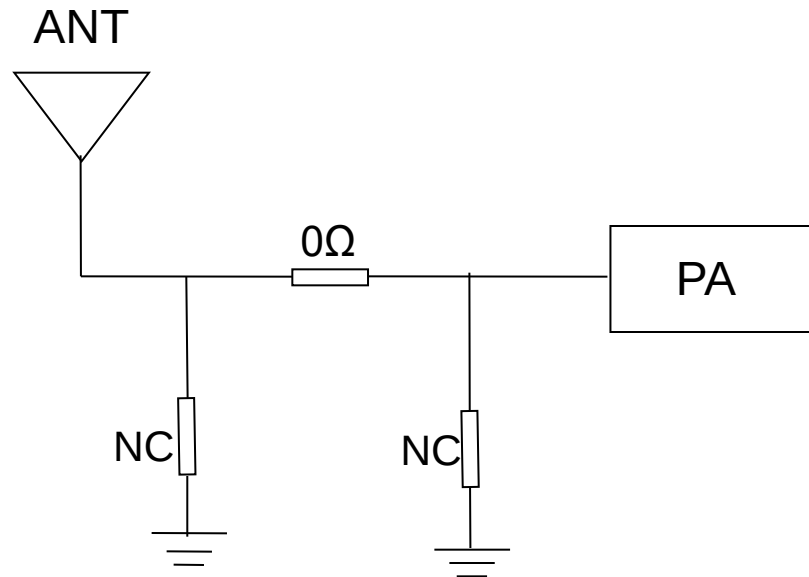




Matching circuit GSM antenna





Test data

Antenna state							
	GSM900				DCS1800		
Channel	1	62	124		512	698	885
TRP	26.47	26.76	26.55		23.23	22.98	22.65
TIS			-102.36				-103.52
Antenna state							
	GSM850				PCS1900		
Channel	128	190	251		512	661	810
TRP	25.6	25.11	25.54		23.87	25.8	25.23
TIS			-102.35				-104.83



Test data

Antenna state							
	W900				W2100		
Channel	2937	3013	3088		10562	10700	10838
TRP	16.75	16.35	16.24		18.36	18.58	18.04
TIS			-104.21				-106.18
Antenna state							
	W850				W1900		
Channel	4357	4400	4458		9662	9938	9800
TRP	15.93	16.34	16.21		17.9	18.71	17.84
TIS			-101.57				-105.37



Test data

Antenna state							
	B1				B3		
Channel	18050	18300	18550		19300	19575	19850
TRP	18.72	18.62	18.94		16.71	16.58	16.64
TIS			−93.65				−92.89
	B5				B8		
Channel	20800	21100	21400		21500	21625	21750
TRP	15.33	16.35	16.2		16.24	16.29	16.32
TIS			−89.97				−85



Test data

Antenna state			
	B2		
Channel	18650	18900	19150
TRP	18.88	18.35	18.47
TIS			-93.99



Test data

Antenna state							
	B12				B17		
Channel	23060	23095	23130		23780	23790	23800
TRP	14. 23	14. 32	14. 28		14. 31	14. 52	14. 37
TIS			−86. 23				−86. 23
	B66				B71		
Channel	132022	132322	132622		133172	133297	133422
TRP	15. 52	15. 47	15. 46		14. 2	14. 52	14. 64
TIS			−87. 32				−87. 35



Test data

Antenna state				壳体状态	调试样机		
	B38				B39		
Channel	37850	38000	38150		38350	38450	38550
TRP	15.29	15.15	15.02		19.42	19.25	19.4
TIS			-89.06				-91.27
	B40				B41		
Channel	38750	39150	39550		40340	40740	41140
TRP	19.53	19.25	19.39		16.62	16.32	16.07
TIS			-91.46				-89.2

**FEITUKEJI**

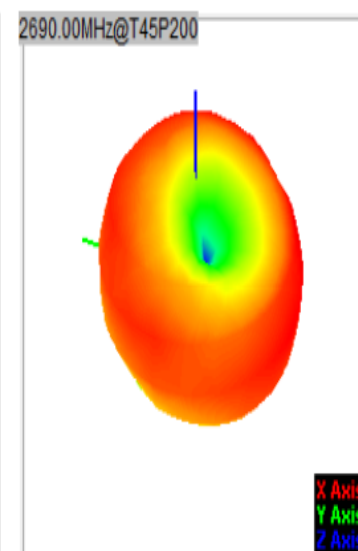
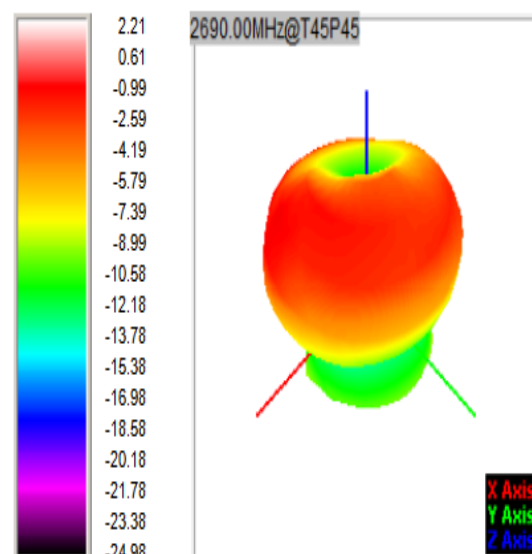
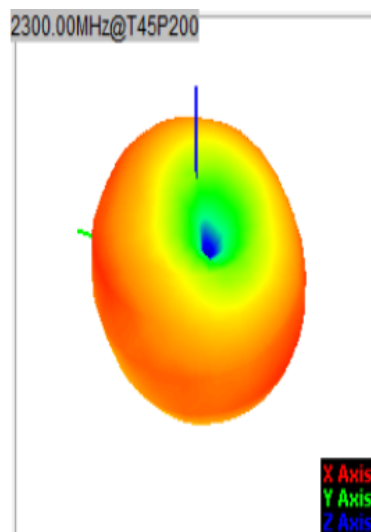
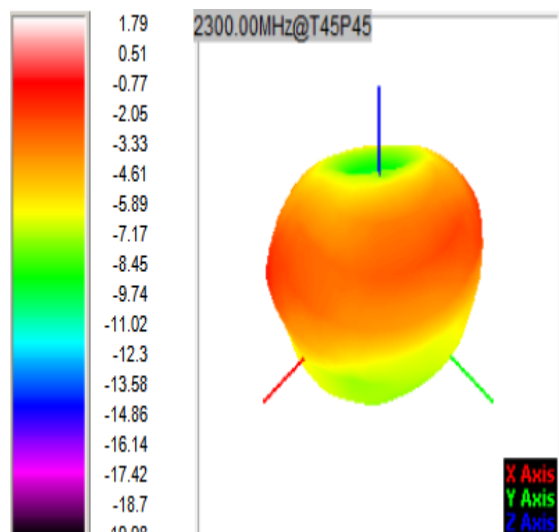
Shenzhen Qianmu Communication Technology Co.,Ltd.



Main antenna

FEITUKEJI

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2300.0	2339.0	2378.0	2417.0	2456.0	2495.0	2534.0	2573.0	2612.0	2651.0	2690.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-2.27	-1.98	-1.64	-1.97	-1.69	-1.57	-1.86	-1.85	-2.40	-2.43	-2.52
Peak EIRP (dBm)	1.79	2.12	2.98	2.19	2.57	3.06	2.16	2.77	2.45	2.52	2.21
Directivity (dBi)	4.07	4.10	4.62	4.16	4.26	4.63	4.02	4.63	4.85	4.95	4.73
Efficiency (dB)	-2.27	-1.98	-1.64	-1.97	-1.69	-1.57	-1.86	-1.85	-2.40	-2.43	-2.52
Efficiency (%)	59.20	63.40	68.50	63.50	67.70	69.60	65.20	65.30	57.60	57.10	55.90
Gain (dBi)	1.79	2.12	2.98	2.19	2.57	3.06	2.16	2.77	2.45	2.52	2.21
NHPRP $\pm \pi/4$ (dBm)	-3.12	-2.81	-2.48	-2.90	-2.67	-2.64	-3.15	-3.36	-3.77	-3.74	-3.82
NHPRP $\pm \pi/6$ (dBm)	-4.34	-4.01	-3.67	-4.18	-4.01	-4.00	-4.68	-5.02	-5.40	-5.40	-5.53
NHPRP $\pm \pi/8$ (dBm)	-5.31	-4.98	-4.62	-5.20	-5.08	-5.03	-5.85	-6.32	-6.70	-6.72	-6.90
Upper Hem. PRP (dBm)	-3.95	-3.57	-3.17	-3.37	-2.95	-2.76	-2.87	-2.81	-3.42	-3.38	-3.41
Lower Hem. PRP (dBm)	-7.21	-7.13	-6.92	-7.57	-7.71	-7.79	-8.69	-8.89	-9.19	-9.53	-9.88
Upper Hem. PRP (%)	40.25	43.97	48.18	45.98	50.74	52.96	51.68	52.36	45.55	45.95	45.65
Lower Hem. PRP (%)	18.99	19.39	20.34	17.50	16.96	16.63	13.51	12.91	12.04	11.15	10.27

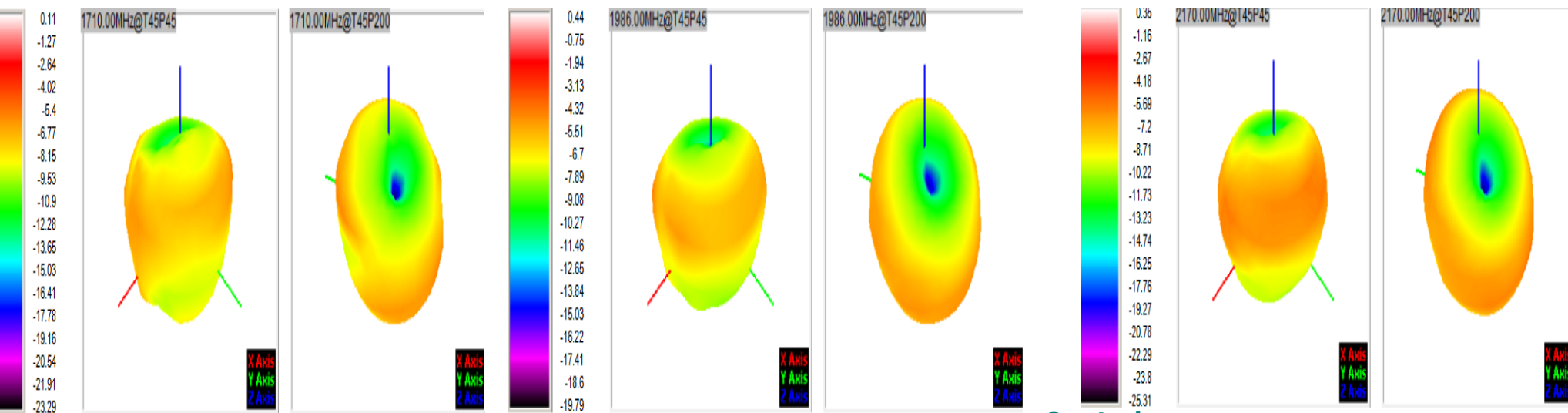




Main antenna

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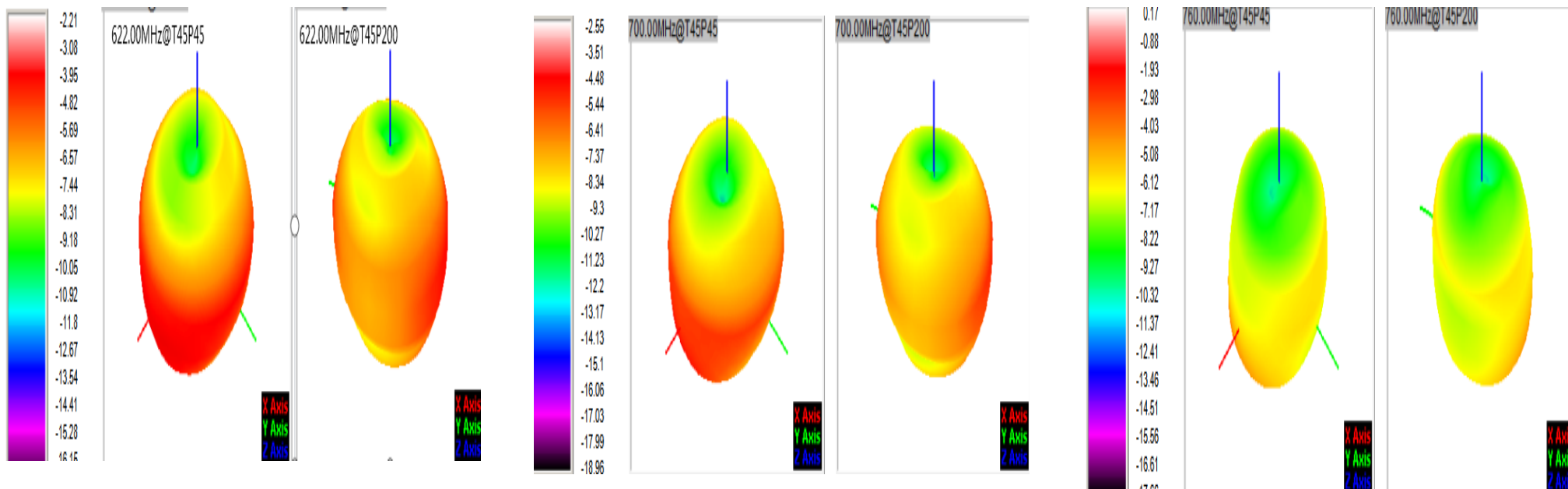
FETUKEJI											
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	1710.0	1756.0	1802.0	1848.0	1894.0	1940.0	1986.0	2032.0	2078.0	2124.0	2170.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-3.04	-2.95	-3.24	-3.66	-3.30	-3.15	-3.45	-3.64	-3.46	-3.07	-3.12
Peak EIRP (dBm)	0.11	0.18	0.85	-0.38	0.71	0.65	0.44	-0.03	0.35	1.00	0.35
Directivity (dBi)	3.15	3.12	4.09	3.28	4.02	3.80	3.89	3.61	3.81	4.07	3.46
Efficiency (dB)	-3.04	-2.95	-3.24	-3.66	-3.30	-3.15	-3.45	-3.64	-3.46	-3.07	-3.12
Efficiency (%)	49.70	50.70	47.40	43.10	46.70	48.40	45.20	43.30	45.10	49.40	48.80
Gain (dBi)	0.11	0.18	0.85	-0.38	0.71	0.65	0.44	-0.03	0.35	1.00	0.35
NHPRP $\pm\pi/4$ (dBm)	-4.05	-3.79	-4.04	-4.46	-4.12	-3.88	-4.13	-4.29	-4.13	-3.77	-3.84
NHPRP $\pm\pi/6$ (dBm)	-5.33	-4.99	-5.21	-5.65	-5.32	-5.01	-5.27	-5.46	-5.25	-4.89	-5.03
NHPRP $\pm\pi/8$ (dBm)	-6.39	-5.98	-6.12	-6.54	-6.27	-5.93	-6.23	-6.46	-6.20	-5.78	-5.99
Upper Hem. PRP (dBm)	-5.72	-5.62	-5.77	-6.12	-5.75	-5.47	-5.79	-5.97	-5.69	-5.19	-5.01
Lower Hem. PRP (dBm)	-6.40	-6.32	-6.80	-7.29	-6.96	-6.99	-7.25	-7.46	-7.42	-7.20	-7.63
Upper Hem. PRP (%)	26.78	27.42	26.51	24.42	26.59	28.39	26.36	25.29	26.98	30.29	31.54
Lower Hem. PRP (%)	22.89	23.33	20.91	18.65	20.13	20.02	18.82	17.96	18.11	19.06	17.25

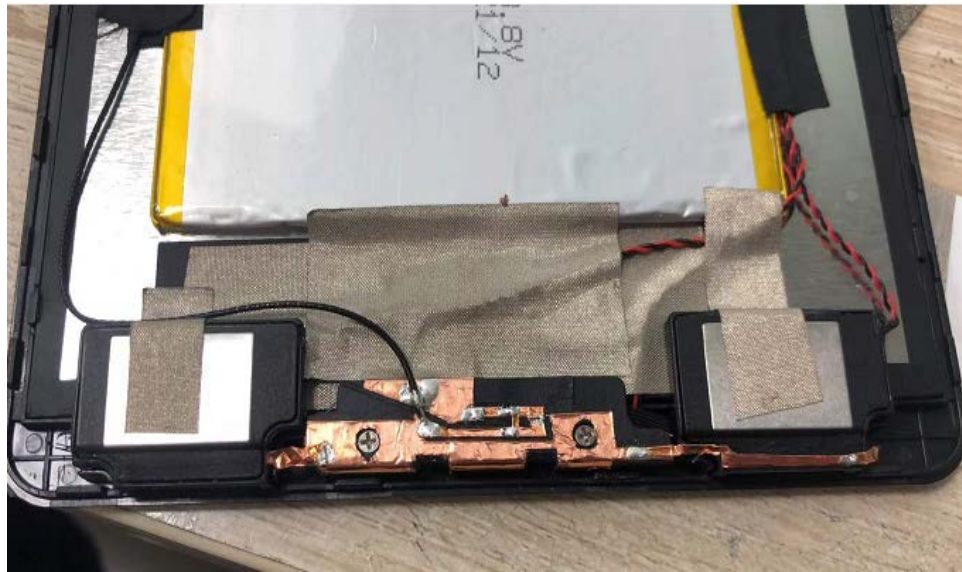


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**FEITUKEJI**

Frequency ID	1	2	3	4	5	6	7
Frequency (MHz)	622.0	680.0	693.0	700.0	720.0	740.0	760.0
Point Values							
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-3.40	-3.30	-4.62	-6.24	-5.60	-4.62	-3.83
Peak EIRP (dBm)	1.03	1.04	0.95	0.46	-2.21	-1.26	0.17
Directivity (dBi)	3.51	3.47	3.21	2.66	3.40	3.35	4.00
Efficiency (dB)	-2.48	-2.43	-2.27	-2.20	-5.60	-4.62	-3.83
Efficiency (%)	25.40	25.10	26.40	26.20	27.50	30.50	41.40
Gain (dBi)	1.03	1.04	0.95	0.46	-2.21	-1.26	0.17
NHPRP $\pm \pi/4$ (dBm)	-3.12	-3.04	-2.89	-2.84	-6.27	-5.26	-4.42
NHPRP $\pm \pi/6$ (dBm)	-4.25	-4.20	-4.06	-3.94	-7.35	-6.38	-5.54
NHPRP $\pm \pi/8$ (dBm)	-5.21	-5.20	-5.07	-4.86	-8.25	-7.38	-6.55
Upper Hem. PRP (dBm)	-6.15	-6.22	-5.93	-5.63	-8.59	-7.77	-7.34
Lower Hem. PRP (dBm)	-4.93	-4.79	-4.70	-4.83	-8.64	-7.49	-6.39
Upper Hem. PRP (%)	14.29	13.88	13.51	12.06	13.84	16.71	18.43
Lower Hem. PRP (%)	12.42	12.48	13.53	11.72	13.68	17.83	22.97





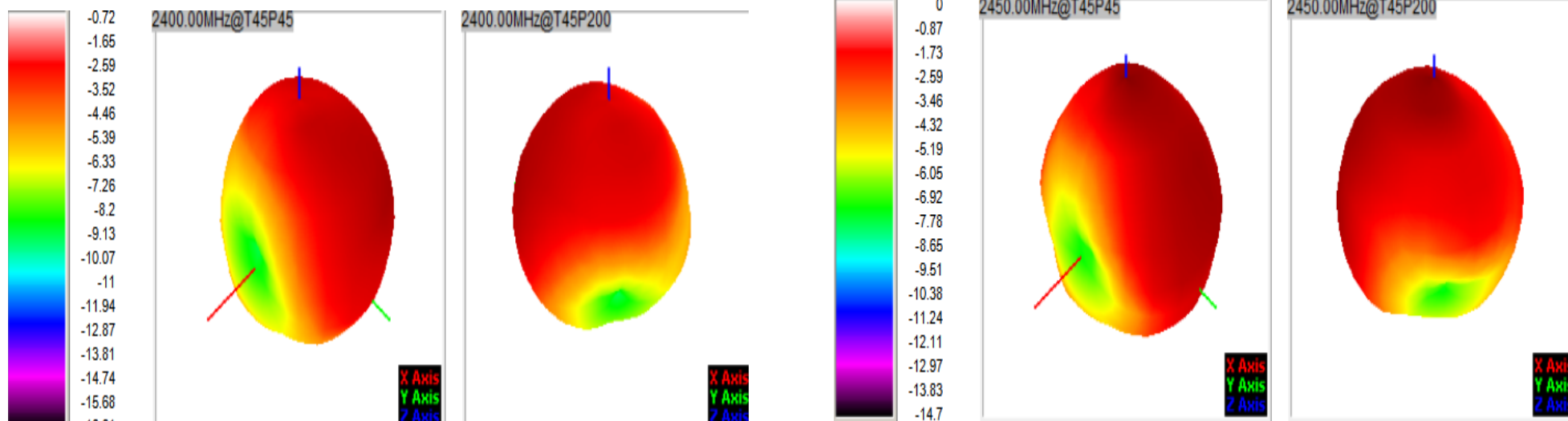
Main antenna



Three-in-one antenna

**FETUKEJI**

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Point Values											
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-4.97	-4.85	-4.67	-4.38	-4.28	-4.05	-4.27	-4.71	-4.90	-5.00	-5.14
Peak EIRP (dBm)	-0.72	-0.59	-0.50	-0.35	-0.51	0.00	0.09	-0.28	-0.64	-0.81	-0.82
Directivity (dBi)	4.25	4.27	4.18	4.03	3.78	4.05	4.37	4.43	4.26	4.19	4.32
Efficiency (dB)	-4.97	-4.85	-4.67	-4.38	-4.28	-4.05	-4.27	-4.71	-4.90	-5.00	-5.14
Efficiency (%)	31.90	32.70	34.10	36.50	37.30	39.30	37.40	33.80	32.40	31.60	30.60
Gain (dBi)	-0.72	-0.59	-0.50	-0.35	-0.51	0.00	0.09	-0.28	-0.64	-0.81	-0.82
NHPRP $\pm\pi/4$ (dBm)	-6.86	-6.72	-6.52	-6.23	-6.15	-5.94	-6.18	-6.61	-6.78	-6.86	-6.99
NHPRP $\pm\pi/6$ (dBm)	-8.55	-8.38	-8.16	-7.84	-7.76	-7.57	-7.82	-8.26	-8.44	-8.50	-8.63
NHPRP $\pm\pi/8$ (dBm)	-9.80	-9.63	-9.40	-9.06	-8.97	-8.77	-9.02	-9.47	-9.65	-9.71	-9.81
Upper Hem. PRP (dBm)	-6.85	-6.75	-6.59	-6.34	-6.30	-6.14	-6.43	-6.94	-7.19	-7.36	-7.57
Lower Hem. PRP (dBm)	-9.51	-9.37	-9.14	-8.78	-8.59	-8.24	-8.34	-8.68	-8.78	-8.77	-8.83
Upper Hem. PRP (%)	20.67	21.14	21.92	23.24	23.45	24.35	22.74	20.24	19.09	18.35	17.49
Lower Hem. PRP (%)	11.18	11.55	12.19	13.25	13.84	15.00	14.64	13.56	13.26	13.29	13.10

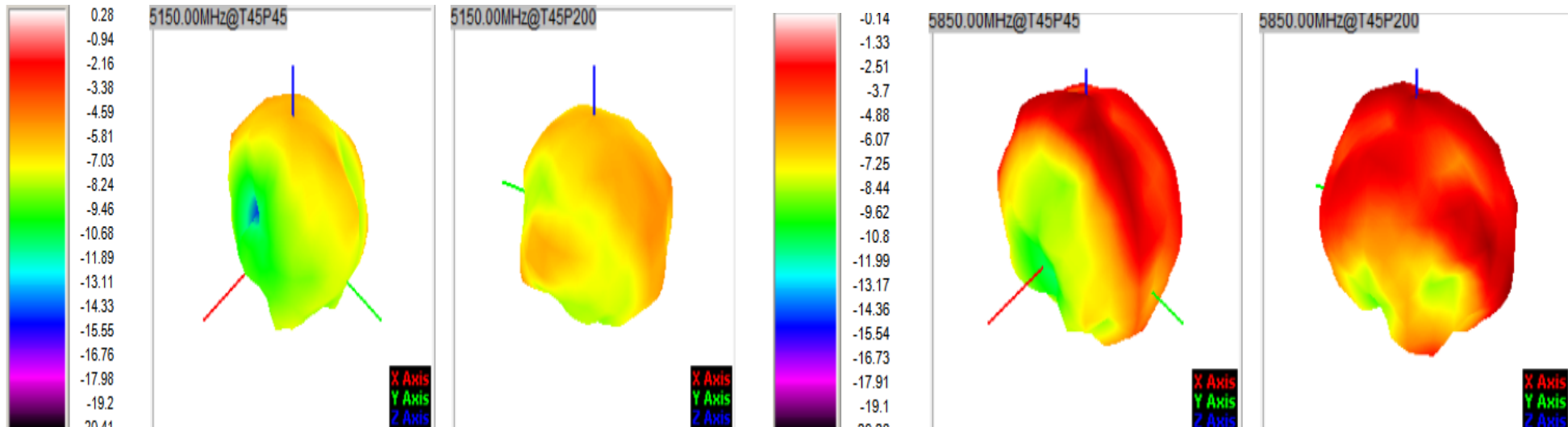




Three-in-one antenna

FETUKEJI

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
Point Values															
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-4.22	-4.00	-3.96	-3.72	-3.56	-3.32	-3.69	-4.34	-4.77	-4.36	-4.82	-5.48	-5.49	-5.53	-5.54
Peak EIRP (dBm)	0.28	0.46	0.68	1.16	1.61	1.89	1.47	0.81	0.54	0.64	0.25	-0.46	-0.38	-0.45	-0.14
Directivity (dBi)	4.50	4.45	4.64	4.88	5.17	5.21	5.16	5.15	5.31	5.01	5.07	5.02	5.11	5.08	5.39
Efficiency (dB)	-4.22	-4.00	-3.96	-3.72	-3.56	-3.32	-3.69	-4.34	-4.77	-4.36	-4.82	-5.48	-5.49	-5.53	-5.54
Efficiency (%)	37.80	39.80	40.10	42.50	44.10	46.60	42.70	36.80	33.30	36.60	33.00	28.30	28.20	28.00	28.00
Gain (dBi)	0.28	0.46	0.68	1.16	1.61	1.89	1.47	0.81	0.54	0.64	0.25	-0.46	-0.38	-0.45	-0.14
NHPRP $\pm\pi/4$ (dBm)	-5.67	-5.49	-5.47	-5.08	-4.98	-4.84	-5.14	-5.80	-6.25	-5.77	-6.34	-7.08	-7.05	-7.12	-7.08
NHPRP $\pm\pi/6$ (dBm)	-7.08	-6.93	-6.93	-6.50	-6.45	-6.36	-6.56	-7.29	-7.78	-7.26	-7.87	-8.58	-8.52	-8.64	-8.60
NHPRP $\pm\pi/8$ (dBm)	-8.19	-8.06	-8.09	-7.61	-7.62	-7.57	-7.69	-8.50	-9.02	-8.47	-9.14	-9.79	-9.68	-9.83	-9.80
Upper Hem. PRP (dBm)	-6.23	-5.88	-5.84	-5.71	-5.41	-5.14	-5.65	-6.20	-6.61	-6.30	-6.61	-7.27	-7.37	-7.37	-7.49
Lower Hem. PRP (dBm)	-8.54	-8.54	-8.52	-8.05	-8.15	-7.97	-8.10	-8.92	-9.38	-8.80	-9.53	-10.18	-10.03	-10.16	-9.95
Upper Hem. PRP (%)	23.82	25.85	26.08	26.84	28.75	30.62	27.23	23.97	21.82	23.44	21.84	18.73	18.32	18.34	17.84
Lower Hem. PRP (%)	14.01	13.99	14.06	15.65	15.31	15.98	15.48	12.82	11.52	13.17	11.13	9.59	9.93	9.63	10.11





FEITUKEJI

Frequency ID	1	2	3	4	5	6
Frequency (MHz)	1550.0	1556.0	1562.0	1568.0	1574.0	1580.0
Point Values						
Ant. Port Input Pwr. (dBm)	0.00	0.00	0.00	0.00	0.00	0.00
Tot. Rad. Pwr. (dBm)	-6.36	-6.36	-6.37	-6.27	-6.21	-6.10
Peak EIRP (dBm)	-1.84	-1.72	-1.61	-1.54	-1.54	-1.46
Directivity (dBi)	4.51	4.65	4.76	4.73	4.67	4.64
Efficiency (dB)	-6.36	-6.36	-6.37	-6.27	-6.21	-6.10
Efficiency (%)	23.10	23.10	23.10	23.60	23.90	24.50
Gain (dBi)	-1.84	-1.72	-1.61	-1.54	-1.54	-1.46
NHPRP $\pm \pi/4$ (dBm)	-7.14	-7.13	-7.12	-7.01	-6.95	-6.82
NHPRP $\pm \pi/6$ (dBm)	-8.48	-8.46	-8.45	-8.33	-8.26	-8.11
NHPRP $\pm \pi/8$ (dBm)	-9.59	-9.58	-9.55	-9.42	-9.34	-9.17
Upper Hem. PRP (dBm)	-10.36	-10.32	-10.36	-10.19	-10.09	-9.95
Lower Hem. PRP (dBm)	-8.56	-8.59	-8.58	-8.53	-8.50	-8.41
Upper Hem. PRP (%)	9.21	9.28	9.21	9.57	9.79	10.12
Lower Hem. PRP (%)	13.93	13.82	13.85	14.03	14.13	14.43

