

History List

[illegible]

XX-F-XX-XX-XXX Specification

1. Explanation of part number :

XX - X - XX - XX - XXX
(1) (2) (3) (4) (5)

(1) Product Type: monopole antenna

(2) Material: Nitinol

(3) Frequency :2.4GHz

(4) Coaxial Cable Type : None

(5) Suffix :

2. Storage Condition:

Temperature -40 to +85°C
Humidity 20 to 65 %RH
Recommended storage condition:

Store in room condition as listed below: Temperature -20°C~+45°C, Humidity 80% Max.

3. Operating Condition:


Temperature -40 to +85°C
Humidity 10 to 85 %RH

4. Electrical Specification :

Those specifications were specially defined for BT model, and all characteristics were measured in the customer's machine. .

4-1. Frequency Band:

Frequency Band	MHz
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BT

2400~2500MHz

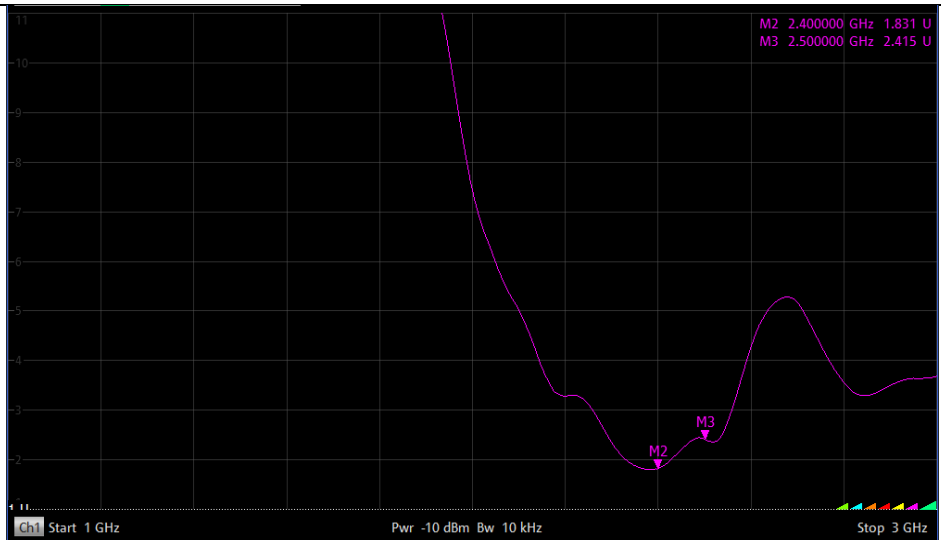
4-2. Impedance

50 ohm nominal

4-3. Matching circuit

None

4-4. VSWR

Frequency Band(MHz)	2400	2500
4-4-1. Typical Value:	≤ 2.5	≤ 3.5
4-4-2. Measuring Method	1. A 50Ωcoaxial cable is connected to the pcb antenna. Then this cable is connected to a network analyzer to measure the VSWR. 2. Keeping this jig away from metal at least 20 cm.	
4-4-3. Picture		

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4-5. Efficiency and Gain

4-5.1 Measuring equipment

Measuring instrument:

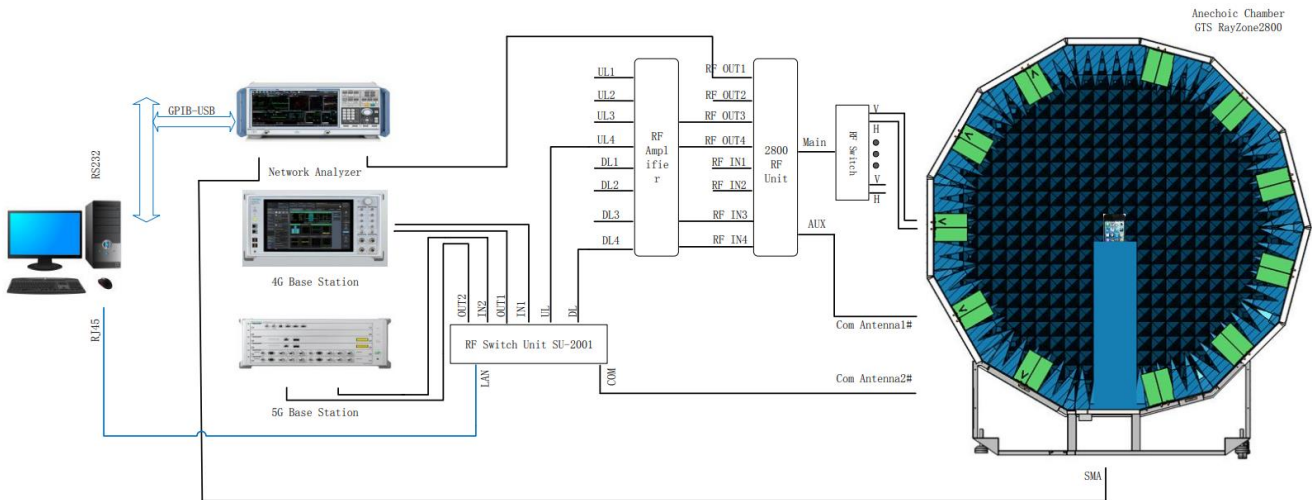
Microwave chamber, Network analyzer, and standard antenna.

Instructions for microwave chamber:

This is a microwave chamber set up by our company in Suzhou, This microwave chamber belongs to a set of near-field measurement system. The size of the chamber is 2.95M * 3M * 3M.



RayZone2800 Test Setup



The microwave chamber, shown above, using a unique multi-probe technique, The aim is to reduce the measurement time of the whole measurement system. The measuring system use multi-probe array instead of single probe to scan the measured surface of the antenna under test, a single probe has the capability of measuring orthogonal polarization amplitude and phase, it also has a wide frequency range, the corresponding multi-probe array is switched quickly by electronic switch, greatly improved the measurement efficiency.

The probe model: MA186960A(400MHz~7.5GHz) . Because of its capability of broadband frequency and the orthogonal polarization function, the number of probes needed to be equipped with the system is reduced; The small size of the probe reduces the coupling between the probes, make it is possible to insert probes of other frequency bands between probes, then a single system can support a wider frequency range.

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4-5.2 Efficiency and Gain

Fre (MHz)	FS-L		
	Avg gain (dBi)	Effi (%)	Gain (dBi)
2400	-6.08	24.65	2.85
2410	-5.98	25.23	3.13
2420	-6.10	24.56	3.08
2430	-6.93	20.27	2.21
2440	-7.17	19.17	1.88
2450	-6.93	20.29	2.15
2460	-7.06	19.68	1.65
2470	-7.05	19.71	1.17
2480	-7.16	19.24	1.05
2490	-7.19	19.09	0.98
2500	-7.24	18.88	1.11
Average	-6.81	20.98	1.93

Frequency Band(MHz)	2400	2500
AVG Gain (dBi)	≥ -7.0	≥ -8.5
Peak Gain (dBi)	≥ 1.0	≥ 0.5

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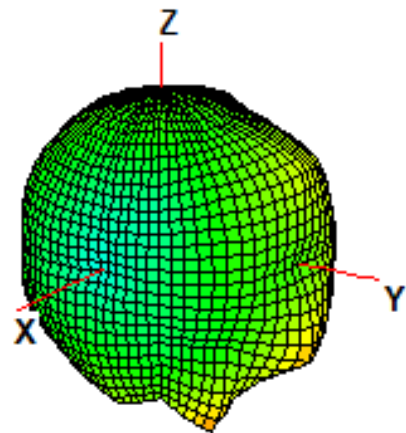
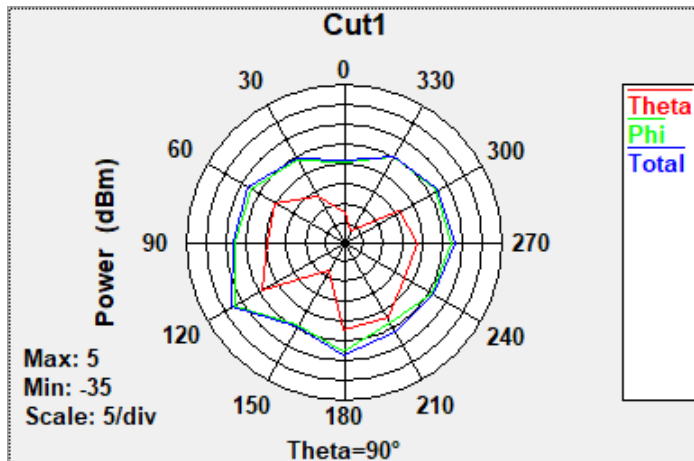
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4-5.3 2D & 3D Radiation Pattern



2450MHz



5. Mechanical Specification:

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Chengdu TOMI electronic equipment manufacturing Co., LTD.

No. 389, Wende West Street, New Economic Industrial Park, Chengdu Modern Industrial Port, Pi Du District, Chengdu City, Sichuan Province

NAME: earKron_R_001 Nitinol Bluetooth Antenna

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4-1. Frequency Band:

Frequency Band	MHz
BT	2400~2500MHz

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4-3. Matching circuit

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4-5. Efficiency and Gain

4-5.1 Measuring equipment

Measuring instrument:

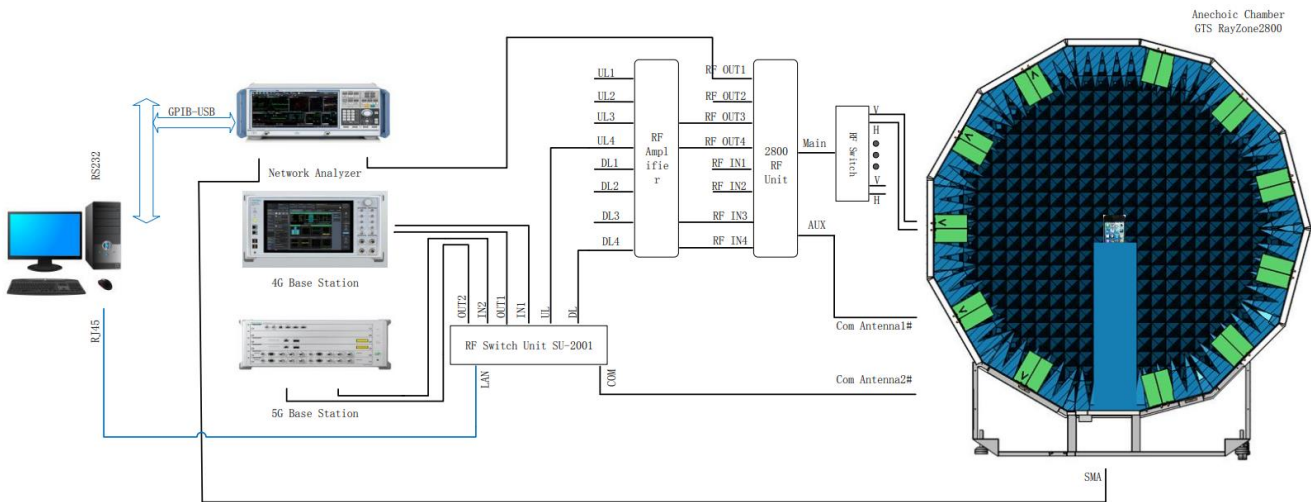
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2410	-6.70	21.37	3.72
2420	-6.36	23.09	4.11
2430	-6.85	20.64	3.58
2440	-7.04	19.77	3.29
2450	-6.49	22.45	3.87
2460	-6.53	22.22	3.94
2470	-6.65	21.63	3.84
2480	-6.66	21.59	3.78
2490	-6.59	21.93	3.75
2500	-6.44	22.71	3.96
Average	-6.67	21.57	3.73

Frequency Band(MHz)	2400	2500
AVG Gain (dBi)	≥ -8.0	≥ -7.5
Peak Gain (dBi)	≥ 1.0	≥ 1.0

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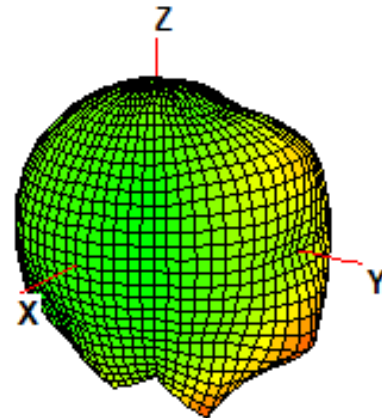
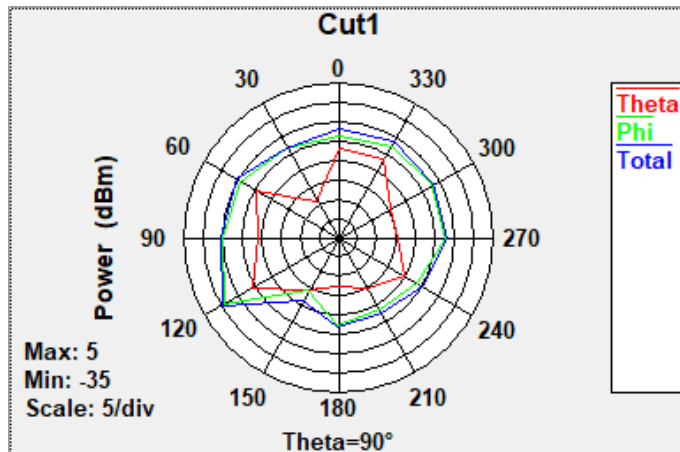
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4-5.3 2D & 3D Radiation Pattern



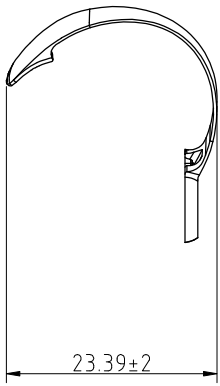
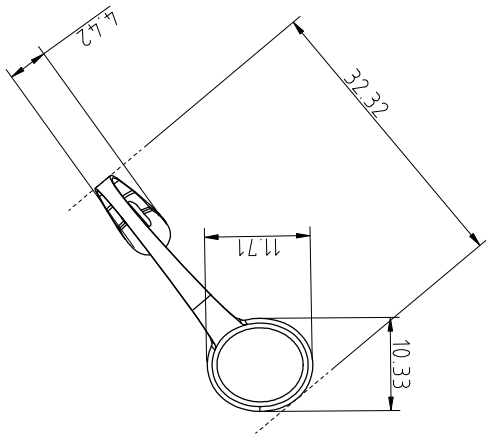
2450MHz



5. Mechanical Specification:

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