

ProjectY240627903

Date.: 2024.07.26

Ver.: A0

Antenna SPEC

Customer name: 臻火

Customer project: HM103-A

Customer P/N: 014.02.H103.0133

B&T P/N: 74300239

Spec.: Built-in antenna-2.4/5g-gray 1.13 tin-tin wire-1st generation
terminal-L = 85mm-FPC-41.5 × 8.1mm

Factory signature:

compilation	verify	approval
Qiucuiqing	Qin Linshu	Liulihua

Sealed by customer:

check	verify	approval

Contact information of B&T:

Contact person for sales: Longmingguo	MB:18576042661	E-mail: longmg@tech-now.com
Contact person for technical: Qin Linshu	MB:18776877518	E-mail: qinls@tech-now.com
Contact person for Quality: Fu binfang	MB:15882813560	E-mail: sc_qe1@tech-now.com

Form number: B&T-QR-EN-002 version: B3

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3、 Product drawing

The technical drawing illustrates the front view of an antenna connector assembly. Key components and dimensions are labeled as follows:

- Dimensions:**
 - Main body width: $\times 41.5 \pm 0.3$
 - Total length: $\times 85 \pm 3$
 - Bottom section width: $\times 8.10 \pm 0.30$
 - A small gap or feature dimension: PET/T=0.2mm
- Labels and Callouts:**
 - "screen printing font is bright white": Points to the top surface.
 - "BAT-X1-T950-WIFI-A0": Label on the central rectangular area.
 - "Reinforce the backside PET/T=0.2mm": Points to a specific layer or reinforcement.
 - "Fracture location of release paper": Indicated by dashed lines at the bottom corners.
 - Circular callout "③" points to the bottom edge.
 - Circular callout "②" points to the junction between the main body and the base.
 - Circular callout "①" points to the connector port at the right end.
- Note:** A note states: "The connector part is shown in the figure".

Front view

		Version Modification date		Revision content
		A0	24-7-25	

Technical requirements

- The antenna welding part is firm and the cable size is accurate (the holding force of the connector is $\geq 1\text{kGf}$).
- The silk screen color is the original color of the substrate, and the font is clear and not easy to fall off.
- "*" indicates the dimensions that are key to IQC inspection.
- The packaging and quality standards refer to the Boantong Packaging Specifications and B&T Quality Standards respectively.
- The materials comply with ROHS.
- The connector port identification direction.

Number	Part Name	Remarks	Design Xie Meiquan Toexamine Approval Zeng Kang	Weight Quantity Proportion Company	name Project number Part number	Built-in antenna-2.4/5G-grey 1.13 tin wire-first generation terminal-L=85mm-FPC-41.5×8.1um Y2406Z7903 74300239
①	1st connector		1 >X ±0.05	1 : 1 mm		
②	Coaxial line		1 ~9.99 ±0.10			
③	FPC		10~19.99 ±0.15			
			20~39.99 ±0.20			
			40~ +0 -0.30			

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B&T

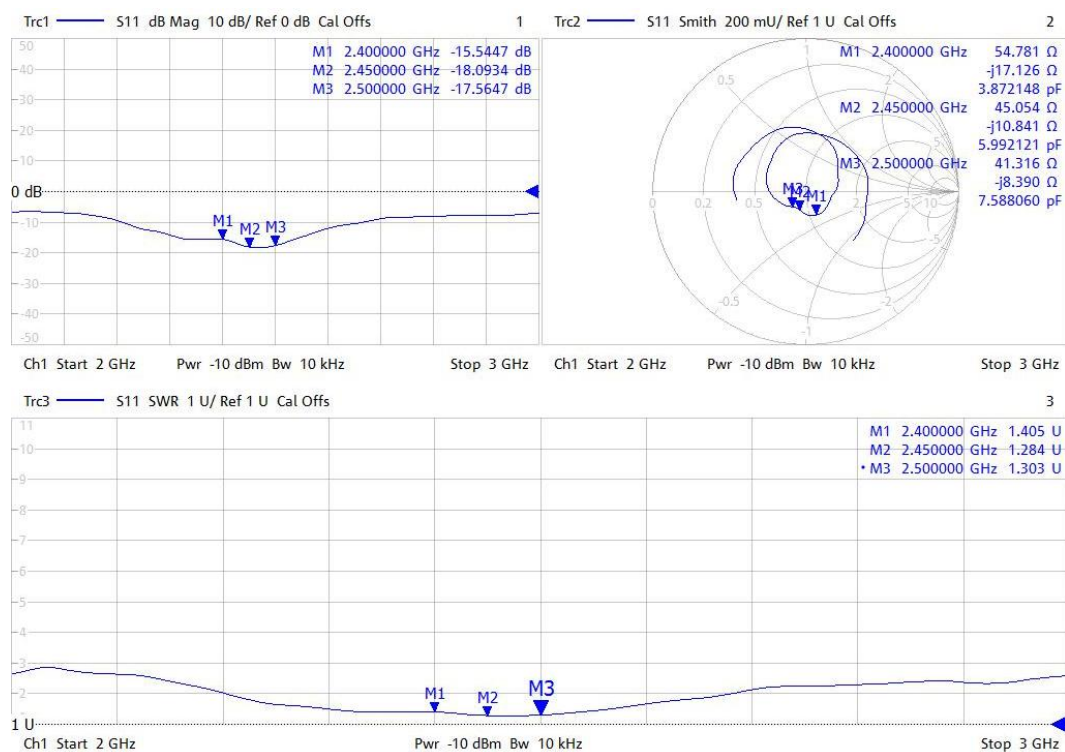
4、Properties ¶meter

Electrical parameter	
Freq Range	2400~2500/5150~5850MHz
Characteristic Impedance	50 Ω
VSWR	<2
Gain	$\geq 3.96\text{dBi}$, $\leq 5.53\text{dBi}$
Power capacity	<10w
Polarization mode	Linear polarization
Radiation mode	omnidirectional
Joint type	IPEX connector
Mechanical parameter	
visible length	$85 \pm 3\text{mm}$
Coaxial cable	grey1.13 tin tin cable
Salt fog test	24H
Environment parameter	
Operating Temp	-30°C~65°C

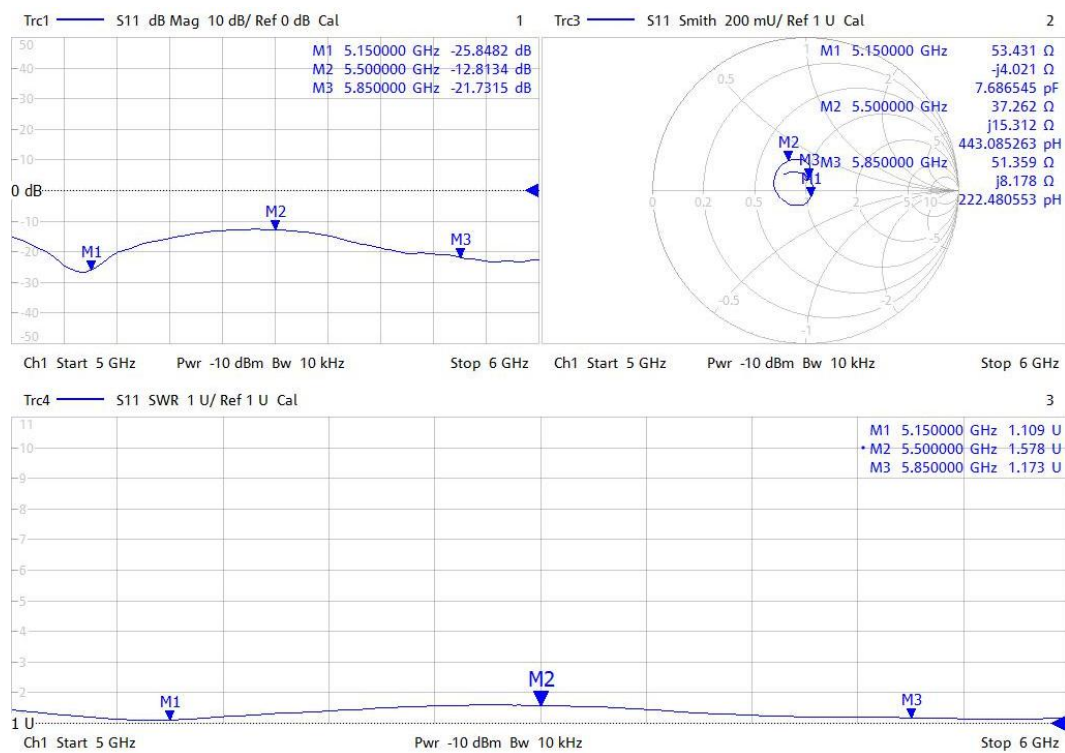
5、Electrical performance test report(Whole machine testing)

S11 Parameter

2.4G



5G



5.2

Standing wave ratio data

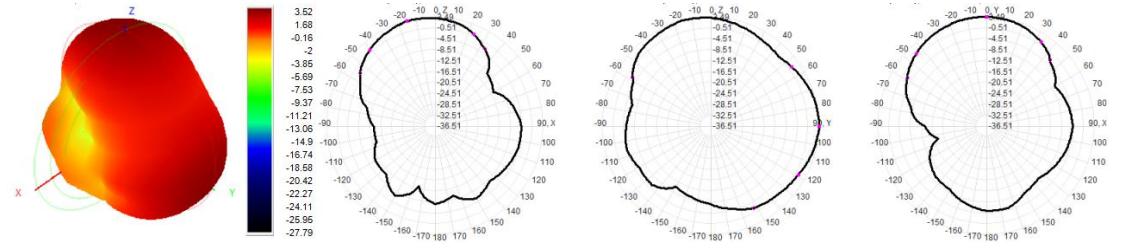
Freq/MHz	2400	2450	2500	5150	5500	5850
VSWR	1.405	1.284	1.303	1.109	1.578	1.173

➤ Antenna darkroom test data

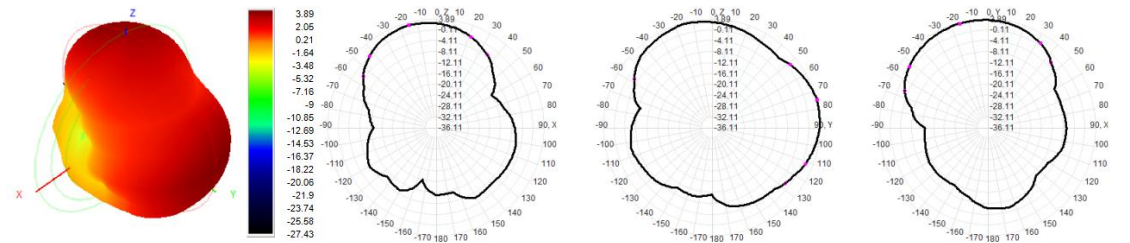
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	3.52	55.71
2410	3.57	55.27
2420	3.54	55.60
2430	3.55	55.87
2440	3.87	56.83
2450	3.89	56.05
2460	3.96	56.76
2470	3.81	57.30
2480	3.90	57.77
2490	3.93	56.35
2500	3.96	56.33
5150	4.10	68.37
5250	3.23	64.72
5350	2.81	60.90
5450	3.79	63.89
5550	3.57	66.85
5650	4.60	68.81
5750	4.38	69.84
5850	5.53	70.83

➤ Antenna direction diagram

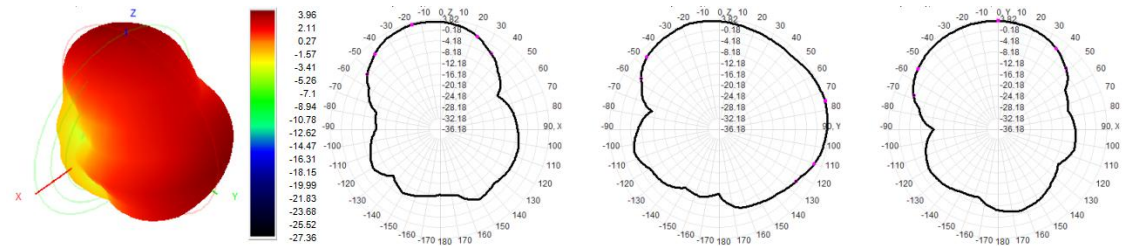
2400MHz



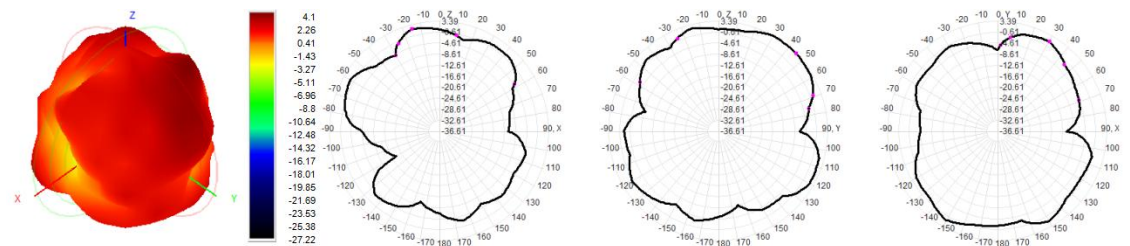
2450MHz



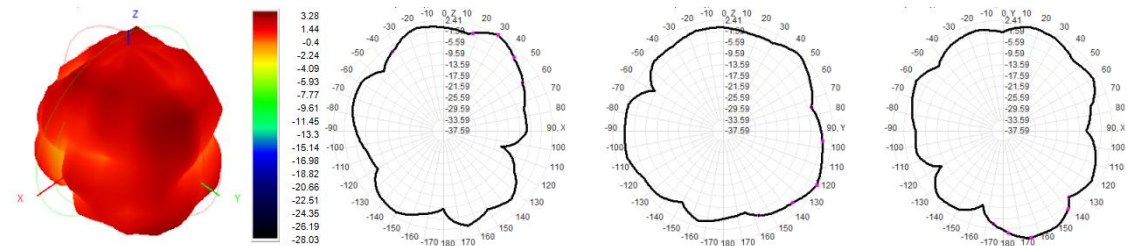
2500MHz



5150MHz



5500MHz



5850MHz

