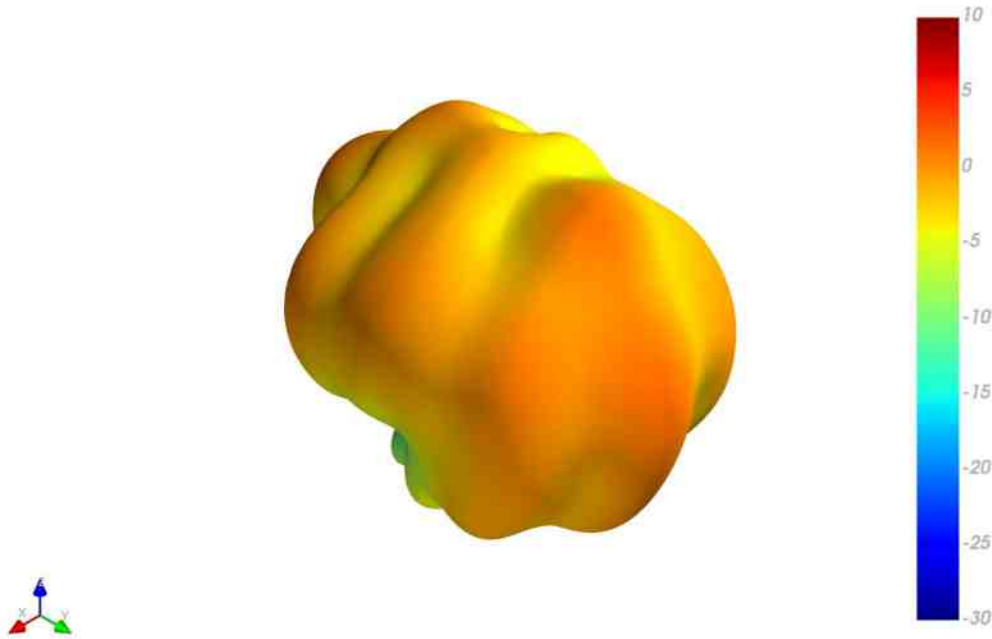
Gain total, 1930MHz



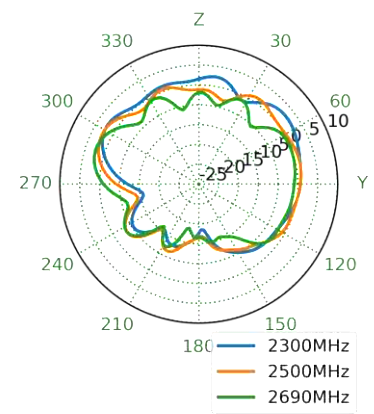
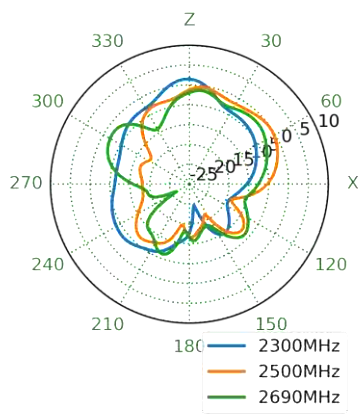
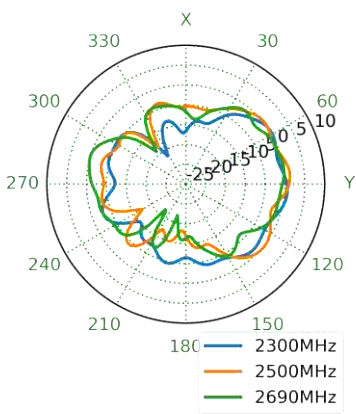
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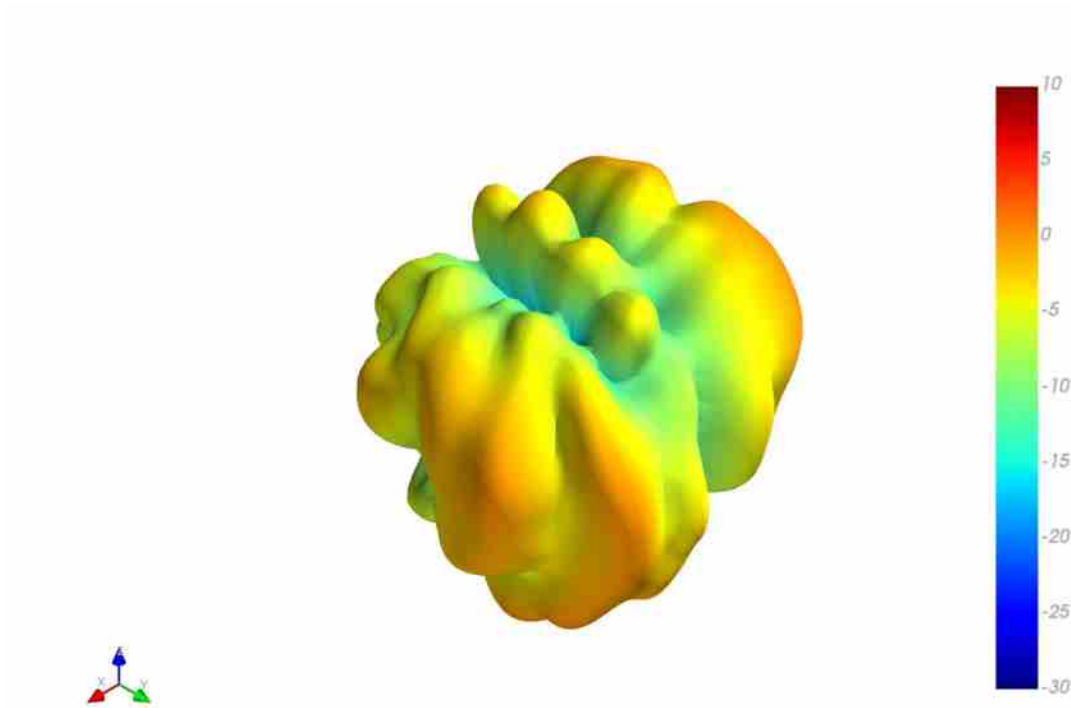
Gain total, 2500MHz



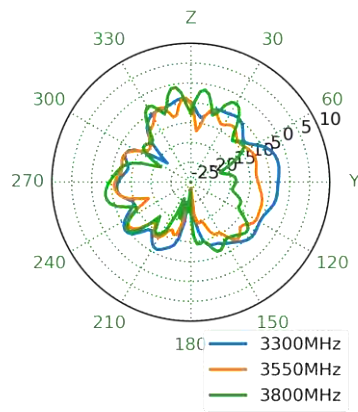
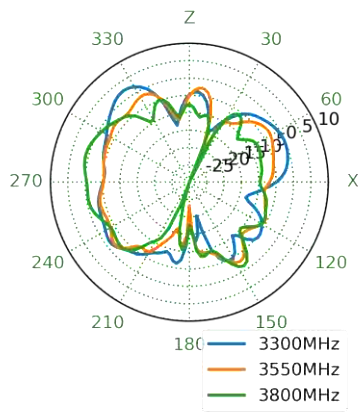
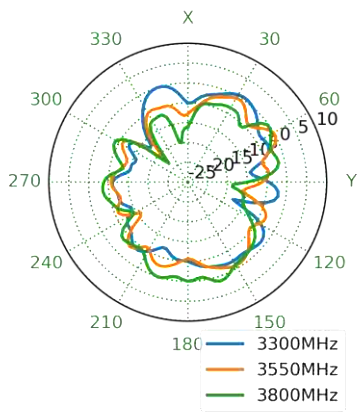
XY Plane XZ Plane YZ Plane



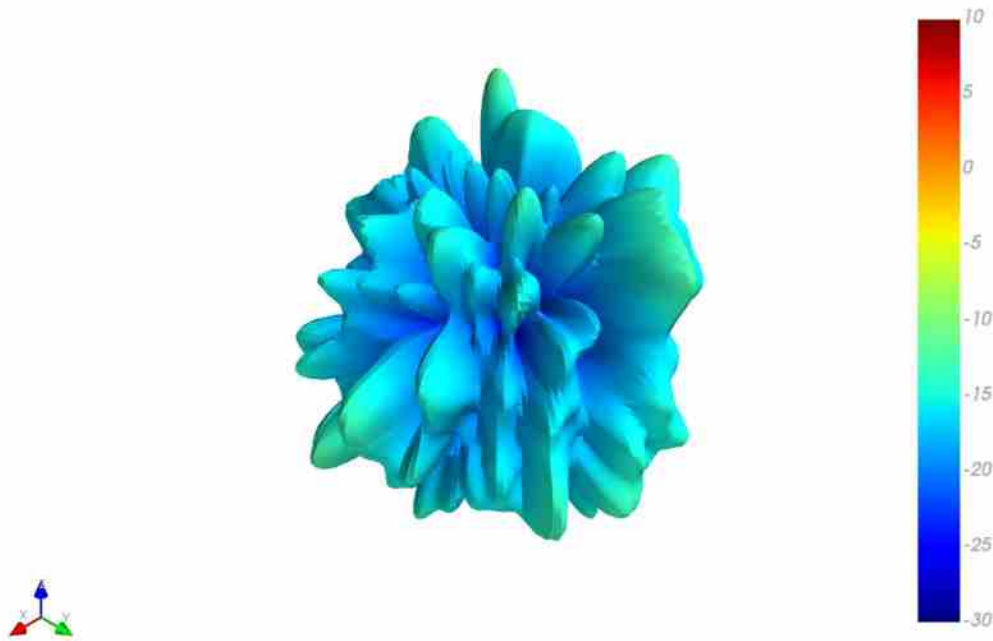
Gain total, 3550MHz



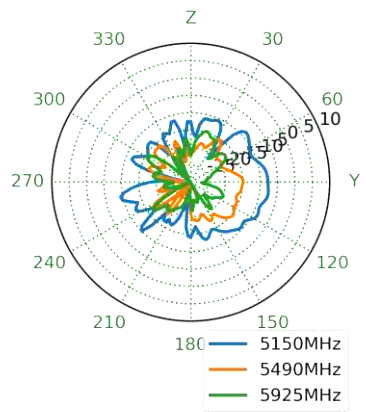
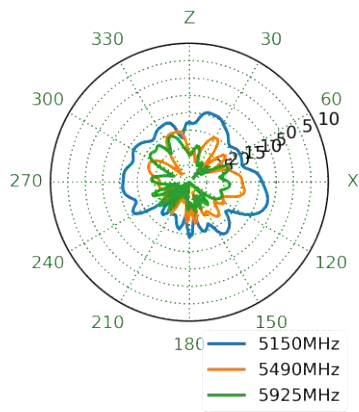
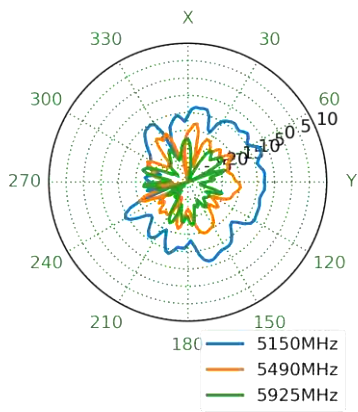
XY Plane XZ Plane YZ Plane



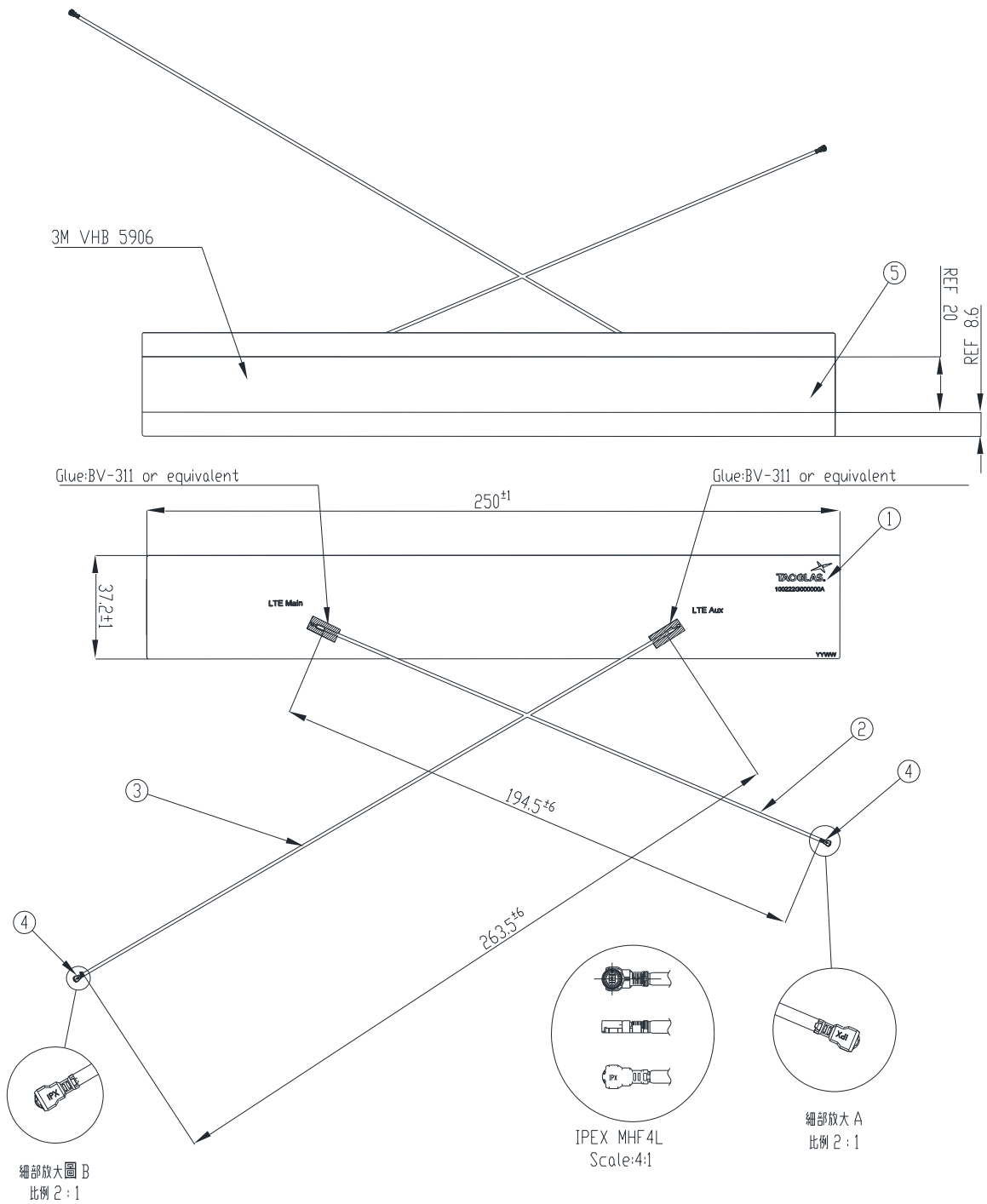
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XY Plane XZ Plane YZ Plane

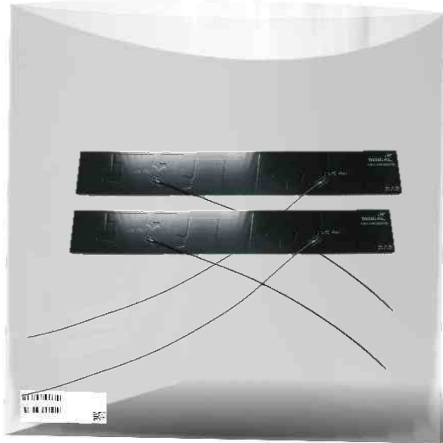


Mechanical Drawing



	None	Material	Finish	QTY
1	PCB	PCB	Black	1
2	1.13 Coaxial cable	FEP	Black	1
3	1.13 Coaxial Cable	FEP	Gray	1
4	IPEXMHF4L	Brass	Au/Ni Plated	2
5	3M VHB 5906		Black	1

Packaging



- 20 PCS / PE bag
- (Connector needs protective cover)
- SPQ Label



- 400 PCS / Carton
- Carton(mm): 320x250x230
- Carton Label



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