

5G Magnetic Whip Antenna

FEATURES



- Magnetic installation
- Metal and non-metallic surfaces can be shared
- Customized product development supported



The MyAntenna AECM004 range of antennas are designed to decrease the lifetime cost of M2M and mobile device installations by offering a robust, effective antenna that is easy to install and lasts the lifetime of the installation without the need for maintenance.

The antenna offers ground-plane independent Omni-directional performance across global cellular and LTE bands making it a versatile solution for any number of applications. The efficient element design ensures a high first time connection rate and an ongoing, robust communications link even in problematic coverage areas.

PRODUCTS

Part No.	Weight	Dimensions (L x W x H)	cable	installation	Connector	Color
AECM004	52.3g	Φ61*166.3mm	Φ2.8*1000mm	Magnetic Suction	SMA MALE	Black

SPECIFICATIONS

PARAMETER	SPECIFICATION	
Frequency (MHz)	617-960	1400-6000
VSWR (Max)	4.0:1	3.0:1
Peak Gain, dBi (Typ)	Up to 4.94@Mounted on metallic surfaces	
Peak Efficiency, %	56.28%@Mounted on non-metallic surfaces	
Nominal Impedance	50 Ω	
Max Power (ambient temp of 25°C)	10 Watts	
Azimuth Beam Width (deg)	Omnidirectional	
Polarization	Linear	
Radome	ABS, Black	
Storage Temperature Range (°C)	-40° C to +85° C	
Operational Temperature Range (°C)	-40° C to +85° C	
Material Substance Compliance	RoHS Compliant	

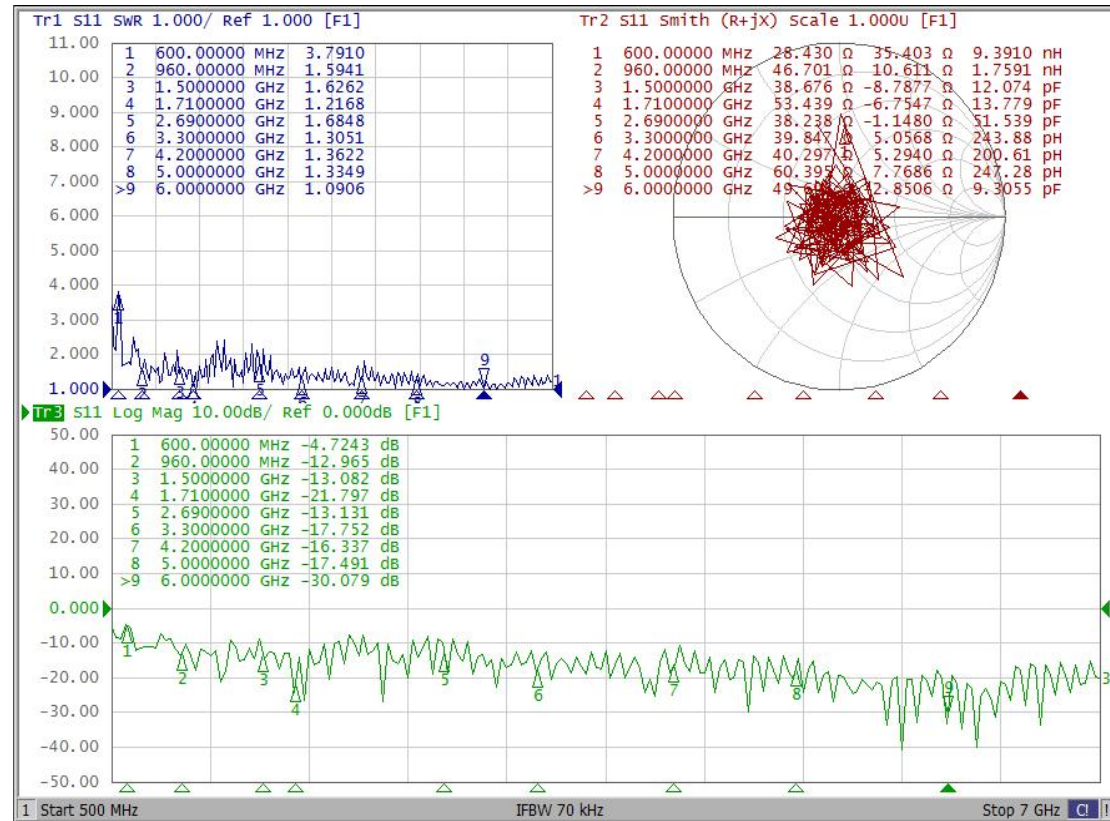
MyAntenna RF Technology Co., Ltd

ADD:No.RM 410, Country Garden Phoenix Wisdom Valley, No. 50 Tiezai Road, Baoan District, Shenzhen, P.R.China.

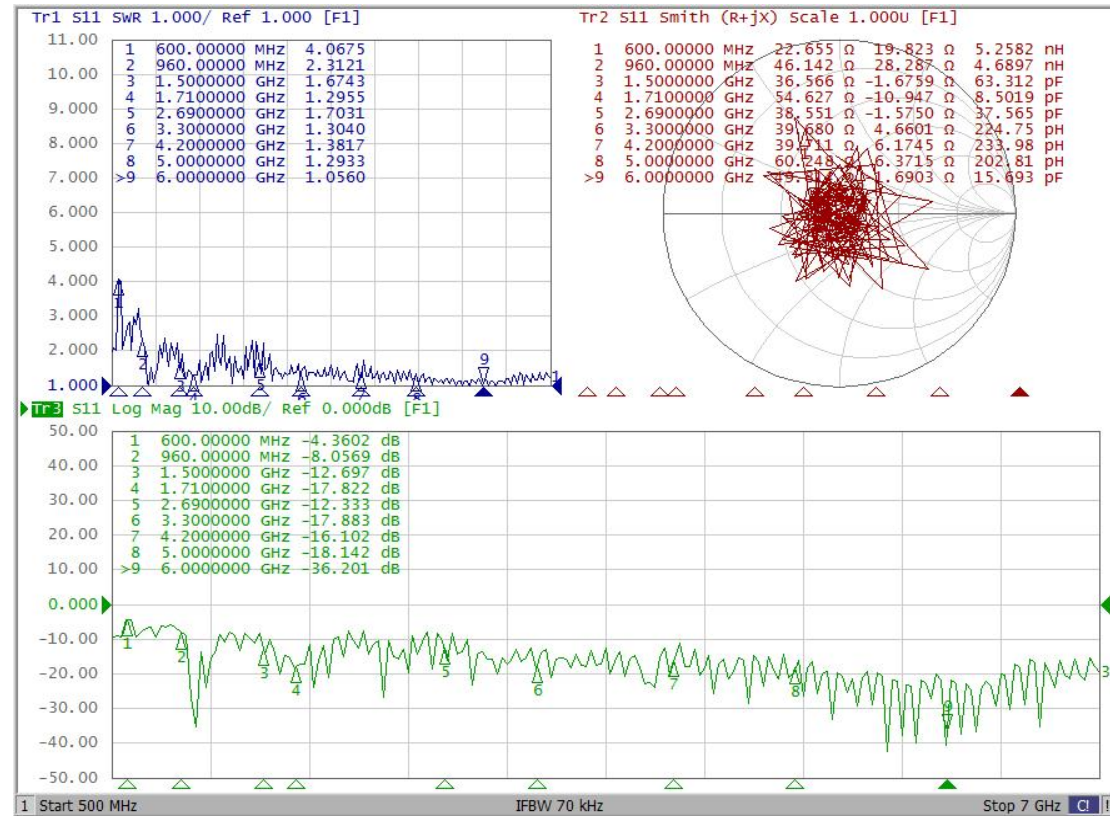
TEL: +86-0755-86503881 E-mail: nfc@imyantenna.com

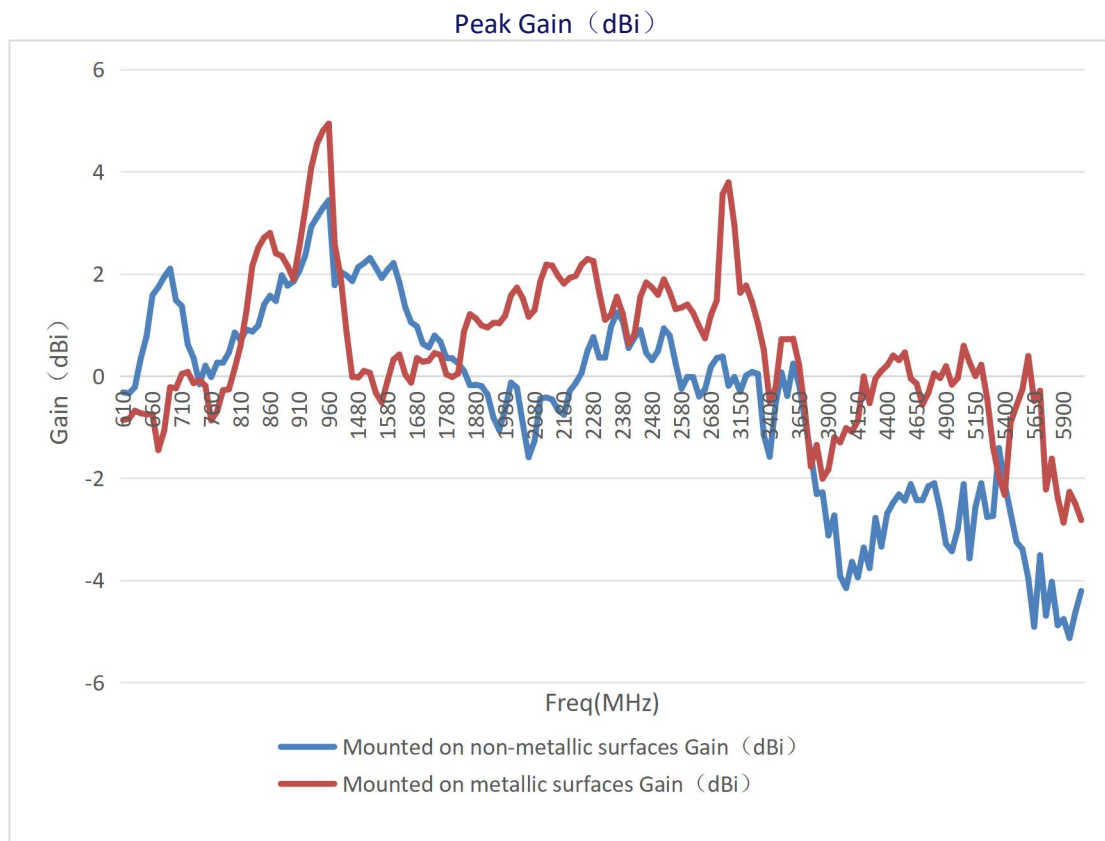
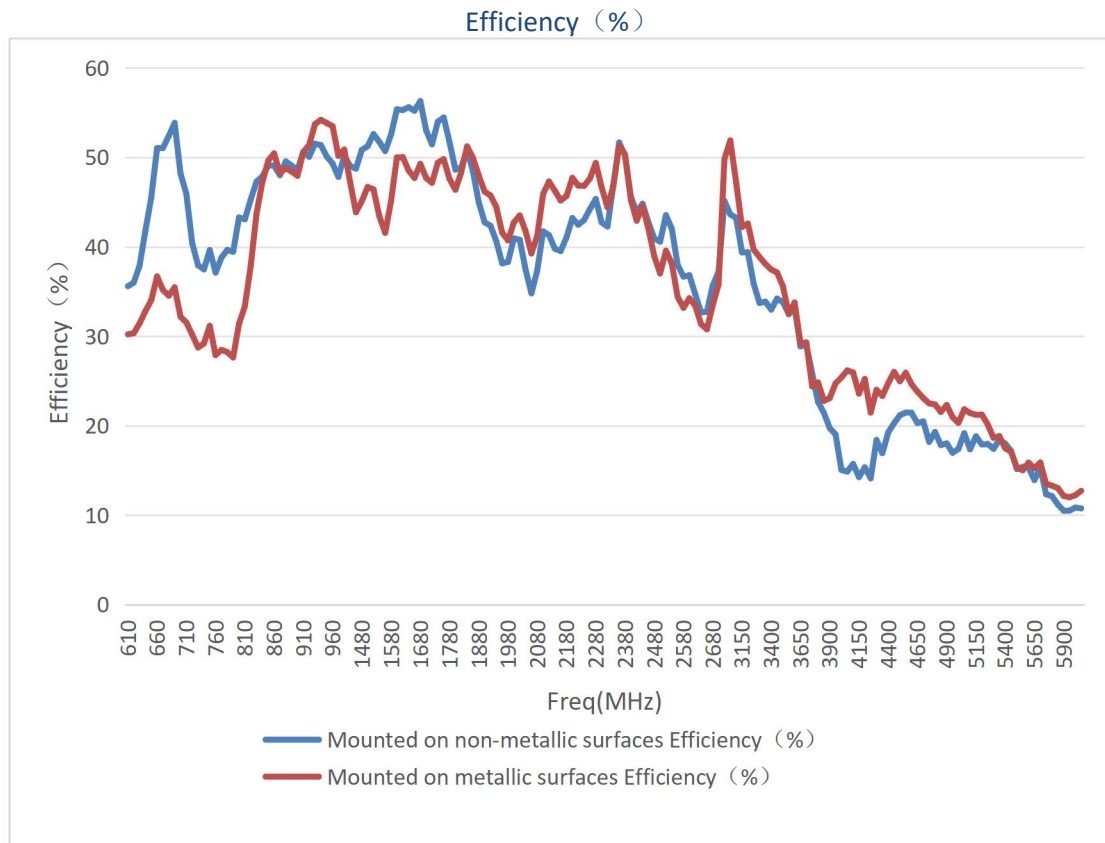
ELECTRICAL DATA

Return Loss (Mounted on non-metallic surfaces)



Return Loss (Mounted on metallic surfaces)





Mounted on non-metallic surfaces

Freq(MHz)	Gain (dBi)	Efficiency (%)	Freq(MHz)	Gain (dBi)	Efficiency (%)
610	-0.32	35.58	2320	0.36	42.27
620	-0.34	35.99	2340	0.96	46.84
630	-0.22	37.88	2360	1.24	51.65
640	0.34	41.79	2380	1.08	50.19
650	0.78	45.50	2400	0.55	45.59
660	1.58	51.03	2420	0.75	43.85
670	1.74	51.04	2440	0.90	44.81
680	1.94	52.39	2460	0.45	42.73
690	2.10	53.84	2480	0.31	40.93
700	1.48	48.18	2500	0.49	40.57
710	1.37	45.92	2520	0.93	43.53
720	0.62	40.40	2540	0.79	42.01
730	0.35	37.93	2560	0.25	37.97
740	-0.16	37.47	2580	-0.25	36.66
750	0.20	39.63	2600	-0.02	36.82
760	-0.02	37.11	2620	-0.03	34.71
770	0.26	38.78	2640	-0.40	32.66
780	0.26	39.65	2660	-0.26	32.74
790	0.46	39.43	2680	0.18	35.67
800	0.85	43.27	2690	0.35	37.22
810	0.70	43.07	3000	0.38	45.11
820	0.91	45.27	3050	-0.19	43.62
830	0.87	47.28	3100	-0.02	43.23
840	0.99	47.86	3150	-0.31	39.37
850	1.40	49.08	3200	0.01	39.39
860	1.57	49.07	3250	0.08	35.86
870	1.47	48.00	3300	0.04	33.71
880	1.97	49.54	3350	-1.15	33.86
890	1.77	49.07	3400	-1.58	32.97
900	1.85	48.55	3450	-0.56	34.21
910	2.06	50.62	3500	0.07	33.79
920	2.36	50.06	3550	-0.39	32.48
930	2.92	51.51	3600	0.24	33.16
940	3.11	51.36	3650	-0.17	28.86
950	3.29	50.09	3700	-0.87	29.05
960	3.44	49.30	3750	-1.52	25.85
1400	1.78	47.81	3800	-2.31	22.67
1420	2.04	50.16	3850	-2.28	21.43
1440	1.97	49.03	3900	-3.12	19.73
1460	1.86	48.73	3950	-2.73	19.02

1480	2.13	50.83	4000	-3.92	15.05
1500	2.21	51.24	4050	-4.15	14.86
1520	2.31	52.59	4100	-3.64	15.72
1540	2.12	51.71	4150	-3.94	14.25
1560	1.92	50.70	4200	-3.36	15.34
1580	2.08	52.54	4250	-3.76	14.11
1600	2.21	55.36	4300	-2.78	18.40
1620	1.83	55.28	4350	-3.34	16.93
1640	1.35	55.59	4400	-2.69	19.24
1660	1.05	55.21	4450	-2.48	20.27
1680	0.97	56.28	4500	-2.32	21.17
1700	0.63	53.02	4550	-2.44	21.46
1720	0.56	51.45	4600	-2.12	21.40
1740	0.79	53.98	4650	-2.43	20.29
1760	0.67	54.45	4700	-2.43	20.47
1780	0.35	51.68	4750	-2.16	18.19
1800	0.34	48.62	4800	-2.10	19.29
1820	0.25	48.85	4850	-2.62	17.83
1840	0.10	50.88	4900	-3.29	18.02
1860	-0.18	48.41	4950	-3.43	16.97
1880	-0.17	44.97	5000	-3.00	17.39
1900	-0.20	42.73	5050	-2.12	19.15
1920	-0.36	42.35	5100	-3.57	17.36
1940	-0.81	40.61	5150	-2.57	18.81
1960	-1.06	38.14	5200	-2.10	17.91
1980	-0.65	38.31	5250	-2.76	17.98
2000	-0.13	40.93	5300	-2.74	17.41
2020	-0.23	40.78	5350	-1.41	18.40
2040	-0.93	37.45	5400	-2.12	18.01
2060	-1.59	34.79	5450	-2.69	17.18
2080	-1.27	37.37	5500	-3.25	15.16
2100	-0.44	41.72	5550	-3.39	15.40
2120	-0.42	41.30	5600	-3.96	15.29
2140	-0.46	39.78	5650	-4.91	13.92
2160	-0.67	39.52	5700	-3.51	15.30
2180	-0.76	41.06	5750	-4.69	12.33
2200	-0.29	43.20	5800	-4.03	12.12
2220	-0.14	42.46	5850	-4.88	11.19
2240	0.06	42.98	5900	-4.76	10.49
2260	0.49	44.21	5950	-5.13	10.50
2280	0.76	45.34	6000	-4.63	10.85
2300	0.36	42.72	6050	-4.21	10.75

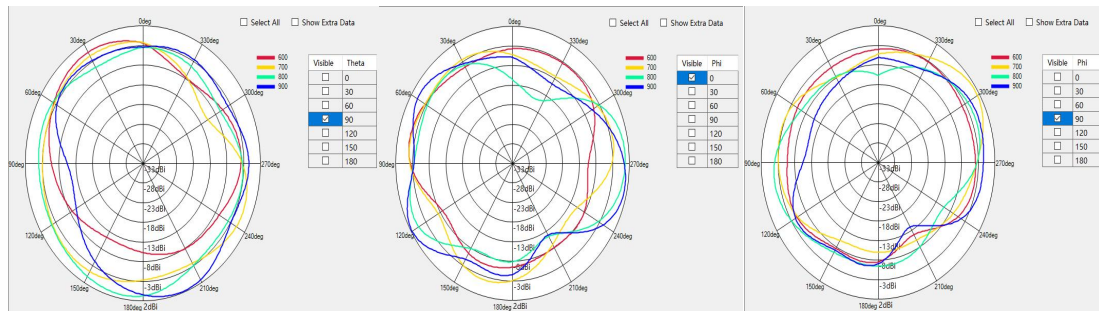
Mounted on metallic surfaces

Freq(MHz)	Gain (dBi)	Efficiency (%)	Freq(MHz)	Gain (dBi)	Efficiency (%)
610	-0.86	30.21	2320	1.10	44.42
620	-0.84	30.33	2340	1.20	46.79
630	-0.68	31.43	2360	1.55	51.29
640	-0.73	32.80	2380	1.22	50.31
650	-0.75	34.02	2400	0.63	45.25
660	-0.75	36.68	2420	0.82	42.91
670	-1.45	35.17	2440	1.55	44.55
680	-1.07	34.53	2460	1.83	42.01
690	-0.22	35.46	2480	1.73	38.95
700	-0.24	32.17	2500	1.59	37.02
710	0.04	31.54	2520	1.89	39.56
720	0.08	30.17	2540	1.64	38.13
730	-0.14	28.74	2560	1.31	34.39
740	-0.08	29.18	2580	1.34	33.17
750	-0.19	31.16	2600	1.40	34.24
760	-0.87	27.89	2620	1.23	33.41
770	-0.69	28.47	2640	0.97	31.36
780	-0.28	28.22	2660	0.74	30.77
790	-0.26	27.63	2680	1.19	33.47
800	0.15	31.37	2690	1.48	35.80
810	0.60	33.34	3000	3.56	49.82
820	1.28	37.82	3050	3.79	51.88
830	2.16	43.71	3100	2.96	47.19
840	2.51	47.23	3150	1.63	42.21
850	2.71	49.63	3200	1.77	42.59
860	2.80	50.43	3250	1.45	39.68
870	2.40	48.24	3300	1.03	38.85
880	2.35	48.78	3350	0.51	38.07
890	2.15	48.41	3400	-0.50	37.45
900	1.89	47.93	3450	-0.23	37.12
910	2.53	50.58	3500	0.72	35.58
920	3.27	51.39	3550	0.72	32.47
930	4.07	53.71	3600	0.73	33.77
940	4.55	54.18	3650	0.22	29.17
950	4.80	53.83	3700	-0.67	29.30
960	4.94	53.48	3750	-1.77	24.39
1400	2.58	50.16	3800	-1.35	24.83
1420	1.96	50.86	3850	-2.01	22.77
1440	0.87	47.23	3900	-1.83	23.08
1460	-0.02	43.86	3950	-1.20	24.73

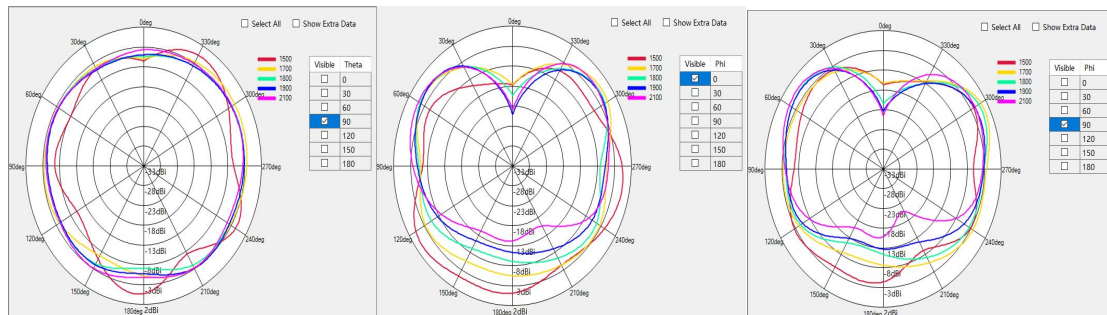
1480	-0.03	45.10	4000	-1.30	25.39
1500	0.10	46.68	4050	-1.02	26.18
1520	0.06	46.41	4100	-1.09	25.94
1540	-0.33	43.40	4150	-0.88	23.59
1560	-0.52	41.56	4200	-0.01	25.21
1580	-0.09	45.13	4250	-0.53	21.47
1600	0.32	49.98	4300	-0.05	24.01
1620	0.42	50.04	4350	0.10	23.32
1640	0.03	48.52	4400	0.21	24.75
1660	-0.13	47.70	4450	0.40	26.01
1680	0.35	49.26	4500	0.31	24.96
1700	0.28	47.69	4550	0.46	25.91
1720	0.30	47.15	4600	-0.05	24.62
1740	0.45	49.40	4650	-0.15	23.80
1760	0.41	49.79	4700	-0.56	23.09
1780	0.03	47.57	4750	-0.33	22.49
1800	-0.02	46.37	4800	0.05	22.37
1820	0.05	48.33	4850	-0.04	21.54
1840	0.87	51.21	4900	0.19	22.31
1860	1.21	49.94	4950	-0.17	20.95
1880	1.13	47.95	5000	-0.04	20.31
1900	0.99	46.16	5050	0.59	21.83
1920	0.95	45.74	5100	0.27	21.41
1940	1.04	44.43	5150	0.00	21.22
1960	1.03	41.56	5200	0.22	21.25
1980	1.18	40.71	5250	-0.44	20.16
2000	1.58	42.72	5300	-1.39	18.64
2020	1.73	43.50	5350	-1.97	18.83
2040	1.52	41.74	5400	-2.33	17.48
2060	1.16	39.25	5450	-0.91	17.09
2080	1.29	41.26	5500	-0.58	15.31
2100	1.86	45.90	5550	-0.26	15.02
2120	2.18	47.29	5600	0.39	15.87
2140	2.16	46.26	5650	-0.49	15.23
2160	1.96	45.17	5700	-0.29	15.88
2180	1.81	45.67	5750	-2.22	13.50
2200	1.92	47.70	5800	-1.62	13.29
2220	1.96	46.83	5850	-2.38	13.03
2240	2.18	46.79	5900	-2.87	12.14
2260	2.29	47.63	5950	-2.27	12.00
2280	2.25	49.36	6000	-2.50	12.23
2300	1.64	46.65	6050	-2.82	12.72

RADIATION PATTERNS

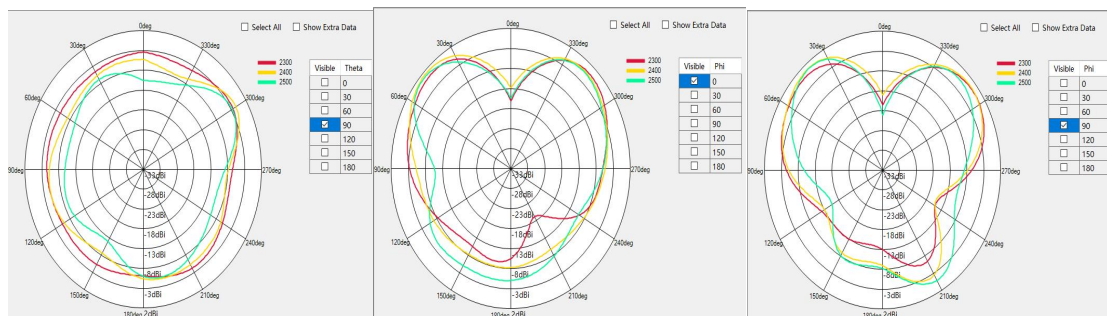
2D Radiation Pattern at 800MHz (Mounted on non-metallic surfaces)



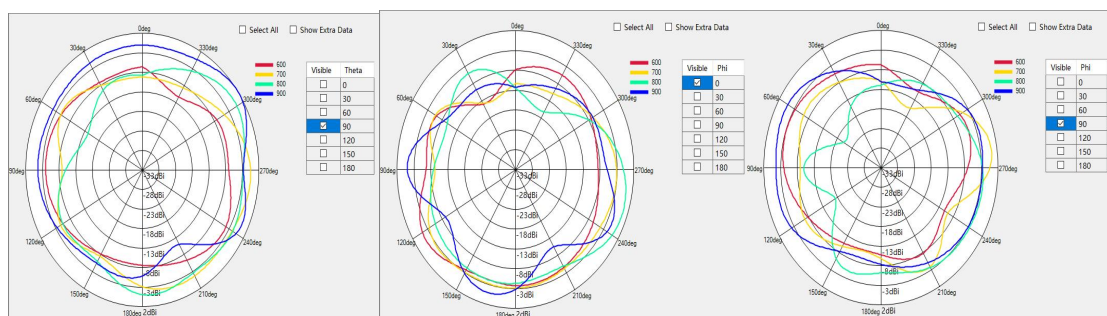
2D Radiation Pattern at 1800MHz (Mounted on non-metallic surfaces)



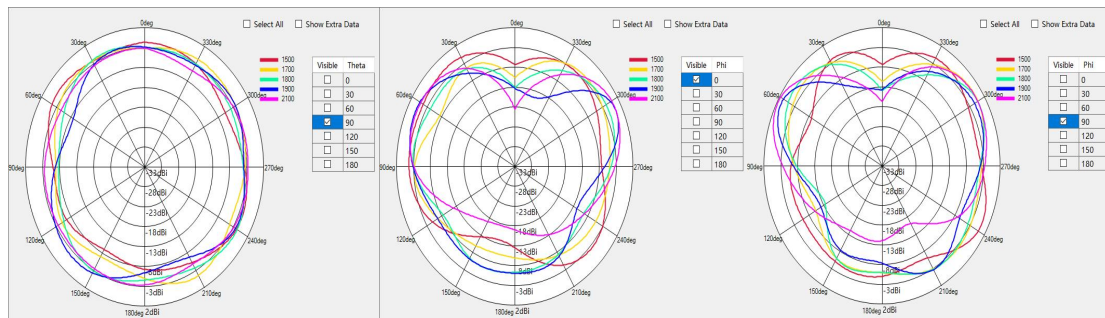
2D Radiation Pattern at 2500MHz (Mounted on non-metallic surfaces)



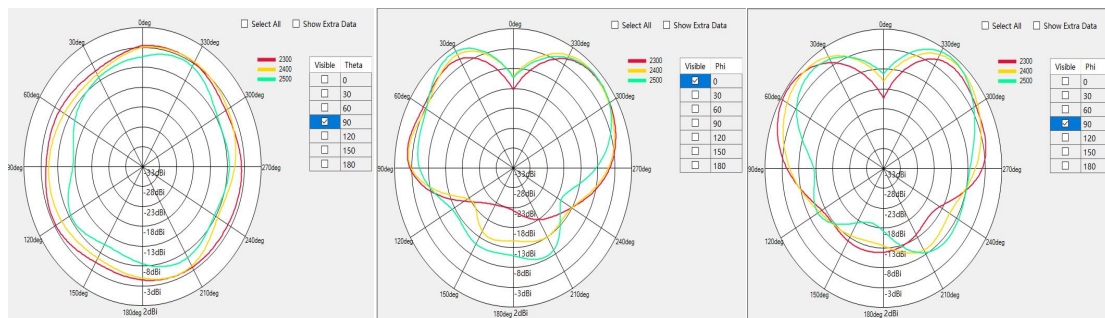
2D Radiation Pattern at 800MHz (Mounted on metallic surfaces)



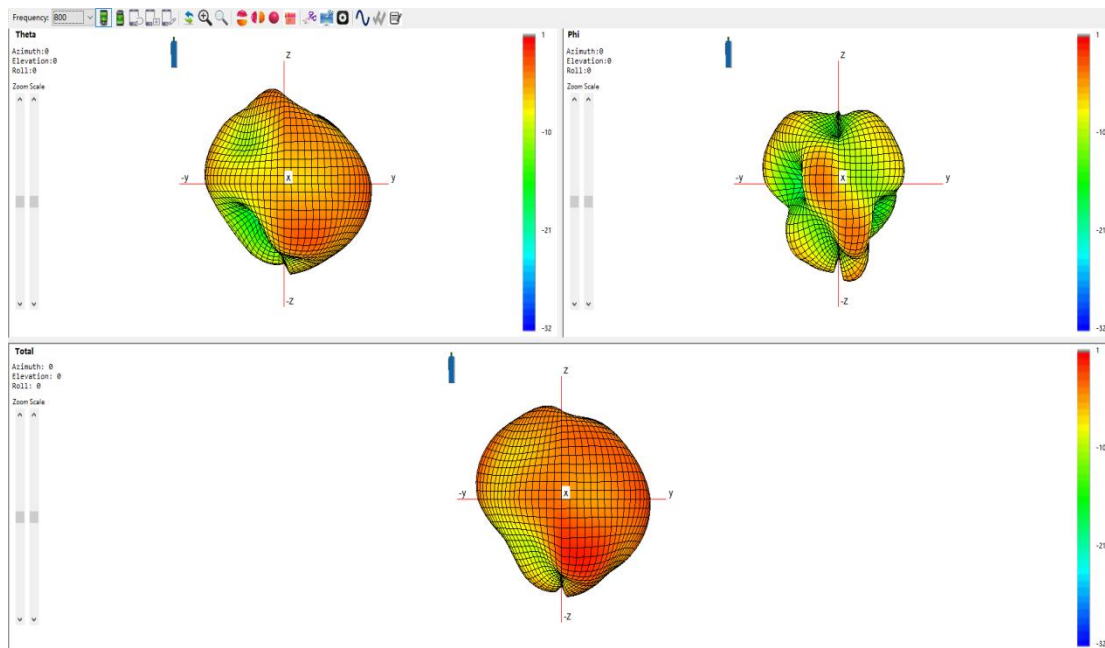
2D Radiation Pattern at 1800MHz (Mounted on metallic surfaces)



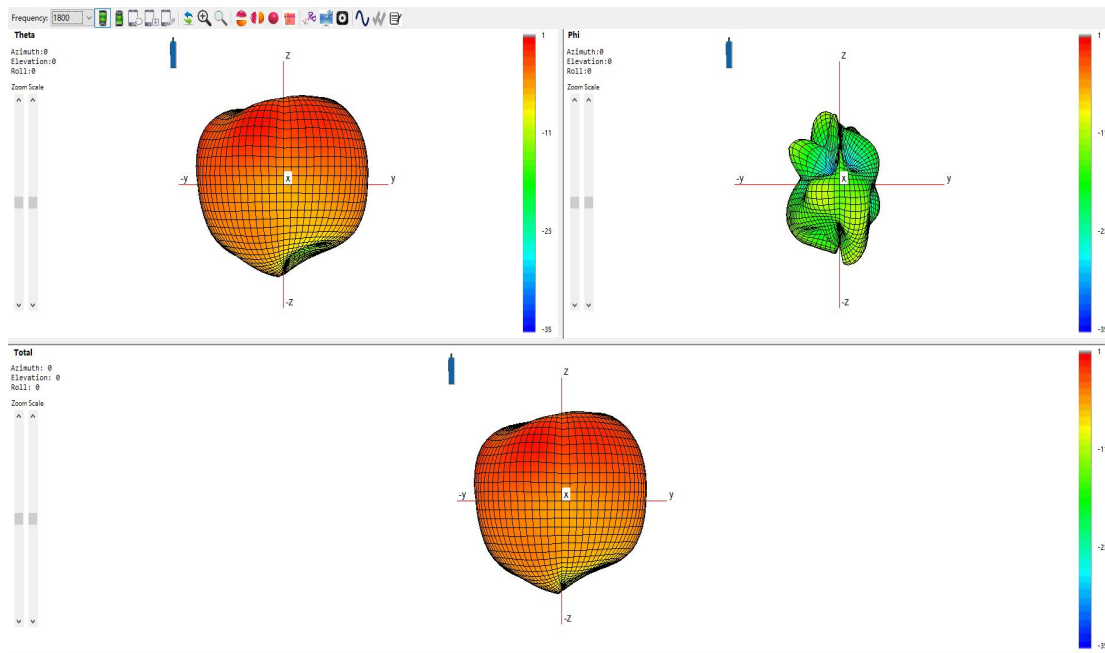
2D Radiation Pattern at 2500MHz (Mounted on metallic surfaces)



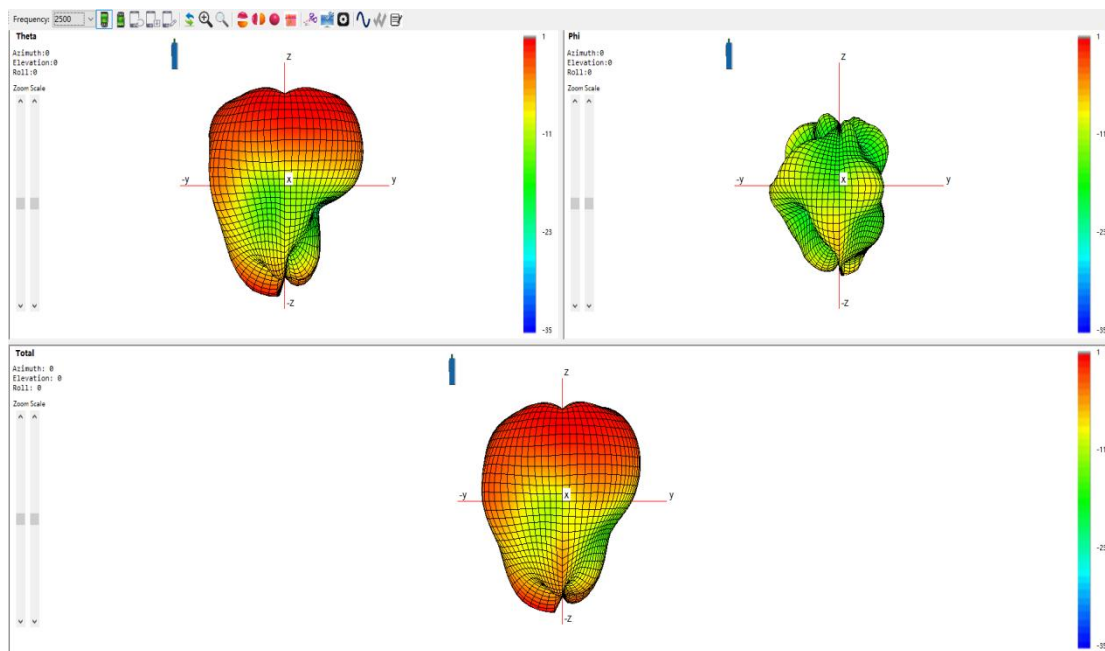
3D Radiation Pattern at 800MHz (Mounted on non-metallic surfaces)



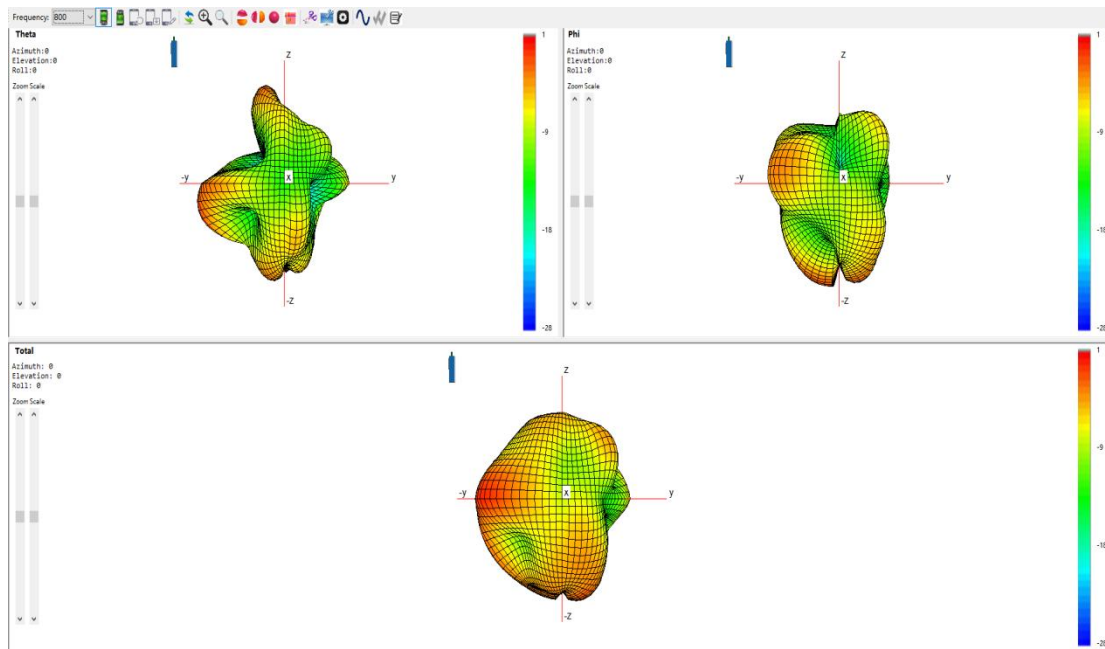
3D Radiation Pattern at 1800MHz (Mounted on non-metallic surfaces)



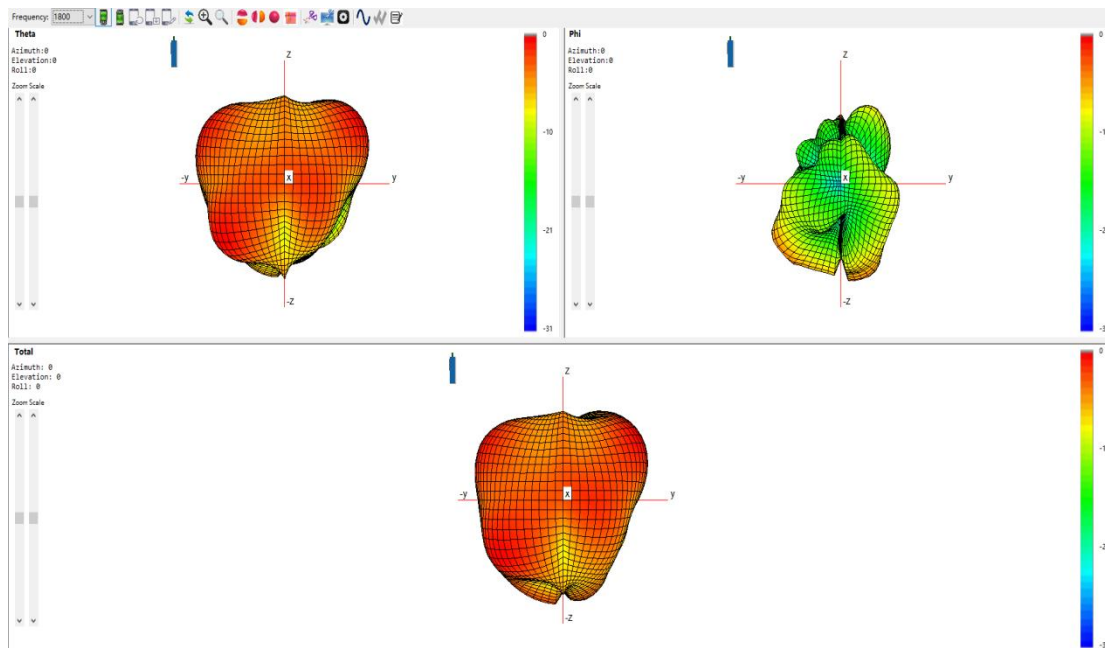
3D Radiation Pattern at 2500MHz (Mounted on non-metallic surfaces)



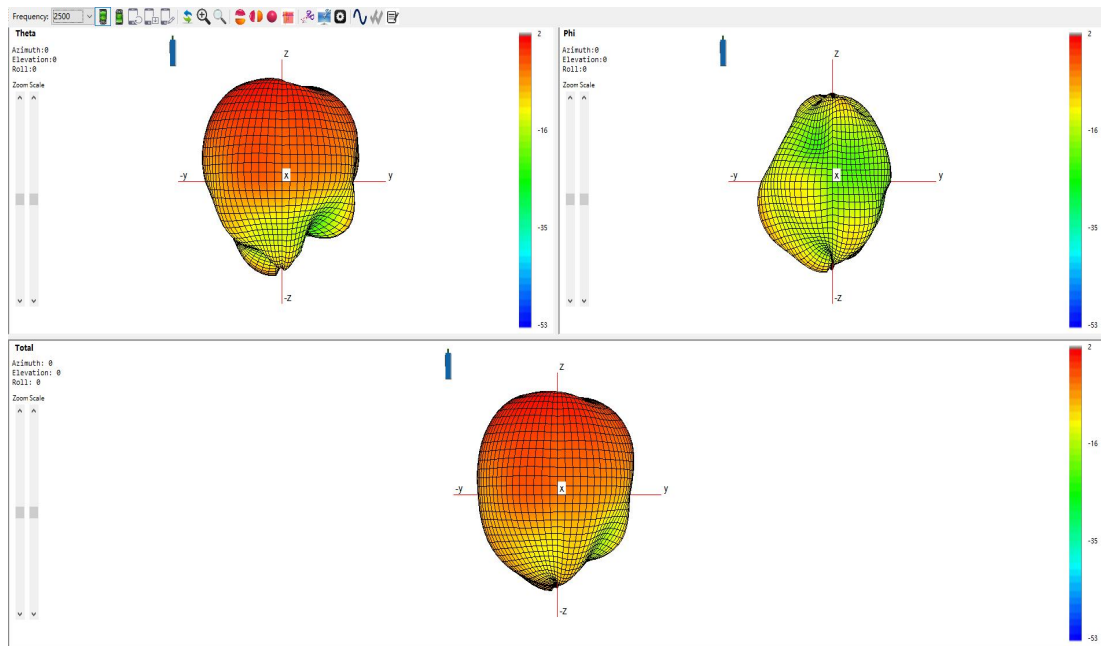
3D Radiation Pattern at 800MHz (Mounted on metallic surfaces)



2D Radiation Pattern at 1800MHz (Mounted on metallic surfaces)



2D Radiation Pattern at 2500MHz (Mounted on metallic surfaces)



HOUSING CONFIGURATIONS

