

Manufacturer	Shenzhen Bilian Electronic Co.,Ltd
Antenna type	External antenna
Antenna Gain	2.00dBi for 2.4G, 2.00dBi for 5G

1.Test equipment and conditions:

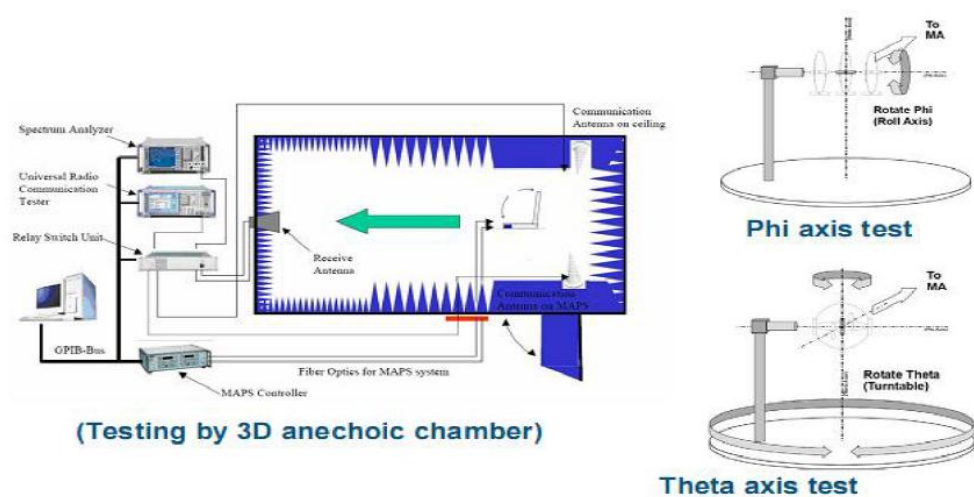
1.1.Network Analyzer

Agilent 8753D Agilent 5071B

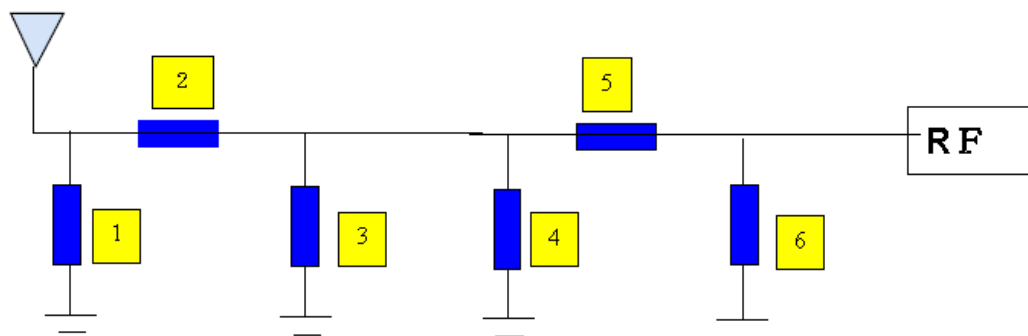
1.2.Communication test equipment

Agilent E5515C R&S CMW500

1.3.Test system

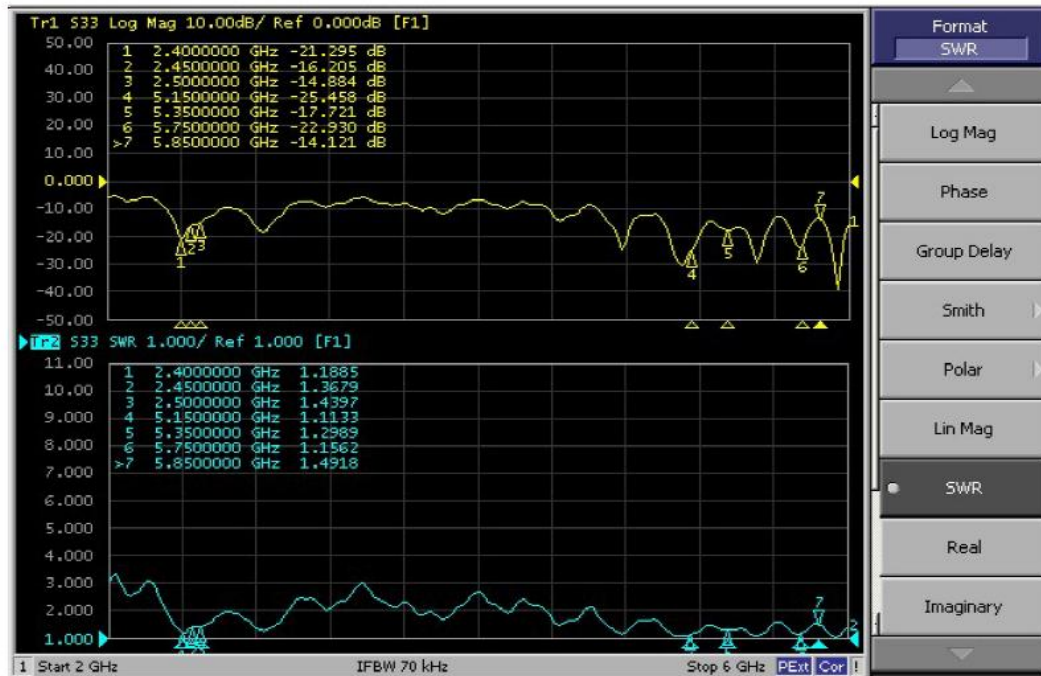


1.4.Matching circuit



2.Test Data:

2.1. Standing wave ratio



2.2.Efficiency

2.4G

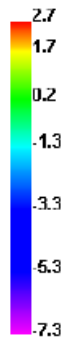
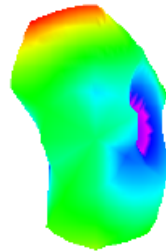
Fred (MHz)	Effi (%)	Effi (%)	Gain (dBi)
2400	44.38	-2.79	1.82
2410	44.63	-2.46	1.01
2420	44.94	-2.12	1.78
2430	44.27	-2.70	1.63
2440	44.75	-2.39	2.00
2450	44.82	-1.83	1.84
2460	44.28	-2.63	1.14
2470	44.49	-2.34	2.00
2480	45.08	-2.23	1.87
2490	44.21	-2.68	1.55
2500	44.46	-2.32	1.99

5G

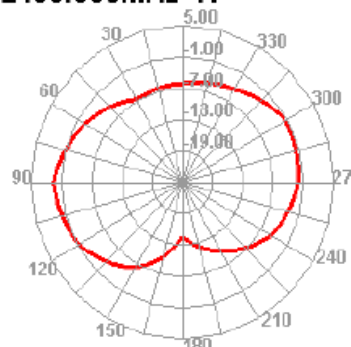
Fred (MHz)	Effi (%)	Effi (%)	Gain (dBi)
4900	60.30	-0.78	1.70
5000	60.53	-0.44	1.26
5100	60.61	-0.25	2.00
5200	60.27	-0.69	1.17
5300	60.49	-0.35	1.89
5400	60.96	-0.35	1.55
5500	60.30	-0.75	1.87
5600	60.73	-0.58	1.81
5700	60.76	0.16	1.11
5800	60.21	-0.63	1.00
5900	60.47	-0.28	1.59

2.3.Directivity diagram

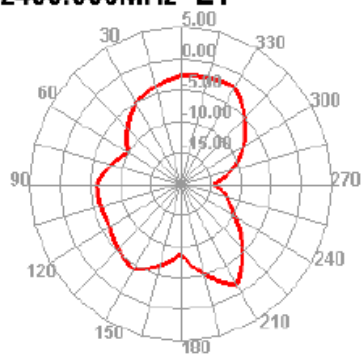
2400.000MHz



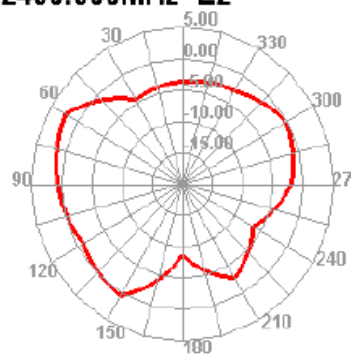
2400.000MHz H



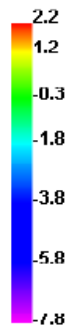
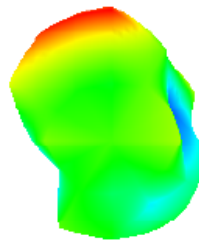
2400.000MHz E1



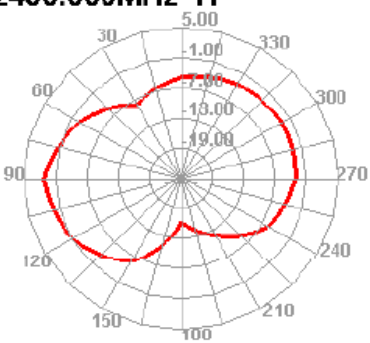
2400.000MHz E2



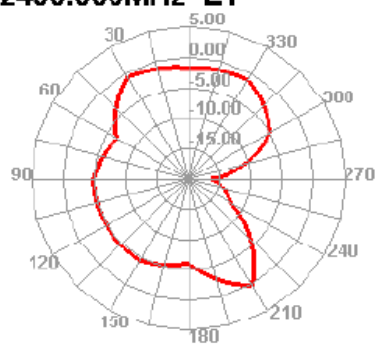
2450.000MHz



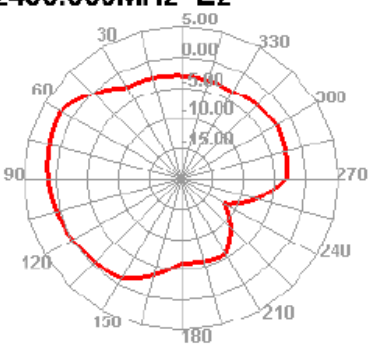
2450.000MHz H



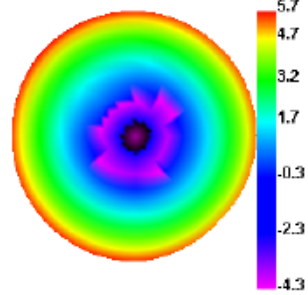
2450.000MHz E1



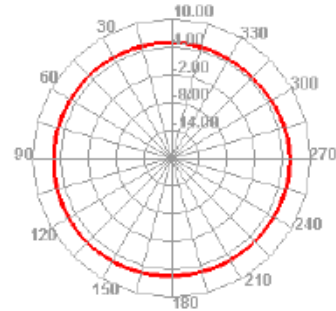
2450.000MHz E2



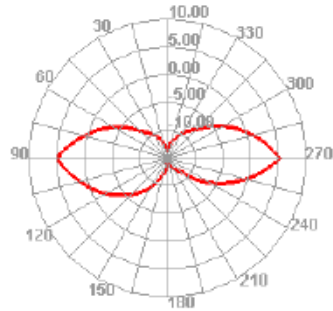
2500.000MHz



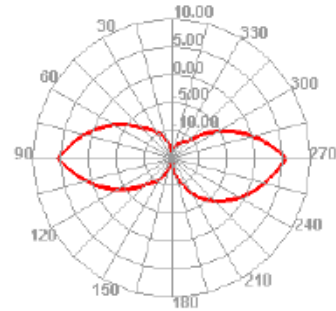
2500.000MHz H



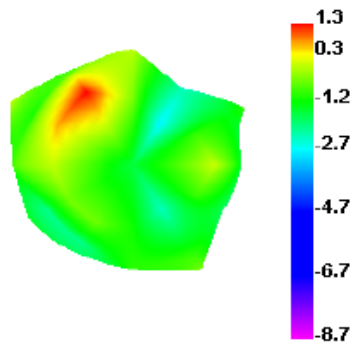
2500.000MHz E1



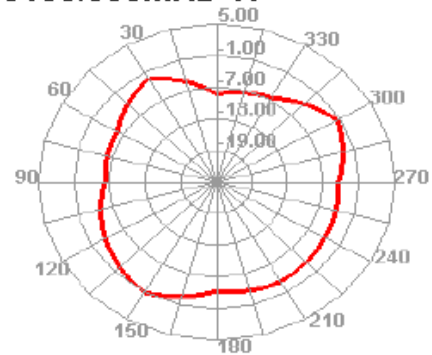
2500.000MHz E2



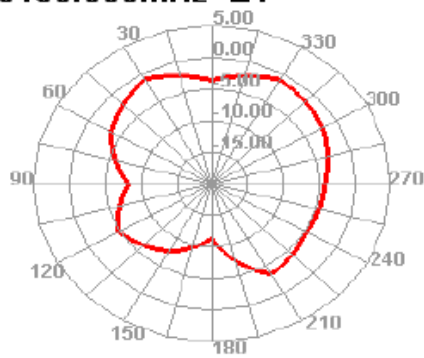
5150.000MHz



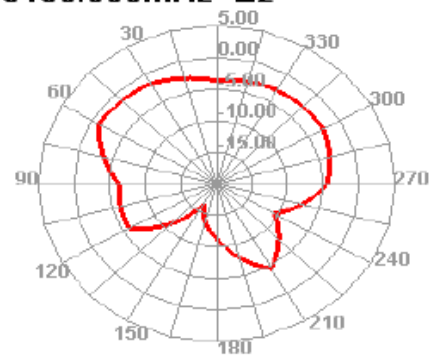
5150.000MHz H



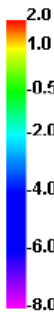
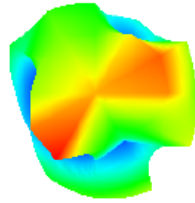
5150.000MHz E1



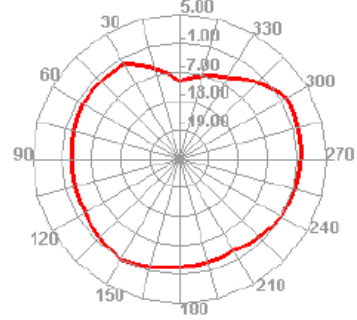
5150.000MHz E2



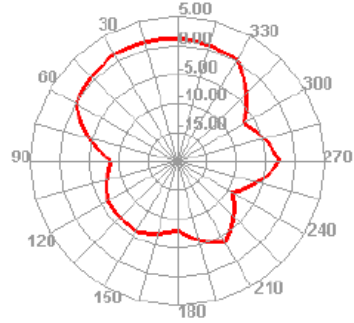
5500.000MHz



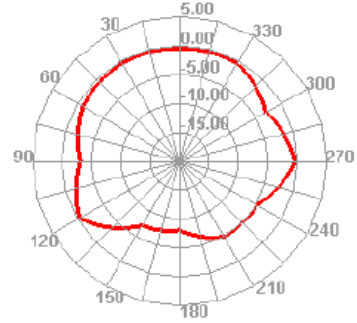
5500.000MHz H



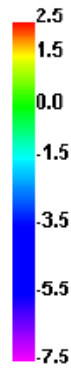
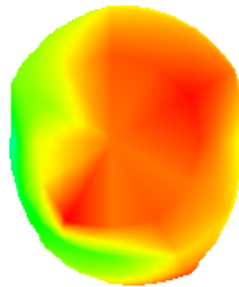
5500.000MHz E1



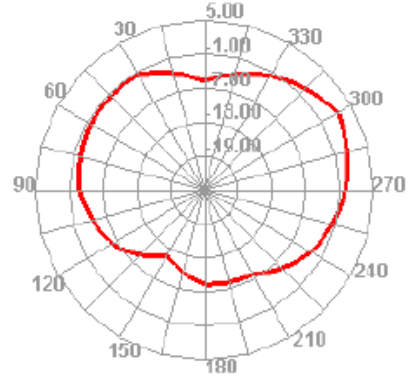
5500.000MHz E2



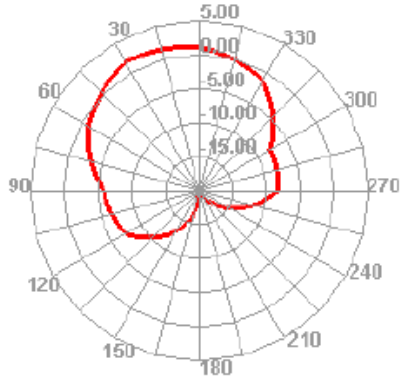
5850.000MHz



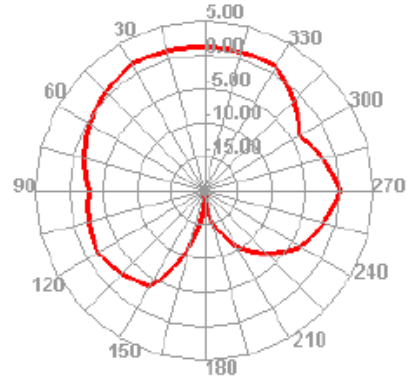
5850.000MHz H



5850.000MHz E1



5850.000MHz E2



3. Antenna drawing:

