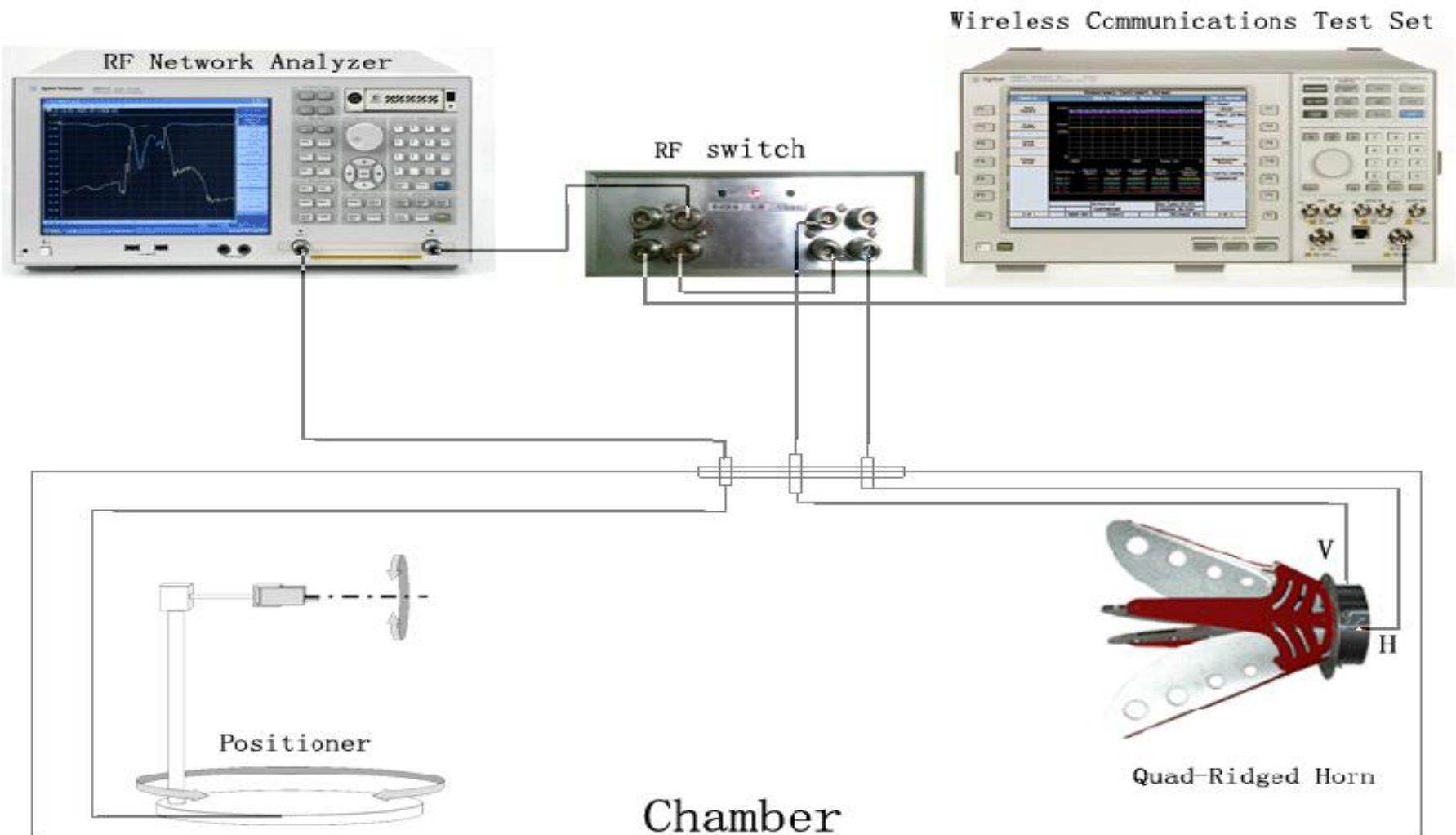


# Shenzhen ATN commucation co.,Ltd

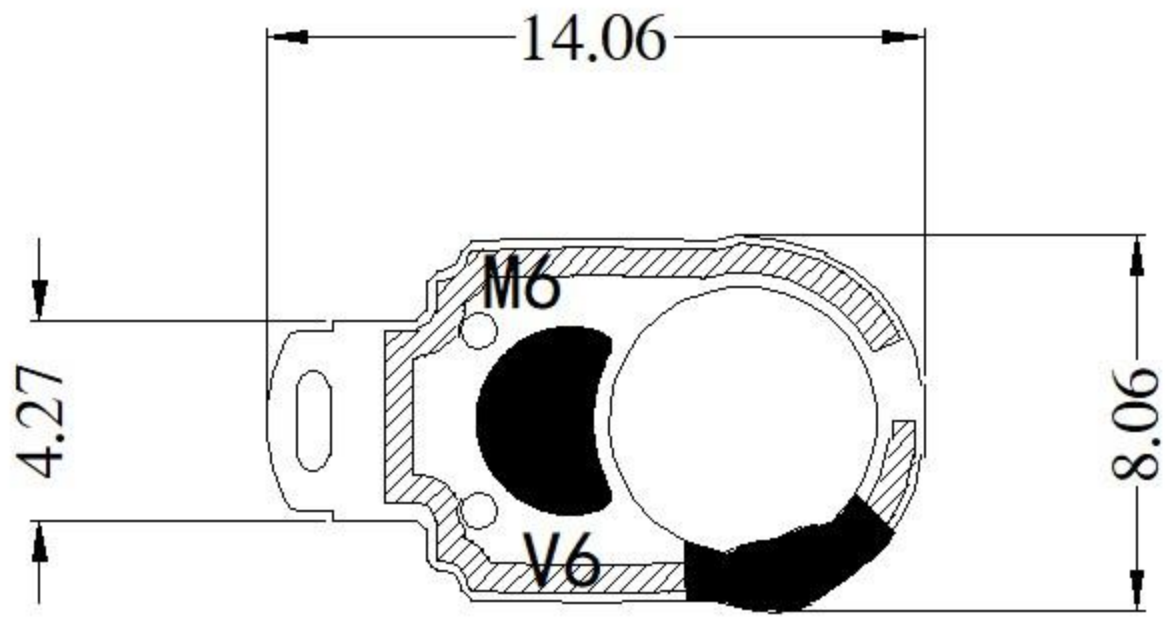
## Antenna test report

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



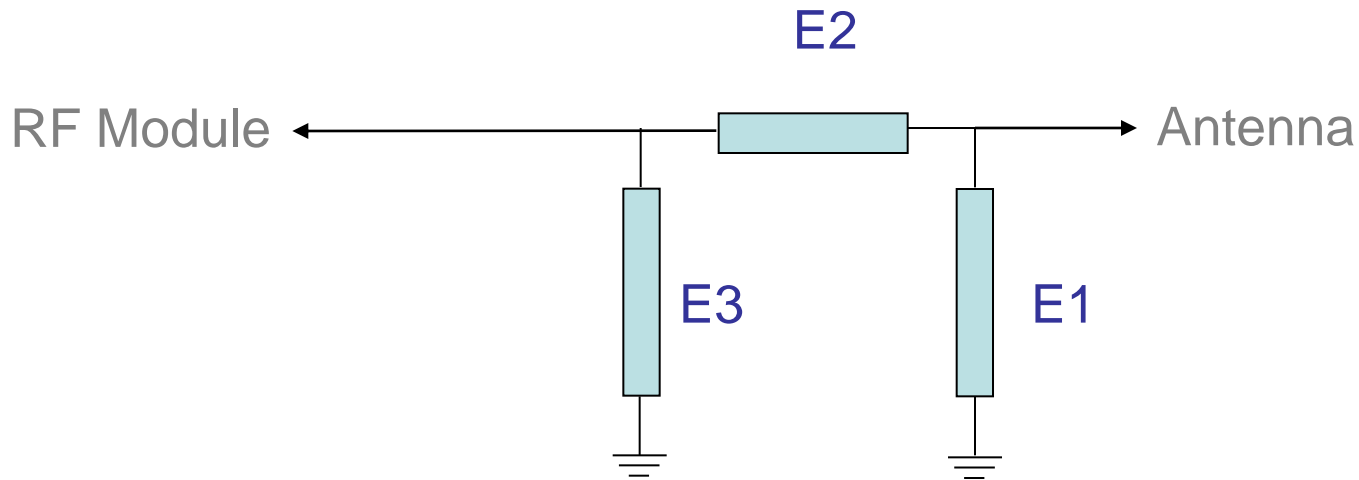
Antenna size



# Catalog

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

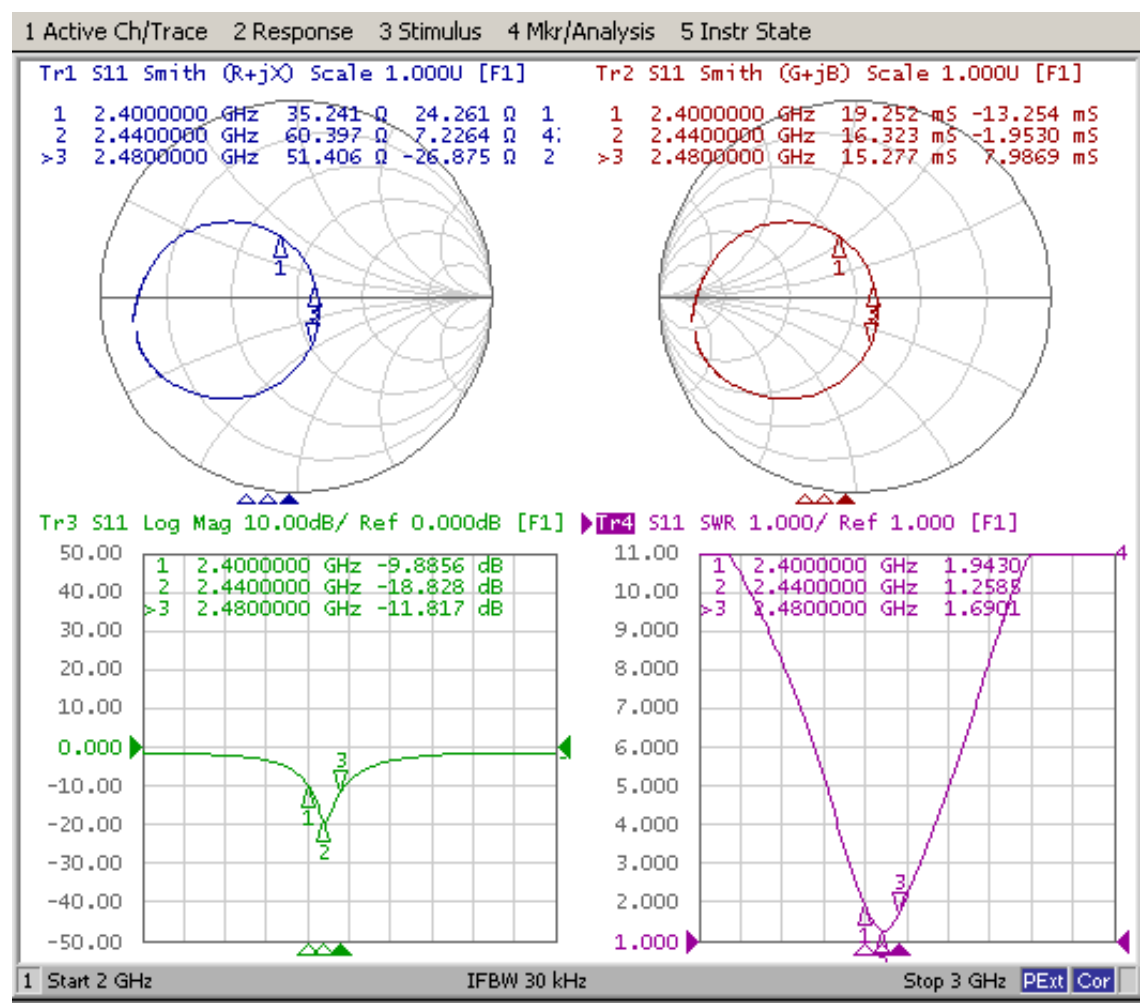
# 1. match circuit



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

# 2. Passive data

## 2.1 S11 Parameter

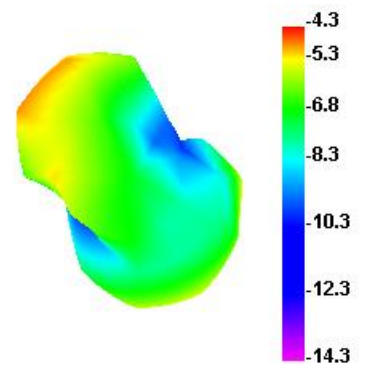


## 2.2 Gain & Efficiency

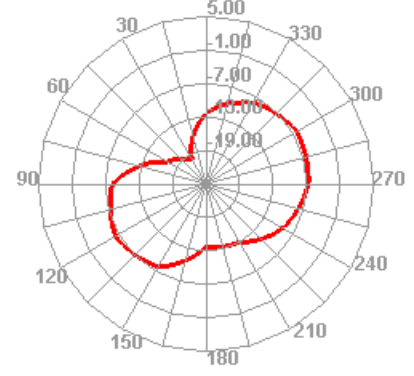
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	14.52	-8.38	-4.32
2410	16.43	-7.84	-3.36
2420	16.58	-7.8	-3.2
2430	18.71	-7.28	-2.38
2440	19.31	-7.14	-2.39
2450	20.9	-6.8	-1.91
2460	20.93	-6.79	-1.95
2470	21.57	-6.66	-1.81
2480	20.13	-6.96	-2.47
Average	18.79	-7.29	-2.64

## 2.3 Radiation pattern

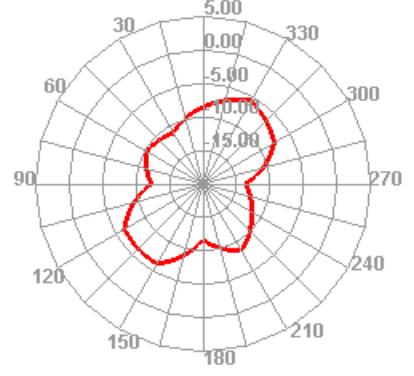
2400.000MHz



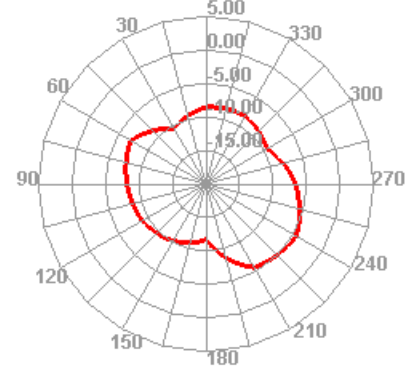
2400.000MHz H



2400.000MHz E1

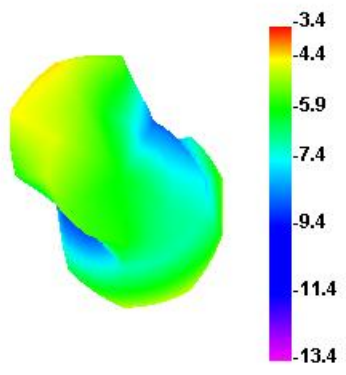


2400.000MHz E2

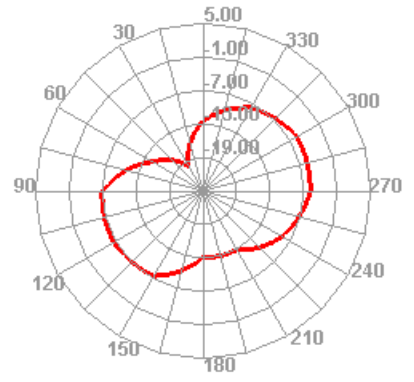




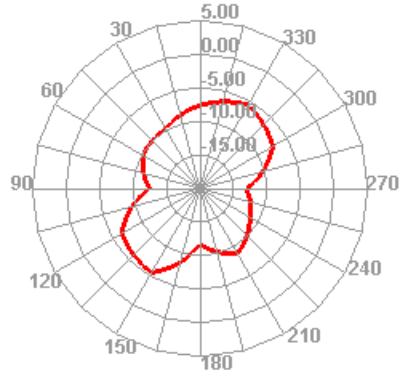
2410.000MHz



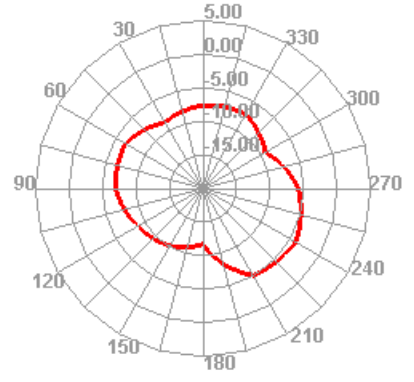
2410.000MHz H



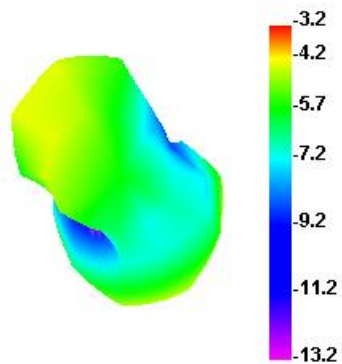
2410.000MHz E1



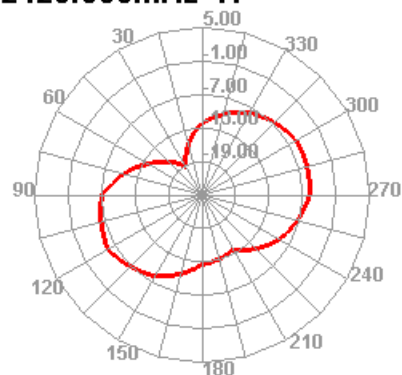
2410.000MHz E2



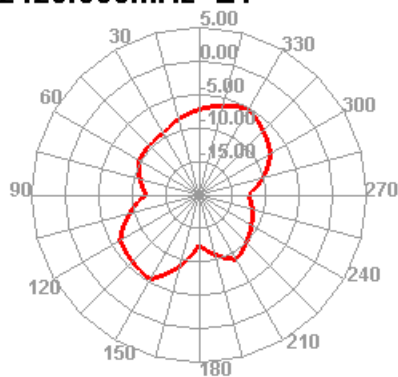
2420.000MHz



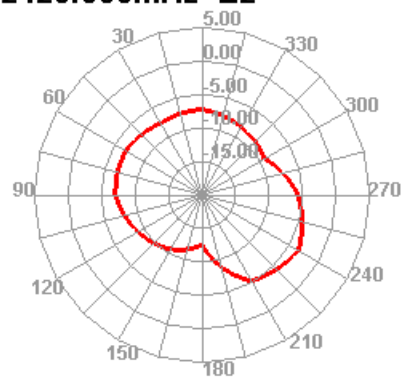
2420.000MHz H



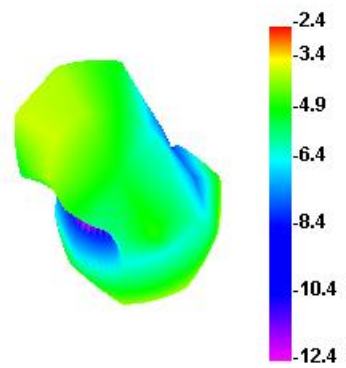
2420.000MHz E1



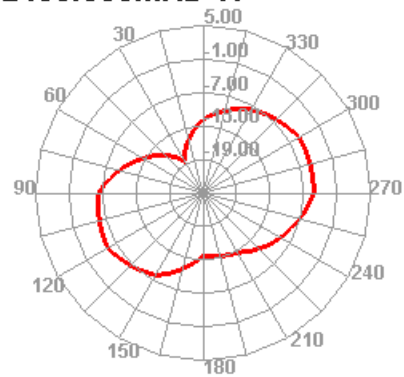
2420.000MHz E2



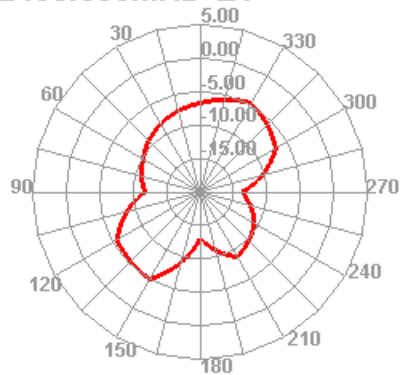
2430.000MHz



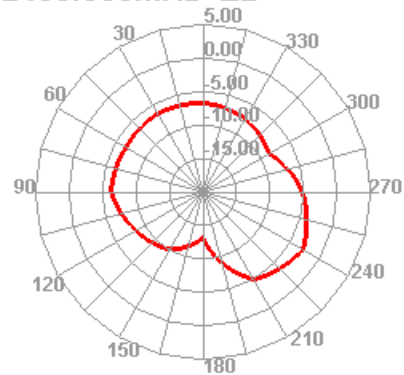
2430.000MHz H



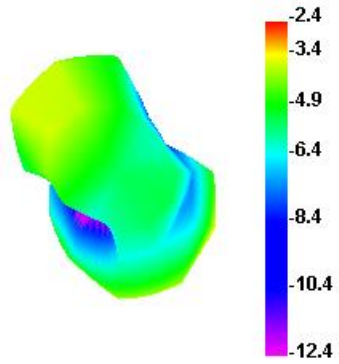
2430.000MHz E1



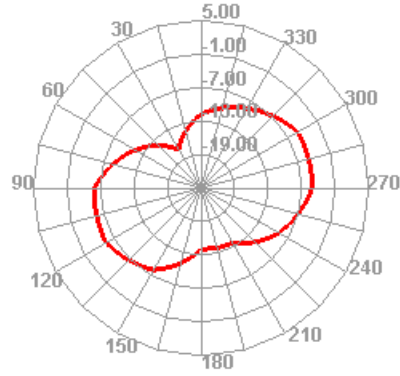
2430.000MHz E2



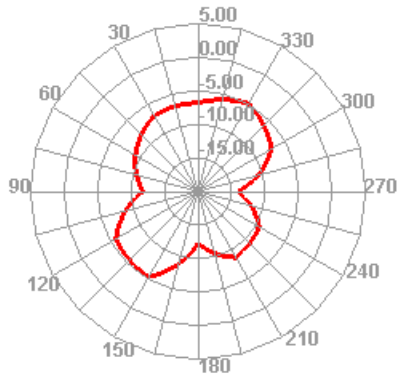
2440.000MHz



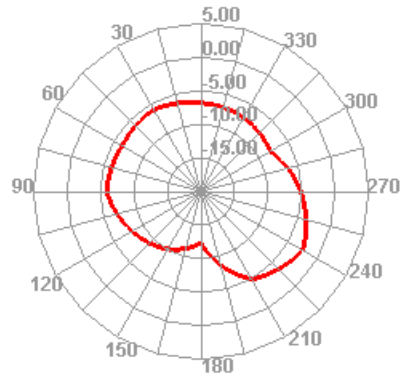
2440.000MHz H



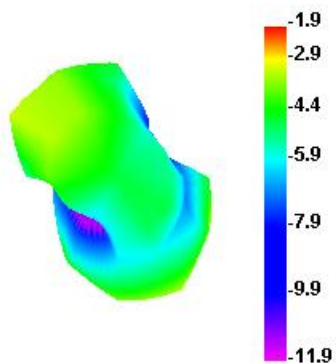
2440.000MHz E1



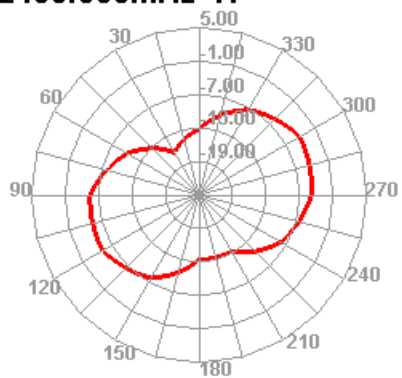
2440.000MHz E2



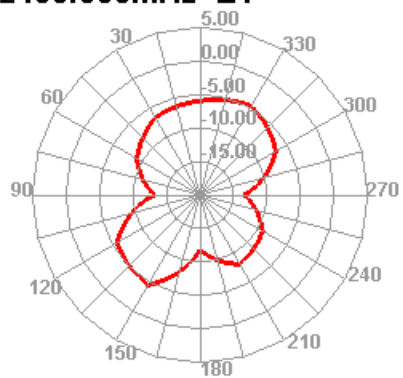
2450.000MHz



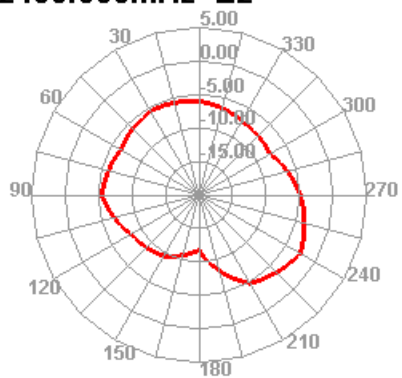
2450.000MHz H



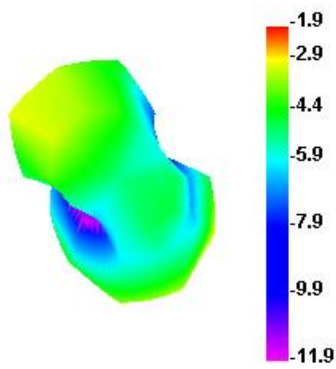
2450.000MHz E1



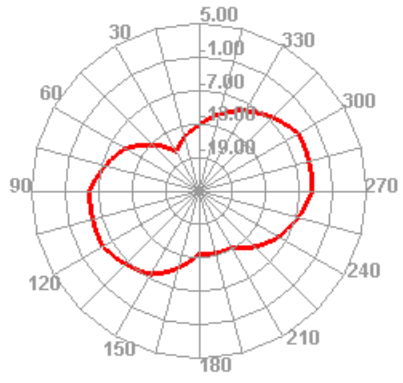
2450.000MHz E2



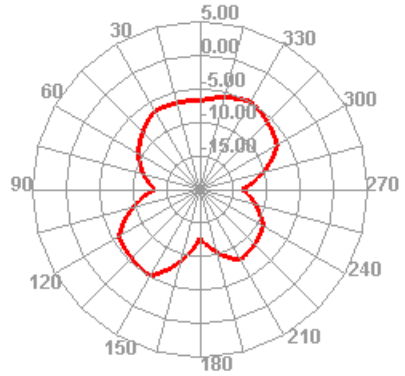
2460.000MHz



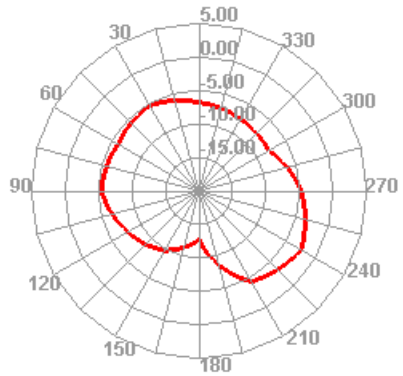
2460.000MHz H



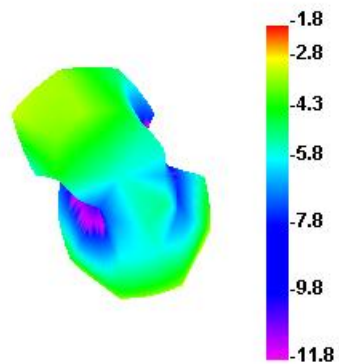
2460.000MHz E1



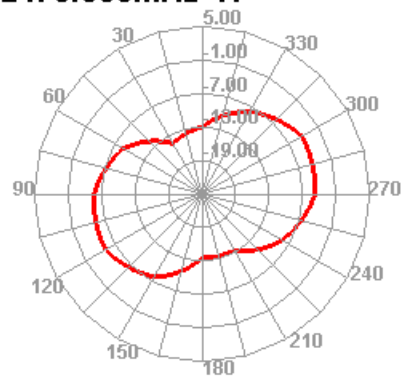
2460.000MHz E2



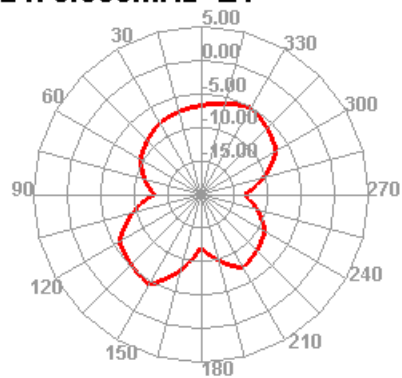
2470.000MHz



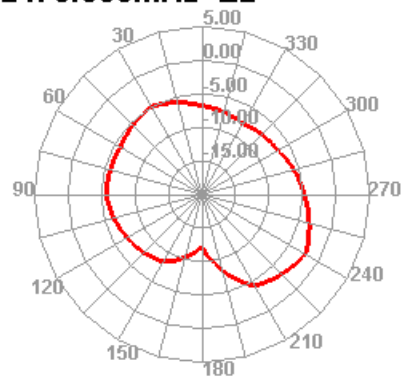
2470.000MHz H



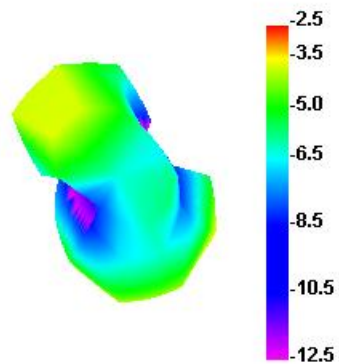
2470.000MHz E1



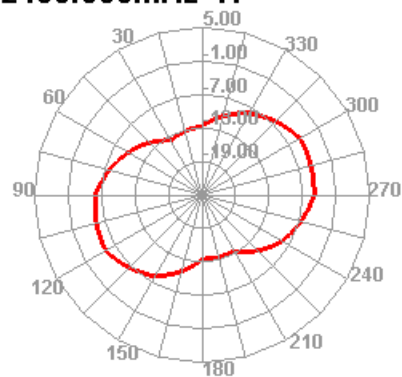
2470.000MHz E2



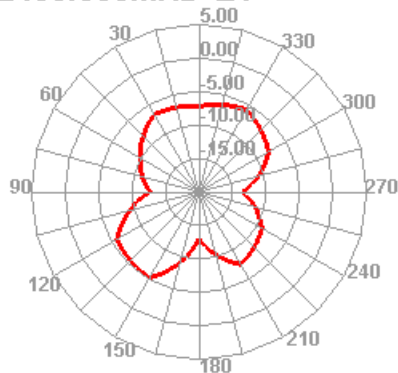
2480.000MHz



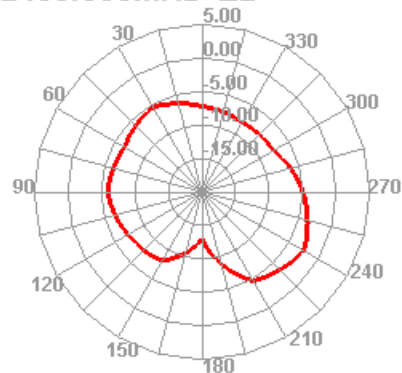
2480.000MHz H



2480.000MHz E1



2480.000MHz E2



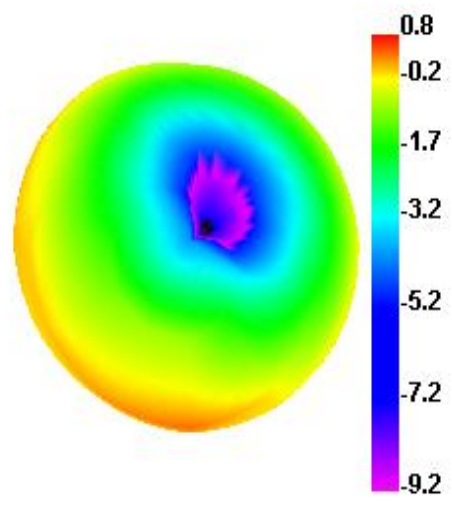


## 3. OTA data

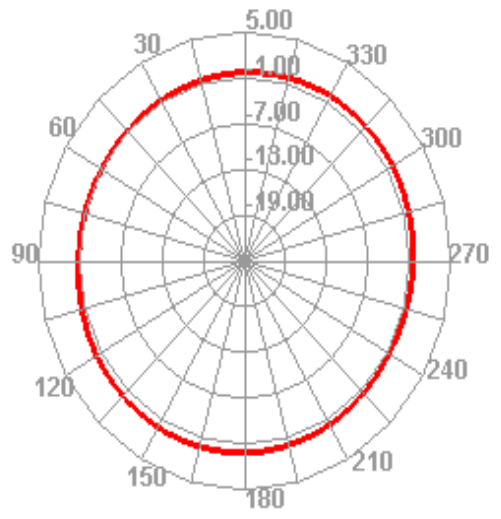
band	channel	TRP (dBm)	TIS (dBm)
Bluetooth BR (L)	0	-2.0	-80.9
	39	-0.3	-83.3
	78	1.6	-84.1

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

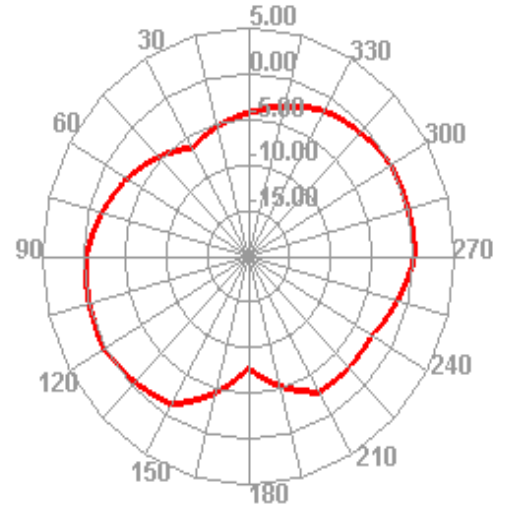
Bluetooth 0 TRP



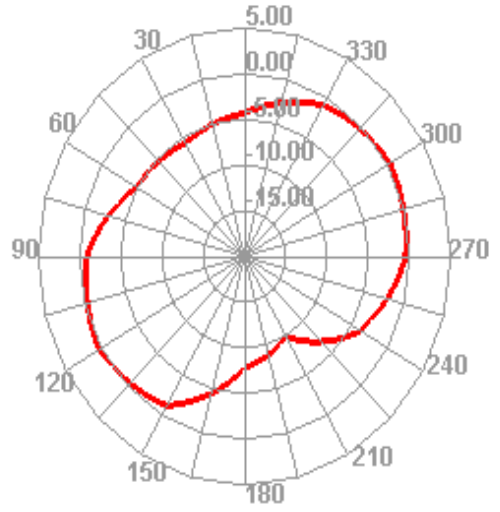
Bluetooth 0 TRP H



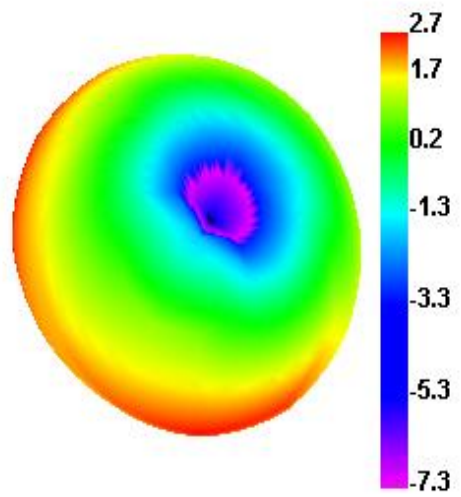
Bluetooth 0 TRP E1



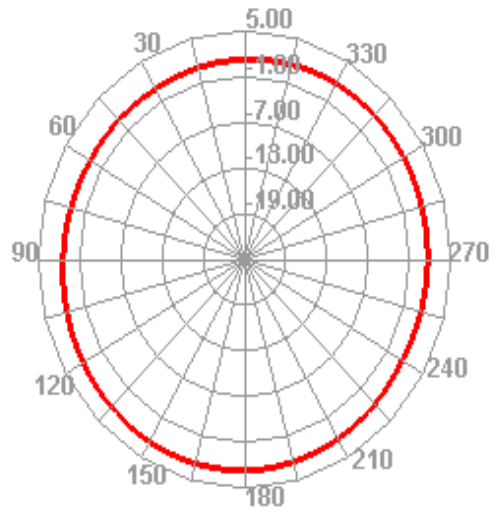
Bluetooth 0 TRP E2



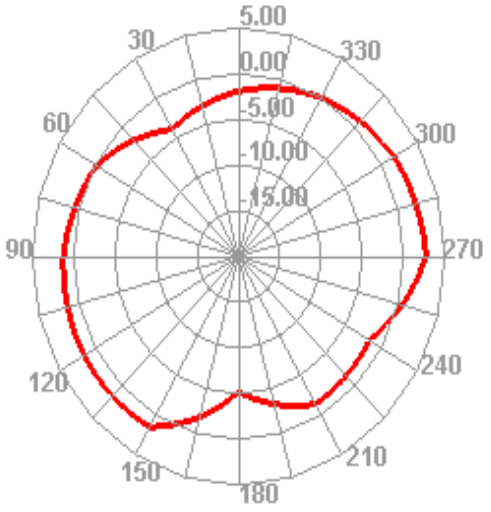
## Bluetooth 39 TRP



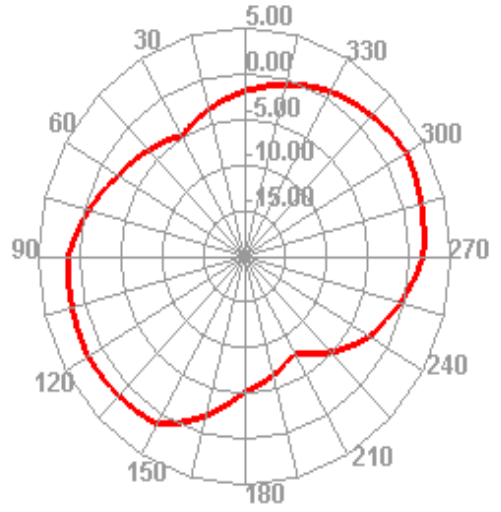
## Bluetooth 39 TRP H



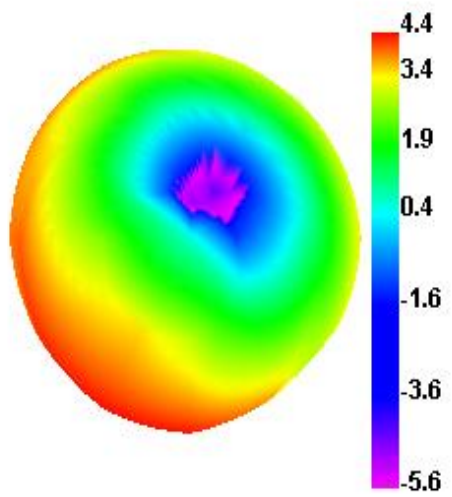
## Bluetooth 39 TRP E1



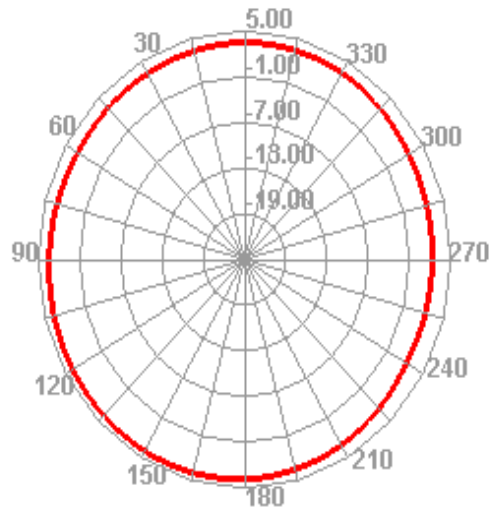
## Bluetooth 39 TRP E2



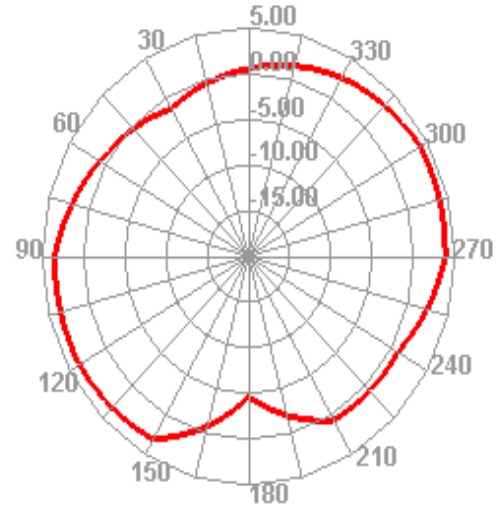
Bluetooth 78 TRP



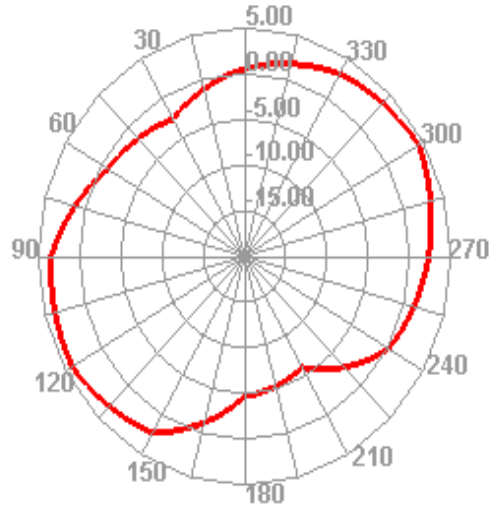
Bluetooth 78 TRP H



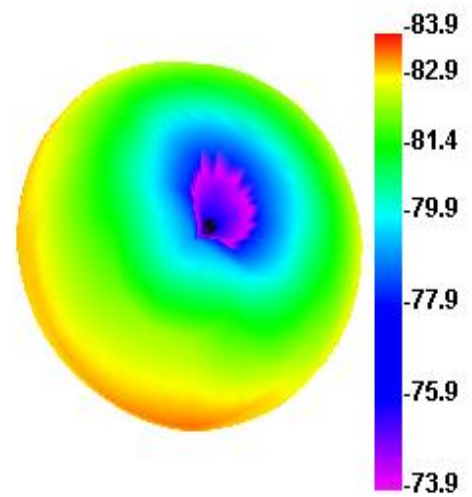
Bluetooth 78 TRP E1



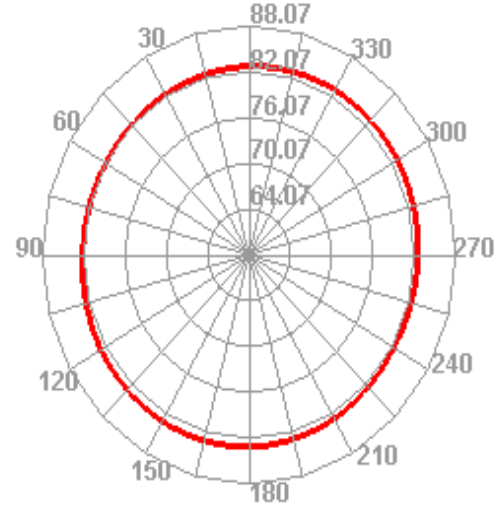
Bluetooth 78 TRP E2



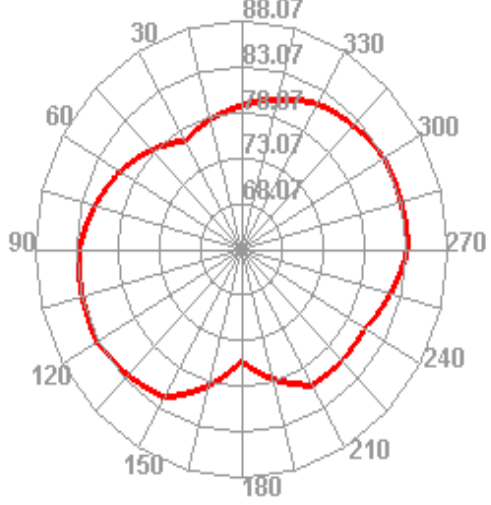
## Bluetooth 0 TIS



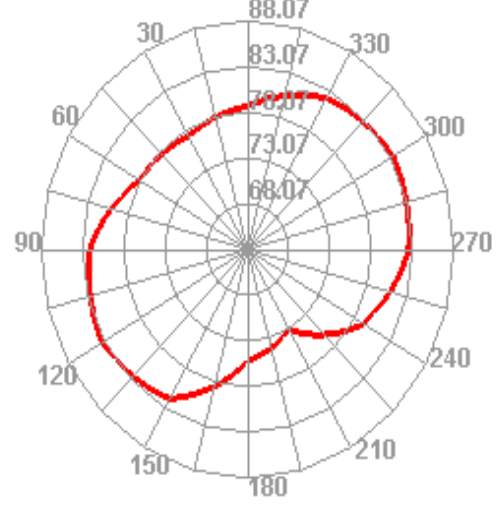
## Bluetooth 0 TIS H



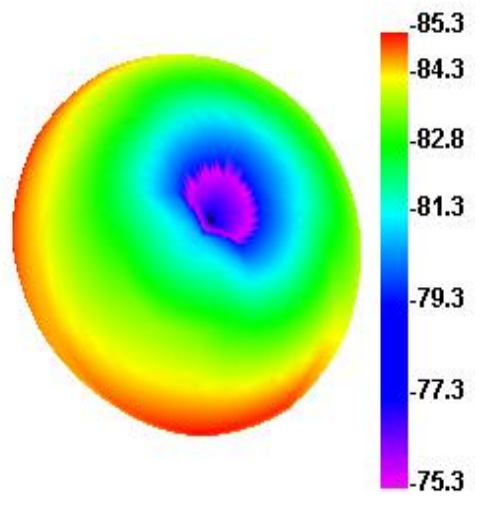
## Bluetooth 0 TIS E1



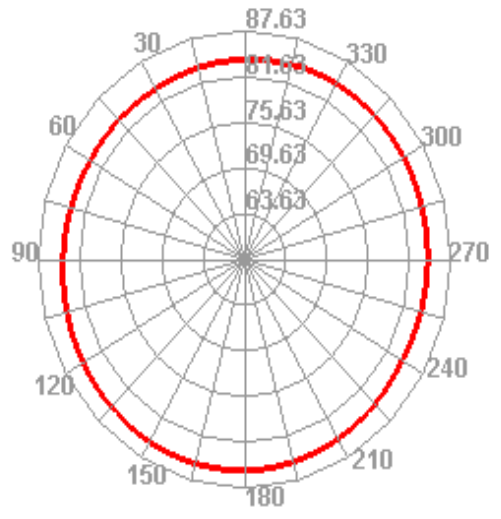
## Bluetooth 0 TIS E2



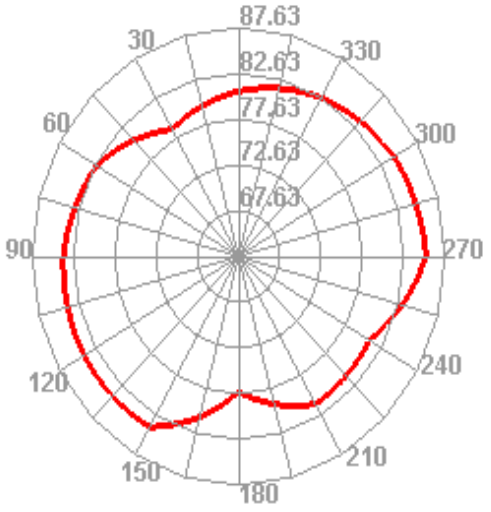
Bluetooth 39 TIS



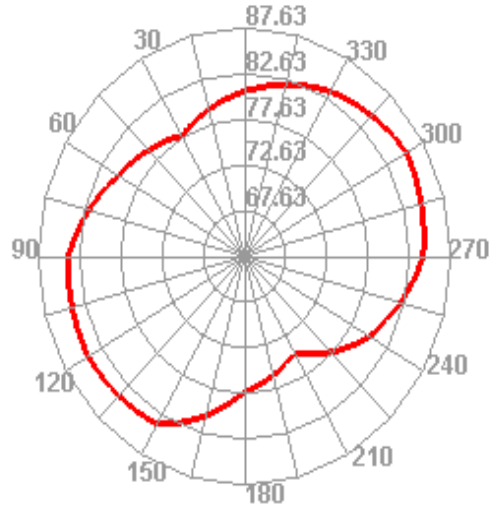
Bluetooth 39 TIS H



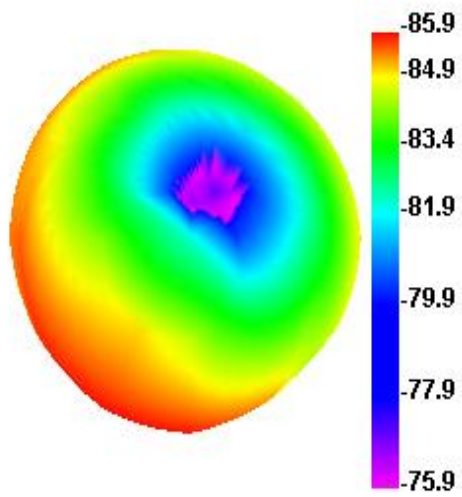
Bluetooth 39 TIS E1



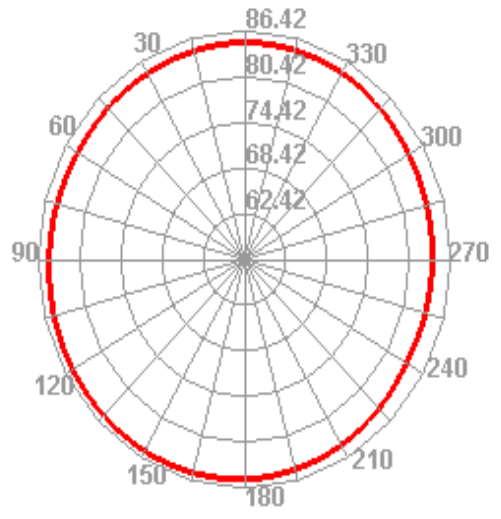
Bluetooth 39 TIS E2



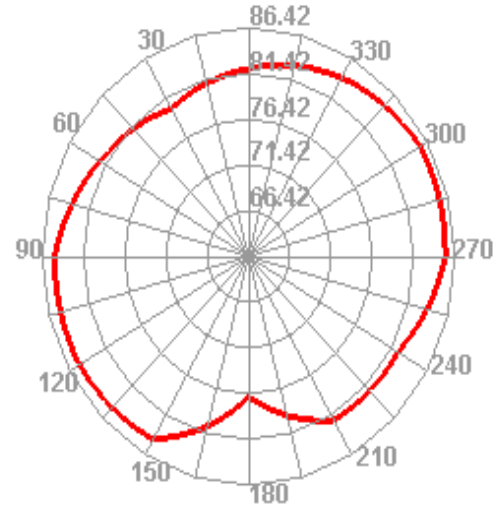
### Bluetooth 78 TIS



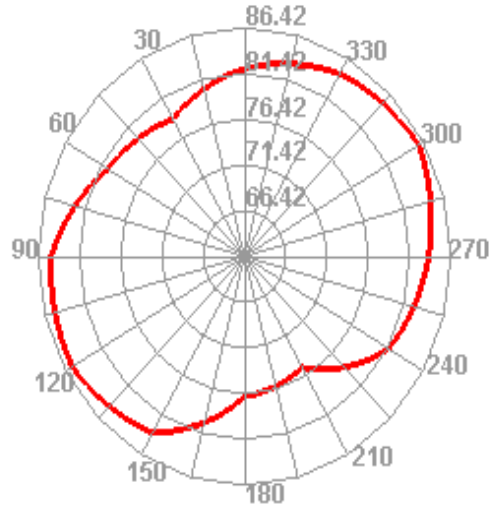
### Bluetooth 78 TIS H



### Bluetooth 78 TIS E1



### Bluetooth 78 TIS E2



## 4. Distance test

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