

Shenzhen Tian yu tong electronics co., ltd



SHENZHEN TYT COMMUNICATION CO.,LTD.

ULTRA S25/ULTRA S26-4G antenna

client	Bopai intelligent	Frequen cy band range	GSM:850/900/1800/1900 WCDMA:850/900/1700/1900/2100 LTE:B1/2/3/4/5/7/8/12/17/19/20/25/26/ 28/38/40/41/66 WIFI/GPS/BT
Project name	ULTRA S25 ULTRA S26	RD designer	Cen Guoping
RF designer	Li Xin	check	
approve		date	2026-0922
Customer's signature:			

Address: 2A201, Commercial Building 2, Xinma Trade City, Henggang Community, Henggang Street,
Longgang District, Shenzhen, China

Catalogue of acknowledgement

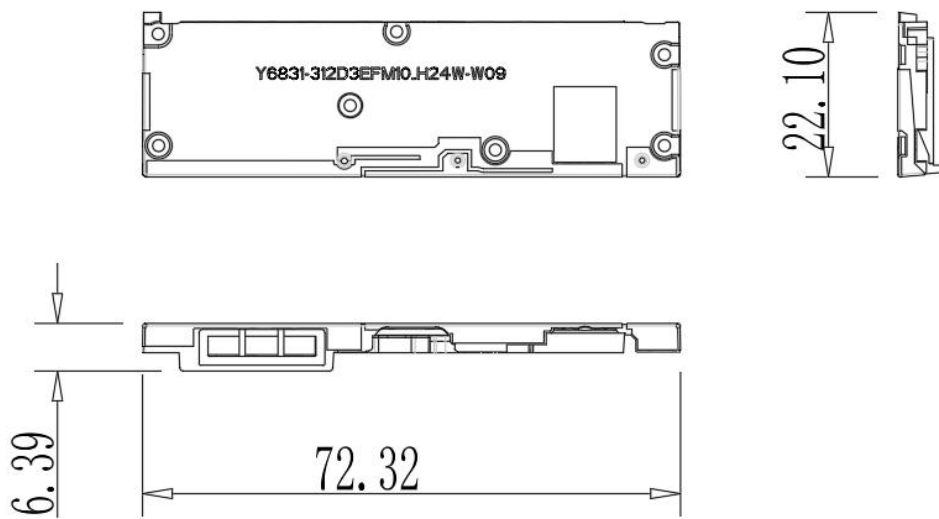
- 1, Cover information
- 2, Antenna physical picture
- 3, Bill Of Material
- 4, Antenna pattern
- 5, antenna gain
- 6, Antenna structure design drawings

2: Antenna physical picture



No.		Our material number	Part name	describe	quantity
one		TYT4941-4G-FPC-GSM-A	GSM antenna	FPC	one
2		TYT4941-4G-FPC-GWB-A	GPS/WIFI /BT antenna	FPC	one
three		TYT4941-4G-FPC-LTE-A	LTE antenna	FPC	one

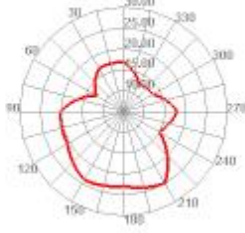
Main antenna shape



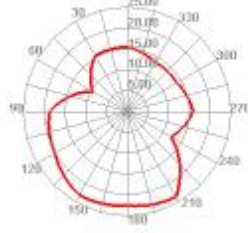
2D pattern



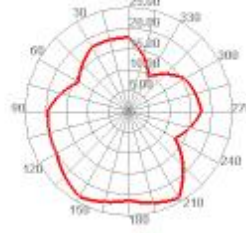
WCDMA_I 9612 TRP E2



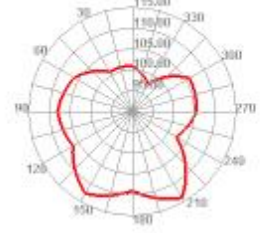
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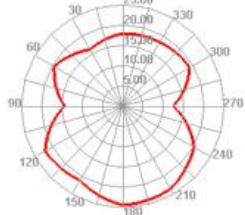
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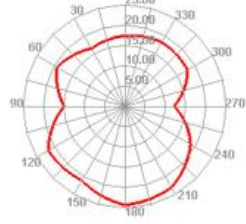
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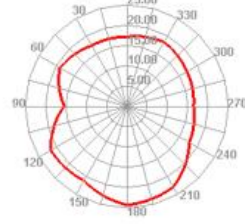
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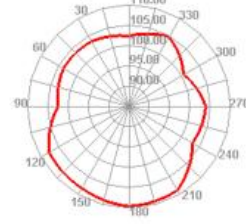
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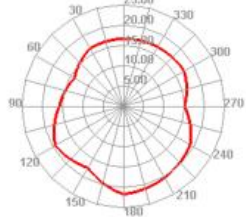
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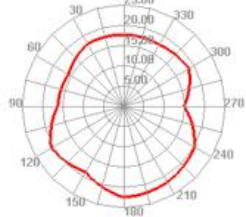
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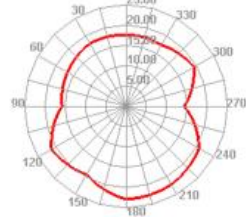
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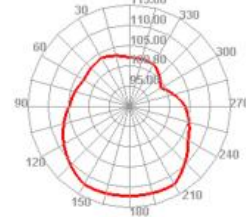
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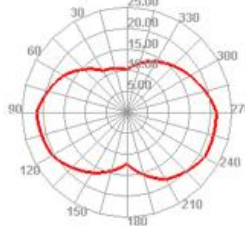
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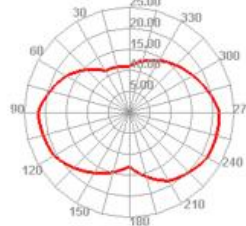
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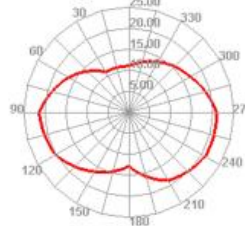
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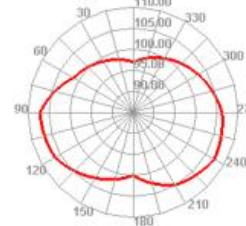
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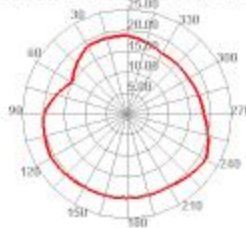
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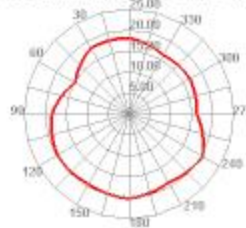
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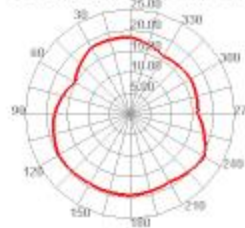
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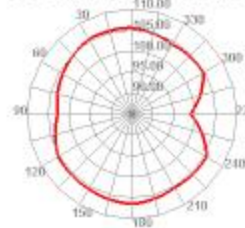
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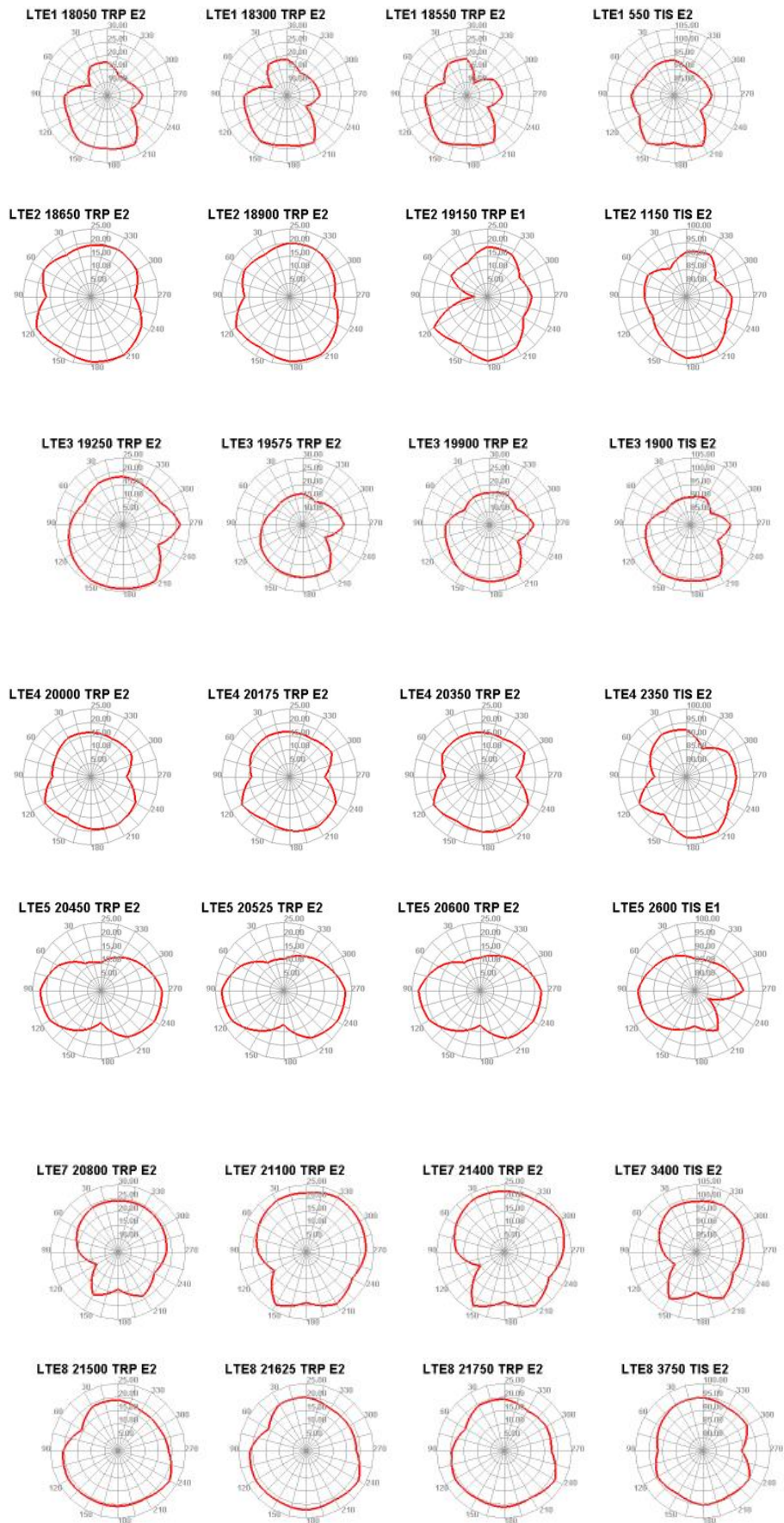


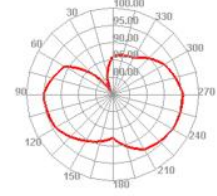
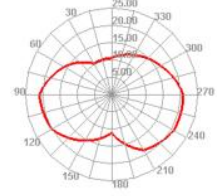
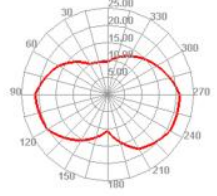
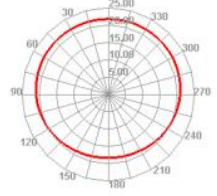
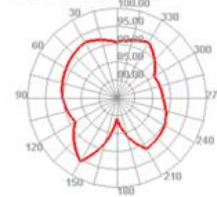
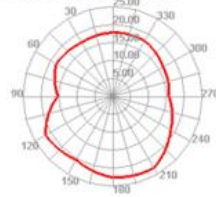
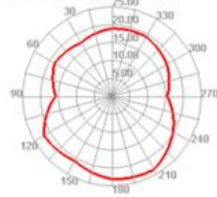
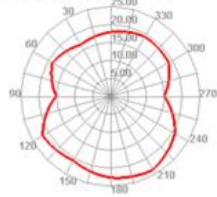
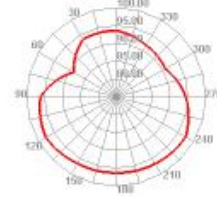
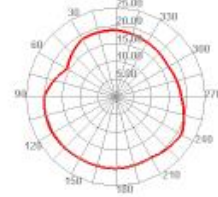
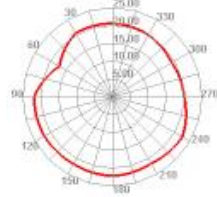
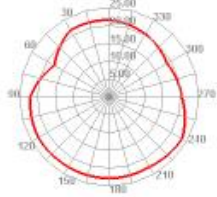
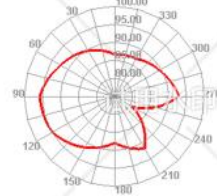
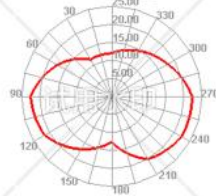
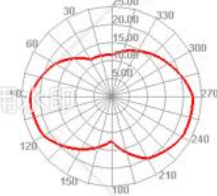
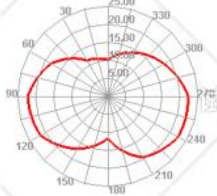
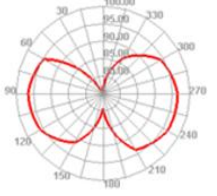
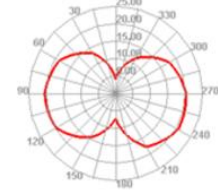
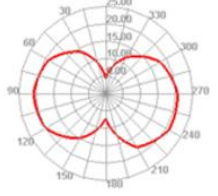
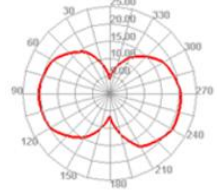
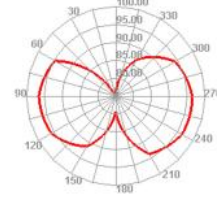
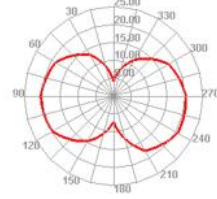
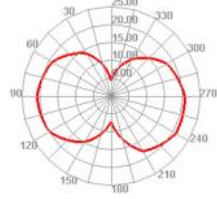
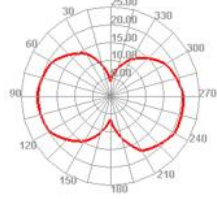
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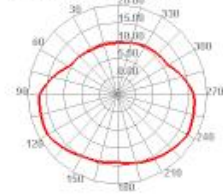
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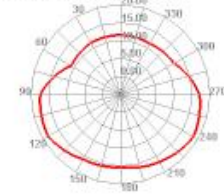




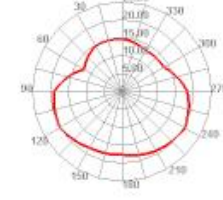
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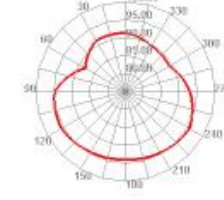
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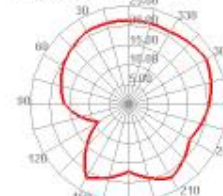
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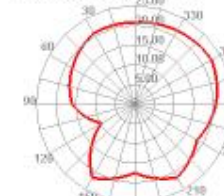
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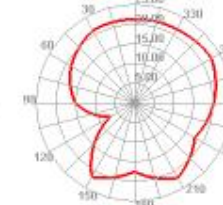
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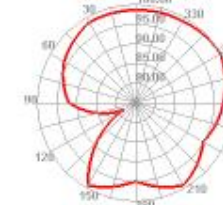
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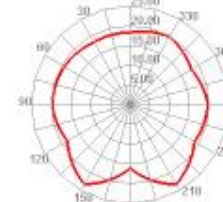
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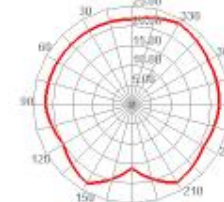
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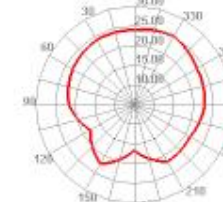
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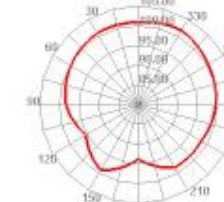
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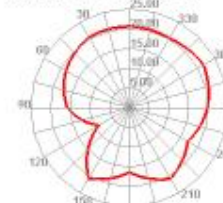
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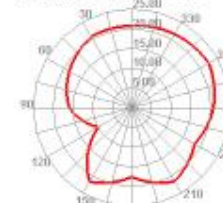
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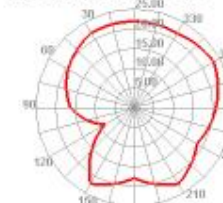
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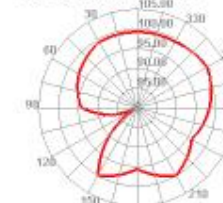
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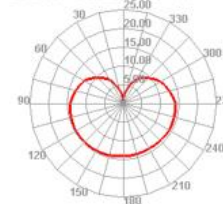
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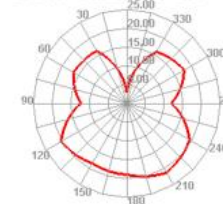
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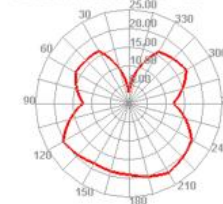
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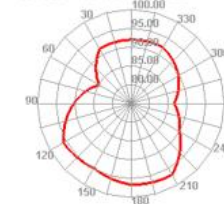
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LTE66 132822 TRP E2

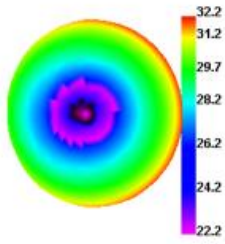


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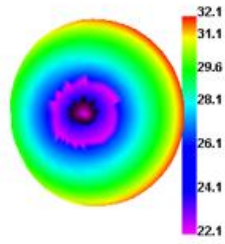


3D pattern

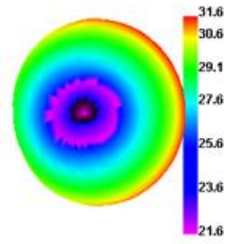
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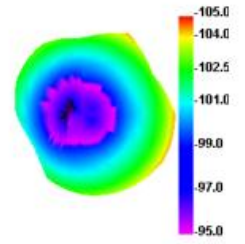
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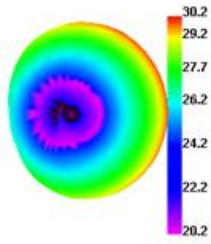
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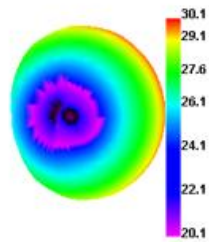
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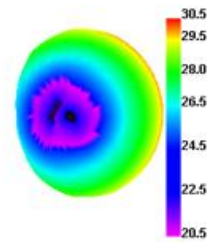
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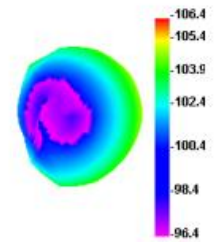
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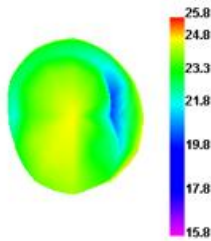
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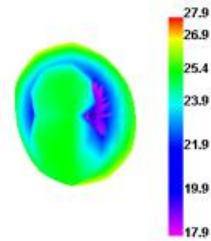
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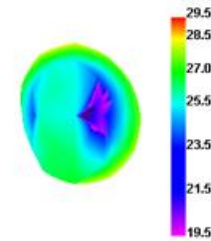
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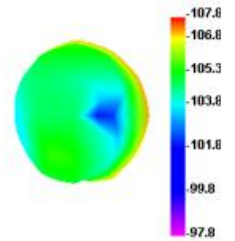
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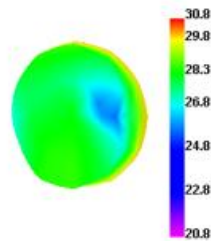
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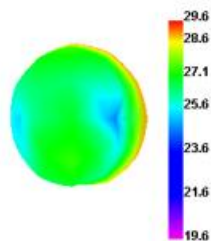
DCS 885 TIS



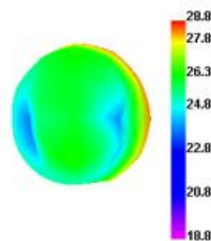
PCS 512 TRP



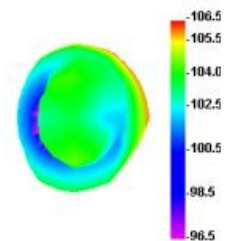
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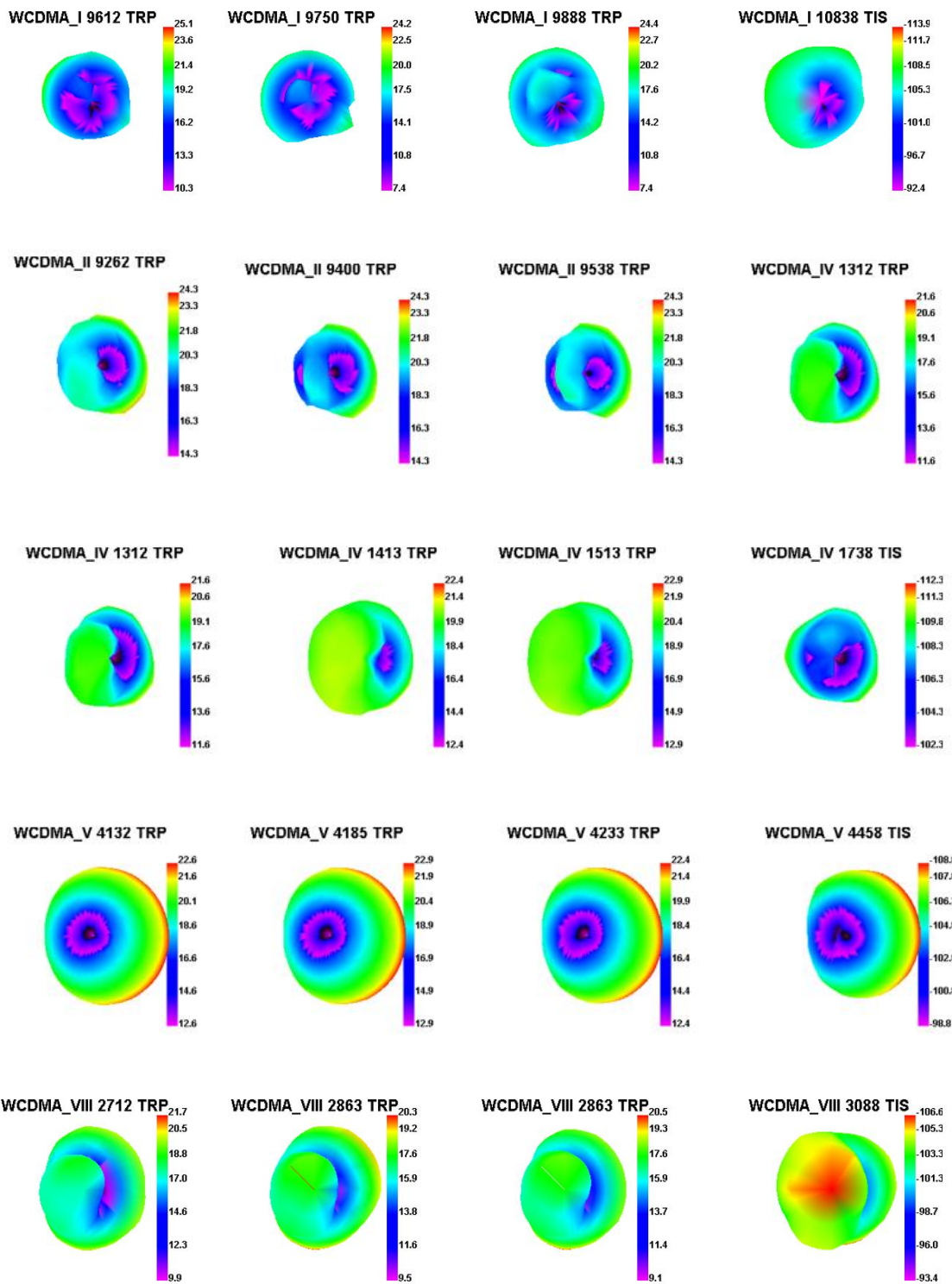


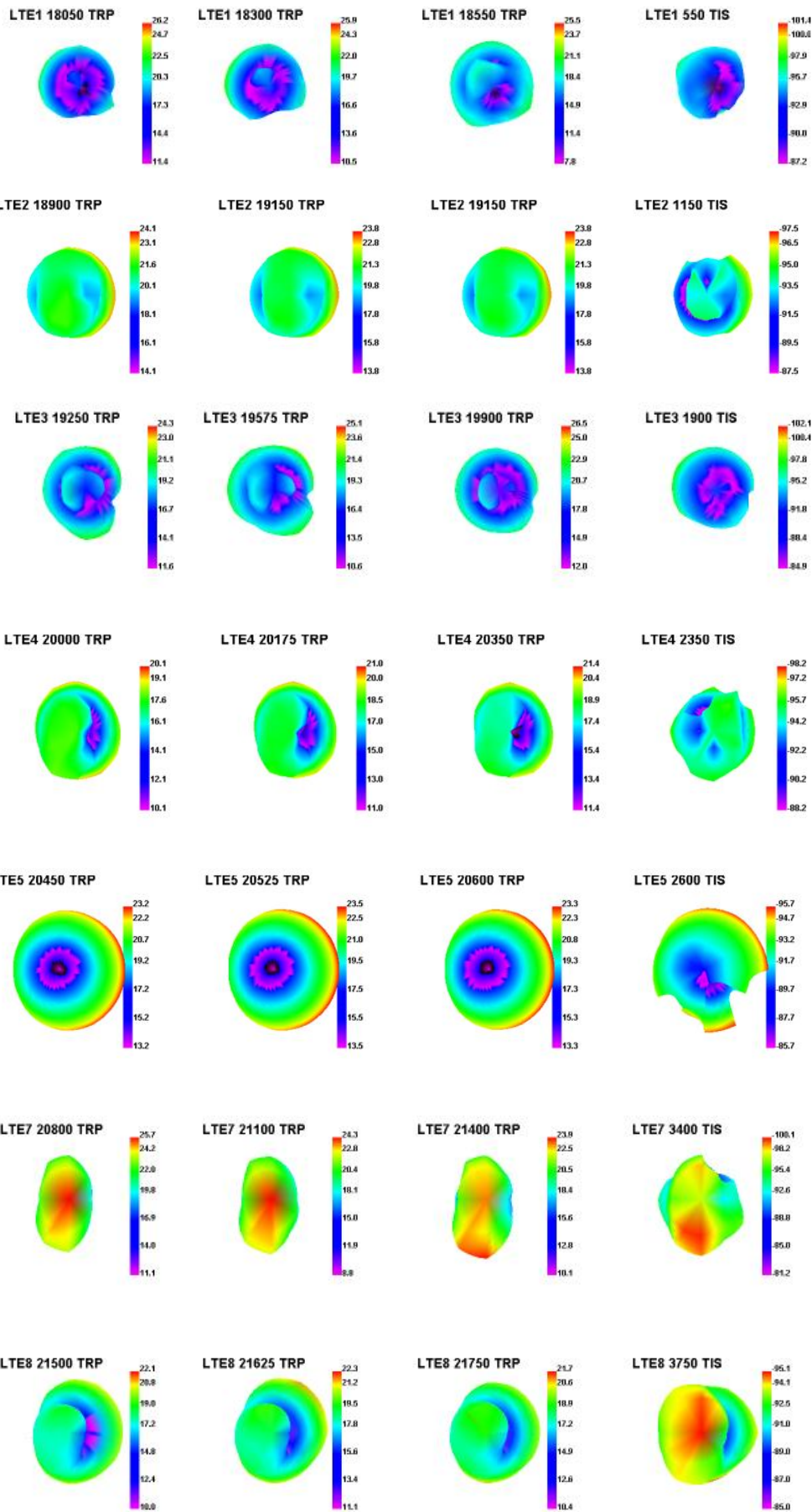
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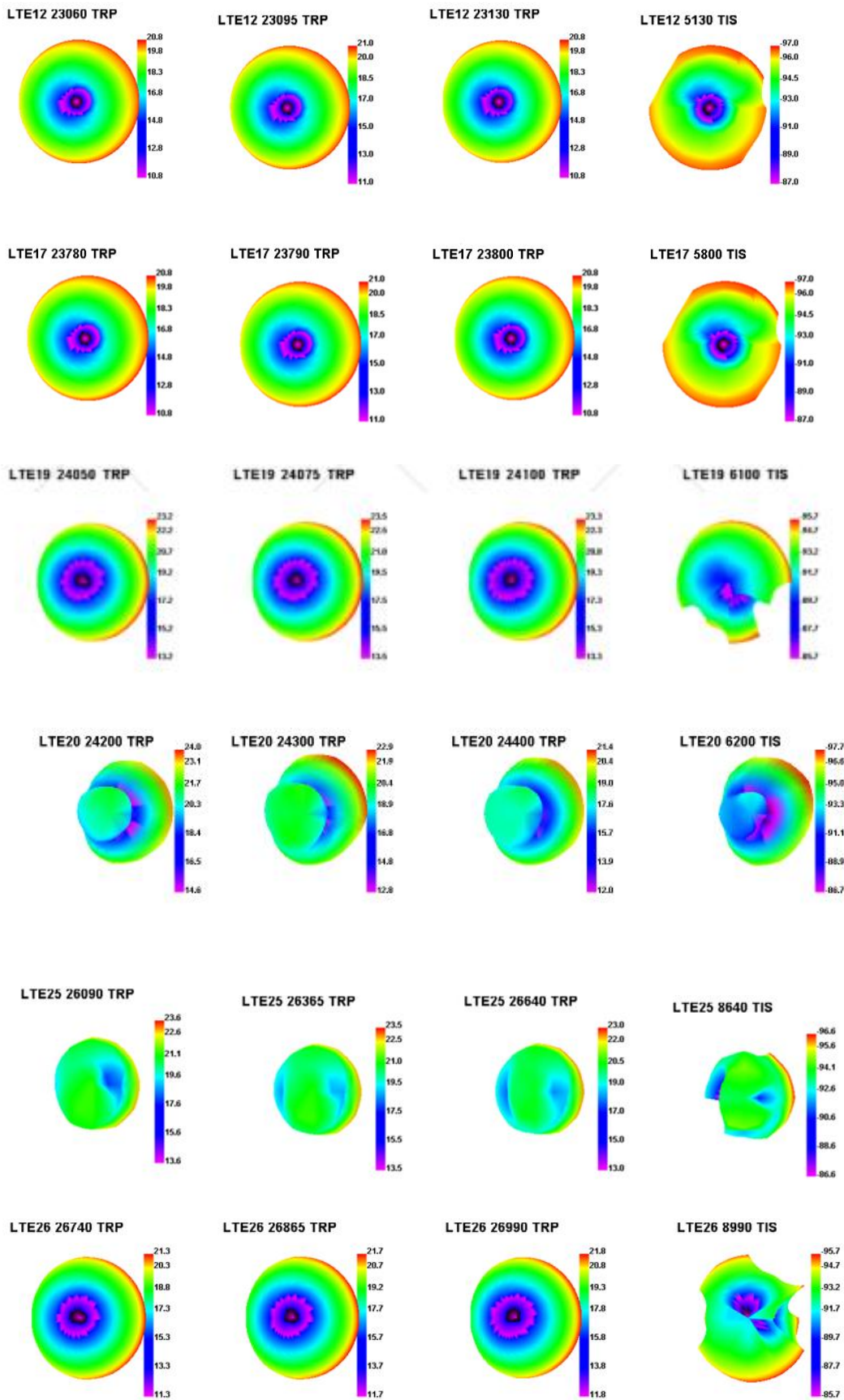


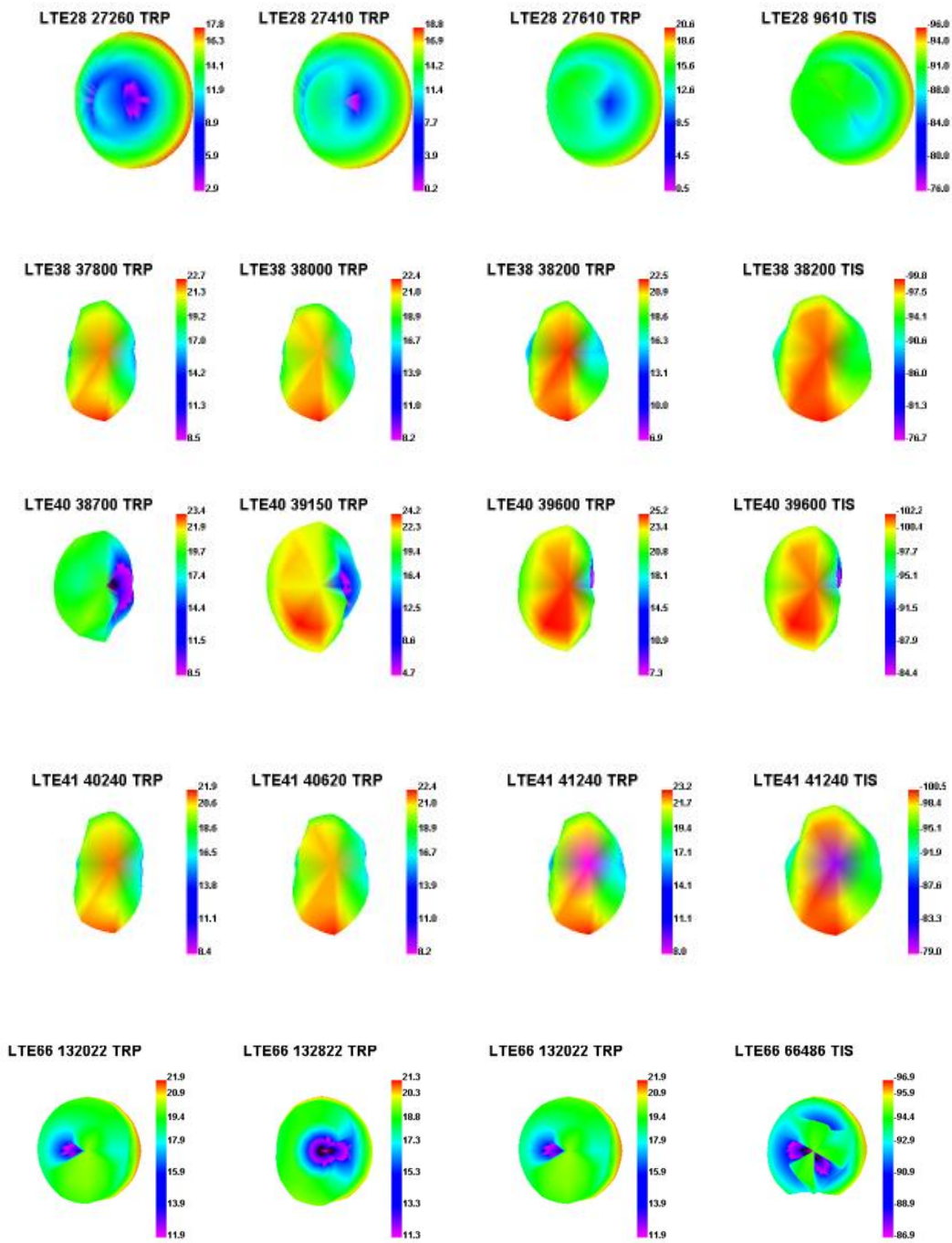
PCS 810 TIS







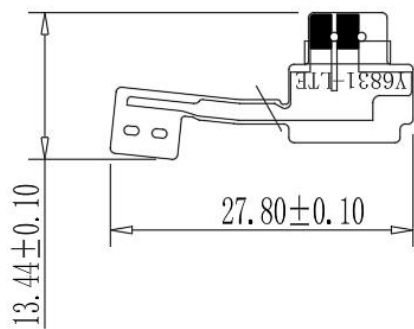




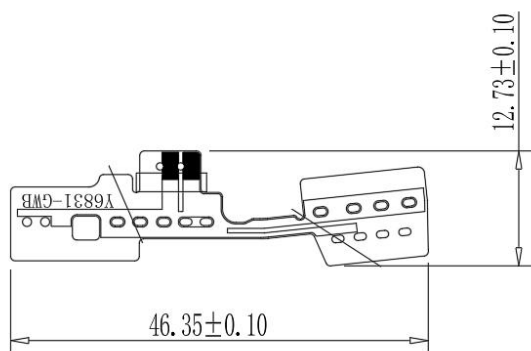
Main antenna gain

	GSM850	EGSM900	DCS1800	PCS1900	W(B1)	W(B2)	W(B4)	W(B5)	W(B8)
AVG Gain(dbi)	0.2	0.3	0.7	0.8	0.8	0.8	0.7	0.2	0.3
4G	B1	B2	B3	B4	B5	B7	B8	B12	B17
AVG Gain(dbi)	0.8	0.8	0.8	0.7	0.2	0.8	0.3	0.1	0.1
4G	B19	B20	B25	B26	B28	B38	B40	B41	B66
AVG Gain(dbi)	0.2	0.2	0.8	0.2	0.1	0.8	0.8	0.8	0.8

Divided antenna shape

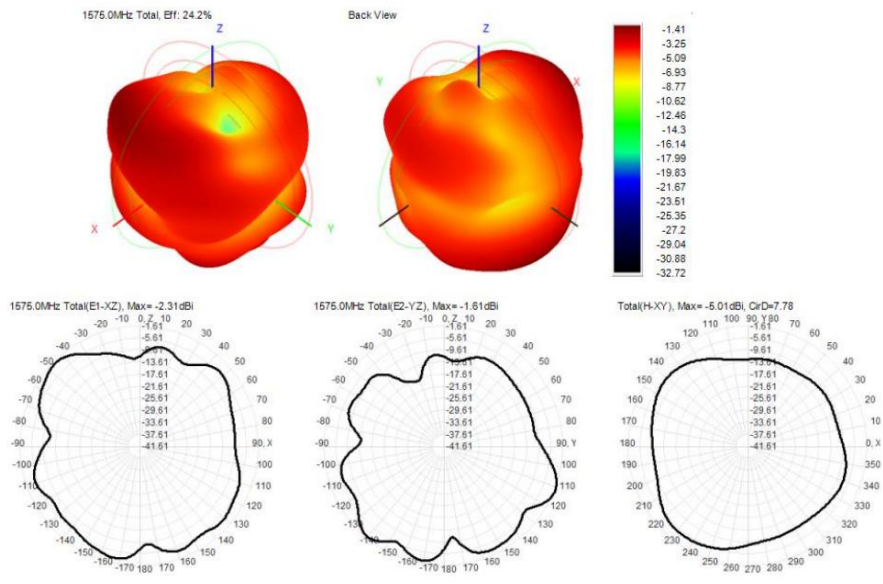


Three-in-one antenna shape

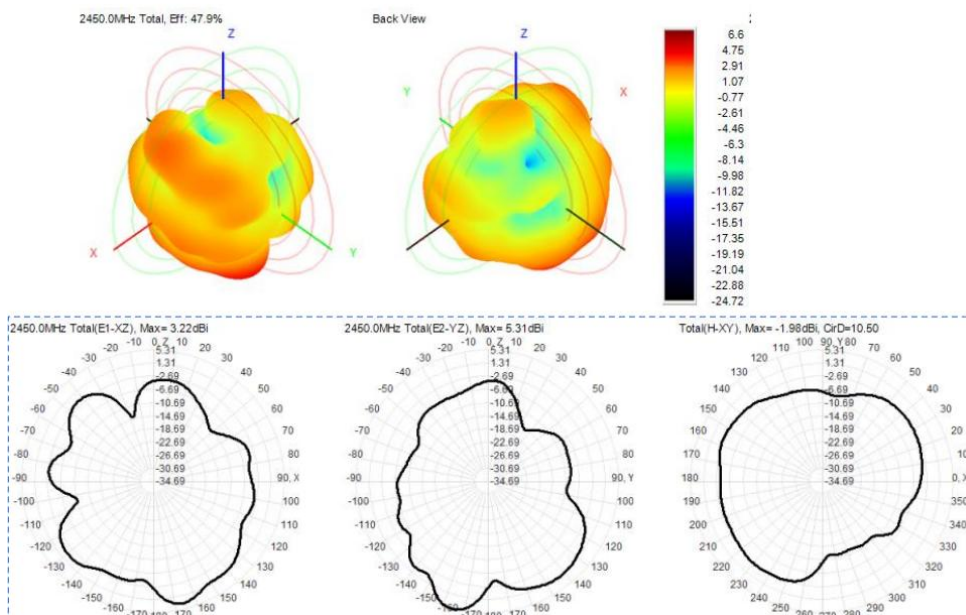


GPS and 2.4G/5G WIFI/BT antenna gain

Passive Test For GPS										
Freq	Effi	Effi	Gain	Gain	UHS	DHS	Max	Min	Attenut	Attenut
(MHz)	(%)	(dB)	(dBi)	(dBd)	(%)	(%)	(dB)	(dB)	Hor	Ver
1515.42	29.31	-5.15	0.72	-1.34	15.415	18.89	0.82	-20.85	46.71	46.5
1525.42	30.16	-5.04	0.85	-1.39	14.929	19.23	0.95	-20.06	46.71	46.55
1535.42	31.03	-4.88	0.96	-1.85	12.193	19.83	1.06	-19.99	46.72	46.55
1545.42	31.49	-4.75	1.01	-1.04	12.234	20.25	1.11	-19.47	46.84	46.76
1555.42	32.25	-4.53	1.06	-0.56	12.305	20.94	1.29	-19.36	46.91	46.98
1565.42	32.57	-4.46	1.19	-0.76	11.846	21.72	1.39	-19.47	46.99	47.16
1575.42	32.52	-4.45	1.18	-0.87	12.482	21.03	1.38	-19.49	47.16	47.37
1585.42	30.95	-4.64	1.08	-1.57	11.921	20.02	1.28	-20.32	47.29	47.52
1595.42	30.69	-4.68	0.96	-1.23	14.699	19.98	1.12	-20.39	47.48	47.73
1605.42	29.98	-4.84	0.92	-0.98	15.883	19.09	1.07	-20.58	47.61	47.9
1615.42	29.93	-4.91	0.86	-0.48	17.436	18.49	0.96	-20.77	47.66	47.92



Passive Test For WIFI2.4										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	34.31	-4.65	0.81	-1.34	15.415	18.89	0.81	-19.85	52.57	52.52
2410	35.16	-4.54	0.76	-1.39	14.929	20.234	0.76	-19.06	52.61	52.56
2420	31.03	-5.08	0.3	-1.85	12.193	18.832	0.3	-16.99	52.49	52.49
2430	33.49	-4.75	1.11	-1.04	12.234	21.258	1.11	-19.47	52.55	52.52
2440	35.25	-4.53	1.59	-0.56	12.305	22.941	1.59	-20.3	52.69	52.57
2450	33.57	-4.74	1.39	-0.76	11.846	21.727	1.39	-20.47	52.92	52.78
2460	33.52	-4.75	1.28	-0.87	12.482	21.039	1.28	-23.49	52.79	52.62
2470	29.95	-5.24	0.58	-1.57	11.921	18.024	0.58	-26.3	52.83	52.65
2480	34.69	-4.6	0.92	-1.23	14.699	19.988	0.92	-23.39	52.81	52.65
2490	35.98	-4.44	1.17	-0.98	15.883	20.098	1.17	-21.58	53	52.81
2500	38.93	-4.1	1.67	-0.48	17.436	21.492	1.67	-19.77	53.02	52.84



Passive Test For 5150-5900										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5150	29.06	-5.37	-0.78	-2.93	12.359	16.702	-0.78	-14.77	55.96	55.76
5180	26.96	-5.69	-0.93	-3.08	11.816	15.147	-0.93	-14.77	56.12	56.06
5210	24.01	-6.2	-1.61	-3.76	10.787	13.219	-1.61	-14.53	56.35	56.28
5240	21.73	-6.63	-2.15	-4.3	9.609	12.119	-2.15	-14.58	56.56	56.48
5270	22.1	-6.56	-1.99	-4.14	9.649	12.448	-1.99	-14.61	56.85	56.82
5300	28.08	-5.52	-1.14	-3.29	12.227	15.854	-1.14	-13.53	57.12	57.06
5330	31.5	-5.02	-0.65	-2.8	13.764	17.741	-0.65	-12.6	57.36	57.22
5360	38.51	-4.14	-0.37	-1.78	16.911	21.598	0.37	-11.07	57.58	57.62
5390	29.46	-5.31	-0.93	-3.08	12.94	16.518	-0.93	-11.95	57.86	57.83
5420	32.91	-4.83	-0.47	-2.62	14.438	18.476	-0.47	-11.2	58.15	58.12
5450	30.3	-5.19	-0.77	-2.92	13.324	16.979	-0.77	-11.31	58.46	58.39
5480	36.34	-4.4	-0.17	-2.32	16.005	20.335	-0.17	-10.8	58.69	58.63
5510	39.18	-4.07	-0.11	-2.04	17.163	22.016	0.11	-10.7	58.92	58.89
5540	32.03	-4.95	-0.63	-2.78	13.89	18.135	-0.63	-11.47	59.22	59.17
5570	32.59	-4.87	-0.64	-2.79	13.93	18.661	-0.64	-11.05	59.55	59.52
5600	26.88	-5.71	-1.45	-3.6	11.343	15.536	-1.45	-11.28	59.83	59.79
5630	27	-5.69	-1.12	-3.27	11.577	15.422	-1.12	-11.34	60.16	60.13
5660	30.52	-5.15	-0.72	-2.87	13.391	17.133	-0.72	-10.87	60.52	60.49
5690	35.01	-4.56	-0.21	-2.36	15.471	19.54	-0.21	-10.08	60.85	60.76
5720	35.77	-4.47	-0.08	-2.23	15.774	19.992	-0.08	-10.22	61.13	61.09
5750	36.47	-4.38	-0.15	-2.3	16.052	20.416	-0.15	-10.39	61.52	61.48
5780	40.63	-3.91	0.29	-1.86	17.799	22.835	0.29	-10.25	61.83	61.76
5810	36.96	-4.32	0.01	-2.14	16.099	20.857	0.01	-11.07	62.12	62.08
5840	36.19	-4.41	-0.15	-2.3	15.405	20.783	-0.15	-11.47	62.39	62.36
5870	30.85	-5.11	-0.9	-3.05	12.727	18.127	-0.9	-12.5	62.76	62.69
5900	35.63	-4.48	-0.18	-2.33	14.887	20.746	-0.18	-11.63	63.06	63.02

