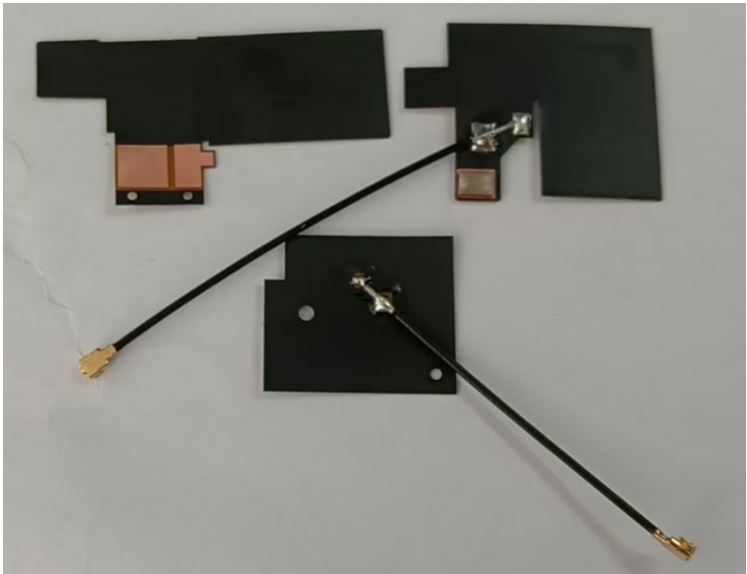


VLG TECHNOLOGY

Shenzhen VLG Wireless Technology Co,Ltd.

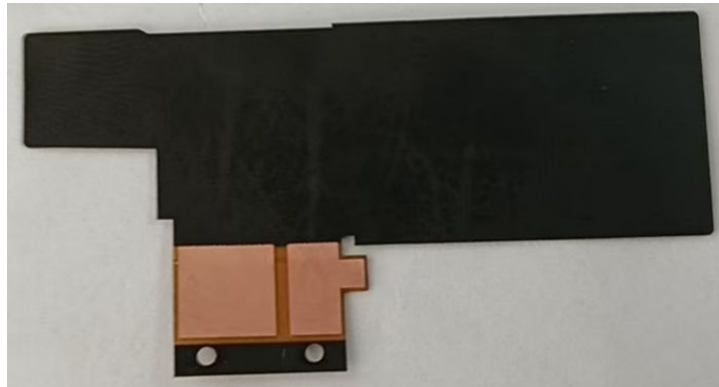
Antenna acknowledgement

Project name	4G_main FPC/4G_div FPC/WIFI_FPC/			Frequency	GSM900/DCS1800W CDMA BAND 1/5/8, LTE FDD BAND B1/3/5/7/8/20 LTE TDD BAND B40 2.4G/5G WIFI		
VLG Material Number	V1497-066-A-01/V1497-066-A-02/V1497-066-A-03			Version	A		
Radio	Xu Pengfei	Confirmation		Quality	Shao Xiaodong	Confirmation	
Structure	Lu Pengdong			PM	Lily Huang		
Date	2025.04.16						
Customer project name and part number	Customer Project Name: MT5550						
	Customer Item Number:						
Customer confirmation							
VLG Wireless Technology							
Customer satisfaction survey of R & D projects (please comment on the work of our R & D or PM managers to urge us to better serve you)							
RF technicians	☐ satisfaction		☐ basic satisfaction		☐ not satisfied		
Structural technicians	☐ satisfaction		☐ basic satisfaction		☐ not satisfied		
(PM Manager)	☐ satisfaction		☐ basic satisfaction		☐ not satisfied		
Recommendation note:							
Antenna Picture:							

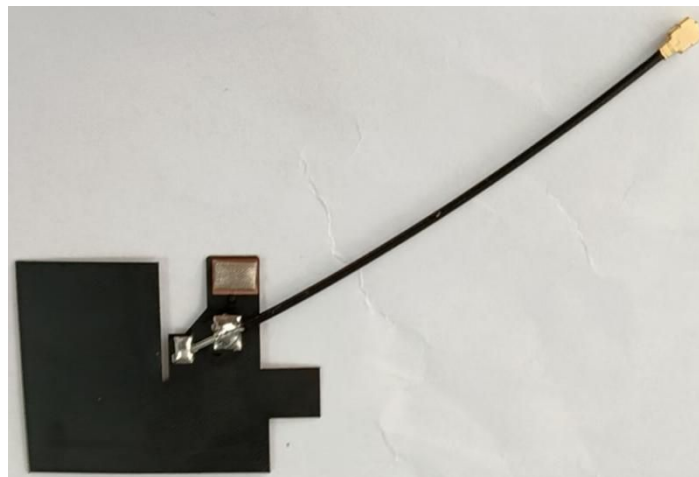
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1、天线成品图 (Primary Antenna)



主天线(Primary Main Antenna)



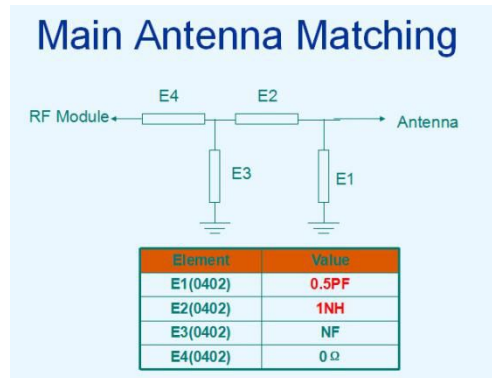
副天线(Primary Div Antenna)



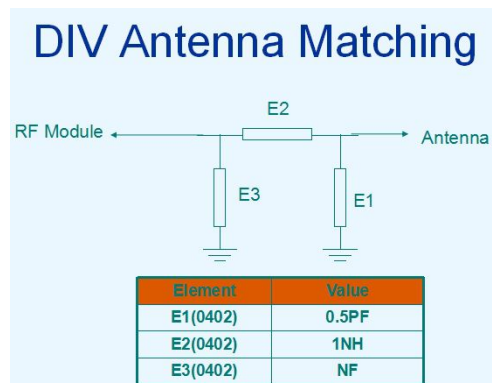
WIFI 天线(Primary Wifi Antenna)

2、性能参数(Parameters)

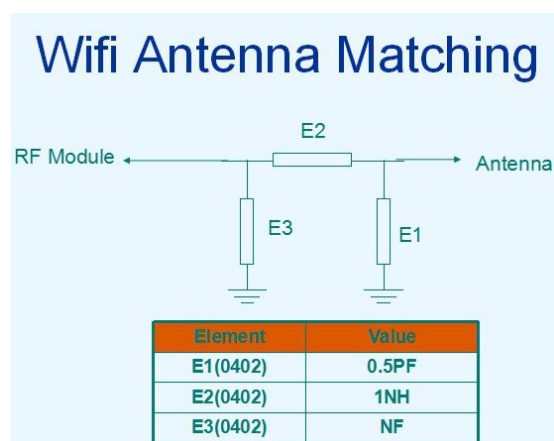
2.1.1 主天线主路匹配(Primary Main Antenna RF matching)



2.1.2 副天线主路匹配(Primary Div Antenna RF matching)



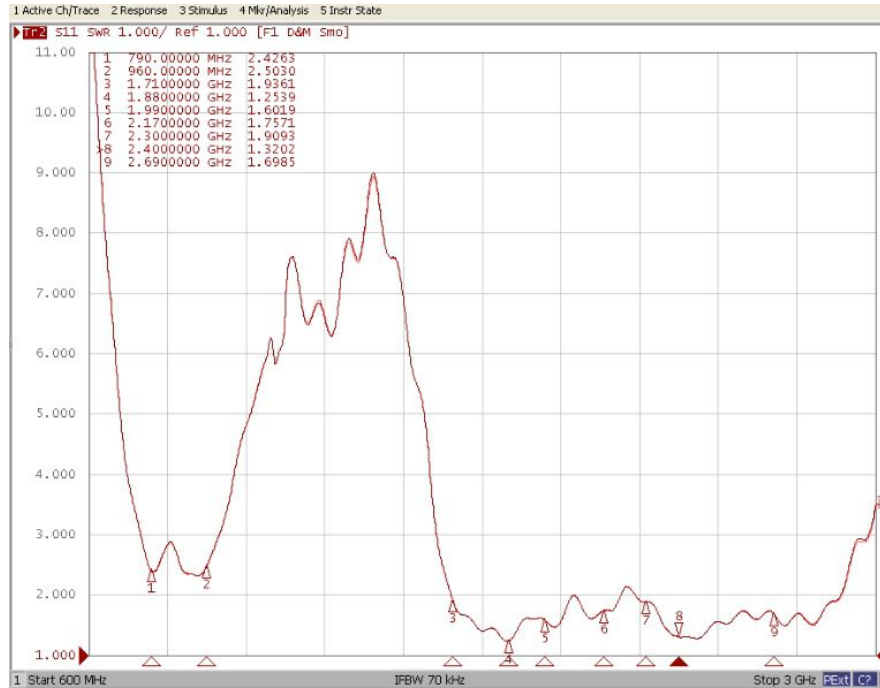
2.1.2 WIFI 天线主路匹配(Primary Wifi Antenna RF matching)



2.2 无源参数 (Efficiency/Gain)

2.2.1 主天线无源参数 (Main Antenna Efficiency/Gain)

Main Antenna Vswr



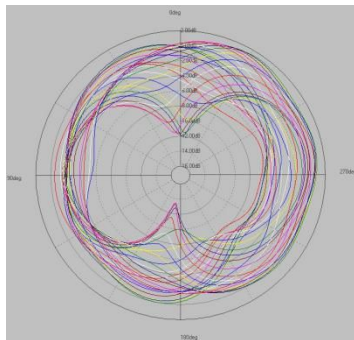
频点Fre	效率eff.	损耗loss	增益Gain	频点Fre	效率eff.	损耗loss	增益Gain
790	41.82%	-3.79	-0.18	2030	55.25%	-2.58	2.02
800	42.02%	-3.77	-0.03	2050	54.72%	-2.62	2.80
810	43.18%	-3.65	0.09	2070	54.08%	-2.67	2.67
820	44.93%	-3.47	0.29	2090	57.54%	-2.40	2.88
830	45.63%	-3.41	0.39	2110	55.55%	-2.55	2.64
840	46.81%	-3.30	0.52	2130	56.00%	-2.52	2.94
850	47.40%	-3.24	0.54	2150	52.33%	-2.81	2.99
860	48.99%	-3.10	0.55	2170	51.93%	-2.85	2.91
870	48.39%	-3.15	0.54	2190	53.40%	-2.72	3.05
880	48.13%	-3.18	0.53	2210	54.58%	-2.63	3.13
890	47.16%	-3.26	0.48	2230	53.69%	-2.70	3.24
900	45.10%	-3.46	0.27	2250	54.88%	-2.61	3.20
910	44.84%	-3.48	0.18	2270	52.06%	-2.84	3.24
920	46.39%	-3.34	0.27	2290	53.88%	-2.69	3.03
930	45.00%	-3.47	0.14	2310	53.16%	-2.74	3.23
940	43.93%	-3.57	0.03	2330	54.35%	-2.65	3.25
950	42.93%	-3.67	-0.08	2350	52.70%	-2.78	3.21
960	41.50%	-3.82	-0.25	2370	51.91%	-2.85	3.31

				2390	53.67%	-2.70	2.96
1710	48.87%	-3.11	1.60	2410	52.21%	-2.82	2.98
1730	50.64%	-2.96	1.75	2430	55.79%	-2.53	3.05
1750	51.54%	-2.88	1.64	2450	55.94%	-2.52	3.43
1770	52.10%	-2.83	2.10	2470	54.01%	-2.68	3.09
1790	53.10%	-2.75	2.17	2490	53.83%	-2.69	3.15
1810	53.59%	-2.71	2.19	2510	52.03%	-2.84	3.29
1830	54.92%	-2.60	2.37	2530	51.15%	-2.91	3.36
1850	54.33%	-2.65	2.42	2550	50.92%	-2.93	2.97
1870	55.38%	-2.57	2.49	2570	51.52%	-2.88	3.38
1890	55.76%	-2.54	2.74	2590	53.36%	-2.73	2.82
1910	54.94%	-2.60	2.71	2610	54.47%	-2.64	2.96
1930	53.69%	-2.70	2.96	2630	55.03%	-2.59	3.12
1950	54.52%	-2.63	2.13	2650	55.54%	-2.55	3.24
1970	55.33%	-2.57	2.51	2670	56.84%	-2.45	3.05
1990	56.19%	-2.50	2.08	2690	54.48%	-2.64	3.08
2010	56.27%	-2.50	2.90				

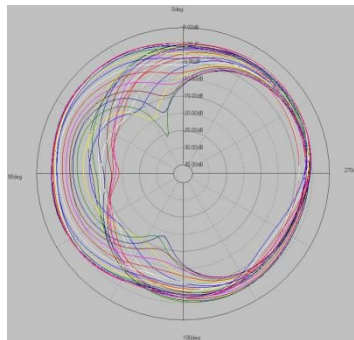
Main Antenna directivity diagram

790-960MHZ

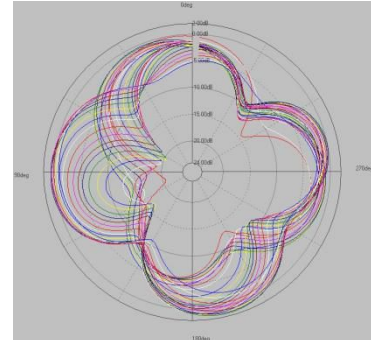
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PHI=90

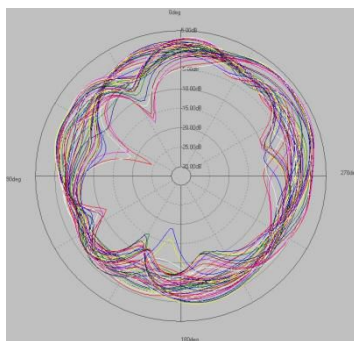


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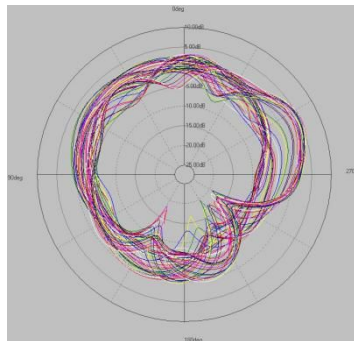


1710-2690MHZ

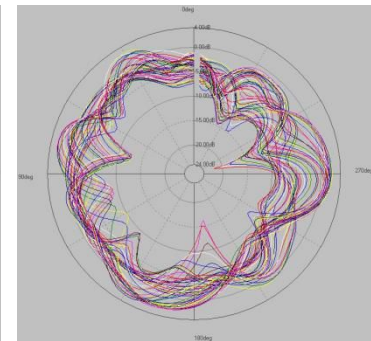
PHI=0



PHI=90



THETA=90



2.2.2 副天线无源参数 (Div Antenna Efficiency/Gain)

Div Antenna Vswr



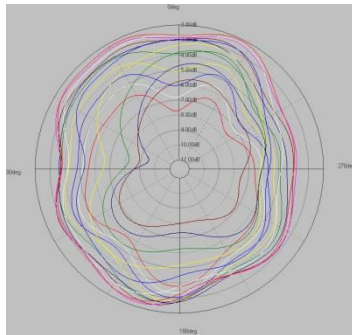
频点Fre	效率eff.	损耗loss	增益Gain	频点Fre	效率eff.	损耗loss	增益Gain
790	11.82%	-9.27	-6.38	2130	28.23%	-5.49	-2.15
800	18.02%	-7.44	-4.05	2150	27.62%	-5.59	-2.24
810	21.18%	-6.74	-3.87	2170	29.32%	-5.33	-2.36
820	23.82%	-6.23	-3.59	2190	27.09%	-5.67	-2.40
830	25.38%	-5.95	-3.26	2210	29.57%	-5.29	-2.08
840	26.45%	-5.78	-2.46	2230	27.79%	-5.56	-2.45
850	28.32%	-5.48	-1.63	2250	24.81%	-6.05	-3.15
860	31.25%	-5.05	-0.99	2270	23.91%	-6.21	-3.80
870	32.45%	-4.89	-0.75	2290	22.58%	-6.46	-3.84
880	34.48%	-4.62	-0.54	2310	20.20%	-6.95	-3.73
890	35.60%	-4.49	-0.58	2330	20.49%	-6.88	-3.59
900	35.86%	-4.45	-0.60	2350	19.71%	-7.05	-4.01
910	34.50%	-4.62	-0.29	2370	17.85%	-7.48	-4.50
920	33.67%	-4.73	-0.66	2390	16.64%	-7.79	-4.63
930	32.64%	-4.86	-1.54	2410	16.46%	-7.83	-4.15
940	30.94%	-5.09	-1.69	2430	16.76%	-7.76	-4.27
950	28.84%	-5.40	-2.02	2450	17.86%	-7.48	-4.16
960	25.90%	-5.87	-2.72	2470	18.30%	-7.37	-4.00
				2490	20.53%	-6.88	-3.33
1790	31.45%	-5.02	-1.27	2510	21.58%	-6.66	-2.73
1810	29.22%	-5.34	-1.40	2530	23.57%	-6.28	-2.28
1830	28.50%	-5.45	-1.48	2550	25.84%	-5.88	-2.15

1850	27.61%	-5.59	-1.53	2570	26.05%	-5.84	-2.01
1870	25.51%	-5.93	-1.64	2590	27.42%	-5.62	-1.71
1890	24.37%	-6.13	-1.71	2610	27.98%	-5.53	-1.45
1910	23.88%	-6.22	-2.05	2630	28.54%	-5.45	-1.38
1930	20.29%	-6.93	-2.30	2650	29.03%	-5.37	-0.71
				2670	29.61%	-5.29	-0.45
2110	25.74%	-5.89	-2.26	2690	29.97%	-5.23	-0.27

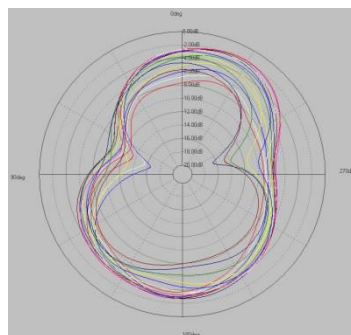
Div Antenna directivity diagram

790-960MHZ

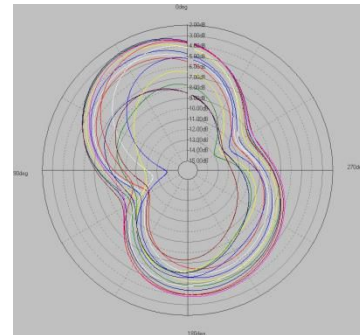
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PHI=90

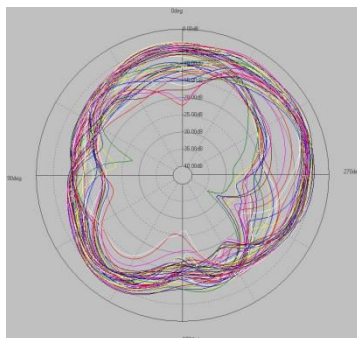


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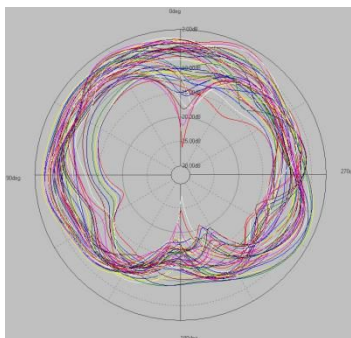


1710-2690MHZ

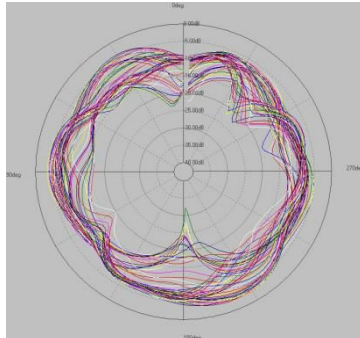
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PHI=90

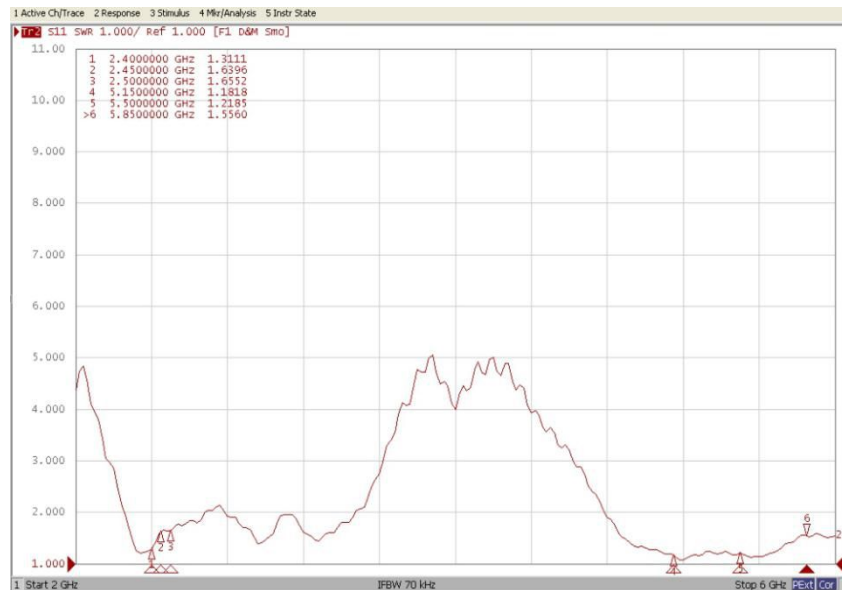


THETA=90



2.2.2 WIFI 天线无源参数 (Wifi Antenna Efficiency/Gain)

Wifi Antenna Vswr

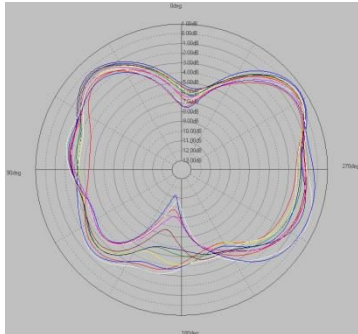


频点Fre	效率eff.	损耗loss	增益Gain	频点Fre	效率eff.	损耗loss	增益Gain
2400	55.58%	-2.55	2.07	5150	55.07%	-2.59	2.95
2410	55.23%	-2.58	2.13	5200	56.48%	-2.48	3.04
2420	54.96%	-2.60	1.95	5250	58.15%	-2.35	3.08
2430	54.57%	-2.63	1.81	5300	58.94%	-2.30	3.02
2440	54.08%	-2.67	1.91	5350	57.87%	-2.38	3.41
2450	53.76%	-2.70	1.91	5400	56.37%	-2.49	3.36
2460	53.18%	-2.74	1.91	5450	57.46%	-2.41	3.68
2470	52.49%	-2.80	2.03	5500	57.54%	-2.40	3.50
2480	52.05%	-2.84	2.16	5550	57.32%	-2.42	3.59
2490	51.63%	-2.87	2.21	5600	57.01%	-2.44	3.36
2500	50.88%	-2.93	2.01	5650	56.43%	-2.48	3.43
				5700	55.94%	-2.52	3.17
				5750	54.44%	-2.64	3.26
				5800	53.93%	-2.68	2.95
				5850	50.47%	-2.97	2.96

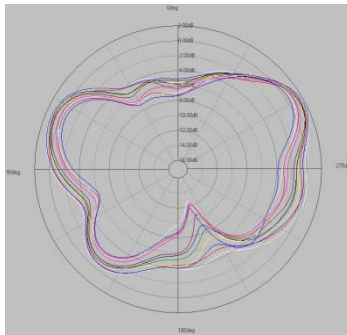
Wifi Antenna directivity diagram

2400-2500MHZ

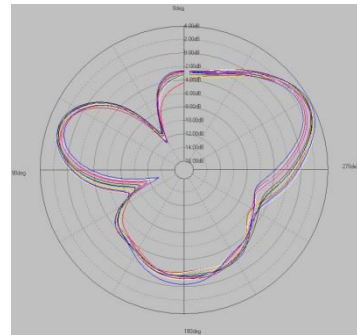
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PHI=90

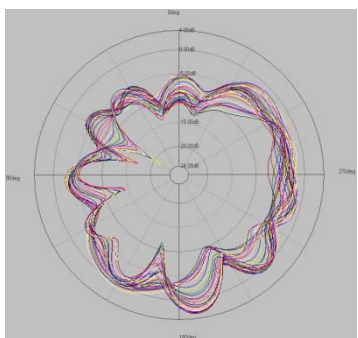


THETA=90

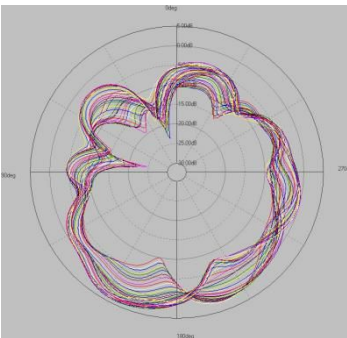


5150-5850MHZ

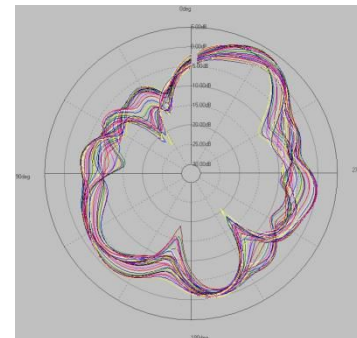
PHI=0



PHI=90



THETA=90



2.4 主天线有源数据(Active test data)

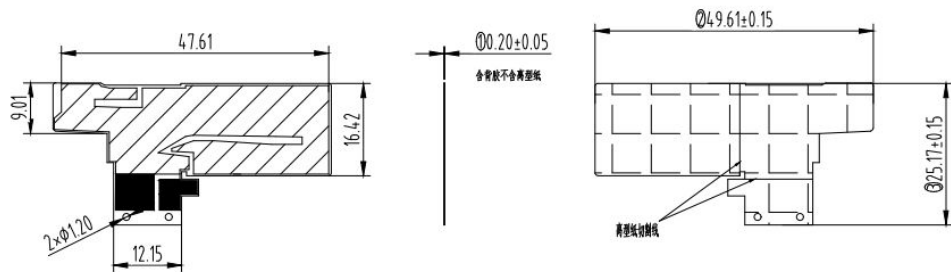
主天线有源测试数据（主+分/Primary+Diversity）

Band		Channel	TRP	TIS
GSM900	900MHZ	1		28.4
		62		28.2
		124	-102.7	28.1
DCS1800	1800MHZ	512		25.3
		698		25.5
		885	-103.1	25.6
WCDMA BAND 1	2100MHZ	10562		19.1
		10700		19.2
		10838	-104.2	19.1
WCDMA BAND 5	800MHZ	4357		19.7
		4407		19.8
		4458	-104.6	19.7
WCDMA BAND 8	900MHZ	2937		19.6
		3012		19.7
		3088	-104.2	19.5
LTE-FDD BAND1	2100MHZ	18050		19.1
		18300		19.2
		18550	-94.5	19.3
LTE-FDD BAND3	1800MHZ	19250		20.2
		19575		20.1
		19900	-94.4	20.1
LTE-FDD BAND5	800MHZ	20450		20.9
		20525		21.1
		20600	-94.9	20.9
LTE-FDD BAND7	2500MHZ	20800		20.1
		21100		20.2
		21400	-94.5	20.1
LTE-FDD BAND8	900MHZ	21500		21.1
		21625		21.2
		21750	-94.5	20.8
LTE-FDD BAND20	800MHZ	24200	-94.3	21.2
		24300		21.4

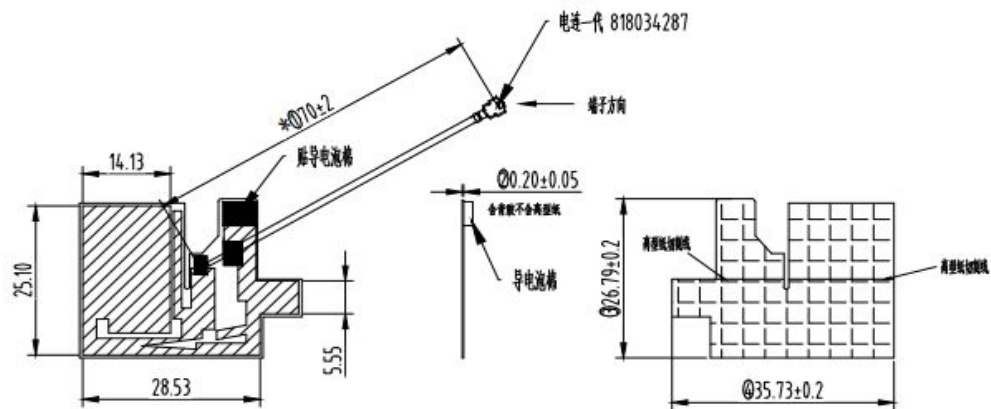
		24400		20.5
LTE-TDD BAND40	2300MHZ	20450		19.2
		20525		19.3
		20600	-94.5	19.5

3、天线图纸 (Primary Antenna Drawing)

3.1、主天线 (Primary Main Antenna)



3.2、副天线 (Primary Div Antenna)



3.3、WIFI 天线(Primary Wifi Antenna)

