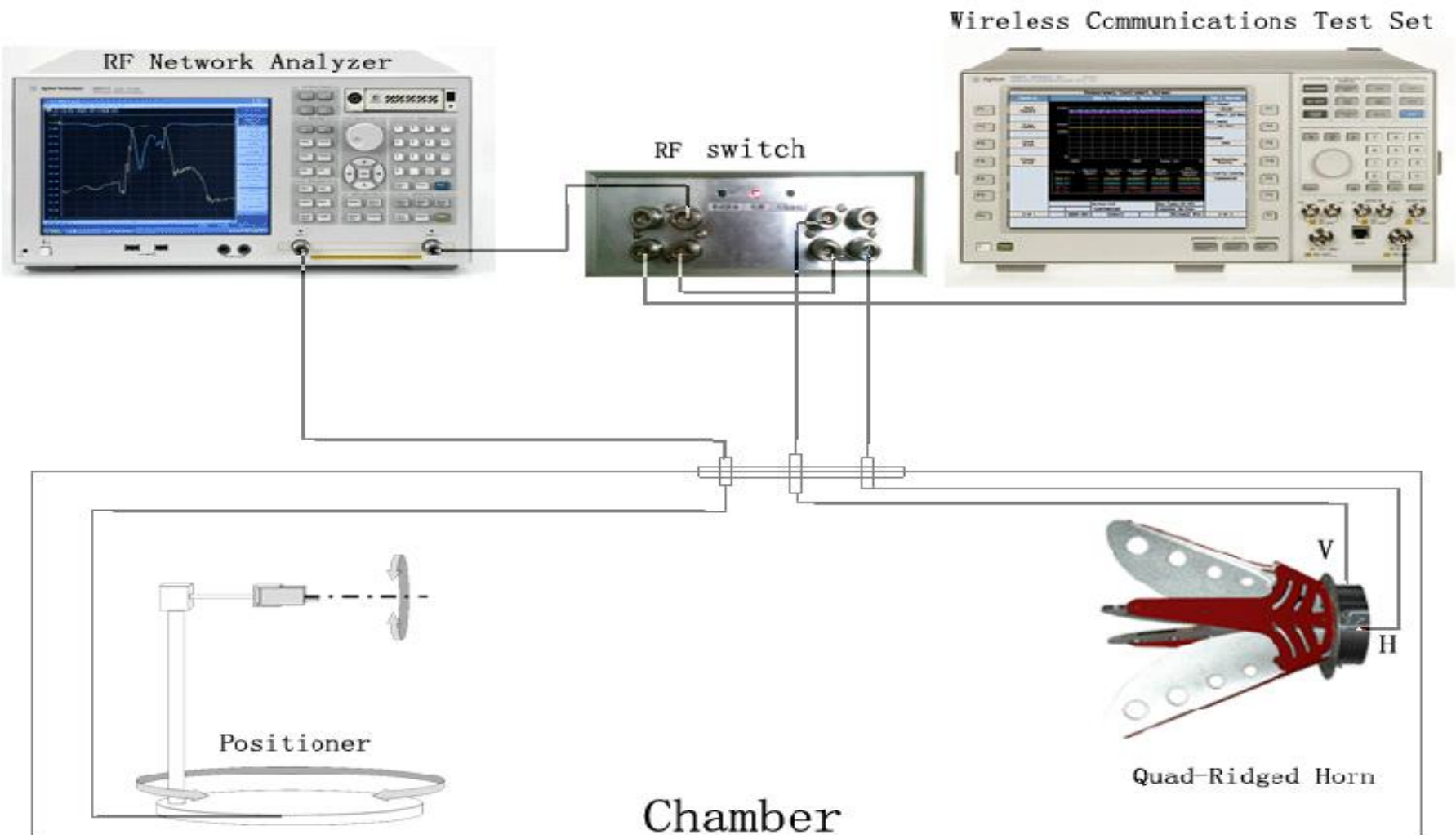


Shenzhen ATN commucation co.,Ltd

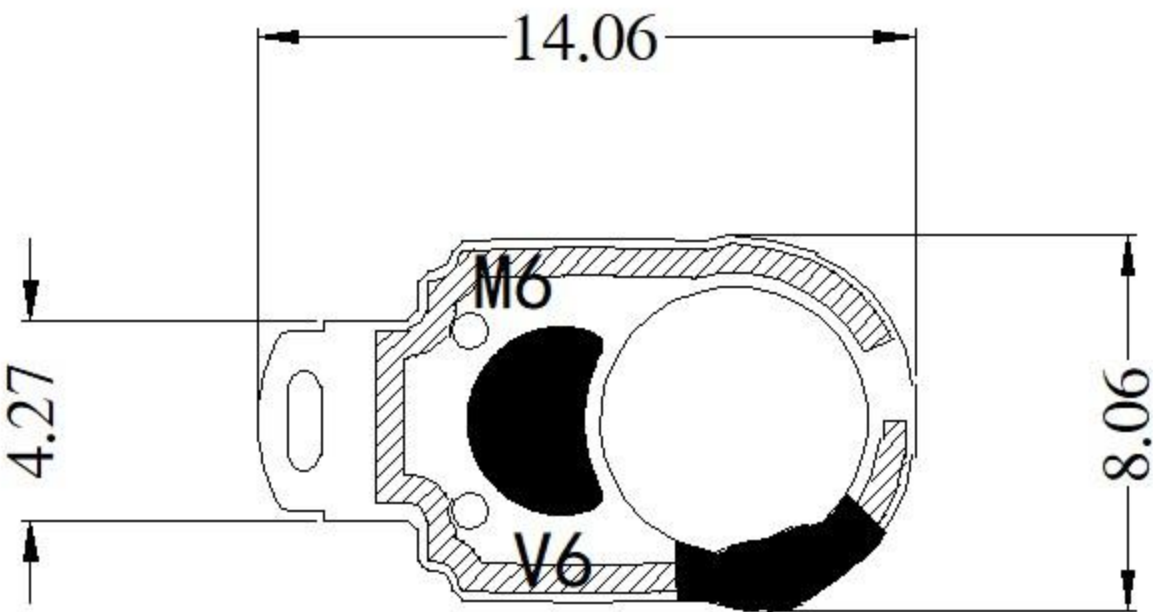
Antenna test report

Customer:	chengyue	Project name	PM22-6976D8	date	Jan 9, 2024
band	2. 4G-2. 48GHz				
Report version	V2.0				
Antenna type	FPC, monopole , antenna model:M6-v6				

Test system



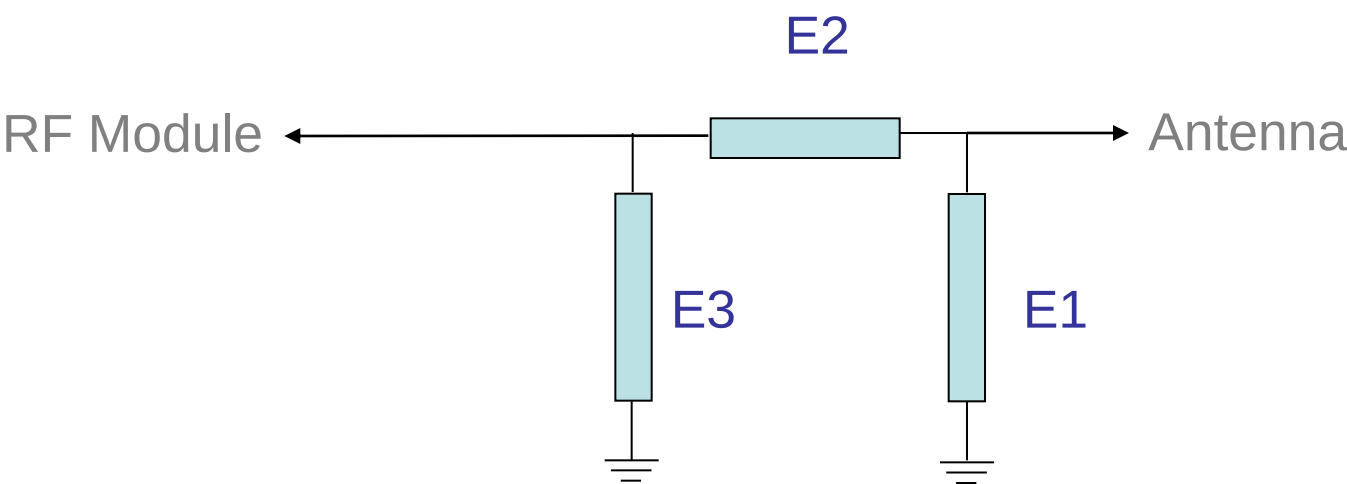
Antenna size



Catalog

1. Match circuit
2. Passive test data
3. OTA data
4. Distance test

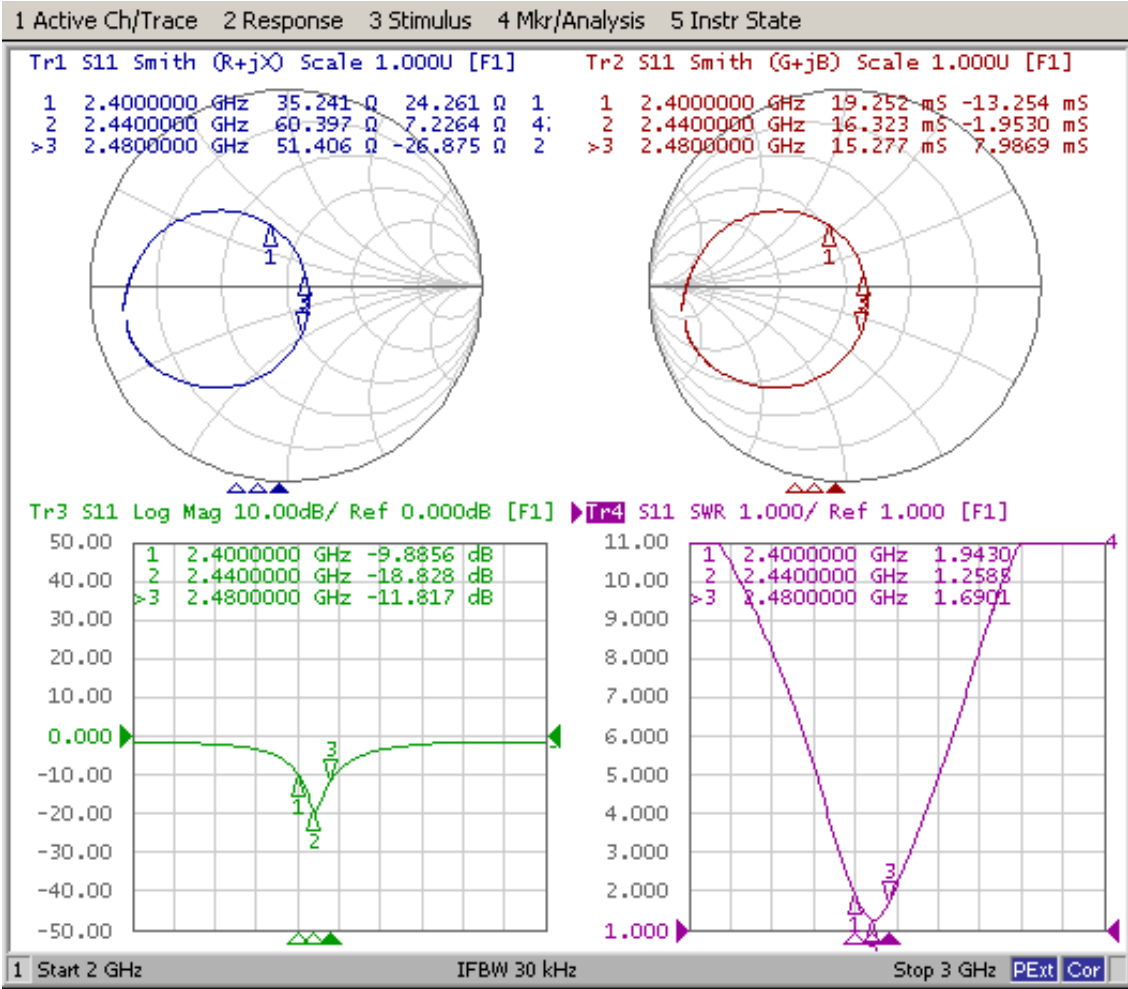
1. match circuit



Element	Value
E1(0201)	2.4pF(GRM0335C1H2R4BA01D)
E2(0201)	0Ω
E3(0201)	NC

2. Passive data

2.1 S11 Parameter

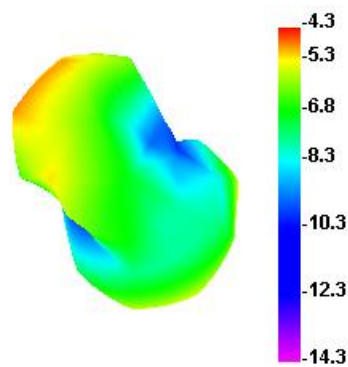


2.2 Gain & Efficiency

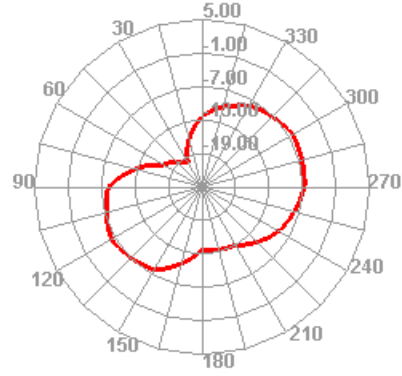
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	14.52	-8.38	-4.32
2410	16.43	-7.84	-3.36
2420	16.58	-7.8	-3.2
2430	18.71	-7.28	-2.38
2440	19.31	-7.14	-2.39
2450	20.9	-6.8	-1.91
2460	20.93	-6.79	-1.95
2470	21.57	-6.66	-1.81
2480	20.13	-6.96	-2.47
Average	18.79	-7.29	-2.64

2.3 Radiation pattern

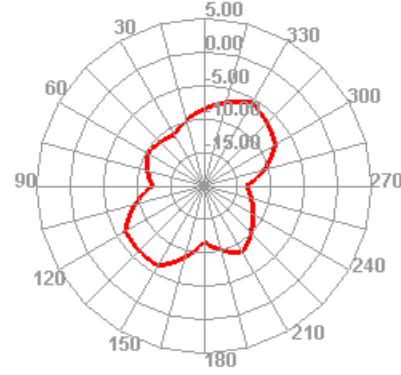
2400.000MHz



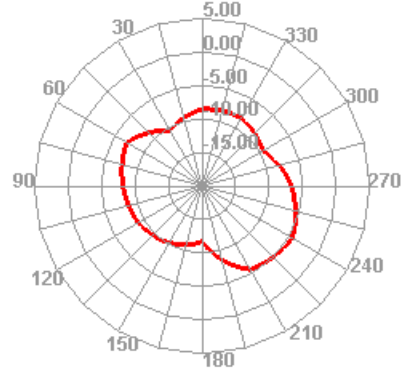
2400.000MHz H



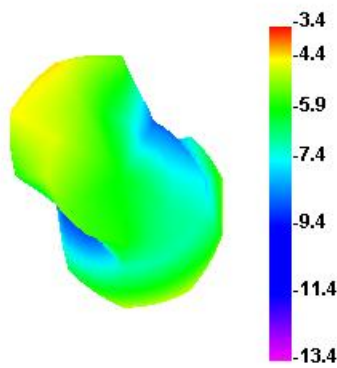
2400.000MHz E1



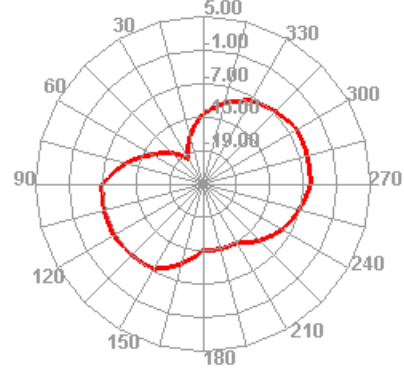
2400.000MHz E2



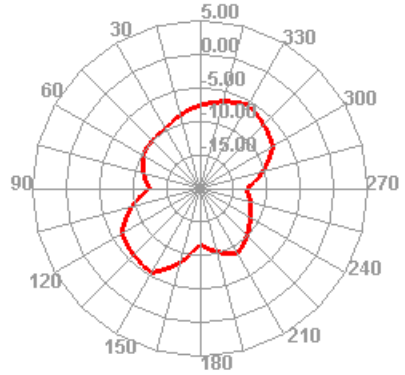
2410.000MHz



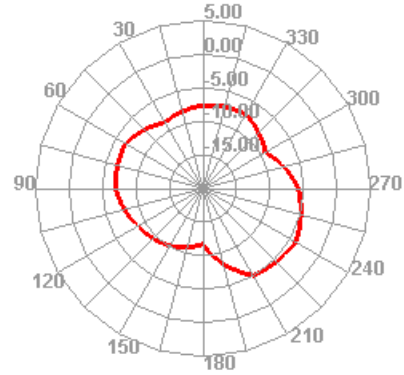
2410.000MHz H



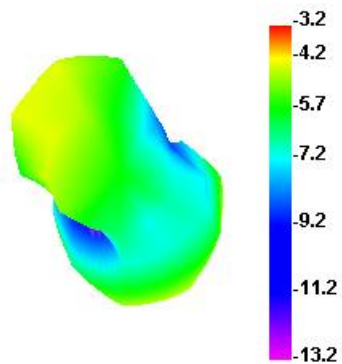
2410.000MHz E1



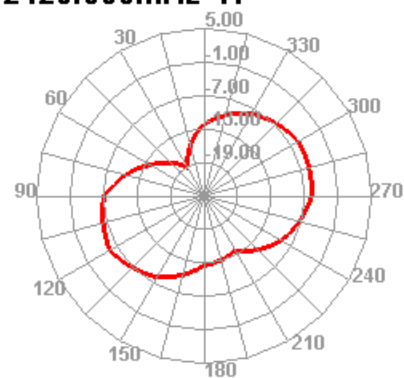
2410.000MHz E2



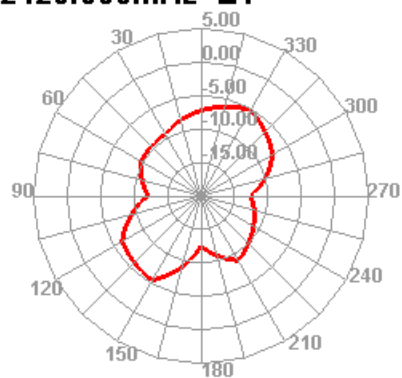
2420.000MHz



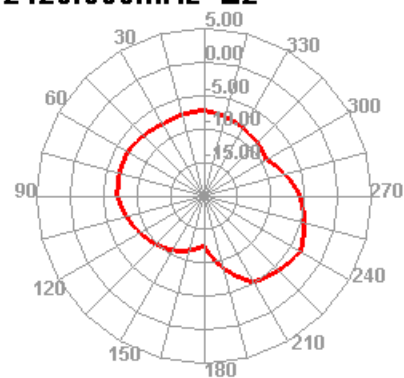
2420.000MHz H



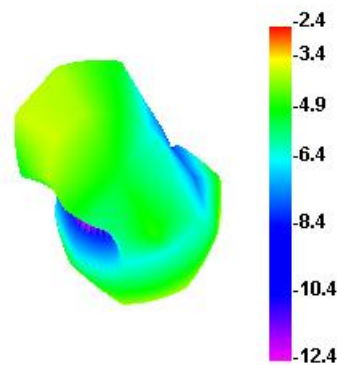
2420.000MHz E1



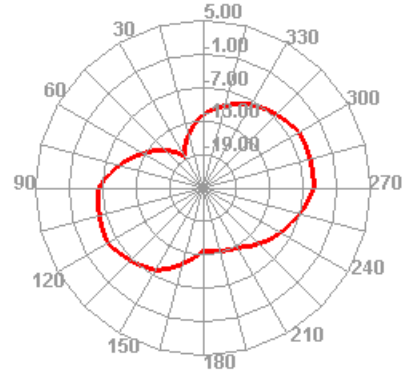
2420.000MHz E2



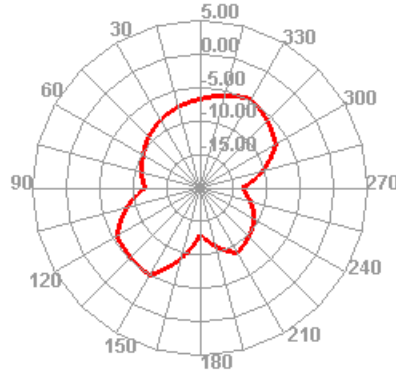
2430.000MHz



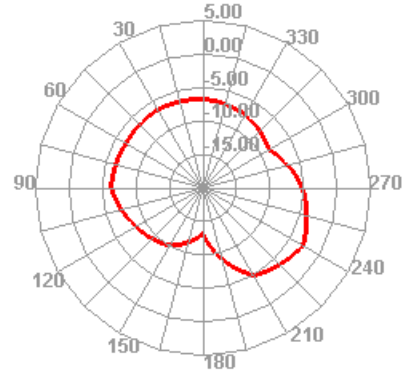
2430.000MHz H



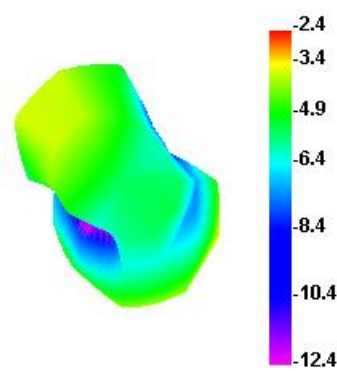
2430.000MHz E1



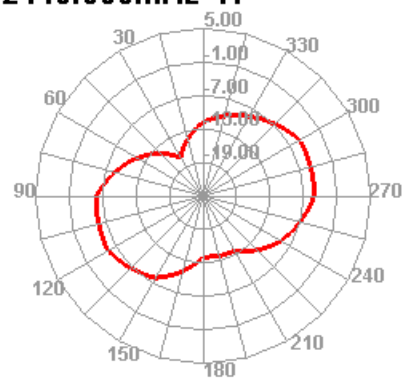
2430.000MHz E2



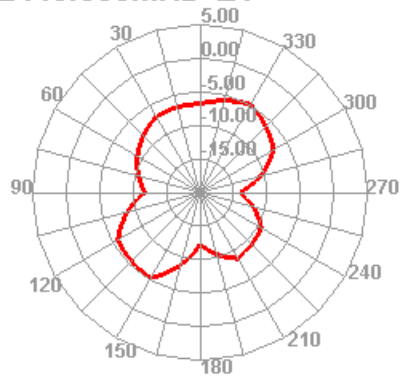
2440.000MHz



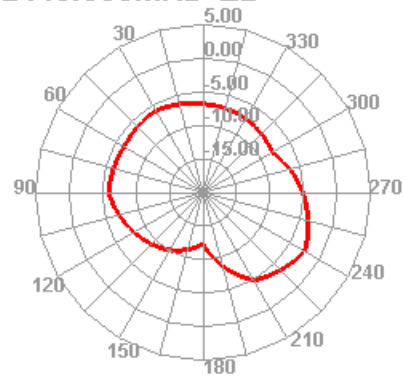
2440.000MHz H



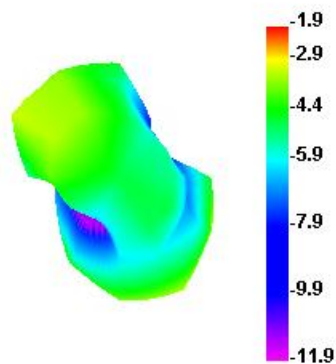
2440.000MHz E1



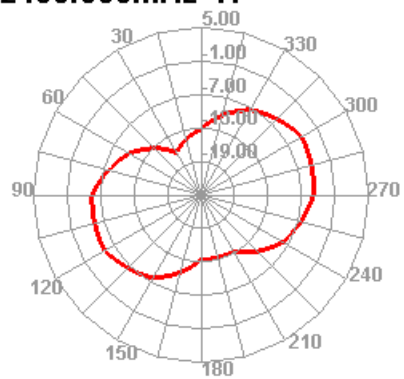
2440.000MHz E2



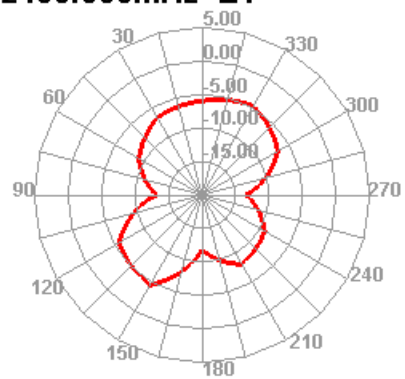
2450.000MHz



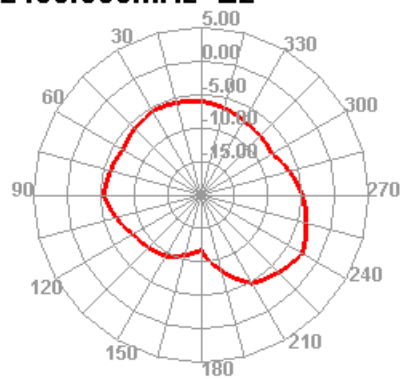
2450.000MHz H



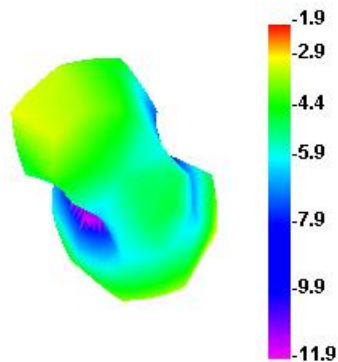
2450.000MHz E1



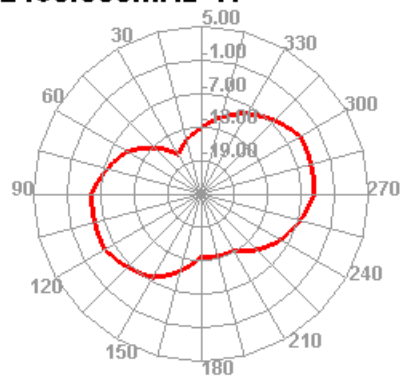
2450.000MHz E2



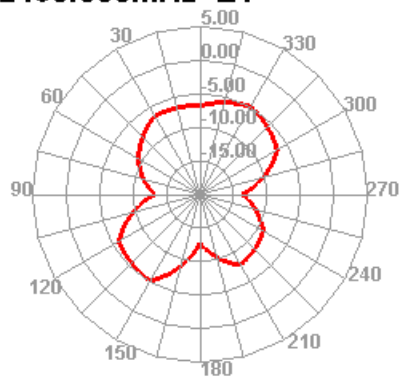
2460.000MHz



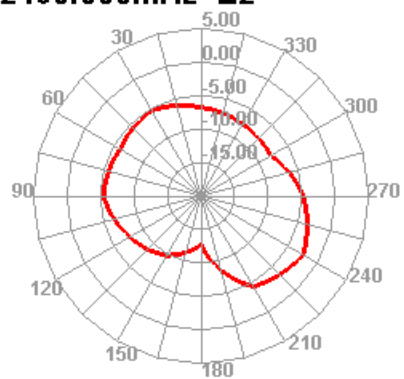
2460.000MHz H



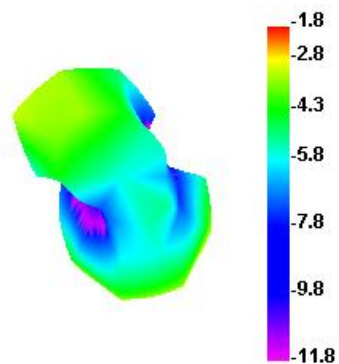
2460.000MHz E1



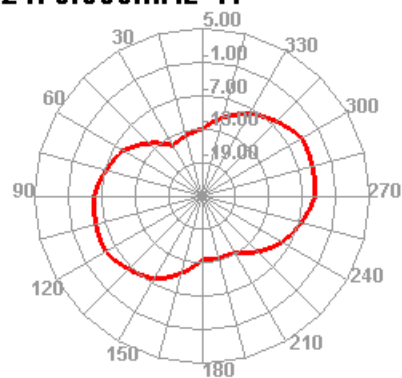
2460.000MHz E2



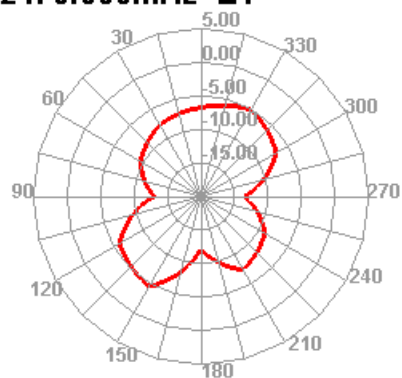
2470.000MHz



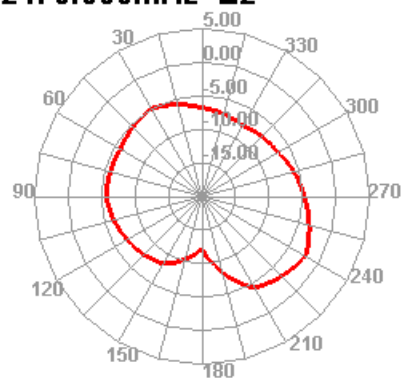
2470.000MHz H



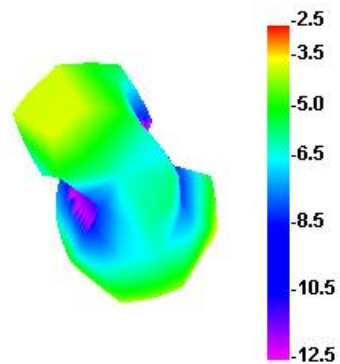
2470.000MHz E1



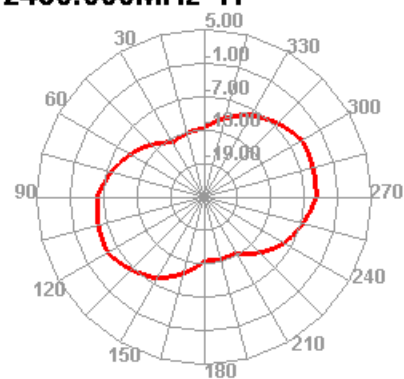
2470.000MHz E2



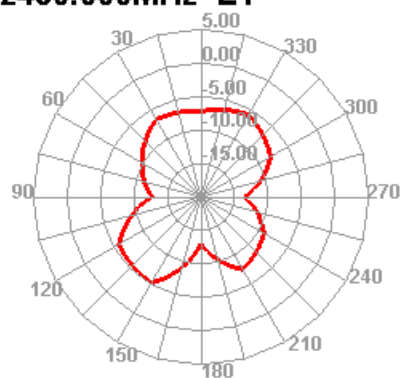
2480.000MHz



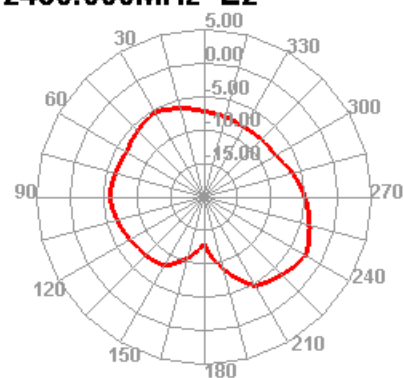
2480.000MHz H



2480.000MHz E1



2480.000MHz E2

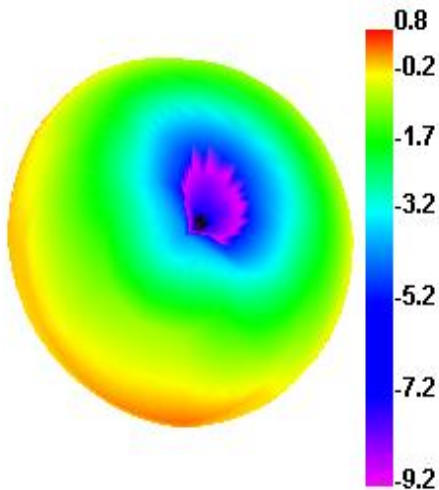


3. OTA data

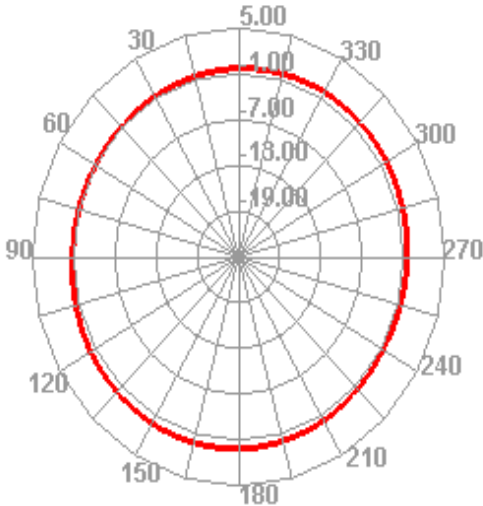
band	channel	TRP (dBm)	TIS (dBm)
Bluetooth BR (L)	0	-2.0	-80.9
	39	-0.3	-83.3
	78	1.6	-84.1

band	channel	TRP (dBm)	TIS (dBm)
Bluetooth BR(R)	0	-1.5	-81.5
	39	0.5	-83.1
	78	2.3	-83.7

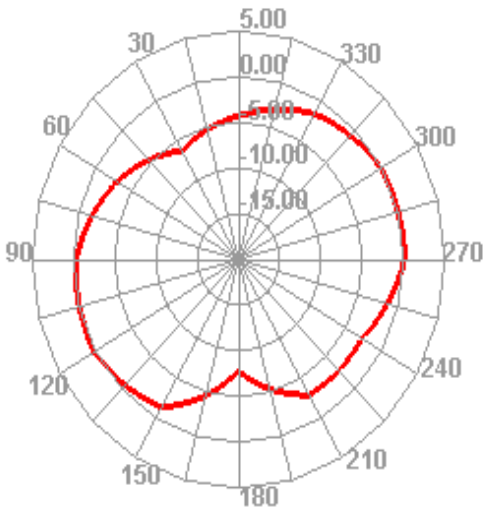
Bluetooth 0 TRP



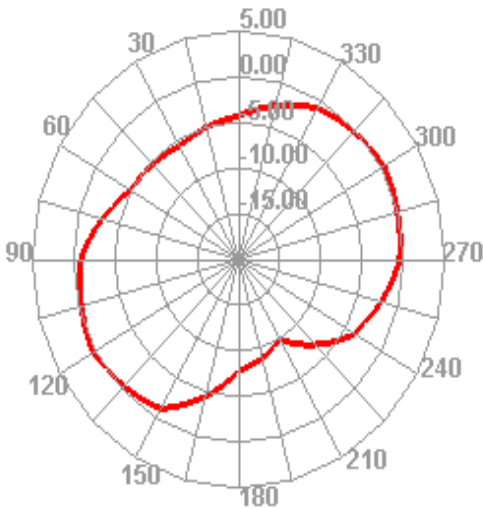
Bluetooth 0 TRP H



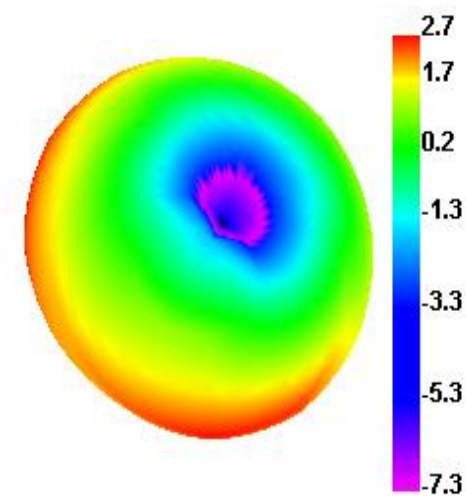
Bluetooth 0 TRP E1



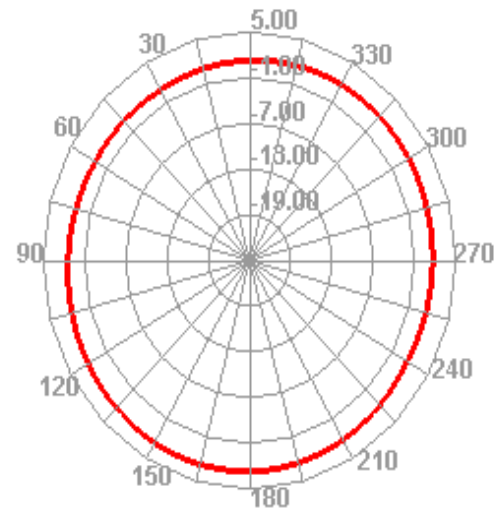
Bluetooth 0 TRP E2



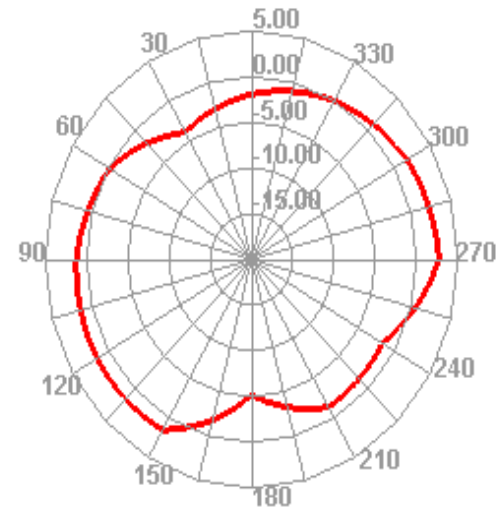
Bluetooth 39 TRP



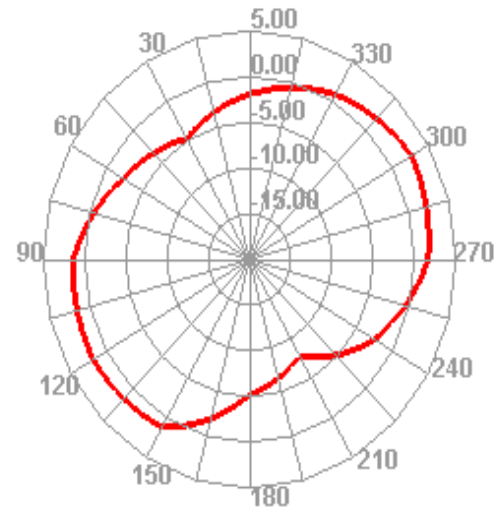
Bluetooth 39 TRP H



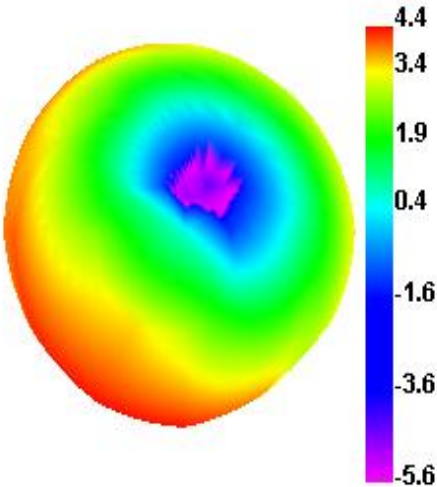
Bluetooth 39 TRP E1



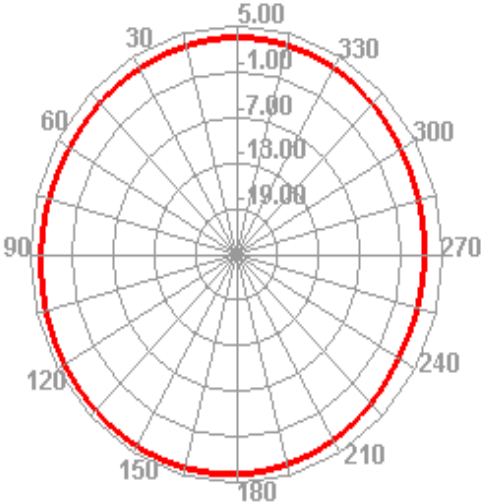
Bluetooth 39 TRP E2



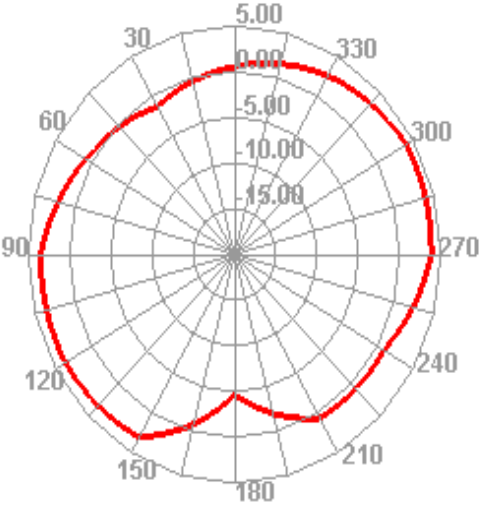
Bluetooth 78 TRP



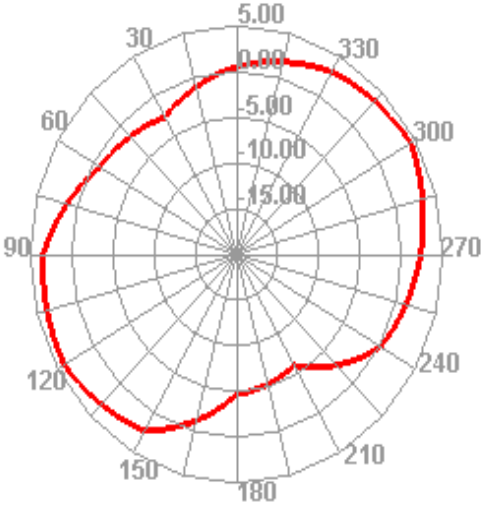
Bluetooth 78 TRP H



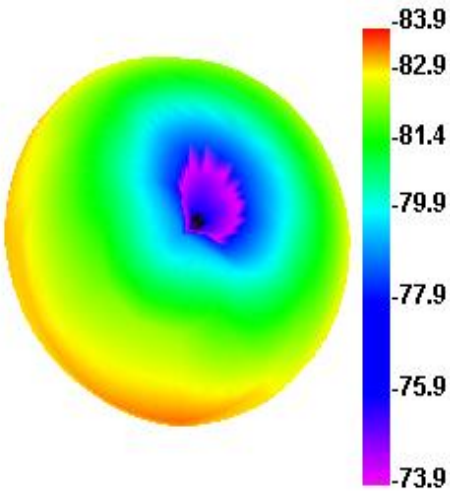
Bluetooth 78 TRP E1



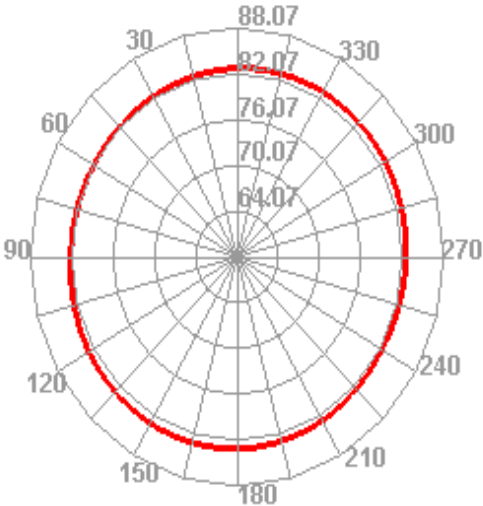
Bluetooth 78 TRP E2



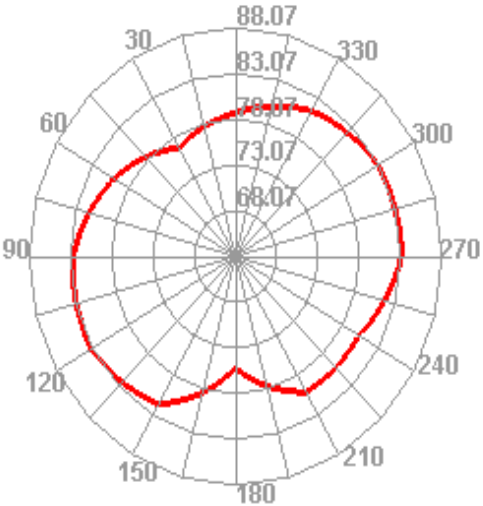
Bluetooth 0 TIS



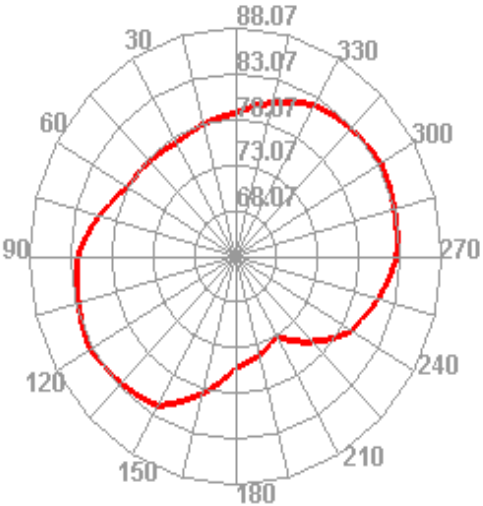
Bluetooth 0 TIS H



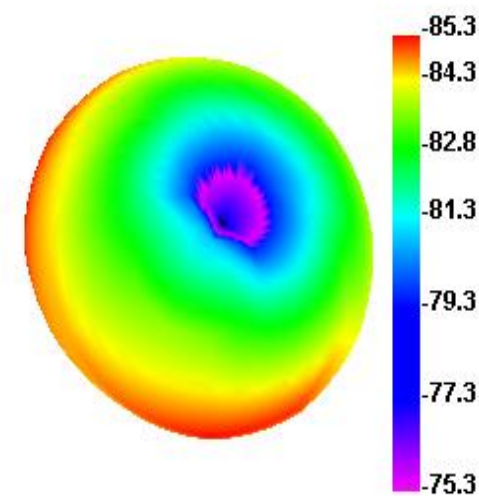
Bluetooth 0 TIS E1



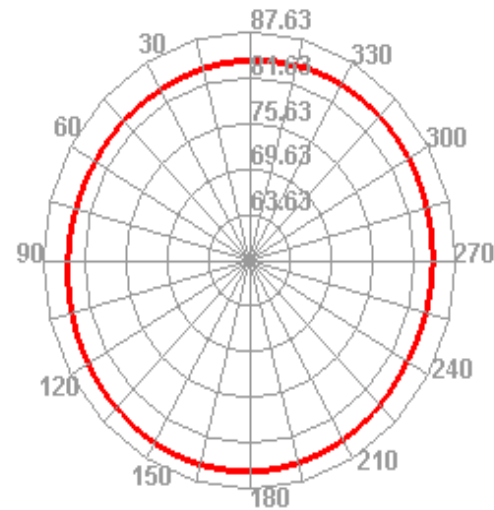
Bluetooth 0 TIS E2



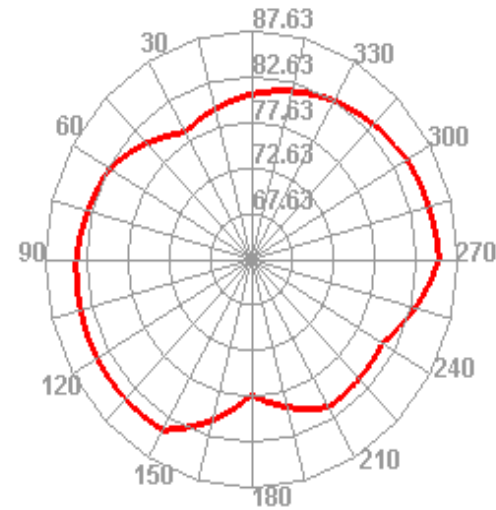
Bluetooth 39 TIS



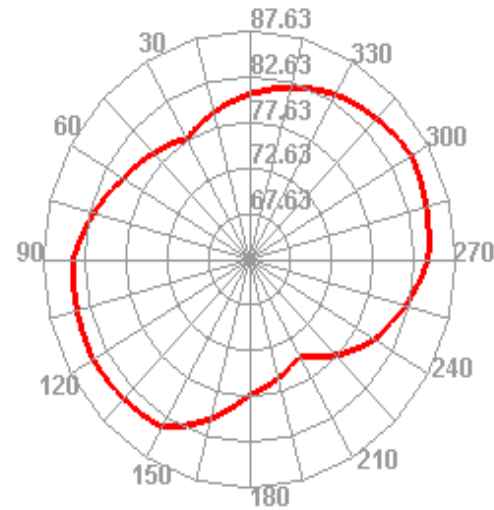
Bluetooth 39 TIS H



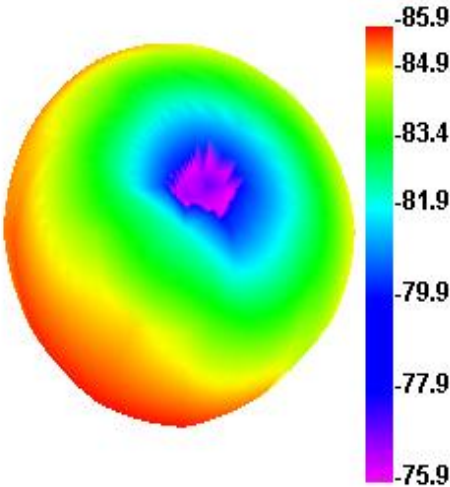
Bluetooth 39 TIS E1



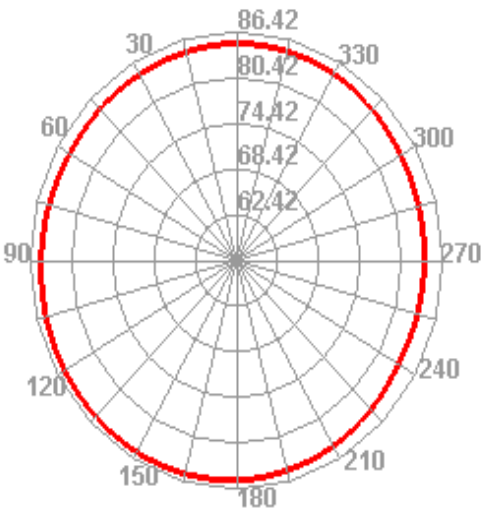
Bluetooth 39 TIS E2



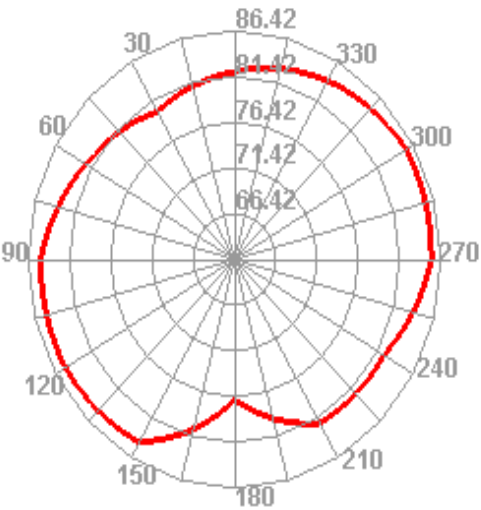
Bluetooth 78 TIS



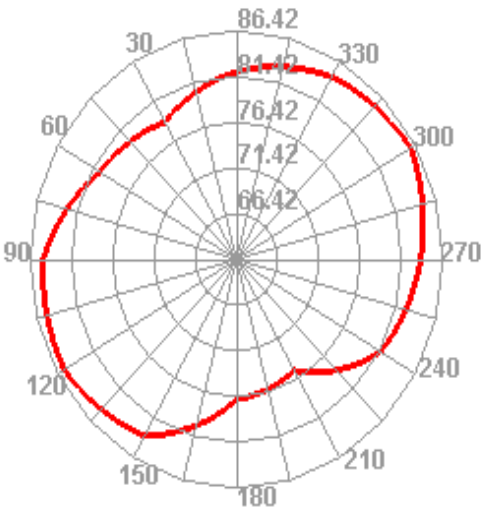
Bluetooth 78 TIS H



Bluetooth 78 TIS E1



Bluetooth 78 TIS E2



4.Distance test

Mobile phone	Iphone 6s
Distance (360°)	16m