

# 天线调试报告

## Antenna test report

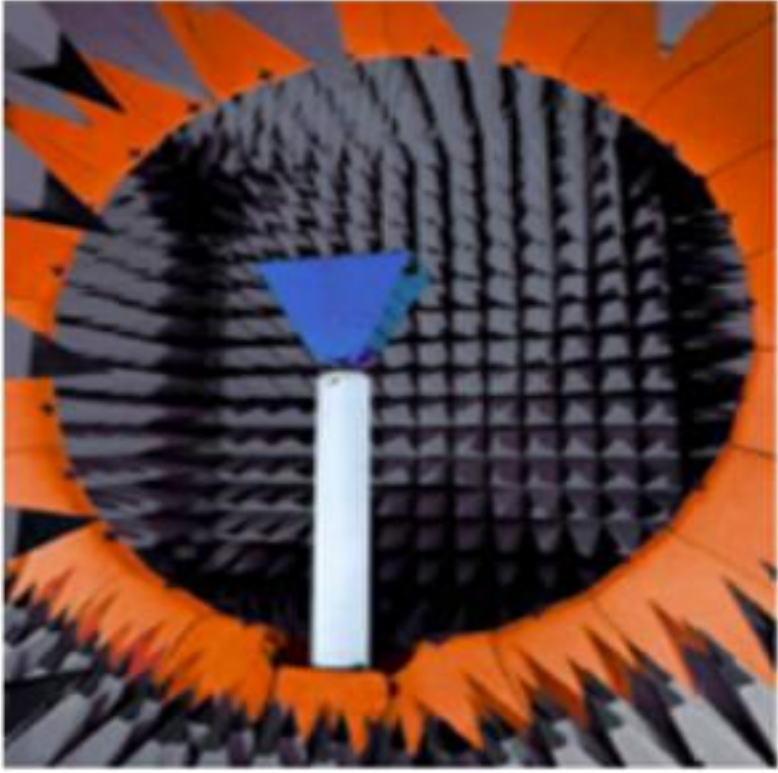
客户名称 Customer Name	当贝	工作频段 Operating Mode	2400MHz~2500MHz 5150MHz~5850MHz
天线工程师 Antenna engineer	李国栋	结构工程师 Structural Engineer	周阳
日期 Date	2022. 04. 26	天线材质 Material	FPC

### 测试设备 Test Equipment

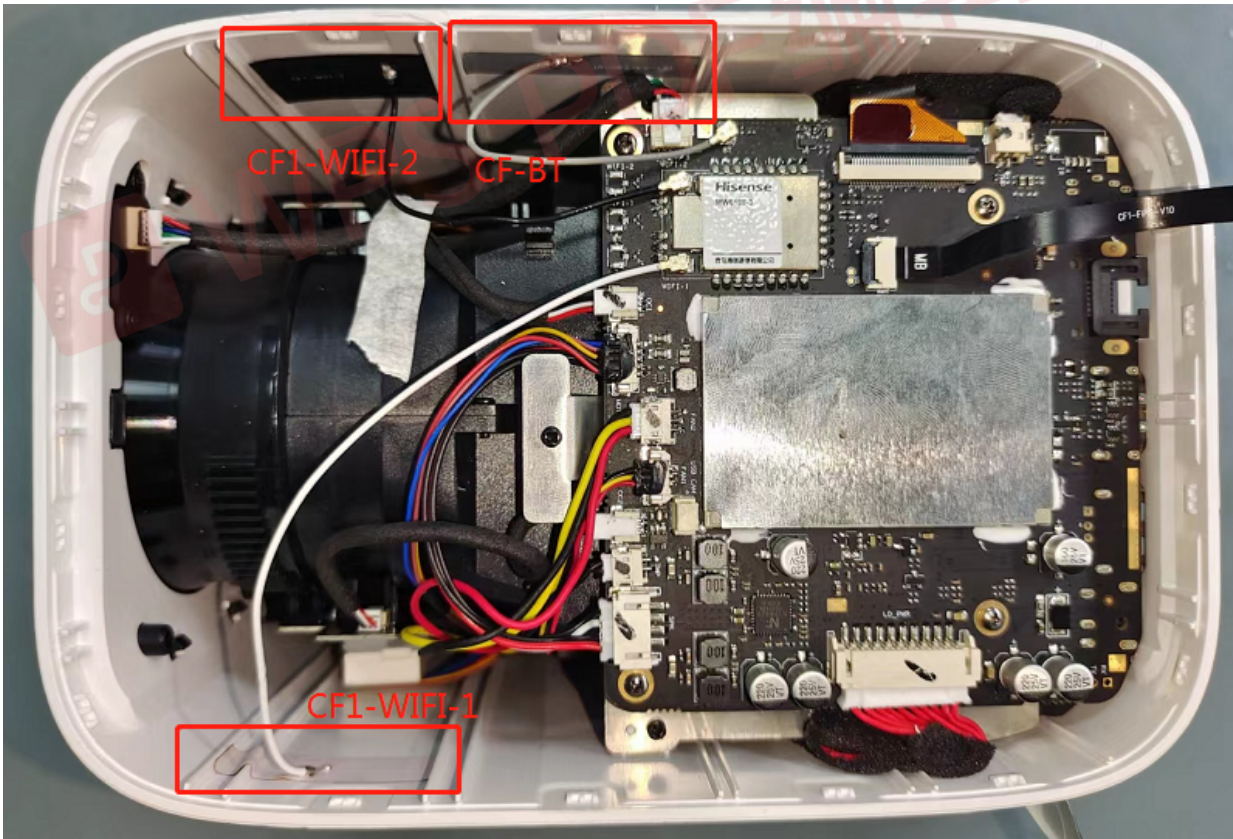
E5071C 网络分析仪 E5071C Network Analyzer



SG24 微波暗室 SG24 Microwave anechoic chamber



1. 天线位置 Antenna location



2. 天线 S11 及效率 Antenna S11 & Efficiency

1: CF1-WIFI 1

Gain&Efficiency 增益和效率			
frequency 频率(Hz)	gain 增益(dB)	efficiency 效率(dB)	efficiency 效率
2400M	3.09	-2.86	51.73%
2410M	3.07	-2.95	50.75%
2420M	3.12	-2.98	50.32%
2430M	2.83	-3.06	49.46%
2440M	2.8	-3.1	49%
2450M	3.05	-3.02	49.93%
2460M	2.85	-3.05	49.55%
2470M	2.72	-3.1	49.03%
2480M	3.04	-3.06	49.48%
2490M	2.73	-3.29	46.86%
2500M	2.52	-3.35	46.23%

Gain&Efficiency 增益和效率			
frequency 频率(Hz)	gain 增益(dB)	efficiency 效率(dB)	efficiency 效率
5150M	4.13	-2.52	50.91%
5175M	3.59	-2.66	49.22%
5200M	2.86	-2.84	47%
5225M	3.87	-2.98	45.34%
5250M	4.18	-3.01	44.99%
5275M	3.53	-3.1	43.95%
5300M	2.3	-3.68	40.89%
5325M	2.59	-3.98	37.99%
5350M	3.22	-3.53	40.38%
5375M	2.62	-3.78	41.92%
5400M	2.84	-3.53	44.36%
5425M	3.12	-3.26	47.2%
5450M	2.69	-3.81	41.62%
5475M	2.6	-3.77	41.94%
5500M	2.94	-3.49	44.81%
5525M	2.99	-3.52	44.43%
5550M	3.47	-3.3	46.79%
5575M	4.44	-2.81	52.37%
5600M	4.54	-3.18	48.08%
5625M	4.48	-3.3	46.77%
5650M	4.79	-3.12	48.7%
5675M	5.53	-2.81	49.34%
5700M	5.51	-2.77	47.83%
5725M	5.97	-2.36	50.04%
5750M	6.01	-2.52	50.98%
5775M	5.97	-2.69	48.83%
5800M	6.71	-2.21	52.18%
5825M	6.25	-2.58	50.18%
5850M	6.41	-2.5	51.18%

2: CF1-WIFI 2

Gain&Efficiency 增益和效率			
frequency 频率(Hz)	gain 增益(dB)	efficiency 效率(dB)	efficiency 效率
2400M	4.53	-3	50.1%
2410M	4.63	-3.06	49.39%
2420M	4.73	-3.1	48.96%
2430M	4.8	-3.08	49.15%
2440M	4.82	-3.02	49.9%
2450M	4.81	-2.94	50.83%
2460M	4.68	-2.95	50.65%
2470M	4.61	-2.95	50.72%
2480M	4.62	-2.93	50.98%
2490M	4.56	-3.13	48.66%
2500M	4.75	-3.1	48.98%

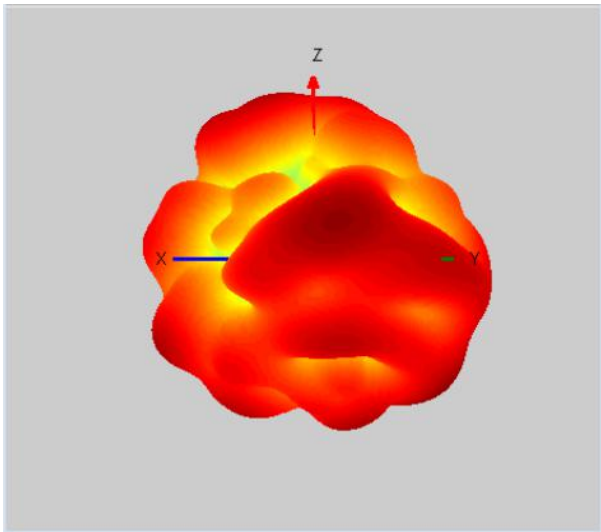


Gain&Efficiency 增益和效率			
frequency 频率(Hz)	gain 增益(dB)	efficiency 效率(dB)	efficiency 效率
5150M	6.04	-3.73	42.39%
5175M	6.13	-3.66	43.07%
5200M	6.73	-3.57	43.93%
5225M	6.4	-3.92	40.59%
5250M	5.97	-4.03	39.56%
5275M	6.41	-3.86	41.12%
5300M	6.6	-4.1	38.92%
5325M	5.82	-4.42	36.1%
5350M	6.32	-3.94	40.38%
5375M	6.28	-4.01	39.7%
5400M	6.9	-3.69	42.75%
5425M	7.2	-3.44	45.32%
5450M	6.74	-3.94	40.41%
5475M	6.5	-3.92	40.53%
5500M	7.01	-3.57	43.98%
5525M	7.55	-3.45	45.18%
5550M	7.02	-3.65	43.11%
5575M	7.38	-3.34	46.35%
5600M	6.97	-3.67	42.95%
5625M	6.63	-3.87	40.99%
5650M	6.71	-3.69	42.78%
5675M	6.92	-3.44	45.34%
5700M	7.06	-3.43	45.44%
5725M	7.06	-3.21	47.76%
5750M	6.73	-3.4	45.74%
5775M	6.46	-3.57	44%
5800M	7.16	-2.95	50.74%
5825M	6.93	-3.18	48.06%
5850M	6.82	-3.28	46.95%

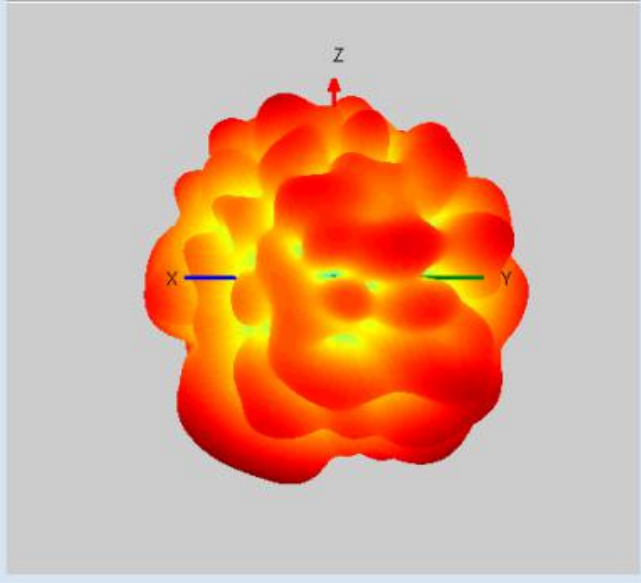
3: CF1-BT

Gain&Efficiency 增益和效率			
frequency 频率(Hz)	gain 增益(dB)	efficiency 效率(dB)	efficiency 效率
2400M	4.08	-3.63	43.4%
2410M	4.15	-3.64	43.21%
2420M	4.04	-3.73	42.33%
2430M	4.31	-3.6	43.64%
2440M	4.42	-3.55	44.17%
2450M	4.46	-3.43	45.42%
2460M	4.39	-3.49	44.77%
2470M	4.59	-3.31	46.64%
2480M	4.51	-3.27	47.06%
2490M	4.45	-3.35	46.28%
2500M	4.52	-3.35	46.23%

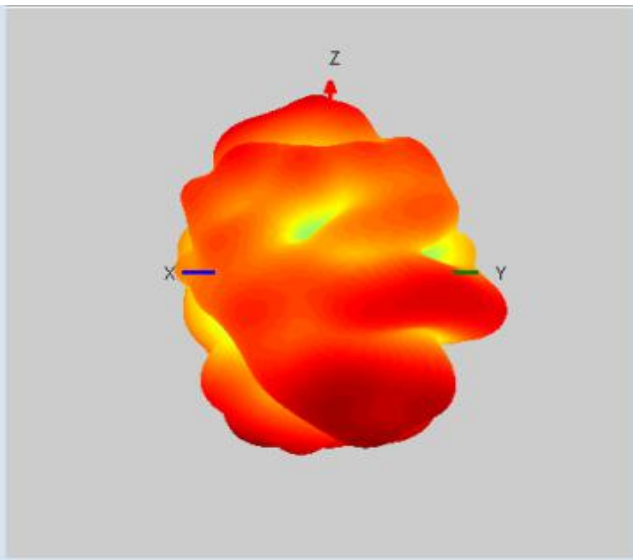
3. 方向图 Antenna Pattern



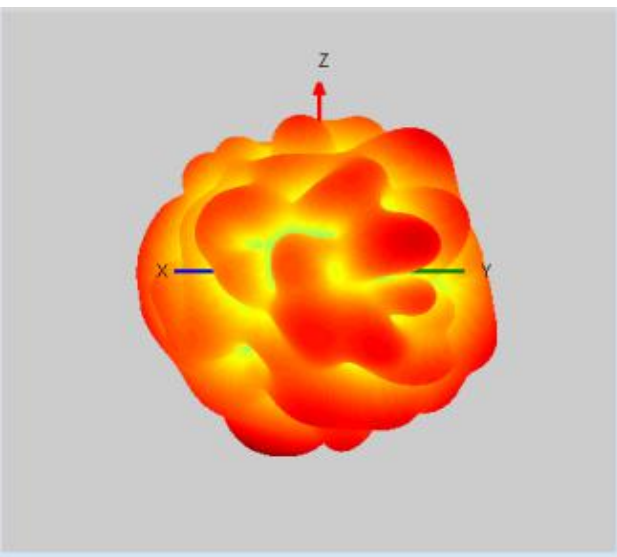
2. 4G CF1-WIFI 1



5G CF1-WIFI 1

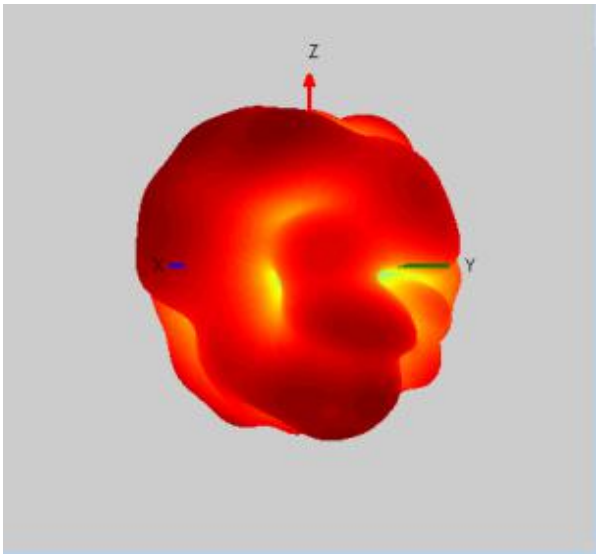


2.4G CF1-WIFI 2



5G CF1-WIFI 2

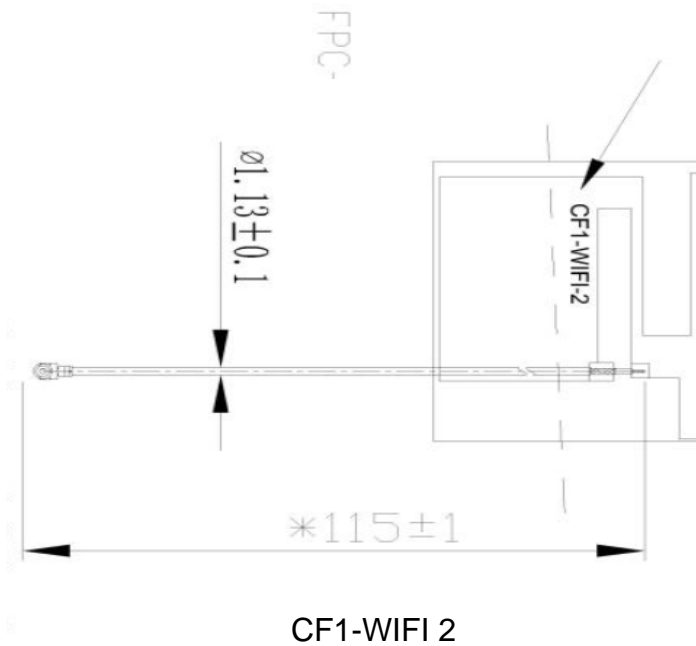
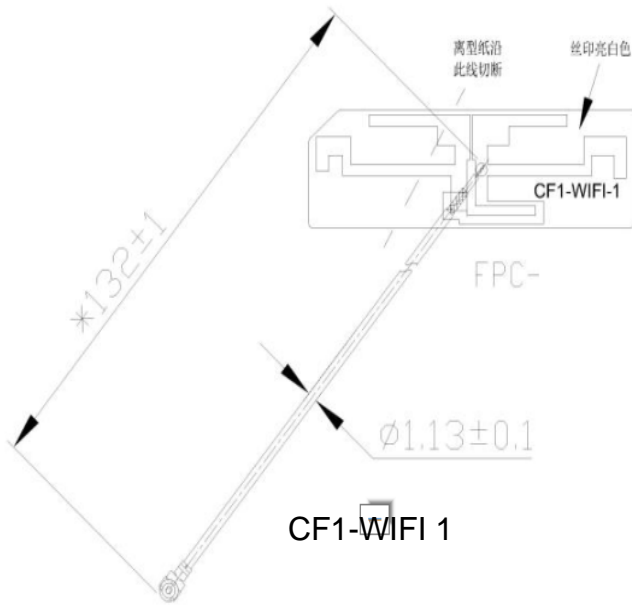




CF1-BT

#### 4. 有源测试数据 Passive result

Format for OTA Test					
WIFI					
Band	Channel	Freespace	Channel	Freespace	PASS
		TRP		TIS(-)	
WIFI B	1	9.8	2412	-82.9	≤-79
	6	12.4	2437	-79.5	≤-79
	13	13.2	2472	-80.5	≤-79
	<b>AVE</b>	<b>11.8</b>	<b>AVE</b>	<b>-81.0</b>	
WIFI A	36	13.7	5745	-71.3	≤-68
	100	16.2	5785	-69.8	≤-68
	165	17.1	5825	-70.1	≤-68
	<b>AVE</b>	<b>15.6</b>	<b>AVE</b>	<b>-70.4</b>	





5. 总结 Result  
PASS