



承 认 书

SPECIFICATION FOR APPROVAL

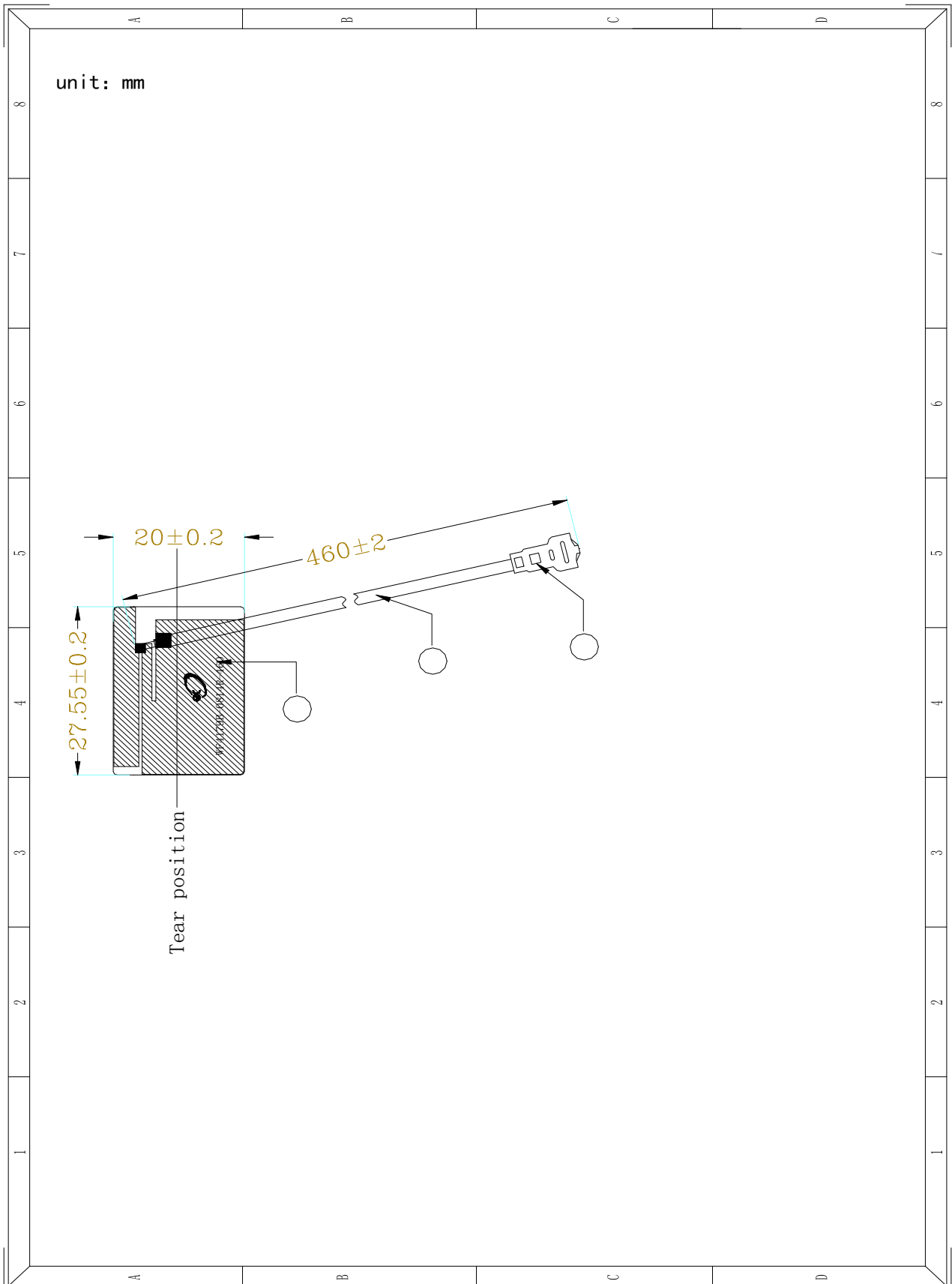
客户名称 Customer Name	富维		
客户项目名 Customer Project Name	F143J	顺达成项目名 SDC Project Name	F143J
天线类型 Antenna type	FPC Antanna	顺达成料号 SDC P/N	WF4179B-0814R-460 Primary antenna WF4180B-0814R-250 secondary antenna
频段 Band	WIFI2. 4G/5. 8G/BT		
制造商 Manufacture	Shenzhen Qingfen Tingxiu Information Technology Co., Ltd 2405-06, Baotai Building, 182 Design Park, 182 Bulan Road, Lilang Community, Nanwan Street, Longgang District, Shenzhen		
设计人信息/Designer Information			
射频工程师 RF Engineer	杨永辉	研发主管 R&D Director	符学荣
结构工程师 ME Engineer	李瑶娜		

审批/ Approval			客户批准/Customer Approval		
	制作 Prepared By	审核 Checked By	批准 Approval By	审核 Checked By	批准 Approval By
签章 Signature	李瑶娜	杨永辉	符学荣		
日期 Date	2023. 02. 25	2023. 02. 25	2023. 02. 25		

修订履历/Change Log				
版本 Version	修订内容 Change Description	责任人 Person in Charge	核准 Approval By	日期 Date

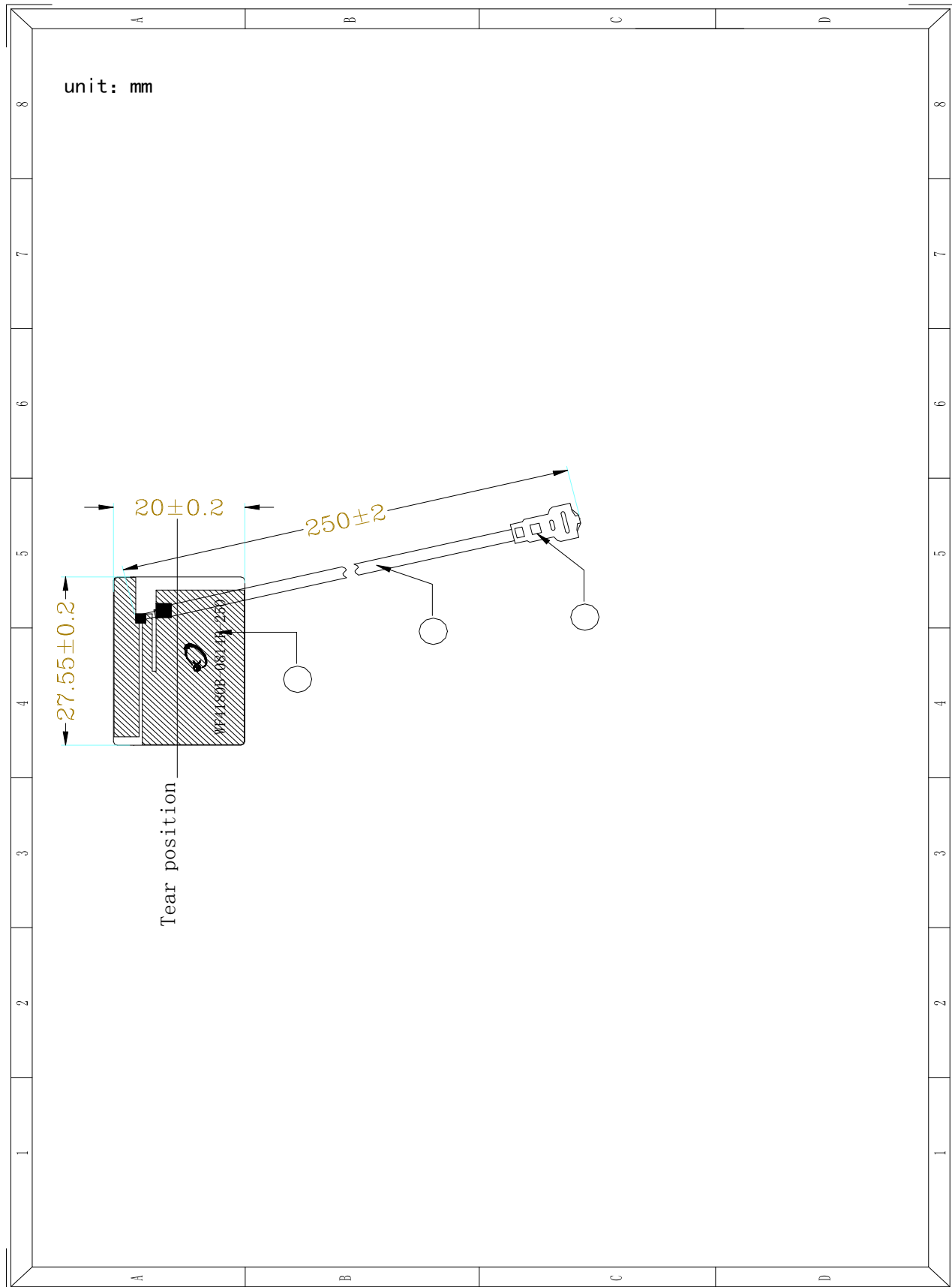


产品图纸或实物图片
Drawing or Product Image



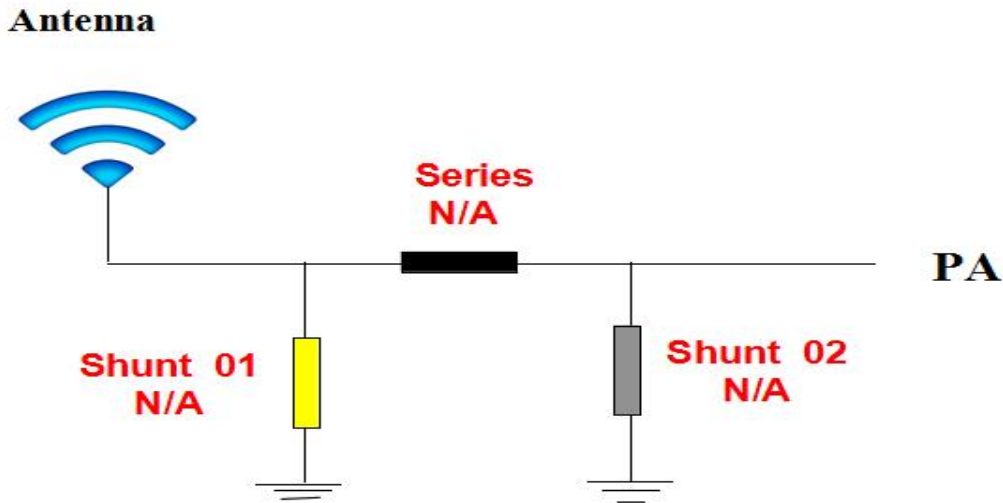


产品图纸或实物图片
Drawing or Product Image





2. 天线匹配网络/Antenna Matching Network

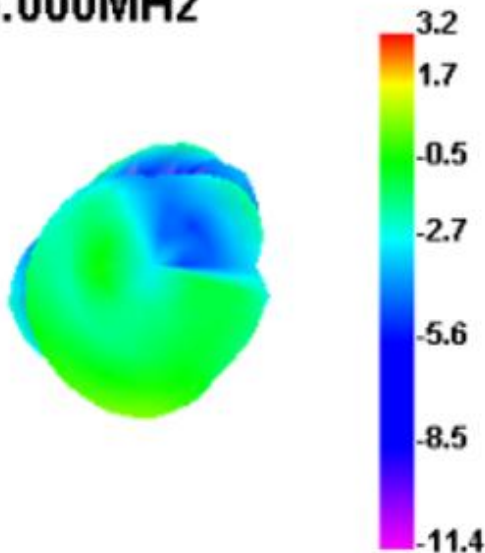


3. Gain & Efficiency

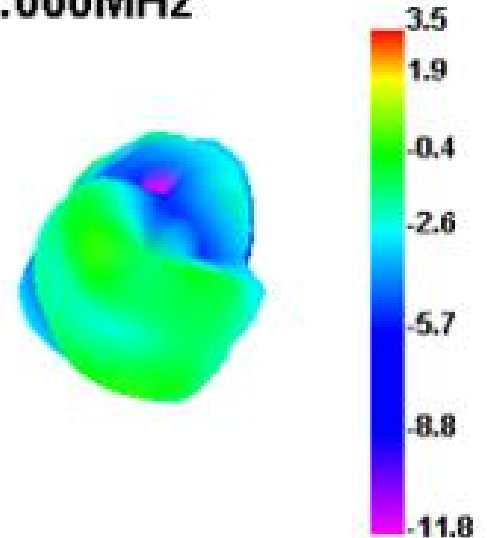
Primary antenna

Passive Test For 2.4G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	46.9	-3.29	3.16	1.01	22.318	24.585	3.16	-11.43	49.25	48.85
2450	49.71	-3.04	3.46	1.31	22.77	26.939	3.46	-11.81	49.38	49.16
2500	46.11	-3.36	1.93	-0.22	23.105	23.007	1.93	-12.73	49.46	49.37

2400.000MHz

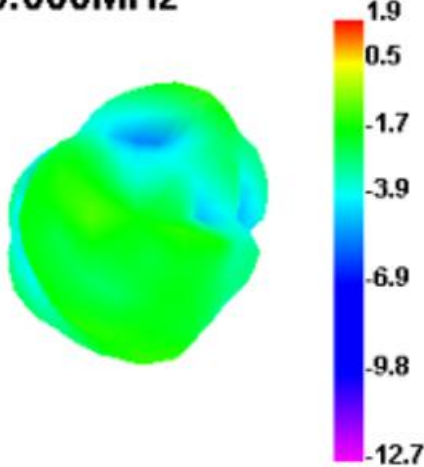


2450.000MHz



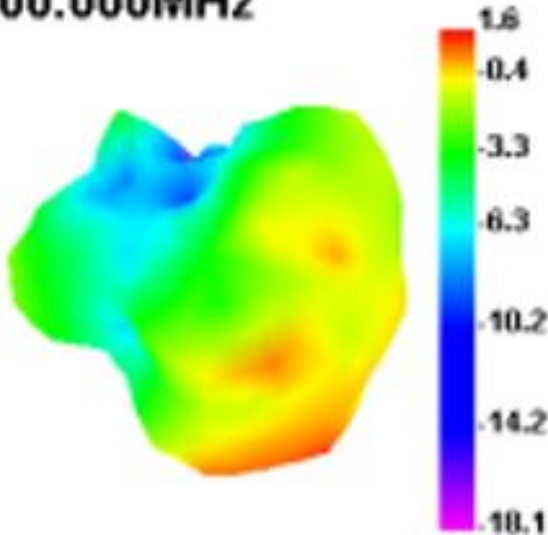


2500.000MHz

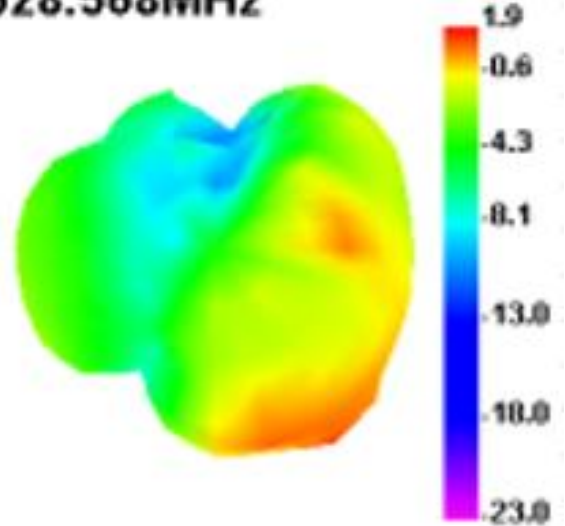


Passive Test For 5.8G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5100	43.79	-3.59	1.57	-0.58	26.644	17.141	1.57	-18.08	61.56	60.95
5207.14	40.4	-4.04	0.87	-1.28	23.155	16.245	0.87	-20.26	60.8	60.51
5314.28	40.93	-4.33	0.52	-1.63	21.301	15.632	0.52	-17.83	60.49	59.93
5421.43	42.97	-3.67	1.36	-0.79	24.578	18.389	1.36	-21.39	61.44	60.95
5528.57	44.41	-3.53	1.87	-0.28	26.025	18.384	1.87	-22.99	63.27	62.62
5635.71	40.03	-4.31	0.72	-1.43	21.579	15.451	0.72	-21.86	63.73	63.15
5742.85	42.47	-3.72	1.37	-0.78	23.828	18.643	1.37	-21.09	64.06	63.48
5849.99	46.72	-3.3	1.82	-0.33	25.53	21.193	1.82	-18.71	64.26	64

5100.000MHz

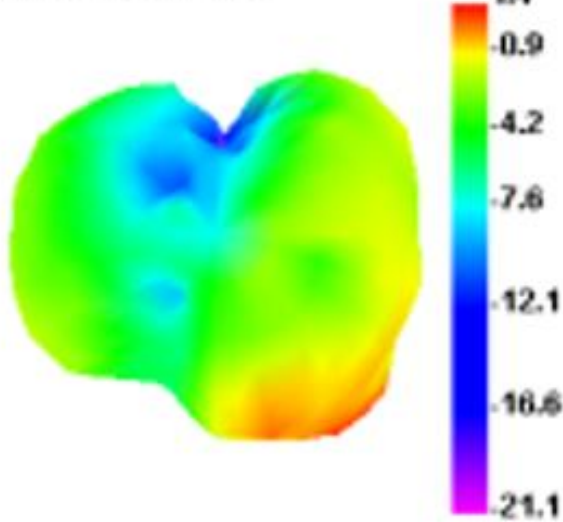


5528.568MHz

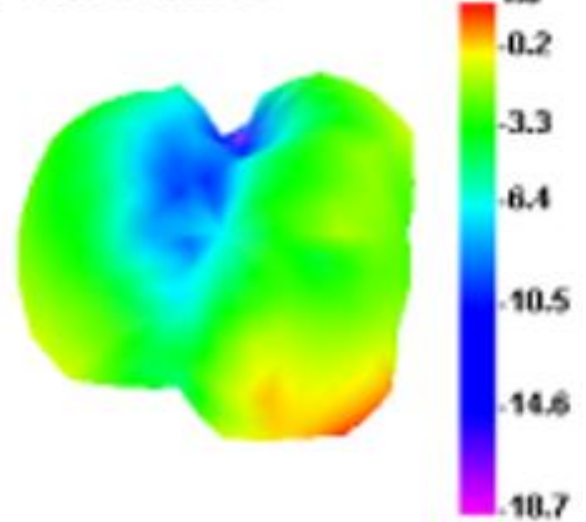




5742.852MHz



5849.994MHz



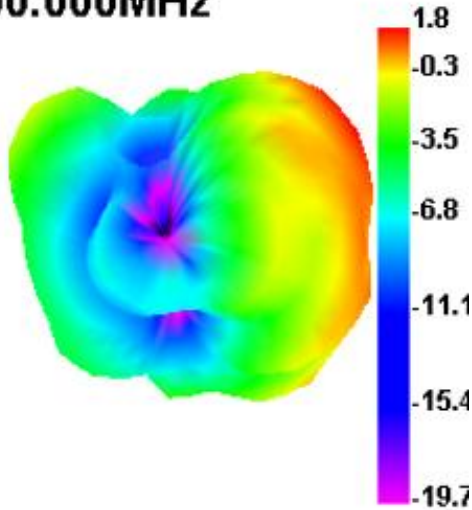
secondary antenna

Passive Test For 2.4G										
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
2400	43.91	-3.57	1.84	-0.31	22.401	21.511	1.84	-19.67	49.25	48.85
2450	44.86	-3.48	2.13	-0.02	22.886	21.973	2.13	-19.33	49.5	49.28
2500	45.49	-3.42	2.16	0.01	23.63	21.862	2.16	-17.15	49.61	49.52

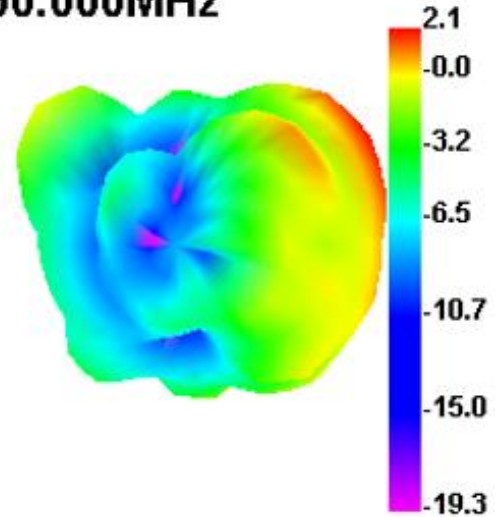
2400.00MHz - 2500.00MHz Gain

5.00

2400.000MHz

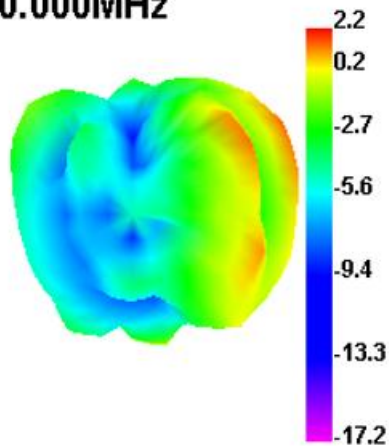


2450.000MHz





2500.000MHz

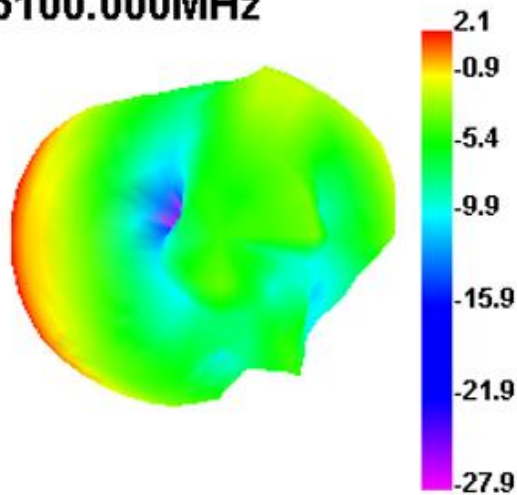


Passive Test For 5.8G

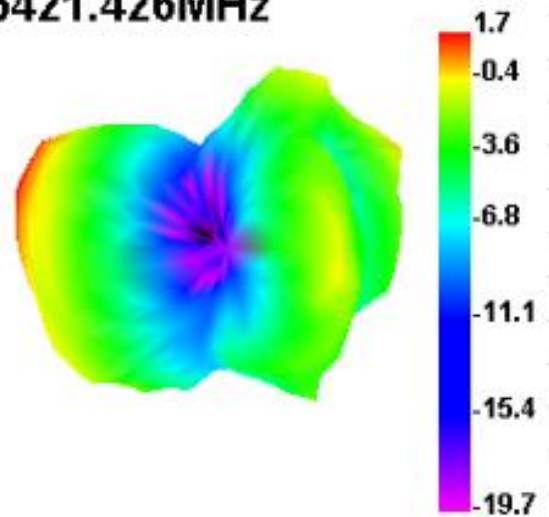
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHIS (%)	Max (dB)	Min (dB)	Attenut Hor	Attenut Ver
5100	39.74	-4.01	2.1	-0.05	19.309	20.435	2.1	-27.87	64.41	63.8
5207.14	32.4	-4.9	0.91	-1.24	15.743	16.652	0.91	-24.89	61.01	60.71
5314.28	35.76	-4.47	1.73	-0.42	17.926	17.834	1.73	-18.84	60.15	59.59
5421.43	37.05	-4.31	1.73	-0.42	19.307	17.743	1.73	-19.66	60.88	60.38
5528.57	44.37	-3.53	2.03	-0.12	24.066	20.305	2.03	-27.5	63.75	63.1
5635.71	34.14	-4.67	1.05	-1.1	19.484	14.656	1.05	-21.15	63	62.42
5742.85	42.37	-3.73	2.27	0.12	26.477	15.897	2.27	-21.05	63.75	63.17
5849.99	41.95	-3.77	2.04	-0.11	27.682	14.265	2.04	-19.81	64.46	64.2

5100.00MHz - 5850.00MHz Gain

5100.000MHz

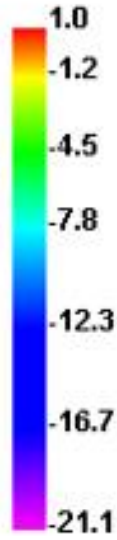
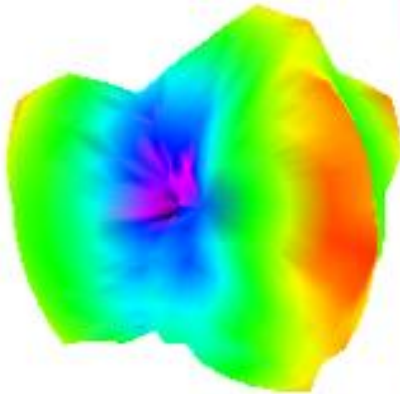


5421.426MHz

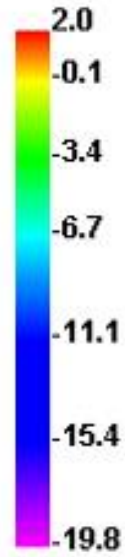
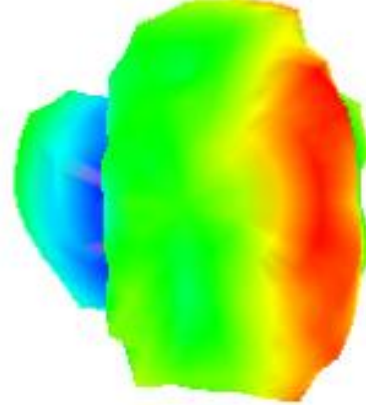




5635.710MHz



5849.994MHz



4.OTA Data

2.4G	802.11b, (2.4G)11M		
Channel	CH1	CH6	CH11
TRP	11.17	11.61	11.34
TIS	-74.75	-75.38	-76.42

5G	802.11a, 54M		
Channel	CH36	CH60	CH161
TRP	9.27	9.36	10.57
TIS	-67.31	-67.25	-68.54