

**Antenna Type: FPC Antenna**

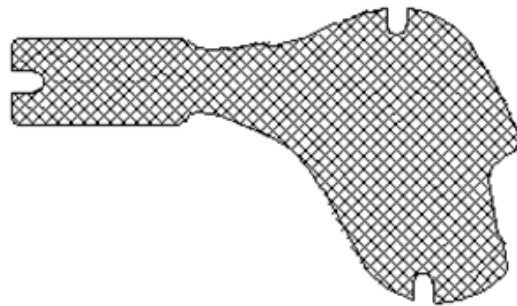
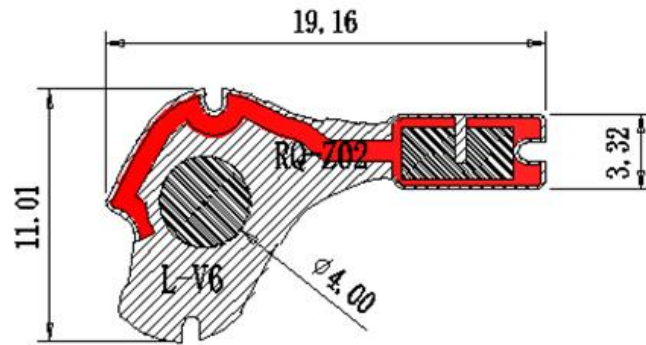
**Antenna Size: 1.92cm(L)\*1.1cm(W)**

**Antenna Manufacture: Shenzhen Strongpower**

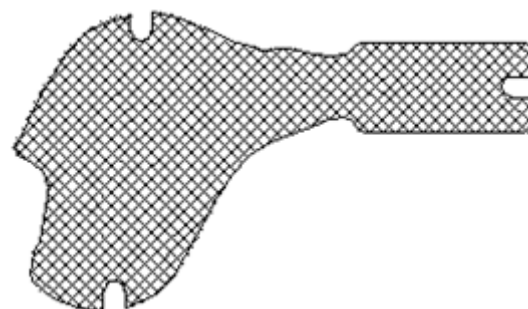
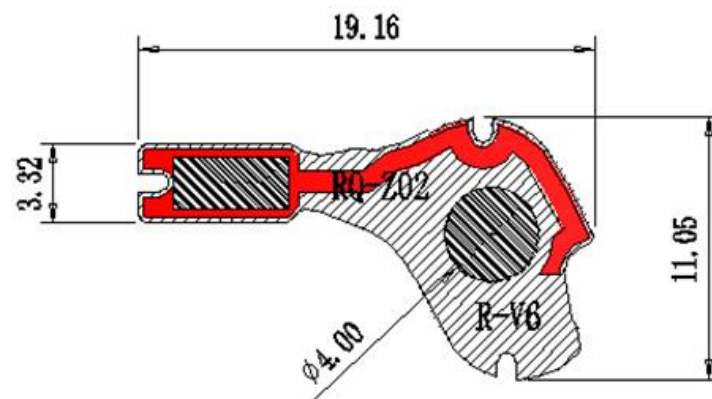
**Communication Co.,Ltd.**





**Antenna Model Number: RQ-Z02**

Left



Right

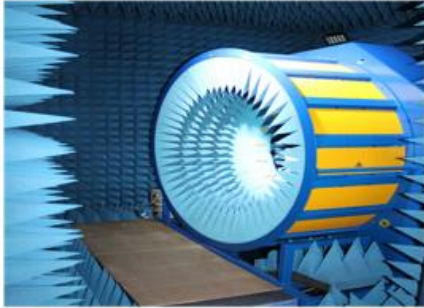


-  Red is the copper part
-  Blank for the substrate
-  The yellow part is the gold-plated area
-  Blue is the adhesive area

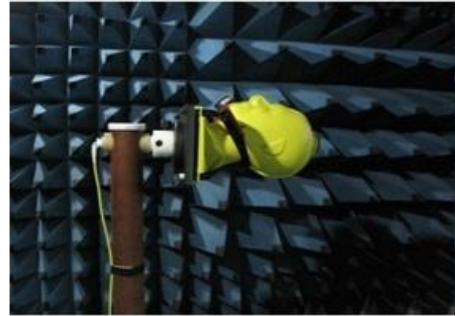
# 1. Testing Environment

## a. Test System

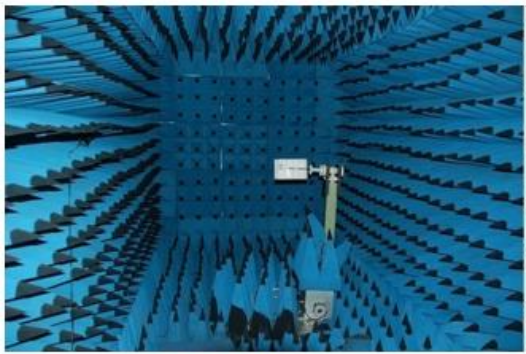
### chamber



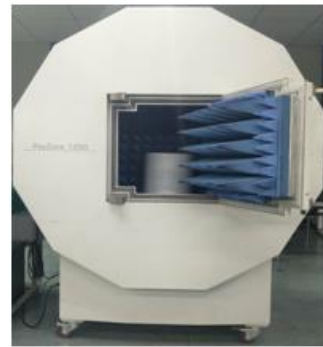
Satimo



Airlink



Guang Ping



GTS

## b. Test Instrument

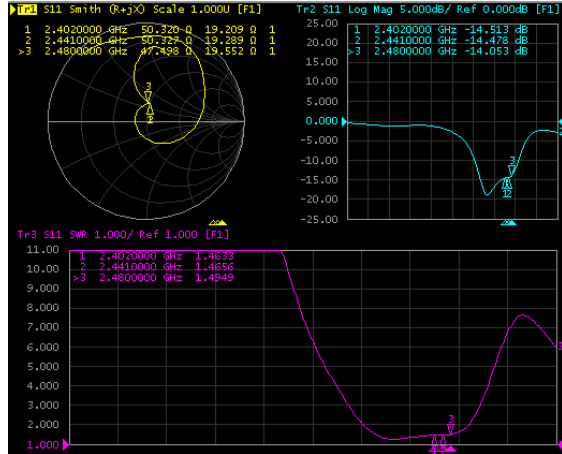
### equipment



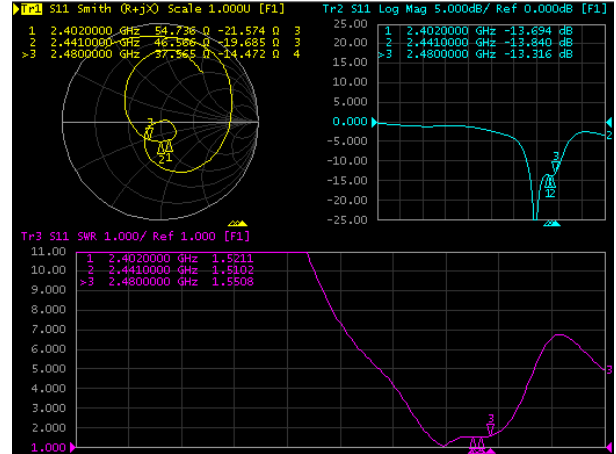
## 2. Passive test data

### a. S parameter

Left



Right



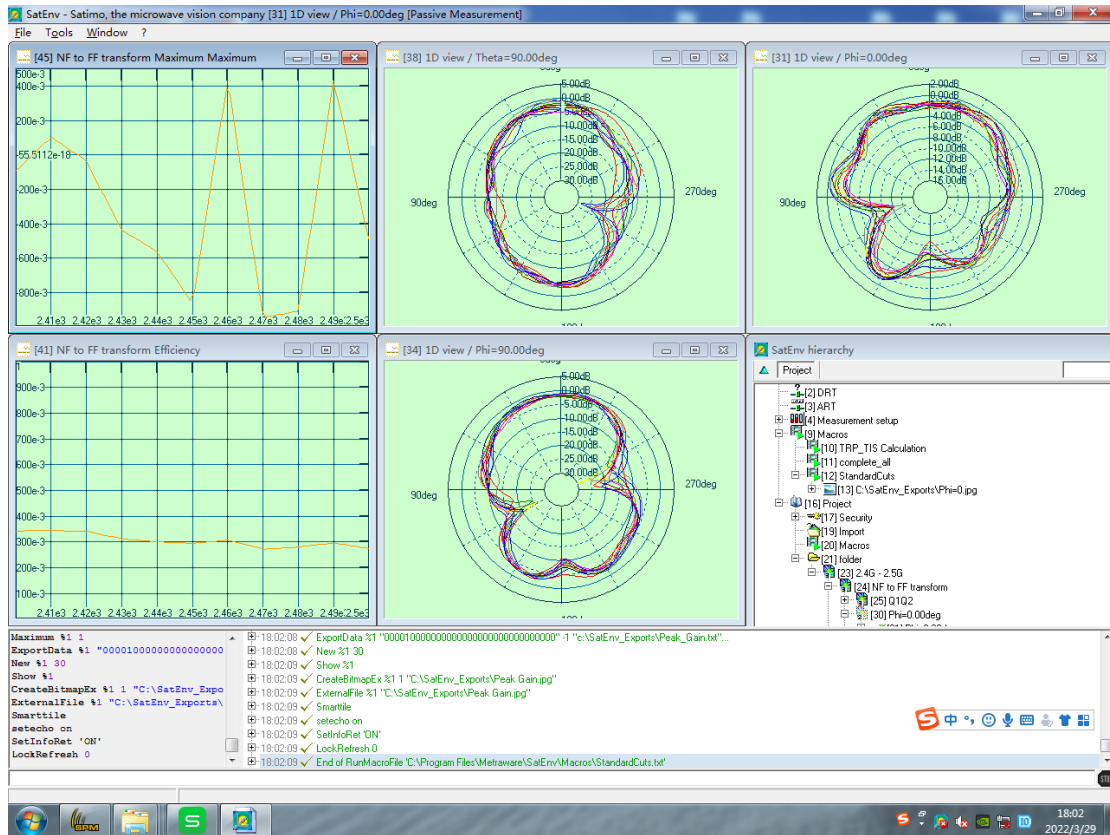
### b. Passive Efficiency & Gain

Left			
frequency (MHz)	efficiency (%)	efficiency (dB)	Gain (dB)
2400	39.21	-4.07	1.22
2410	36.37	-4.39	1.43
2420	35.67	-4.48	0.17
2430	35.60	-4.49	0.37
2440	37.38	-4.27	1.78
2450	38.57	-4.14	0.99
2460	36.89	-4.33	0.98
2470	35.57	-4.49	0.30
2480	37.02	-4.32	0.39
AVG	36.9	-4.33	0.85

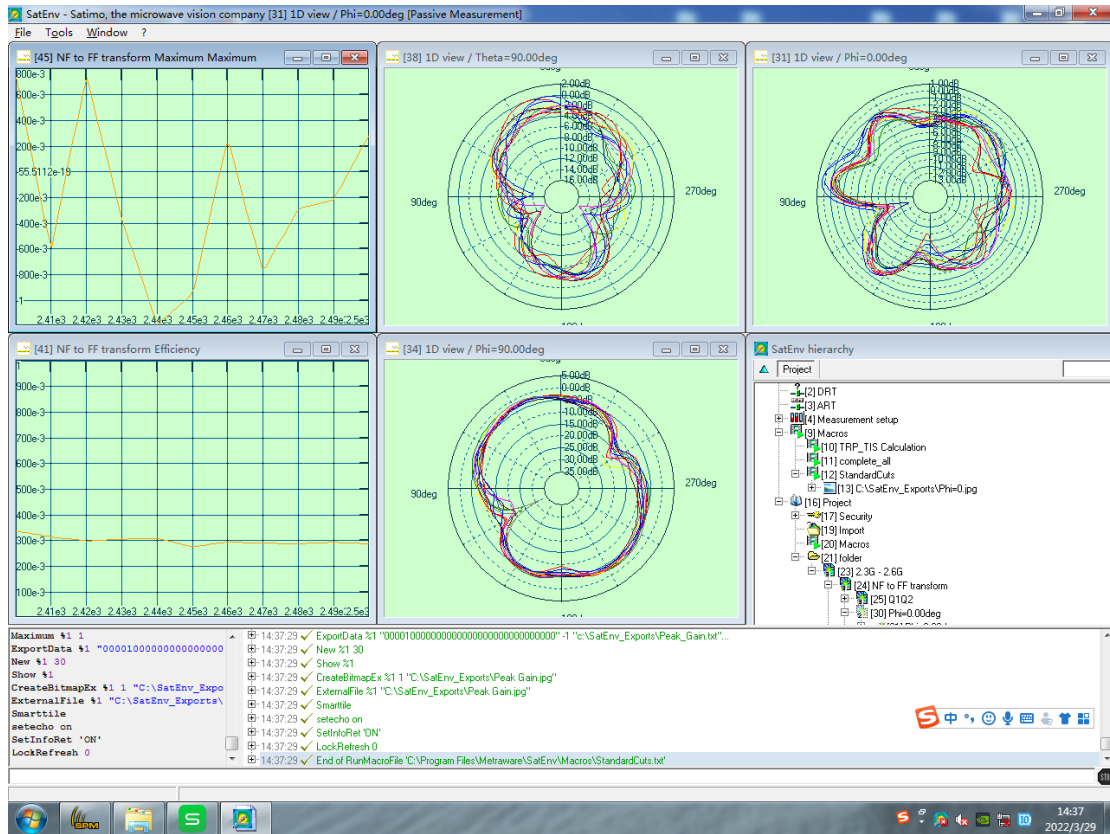
Right			
frequency (MHz)	efficiency (%)	efficiency (dB)	Gain (dB)
2400	31.11	-5.07	-0.76
2410	30.39	-5.17	-0.92
2420	31.52	-5.01	-0.65
2430	28.33	-5.48	-0.99
2440	26.78	-5.72	-1.44
2450	28.80	-5.41	-1.10
2460	27.88	-5.55	-0.69
2470	27.21	-5.65	-1.06
2480	28.83	-5.40	-0.50
AVG	29.0	-5.39	-0.90

### c. Passive pattern (free space)

Left



Right



### 3. Active test data

#### a. TRP&TIS

Left- (free space)

Channel CH	TRP (dBm)	TIS (dBm)
0	5.28	-90.51
39	4.92	-90.11
78	5.05	-90.54

Right- (free space)

Channel CH	TRP (dBm)	TIS (dBm)
0	4.06	-91.19
39	4.27	-91.29
78	4.34	-91.21

### Left- The head ear

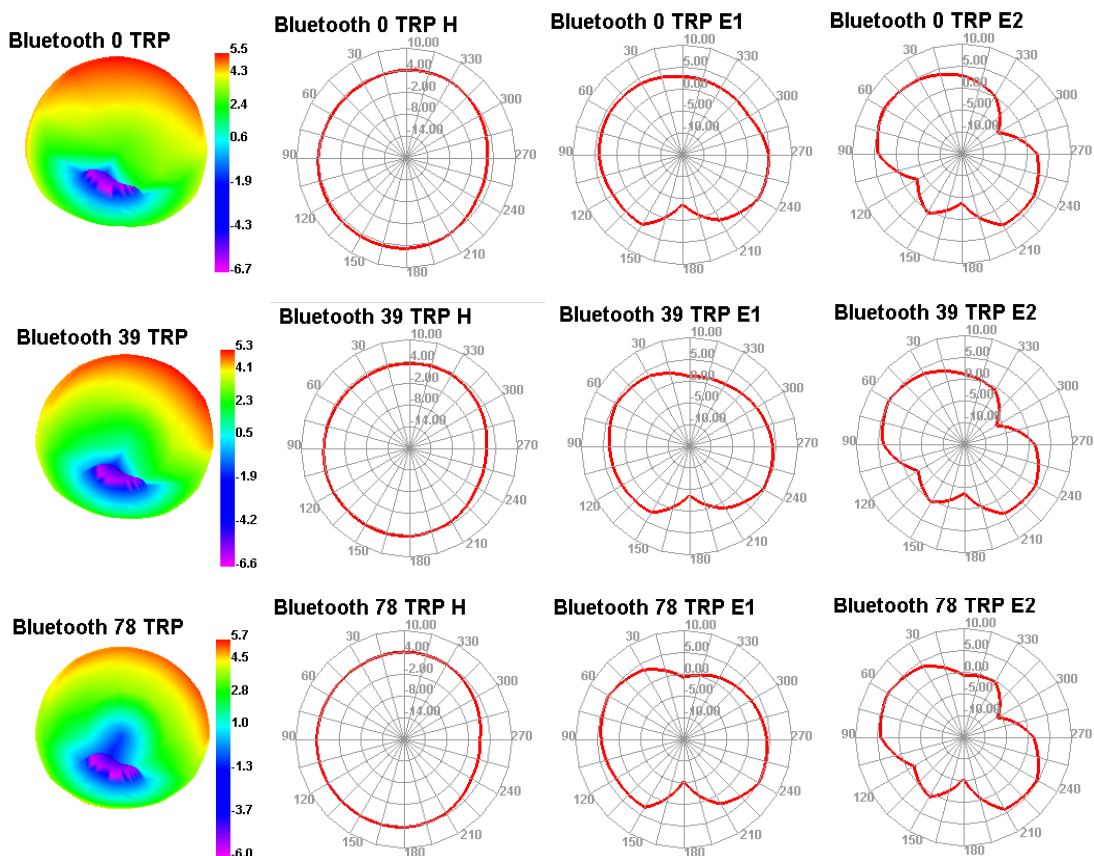
Channel CH	TRP (dBm)	TIS (dBm)
0	-2.38	-84.72
39	-2.35	-84.91
78	-2.01	-85.53

### Right- The head ear

Channel CH	TRP (dBm)	TIS (dBm)
0	-2.45	-84.57
39	-2.45	-84.52
78	-2.31	-84.15

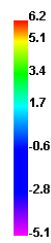
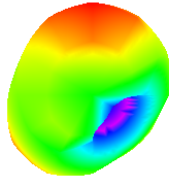
### b. Directivity Diagram

Left- (free space)

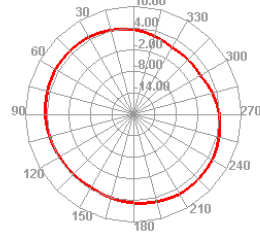


Right- (free space)

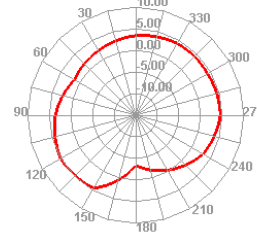
Bluetooth 0 TRP



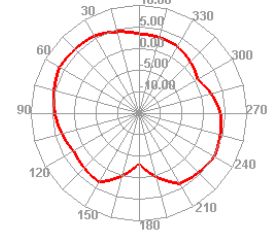
Bluetooth 0 TRP H



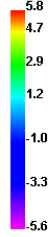
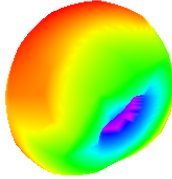
Bluetooth 0 TRP E1



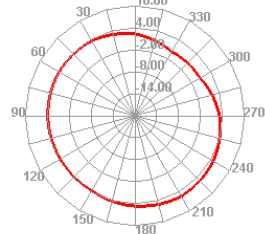
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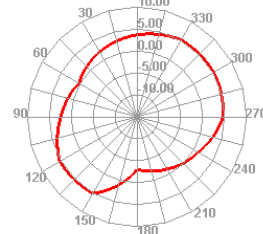
Bluetooth 39 TRP



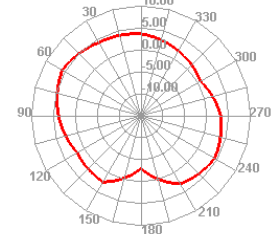
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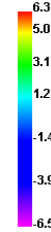
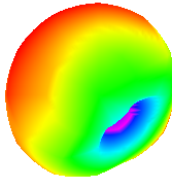
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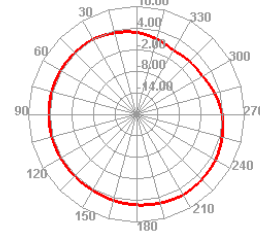
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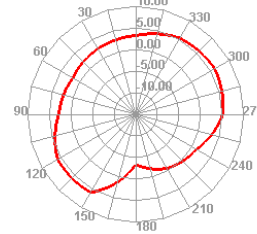
Bluetooth 78 TRP



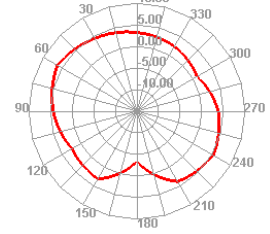
Bluetooth 78 TRP H



Bluetooth 78 TRP E1

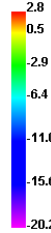
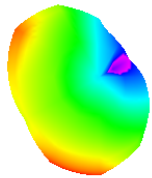


Bluetooth 78 TRP E2

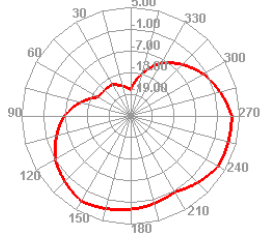


Left- The head ear

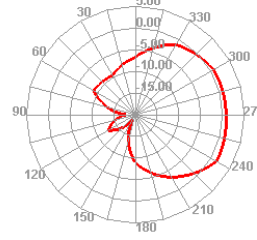
Bluetooth 0 TRP



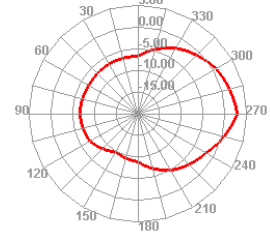
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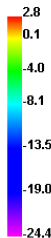
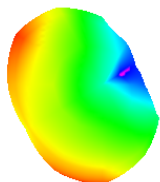
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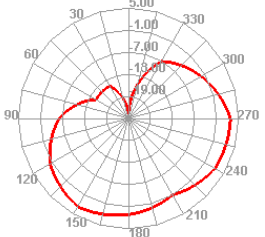
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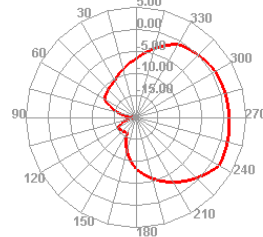
Bluetooth 39 TRP



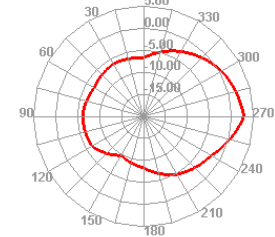
Bluetooth 39 TRP H



Bluetooth 39 TRP E1

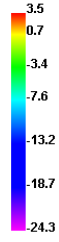


Bluetooth 39 TRP E2

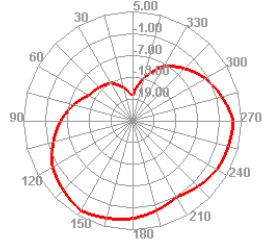




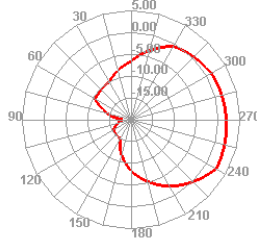
**Bluetooth 78 TRP**



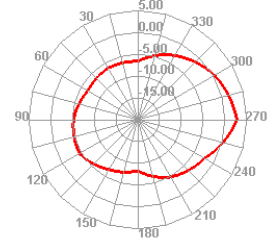
**Bluetooth 78 TRP H**



**Bluetooth 78 TRP E1**

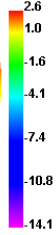
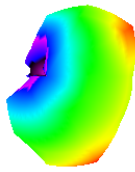


**Bluetooth 78 TRP E2**

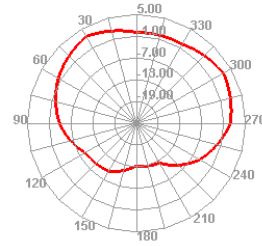


Right- The head ear

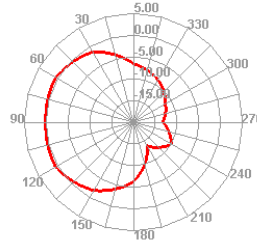
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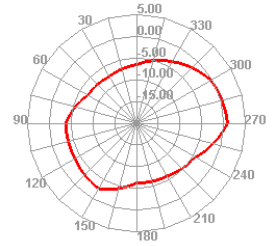
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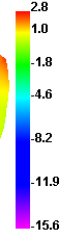
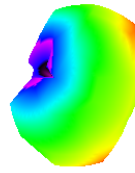
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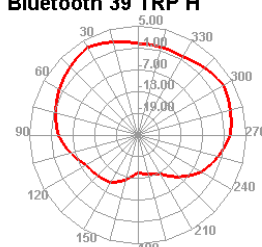
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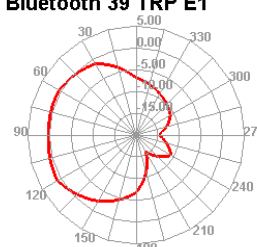
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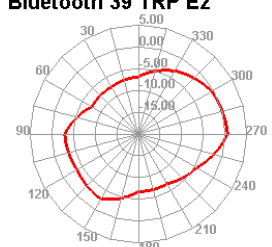
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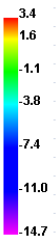
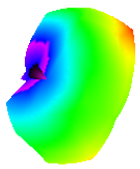
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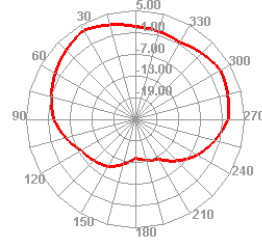
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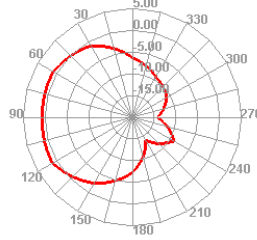
**Bluetooth 78 TRP**



**Bluetooth 78 TRP H**



**Bluetooth 78 TRP E1**



**Bluetooth 78 TRP E2**

