

5G 120x47 L200 CM1 Antenna

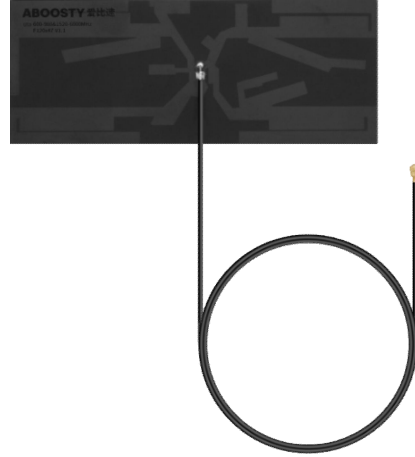
FEATURES & BENEFITS



- Welding RG 1.13 cable, Ipex connector, 3M sticker for easy installation.
- Mounting to: non-conductive surface
- Installation type: adhesive

APPLICATIONS

- IoT Devices
- Smart Cities
- Smart Agriculture
- Consumer Tracking
- Smart Metering
- Smart Agriculture



ORDER INFORMATION

Product Name	5G 120x47 L200 CM1 Antenna
Part Number	AICF010
Dimensions	120 x 47mm
Weight	1.8 g
Color	Black
Mounting	adhesive
Antenna Cable	Default IPEX 1 RF 1.13 black coaxial cable (Ø 1.13 x 200 mm) , customizable.

REFERENCE GUIDE

Technical Features (MHz)	600-960	1520-6000
Max VSWR	3.8:1	2.5:1
Max Efficiency	69.6%	
Peak Gain	2.82dBi	
Radiation Pattern	Omnidirectional	
Polarization	Linear	
Input Impedance	50 Ω	
Operating Temperature	-40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Relative Humidity	10 to 70%	
Material Substance Compliance	ROHS and REACH Compliant	
Dimensions (L x W x H)	120 x 47mm	
All test data were obtained from testing conducted on 1.4mm thick polycarbonate (PC) plastic material; with an 200-mm-long RF 1.13 cable.Application data might vary.		

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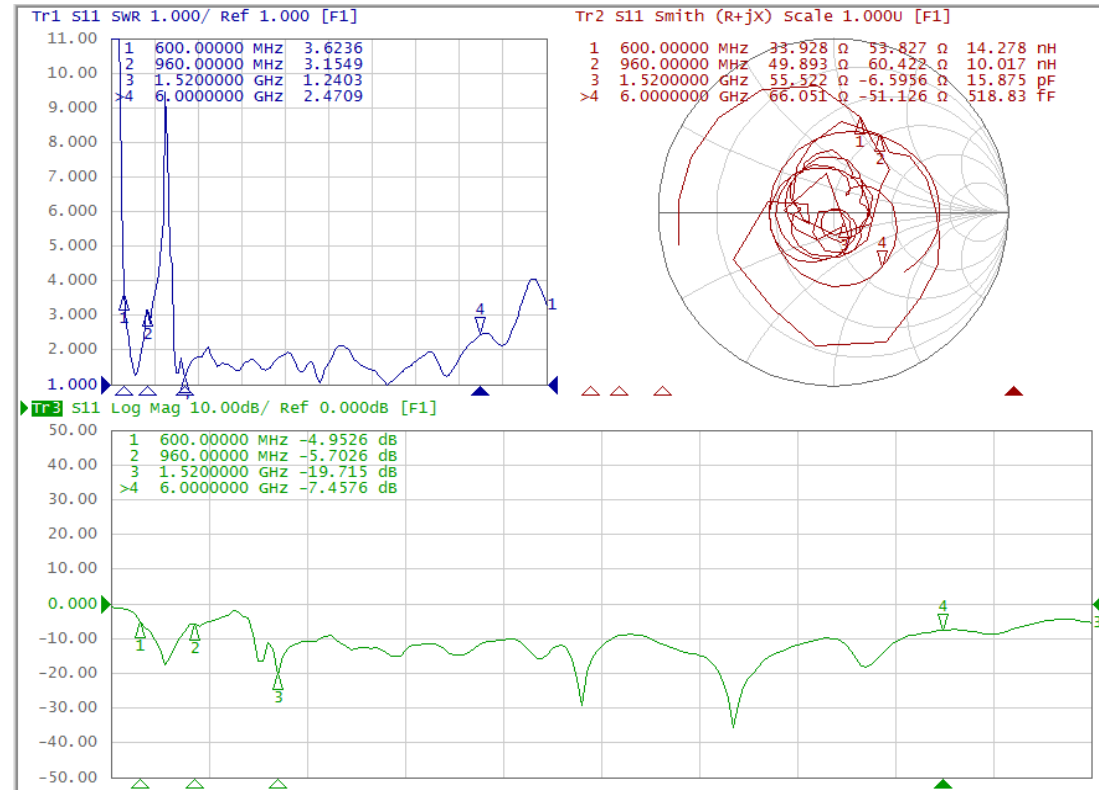
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ELECTRICAL PERFORMANCE

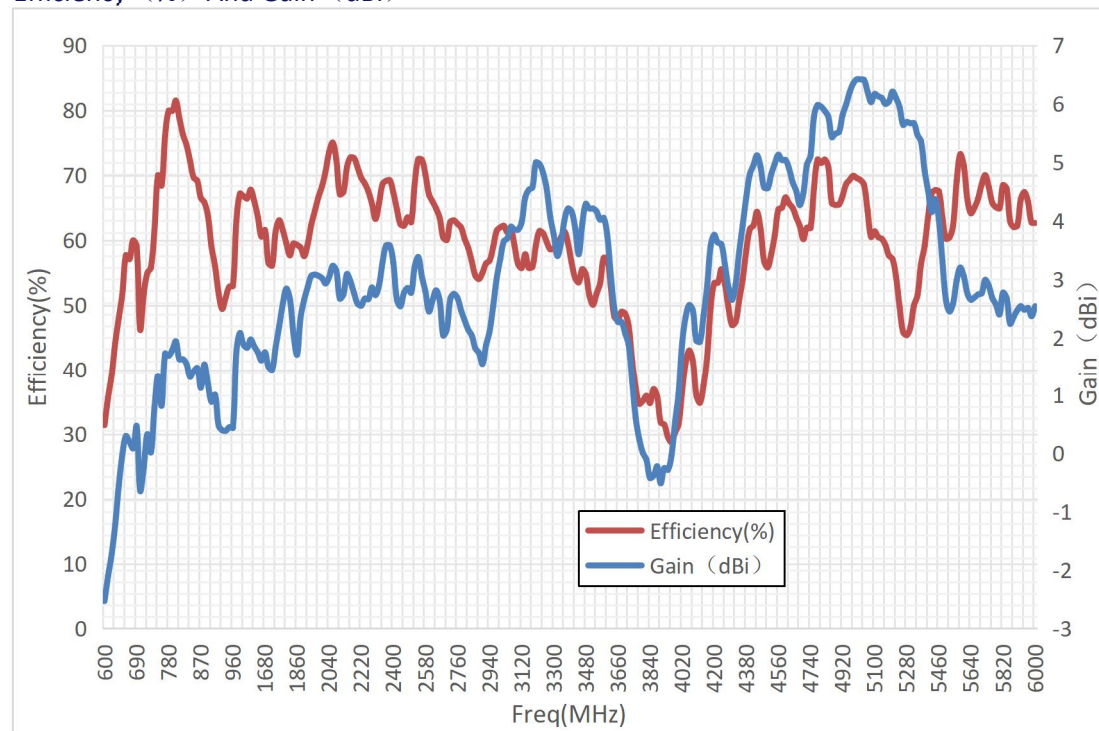
Note

All data displayed in the "ELECTRICAL PERFORMANCE" section were measured using a 200mm-long RF 1.13 cable mounted on 1.4mm thick polycarbonate (PC) plastic material.

Return Loss



Efficiency (%) And Gain (dBi)

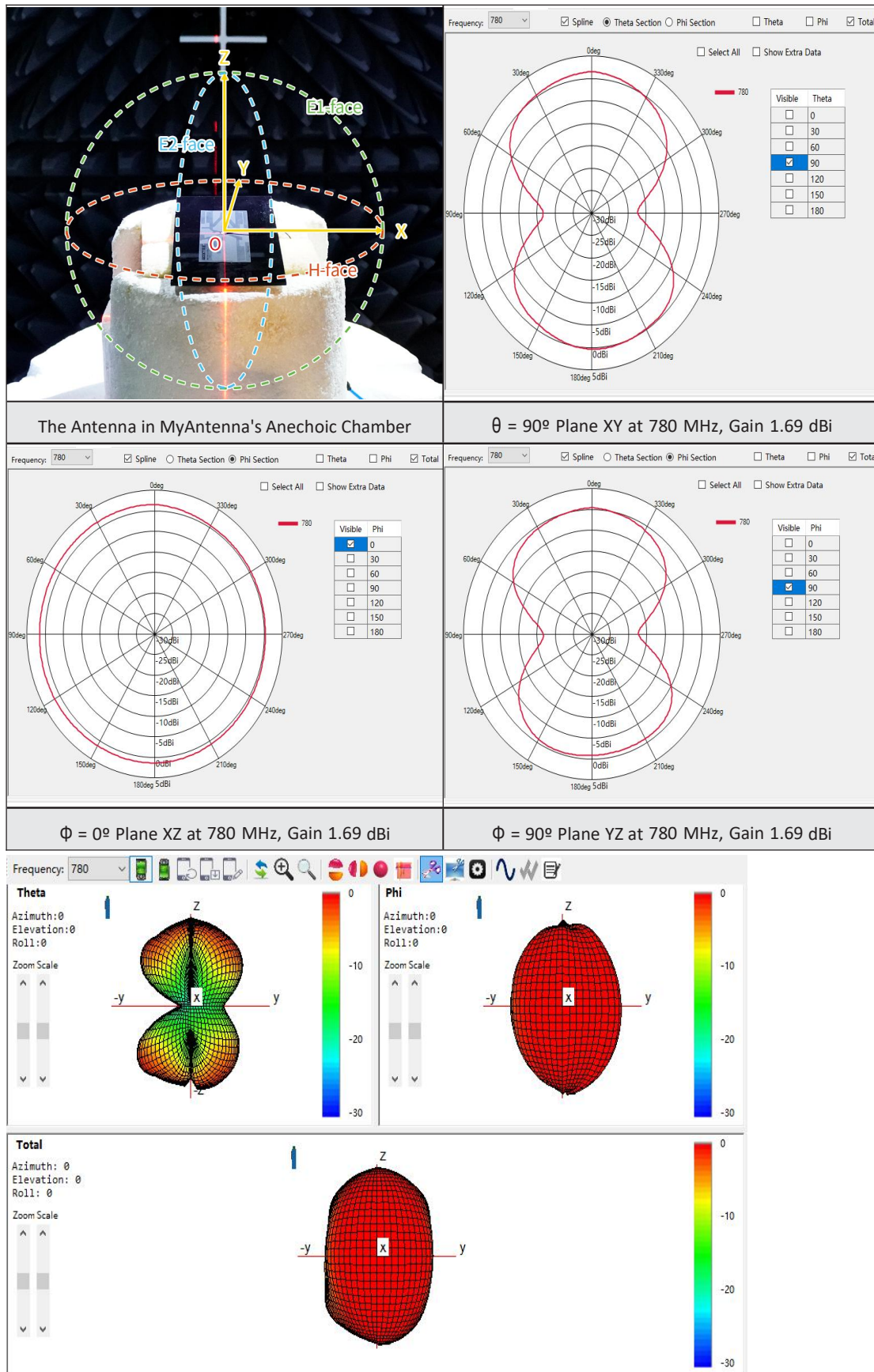


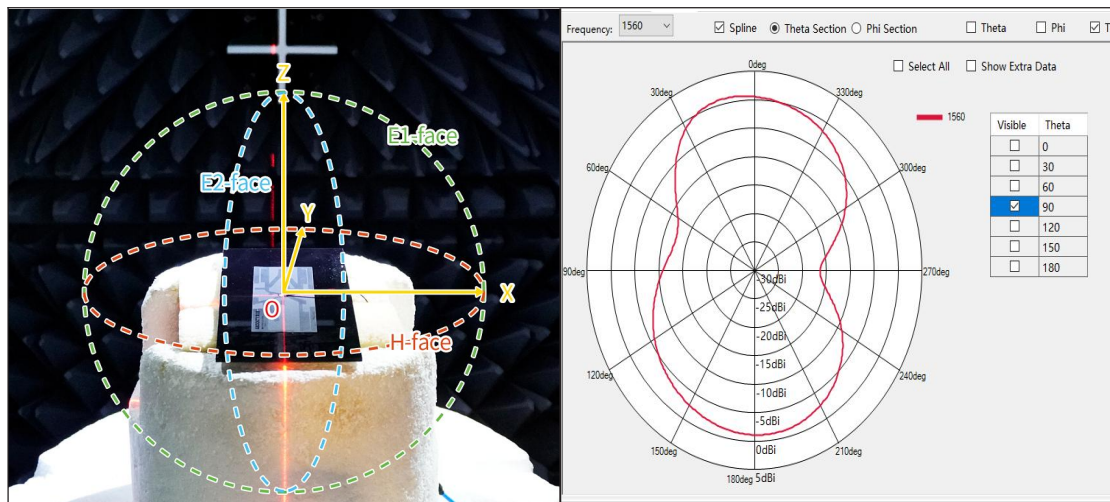
Freq(MHz)	Gain (dBi)	Efficiency(%)	Freq(MHz)	Gain (dBi)	Efficiency(%)	Freq(MHz)	Gain (dBi)	Efficiency(%)
600	-2.53	31.38	1560	1.88	66.77	2340	3.30	68.69
610	-2.10	35.68	1580	1.83	66.44	2360	3.58	69.16
620	-1.73	39.16	1600	1.97	67.79	2380	3.58	69.25
630	-1.22	44.19	1620	1.85	66.01	2400	3.28	67.34
640	-0.55	48.05	1640	1.75	63.61	2420	2.65	64.81
650	-0.02	51.74	1660	1.61	60.58	2440	2.54	62.47
660	0.30	57.70	1680	1.75	61.58	2460	2.77	62.26
670	0.20	57.11	1700	1.50	56.47	2480	2.85	63.53
680	0.09	59.97	1720	1.45	56.11	2500	2.77	62.79
690	0.47	59.14	1740	1.84	61.39	2520	3.22	68.72
700	-0.64	46.26	1760	2.20	63.08	2540	3.38	72.50
710	-0.24	51.72	1780	2.58	61.56	2560	3.05	72.40
720	0.33	54.95	1800	2.84	59.53	2580	2.79	70.13
730	0.02	55.78	1820	2.66	57.69	2600	2.45	67.07
740	0.78	61.53	1840	2.06	59.51	2620	2.64	65.97
750	1.34	70.00	1860	1.71	59.30	2640	2.81	64.89
760	0.82	68.44	1880	2.35	58.88	2660	2.64	63.46
770	1.73	76.09	1900	2.65	57.58	2680	2.04	60.42
780	1.69	79.94	1920	2.87	59.47	2700	2.14	60.06
790	1.79	79.92	1940	3.06	62.42	2720	2.67	62.85
800	1.94	81.50	1960	3.08	64.55	2740	2.75	63.06
810	1.63	78.80	1980	3.06	66.66	2760	2.68	62.54
820	1.63	76.26	2000	3.02	68.31	2780	2.47	61.98
830	1.55	74.67	2020	2.93	70.61	2800	2.30	60.22
840	1.32	72.20	2040	3.04	73.61	2820	2.14	58.84
850	1.42	69.65	2060	3.23	75.03	2840	2.04	56.76
860	1.48	69.17	2080	3.15	72.47	2860	1.82	54.57
870	1.13	66.55	2100	2.67	67.07	2880	1.74	54.05
880	1.54	65.84	2120	2.74	67.43	2900	1.55	55.00
890	1.20	63.77	2140	3.09	71.25	2920	1.87	56.43
900	0.89	59.02	2160	2.96	72.76	2940	2.11	56.88
910	1.01	56.02	2180	2.76	72.64	2960	2.54	58.97
920	0.48	51.85	2200	2.58	71.18	2980	3.02	61.48
930	0.40	49.45	2220	2.55	69.62	3000	3.35	61.99
940	0.39	51.21	2240	2.67	68.75	3020	3.65	62.23
950	0.45	52.86	2260	2.66	67.53	3040	3.70	61.23
960	0.44	52.97	2280	2.86	65.64	3060	3.90	61.55
1520	1.77	63.05	2300	2.73	63.29	3080	3.85	59.14
1540	2.08	67.19	2320	2.90	65.71	3100	3.85	56.32

Freq(MHz)	Gain (dBi)	Efficiency(%)	Freq(MHz)	Gain (dBi)	Efficiency(%)	Freq(MHz)	Gain (dBi)	Efficiency(%)
3120	3.98	55.74	3900	-0.51	31.80	4680	4.27	62.20
3140	4.40	57.86	3920	-0.25	31.46	4700	4.47	60.19
3160	4.53	55.76	3940	-0.28	29.57	4720	4.96	61.94
3180	4.57	55.90	3960	-0.04	28.76	4740	5.11	61.89
3200	5.00	59.26	3980	0.53	30.20	4760	5.79	68.15
3220	4.97	61.43	4000	1.03	31.54	4780	5.98	72.43
3240	4.82	61.08	4020	1.90	36.69	4800	5.95	71.91
3260	4.55	59.78	4040	2.36	41.10	4820	5.88	72.43
3280	4.07	58.63	4060	2.56	43.02	4840	5.78	71.29
3300	3.76	58.73	4080	2.47	41.44	4860	5.43	65.72
3320	3.40	58.90	4100	1.95	36.00	4880	5.49	65.45
3340	3.61	60.43	4120	1.93	34.85	4900	5.52	65.53
3360	4.01	61.35	4140	2.38	37.52	4920	5.81	66.84
3380	4.21	59.50	4160	2.87	41.91	4940	5.99	68.65
3400	4.16	56.58	4180	3.57	49.65	4960	6.20	69.31
3420	3.87	54.20	4200	3.76	53.42	4980	6.35	69.93
3440	3.43	53.53	4220	3.63	53.48	5000	6.42	69.57
3460	3.95	55.56	4240	3.60	55.55	5020	6.42	69.28
3480	4.29	54.76	4260	3.25	53.29	5040	6.41	68.55
3500	4.21	51.47	4280	2.86	49.67	5060	6.21	64.61
3520	4.21	50.09	4300	2.65	46.96	5080	6.03	60.52
3540	4.16	51.79	4320	2.91	47.44	5100	6.17	61.38
3560	4.02	53.39	4340	3.47	50.80	5120	6.13	60.50
3580	4.05	57.29	4360	3.93	54.04	5140	6.10	60.22
3600	3.75	57.19	4380	4.41	58.47	5160	6.00	59.29
3620	3.07	52.82	4400	4.80	61.73	5180	6.04	57.66
3640	2.49	48.24	4420	4.95	62.29	5200	6.21	57.13
3660	2.27	47.77	4440	5.12	64.39	5220	6.10	54.35
3680	2.27	49.00	4460	4.92	61.75	5240	5.94	49.71
3700	2.08	48.72	4480	4.57	56.76	5260	5.64	45.85
3720	1.88	46.83	4500	4.56	55.84	5280	5.69	45.41
3740	1.24	41.36	4520	4.80	57.90	5300	5.67	46.56
3760	0.60	37.12	4540	4.98	60.83	5320	5.67	49.95
3780	0.24	34.68	4560	5.13	64.77	5340	5.47	51.51
3800	0.01	35.16	4580	5.04	65.03	5360	5.36	56.33
3820	-0.11	35.92	4600	5.04	66.61	5380	4.86	59.10
3840	-0.42	34.80	4620	4.89	65.67	5400	4.51	63.69
3860	-0.38	36.95	4640	4.66	65.00	5420	4.15	67.22
3880	-0.22	35.84	4660	4.51	63.54	5440	4.37	67.72

Freq(MHz)	Gain (dBi)	Efficiency(%)	Freq(MHz)	Gain (dBi)	Efficiency(%)	Freq(MHz)	Gain (dBi)	Efficiency(%)
5460	4.02	67.55	5660	2.69	65.05	5860	2.24	62.91
5480	3.31	63.52	5680	2.74	66.42	5880	2.36	62.05
5500	2.64	60.24	5700	2.76	68.58	5900	2.47	62.25
5520	2.45	60.45	5720	2.99	70.03	5920	2.54	66.36
5540	2.59	62.32	5740	2.89	68.21	5940	2.48	67.41
5560	2.98	69.13	5760	2.68	65.76	5960	2.51	65.95
5580	3.20	73.25	5780	2.57	65.11	5980	2.37	62.74
5600	3.05	71.47	5800	2.40	64.92	6000	2.54	62.66
5620	2.76	66.32	5820	2.77	68.49			
5640	2.65	64.17	5840	2.68	67.98			

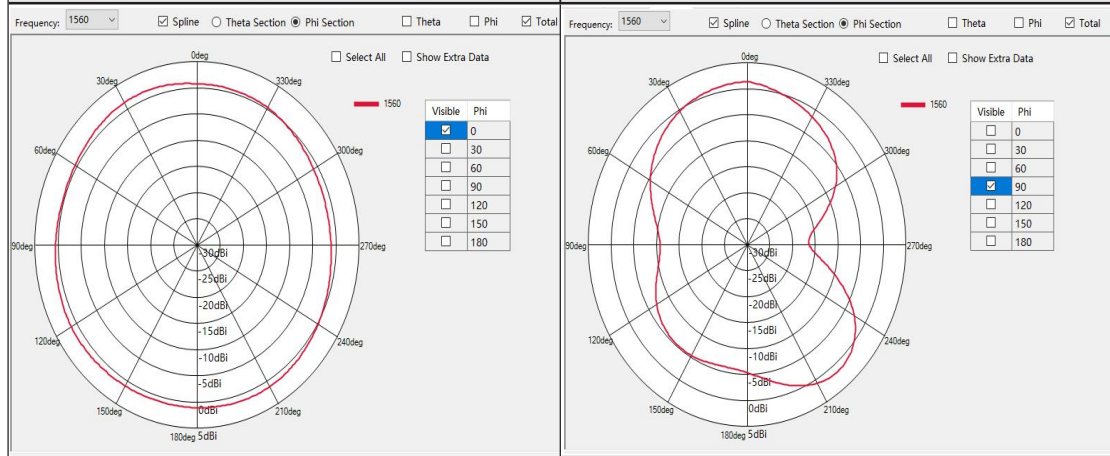
RADIATION PATTERNS





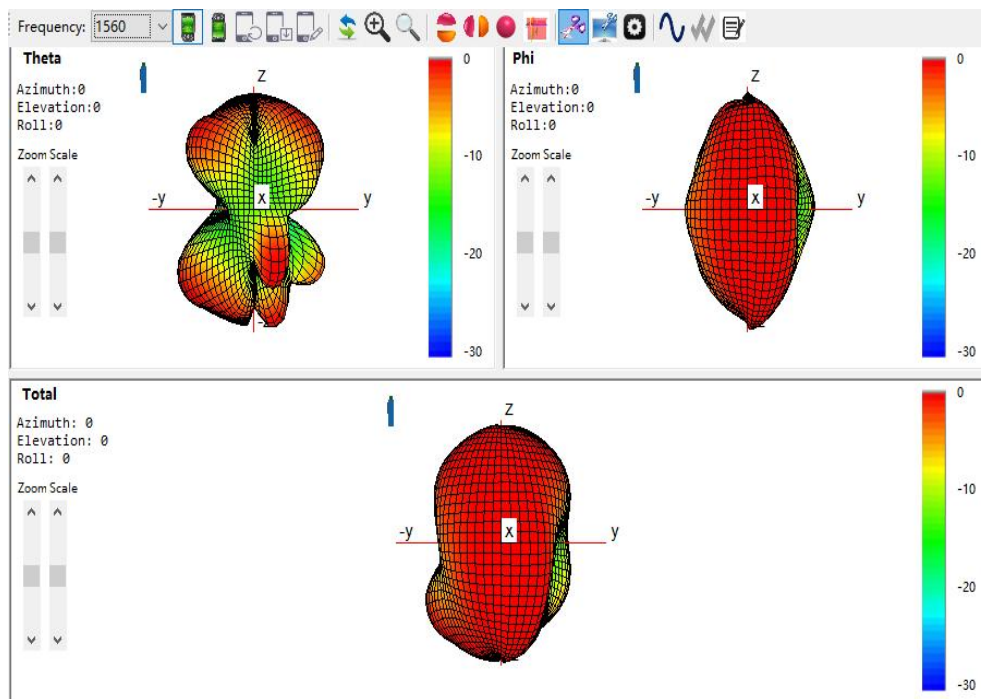
The Antenna in MyAntenna's Anechoic Chamber

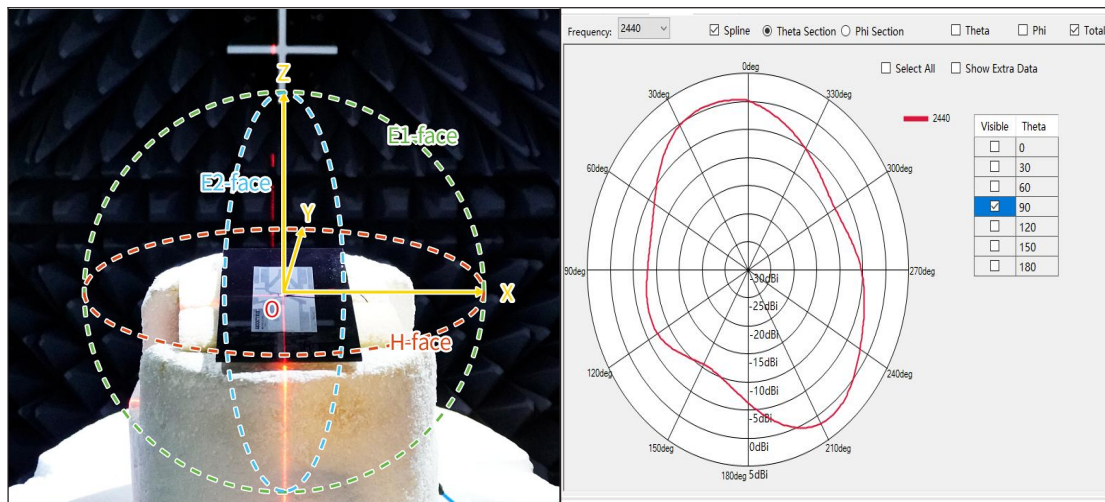
$\theta = 90^\circ$ Plane XY at 1560 MHz, Gain 1.88 dBi



$\phi = 0^\circ$ Plane XZ at 1560 MHz, Gain 1.88 dBi

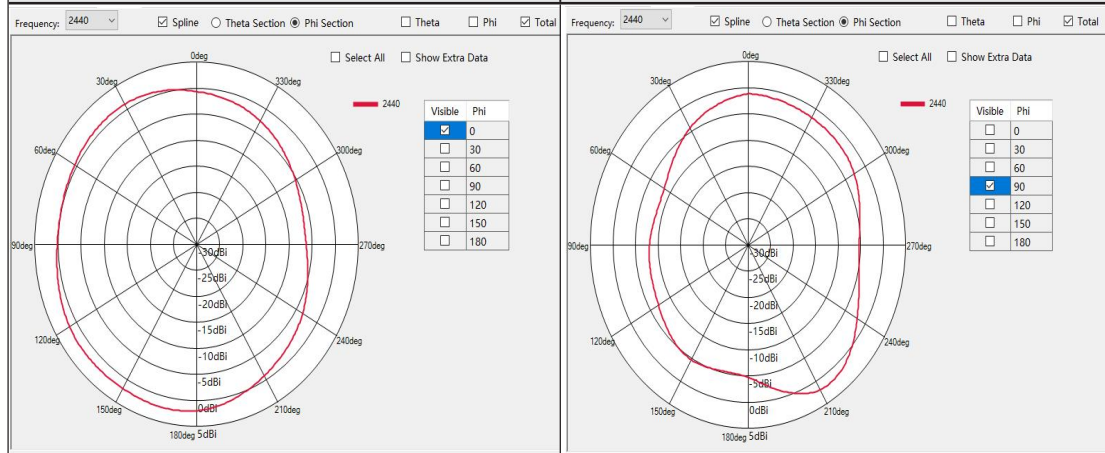
$\phi = 90^\circ$ Plane YZ at 1560 MHz, Gain 1.88 dBi





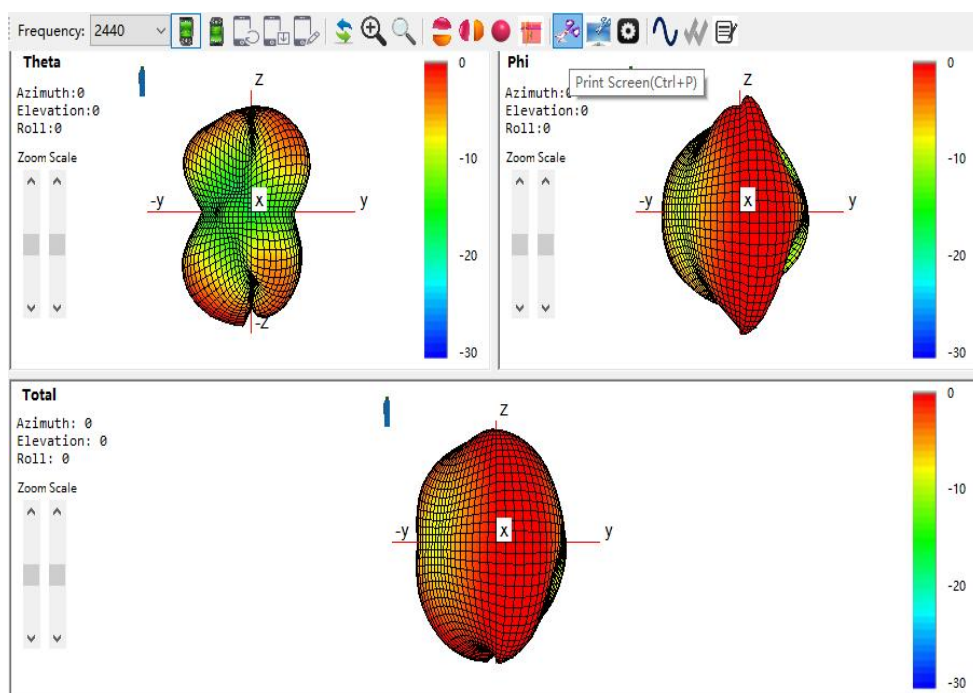
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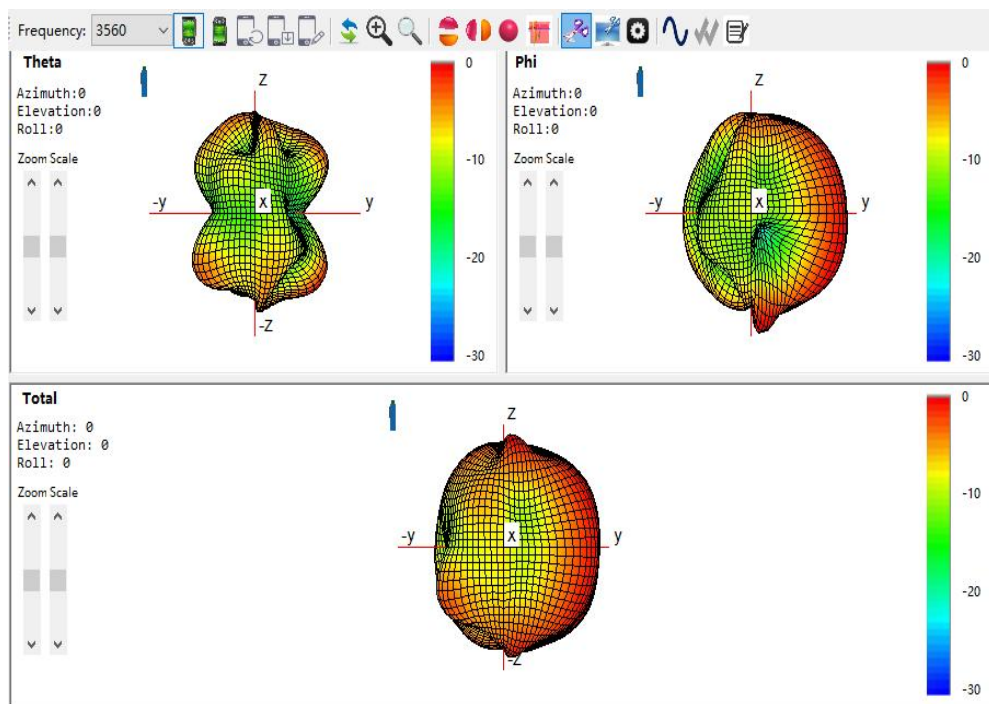
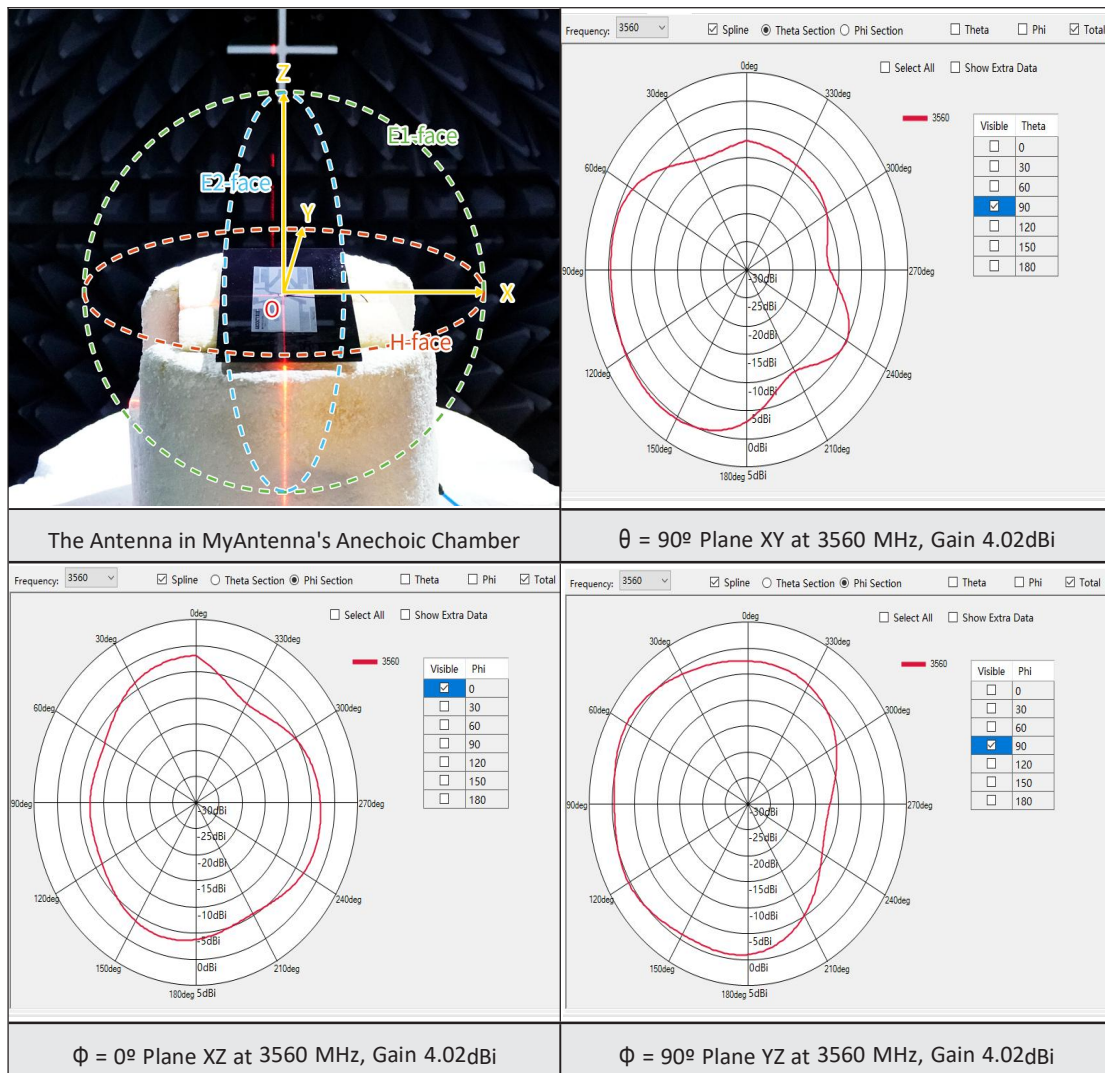
$\theta = 90^\circ$ Plane XY at 2440 MHz, Gain 2.54 dBi

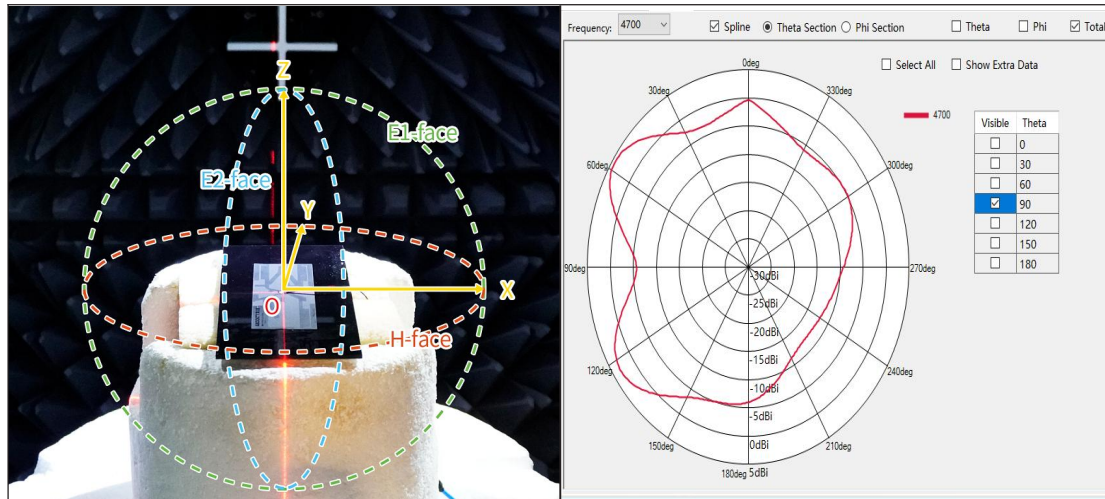


$\phi = 0^\circ$ Plane XZ at 2440 MHz, Gain 2.54 dBi

$\phi = 90^\circ$ Plane YZ at 2440 MHz, Gain 2.54 dBi

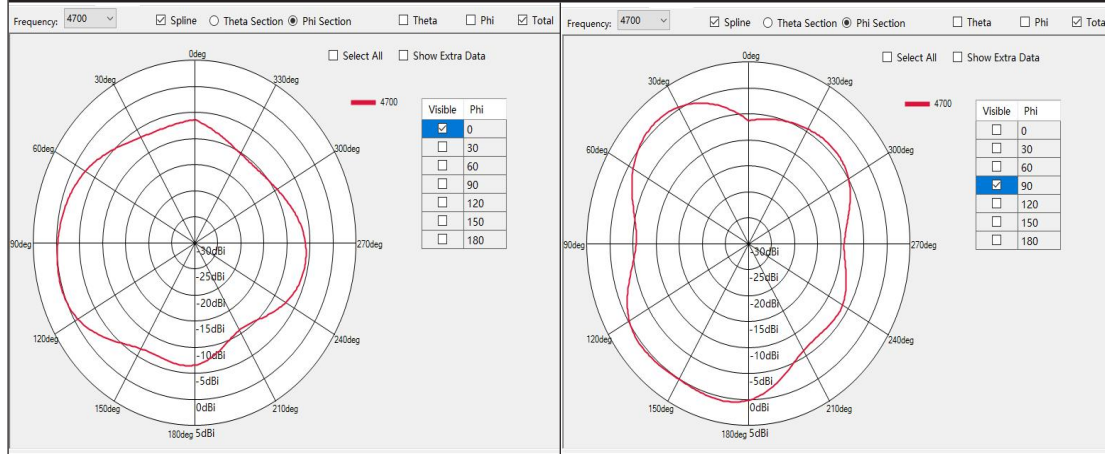






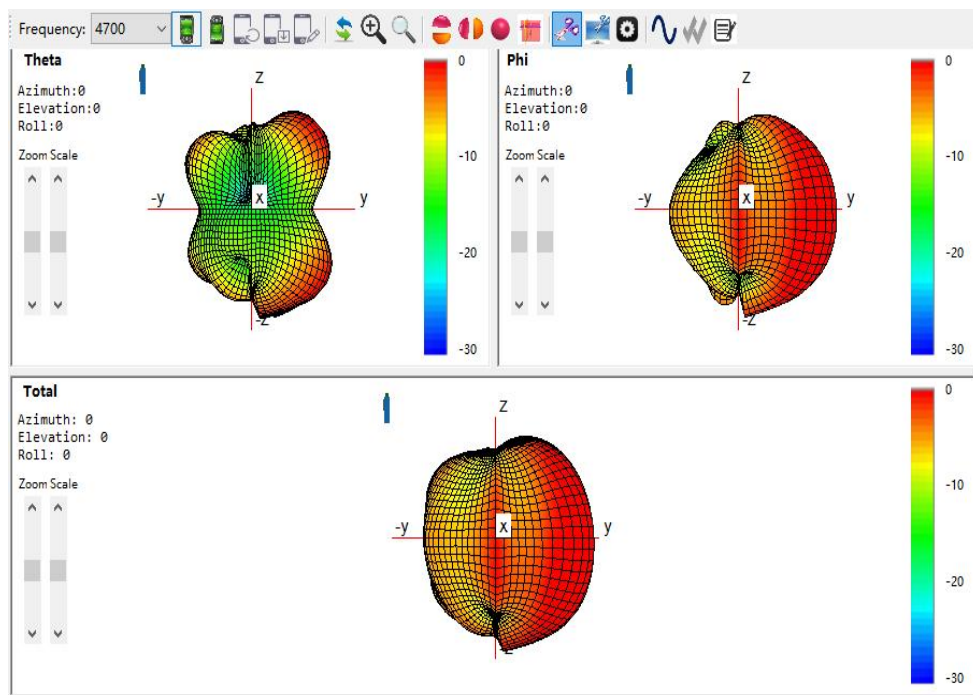
The Antenna in MyAntenna's Anechoic Chamber

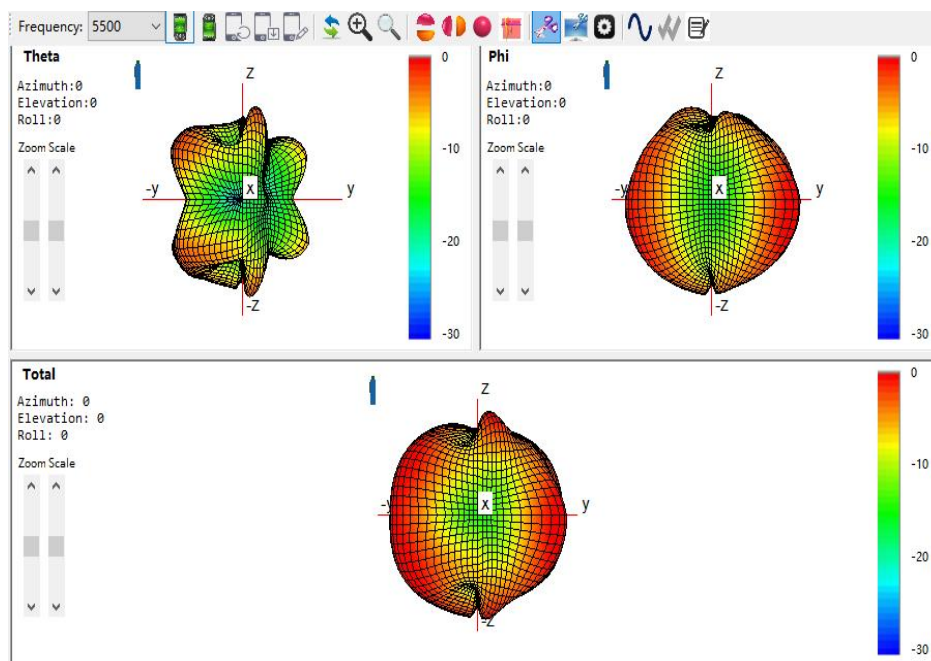
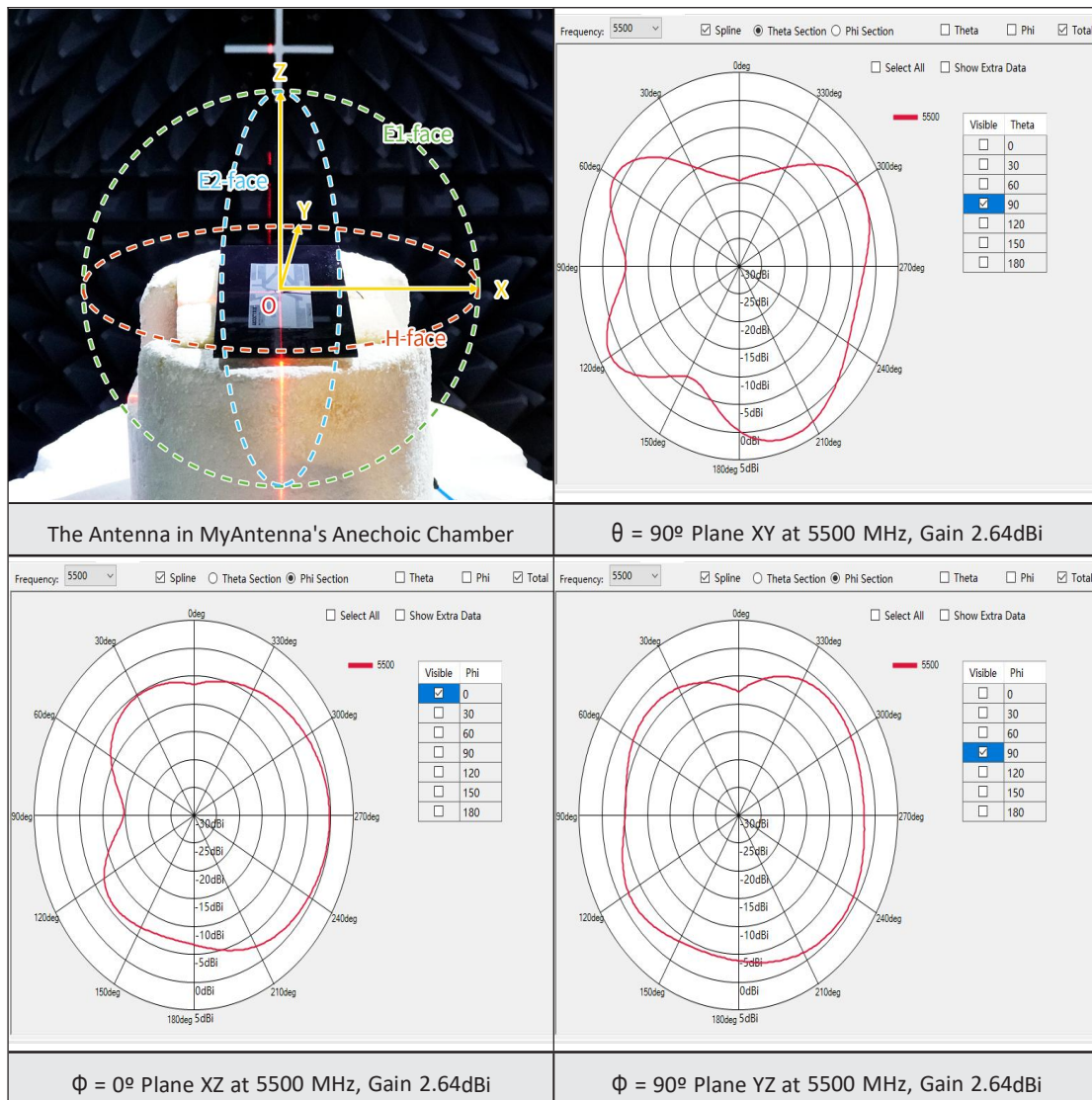
$\theta = 90^\circ$ Plane XY at 4700 MHz, Gain 4.47dBi



$\phi = 0^\circ$ Plane XZ at 4700 MHz, Gain 4.47dBi

$\phi = 90^\circ$ Plane YZ at 4700 MHz, Gain 4.47dBi





HOUSING CONFIGURATIONS

