

Manufacturer	/
Antenna type	Internal antenna
Antenna Gain	3.00dBi for 2.4G, 3.00dBi for 5G

## 1. Test equipment and conditions:

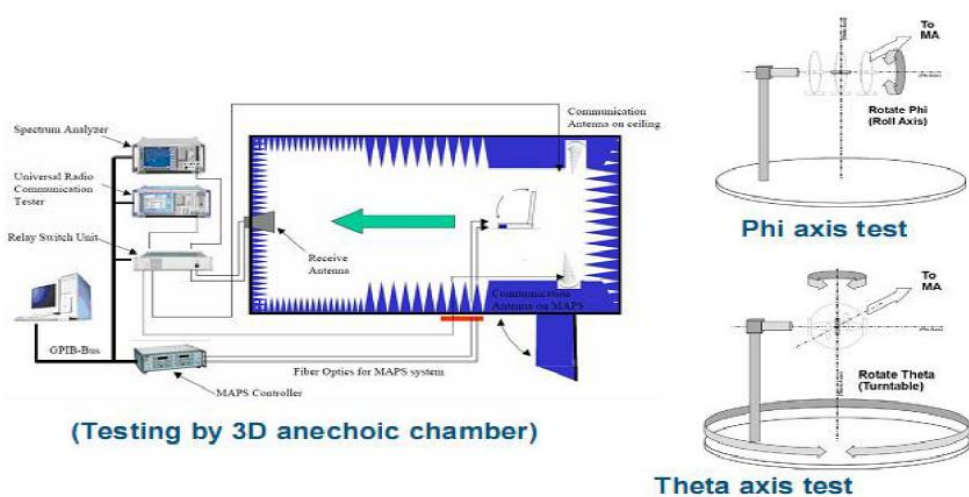
### 1.1. Network Analyzer

Agilent 8753D Agilent 5071B

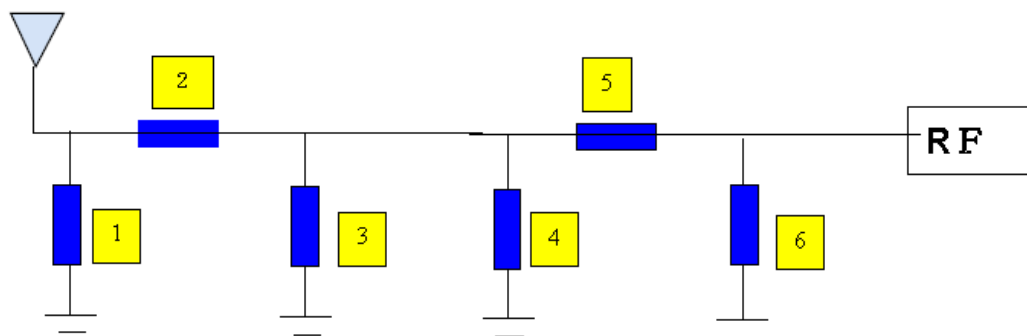
### 1.2. Communication test equipment

Agilent E5515C R&S CMW500

### 1.3. Test system

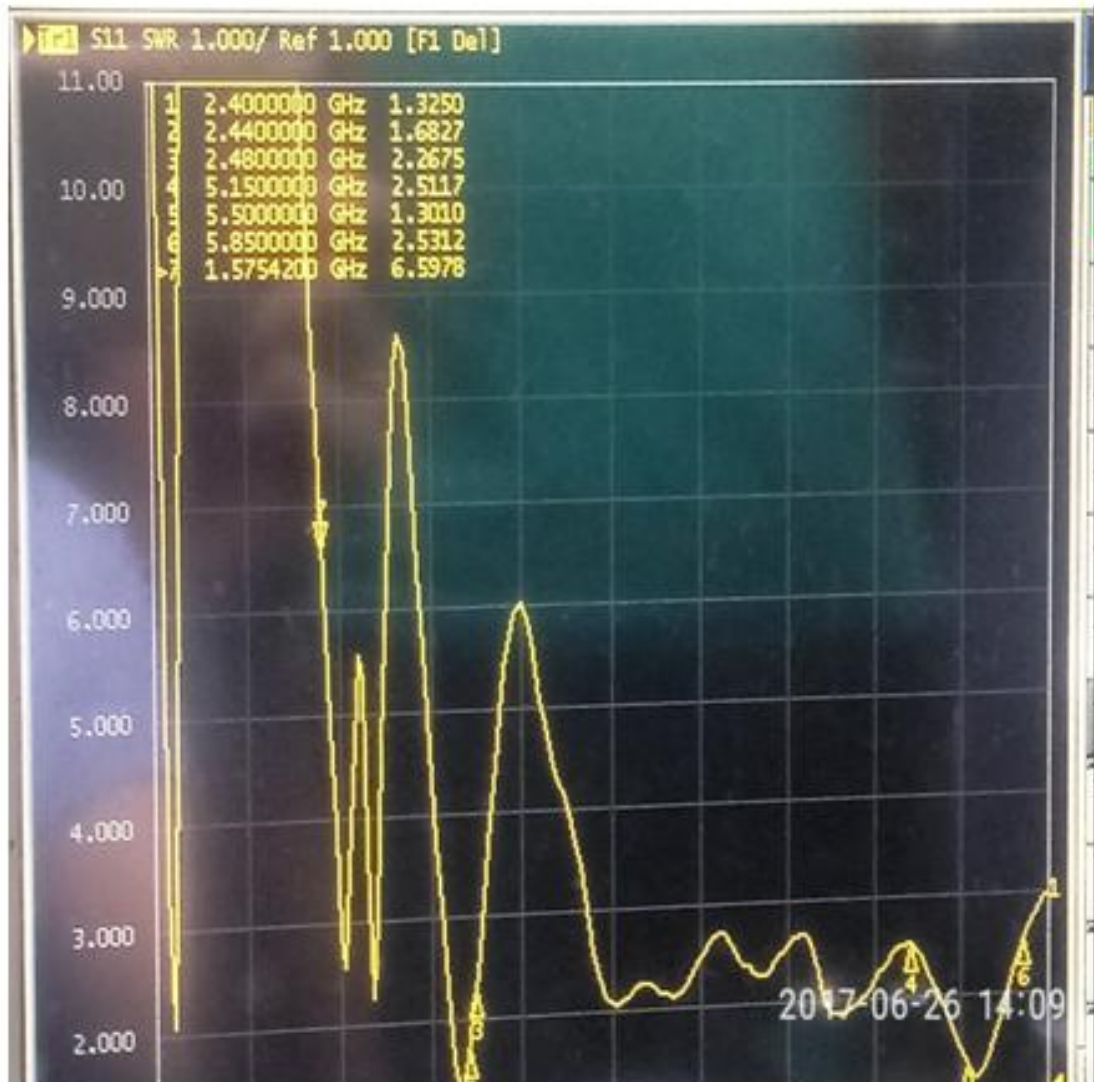


### 1.4. Matching circuit



## 2. Test Data:

### 2.1. Standing wave ratio



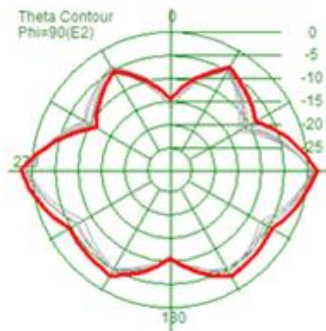
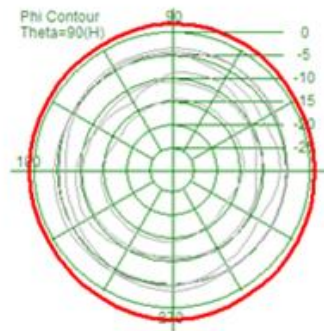
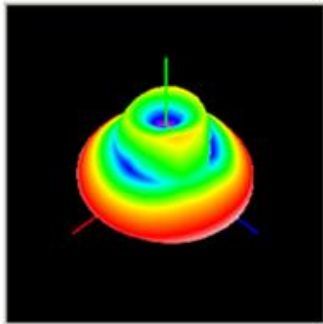
## 2.2.Efficiency

2.4G										
Fred (MHz)	Effi (%)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut (Hor)	Attenut (Ver)
2400	44.38	-2.79	2.71	0.57	40.28	13.32	2.29	-23.79	48.26	49.33
2410	44.63	-2.46	2.56	0.42	42.42	13.54	2.46	-21.29	48.66	49.58
2420	44.94	-2.12	2.63	0.49	40.96	14.77	2.68	-20.97	48.71	49.88
2430	44.27	-2.70	2.44	0.30	43.24	15.23	2.29	-22.77	48.21	49.35
2440	44.75	-2.39	2.91	0.77	40.71	15.79	2.53	-25.39	48.58	49.56
2450	44.82	-1.83	2.89	0.75	41.19	16.18	3.15	-21.98	49.11	49.99
2460	44.28	-2.63	2.97	0.83	42.39	18.25	2.31	-25.62	48.37	49.22
2470	44.49	-2.34	2.89	0.75	41.78	18.80	2.50	-24.31	48.50	49.54
2480	45.08	-2.23	2.99	0.85	40.89	19.05	3.14	-23.23	48.98	49.99
2490	44.21	-2.68	2.39	0.25	43.21	19.23	2.35	-21.77	48.24	49.20
2500	44.46	-2.32	2.71	0.57	40.44	19.62	2.48	-20.30	48.48	49.61

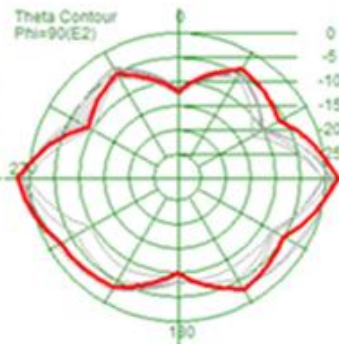
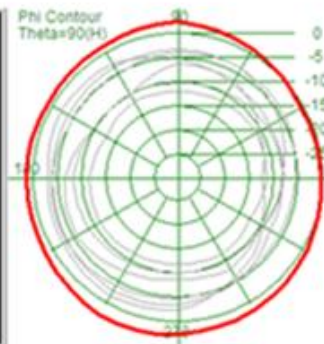
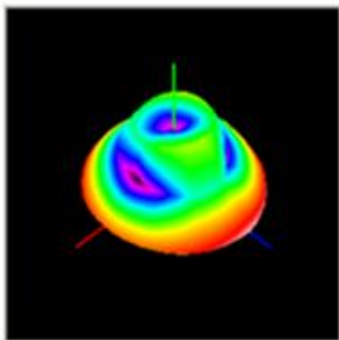
5G										
Fred (MHz)	Effi (%)	Effi (%)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenut (Hor)	Attenut (Ver)
4900	60.30	-0.78	2.23	0.09	49.26	35.28	3.29	-19.67	63.32	61.32
5000	60.53	-0.44	2.56	0.42	51.69	37.77	4.68	-22.38	65.59	62.75
5100	60.61	-0.25	2.41	0.27	52.92	34.93	3.92	-21.31	64.12	64.84
5200	60.27	-0.69	2.99	0.85	48.24	39.31	3.29	-19.74	63.35	62.37
5300	60.49	-0.35	2.78	0.64	46.80	30.79	2.76	-18.23	64.73	63.76
5400	60.96	-0.35	2.31	0.17	50.15	30.89	3.81	-25.32	64.01	60.93
5500	60.30	-0.75	2.83	0.69	51.34	29.28	4.22	-23.61	66.30	62.24
5600	60.73	-0.58	3.00	0.86	49.59	26.70	3.76	-16.47	63.78	61.77
5700	60.76	0.16	2.17	0.03	53.11	26.16	4.78	-17.26	64.16	61.86
5800	60.21	-0.63	2.85	0.71	45.22	34.40	3.21	-15.65	62.26	63.31
5900	60.47	-0.28	2.23	0.09	49.45	35.48	3.56	-18.42	63.54	62.65

## 2.3.Directivity diagram

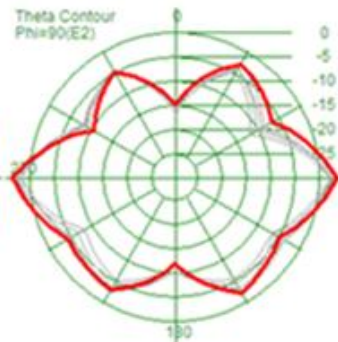
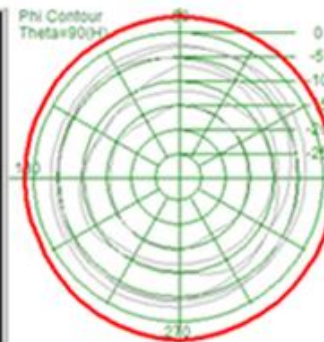
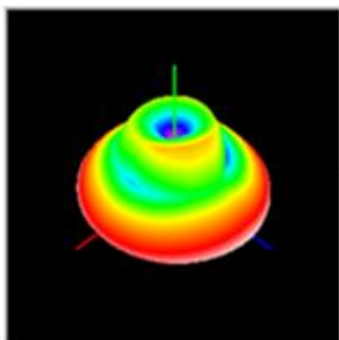
### 2.4GHz



### 2.45GHz

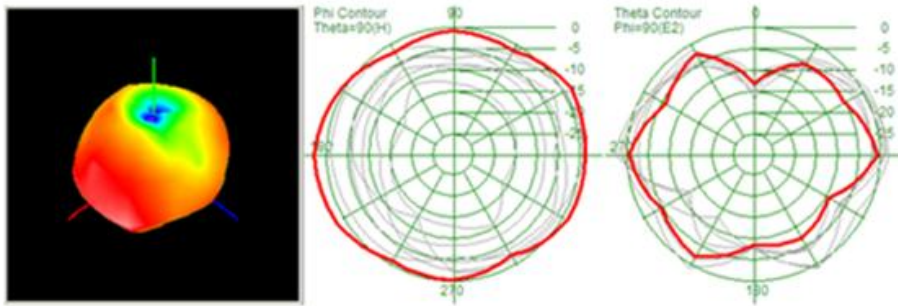


### 2.5GHz

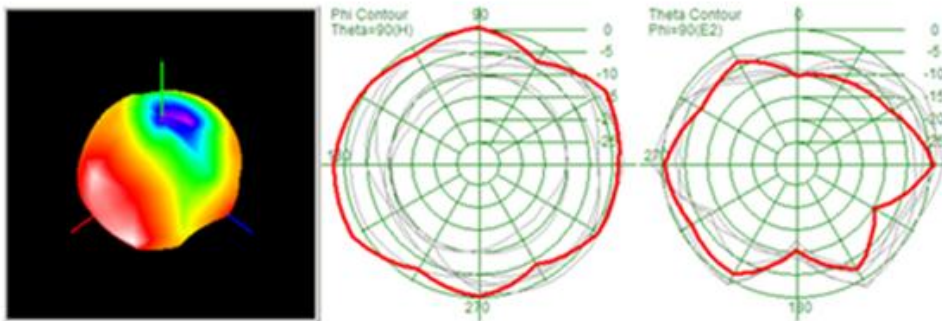




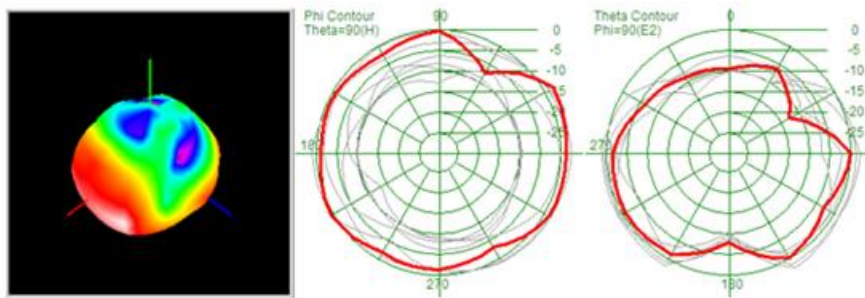
### 5.15GHz



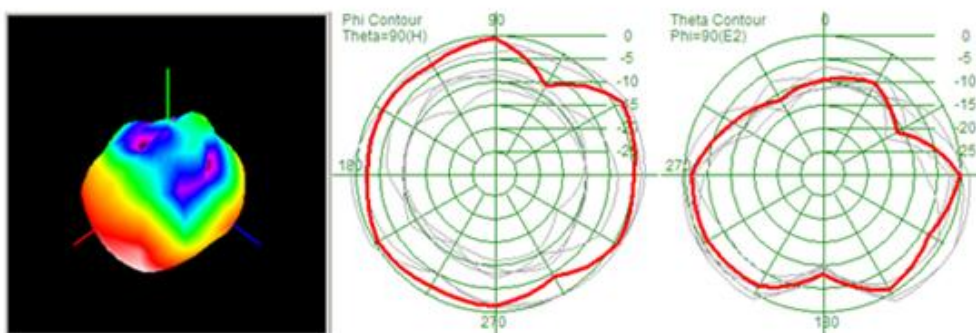
### 5.35GHz



### 5.75GHz



### 5.825GHz



**3. Antenna drawing:**

