

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&amp;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&amp;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

## *Contents*

1、 Cover·····	1
2、 Directory·····	3
3、 Product drawing·····	4
4、 Performance parameters Table·····	5
5、 Electrical performance test report·····	6-7
6、 List of Material Composition and Hazardous Substance·····	7
7、 packaging specification·····	8
8、 Antenna installation position Diagram·····	9
9、 Reliability test requirements·····	9-10

3、Product drawing

Version

A0

Modification date

24-7-25

Revised content

Technical requirements

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

Front view

Number	Part Name	Remarks	Design	Xie Meiquan	name	Built-in antenna-2,4/5G-grey 1.13 tin wire-first generation terminal-L=85mm-FPC-41.5×8.1mm
①	1st connector		Toexamine		Project number	Y240627903
②	Coaxial line				Part number	74300239
③	FPC		Approval	Zeng Kang		
			1 > X	±0.05		
			1~9.99	±0.10		
			10~19.99	±0.15		
			20~39.99	±0.20		
			40~	±0.30		
					Page 1	1 in total
						B&T

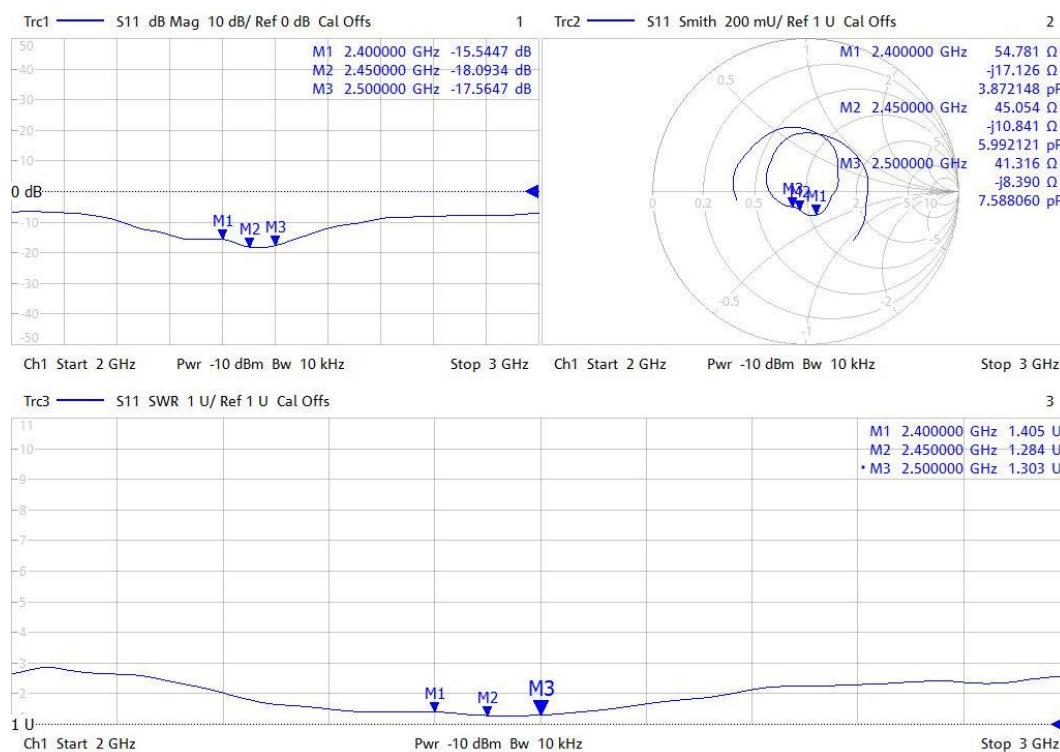
#### 4、Properties &parameter

Electrical parameter	
Freq Range	2400~2500/5150~5850MHz
Characteristic Impedance	50 $\Omega$
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

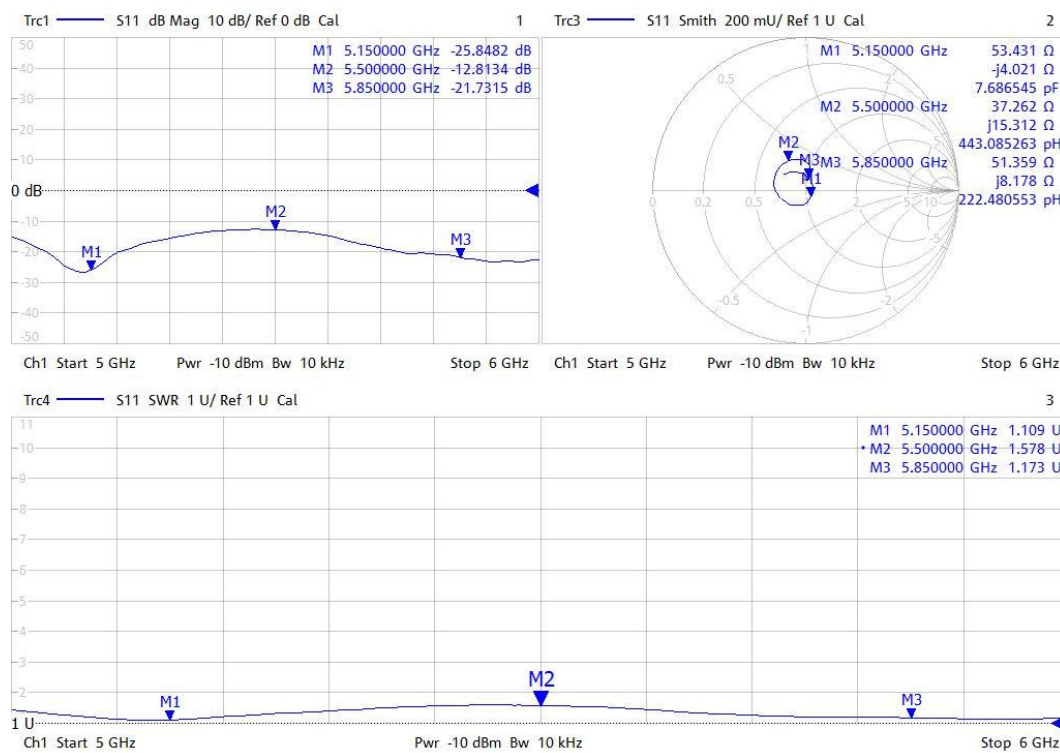
## 5、Electrical performance test report(Whole machine testing)

S11 Parameter

2.4G



5G



5.2

## Standing wave ratio data

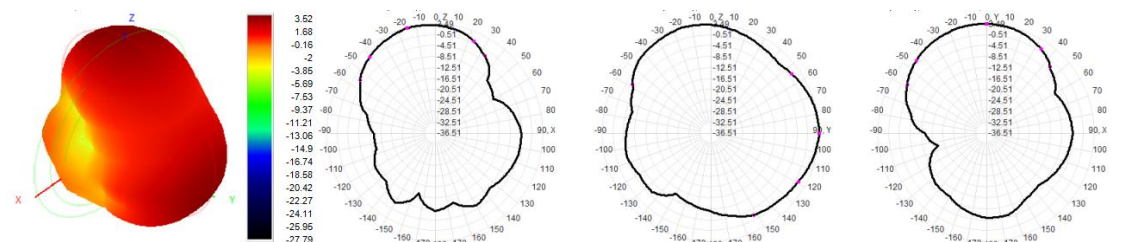
Freq/MHz	2400	2450	2500	5150	5500	5850
VSWR	1.405	1.284	1.303	1.109	1.578	1.173

## ➤ Antenna darkroom test data

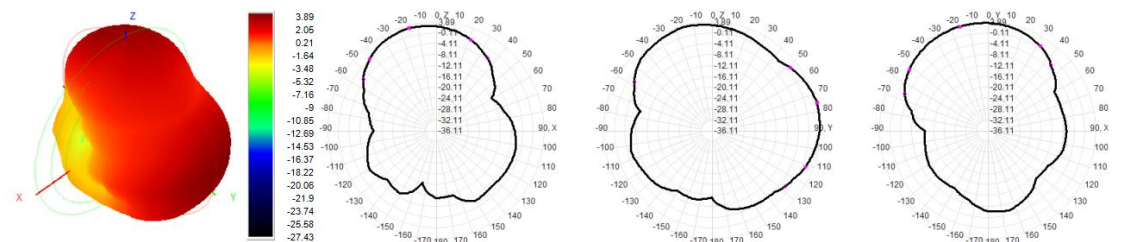
Frequency (MHz)	Gain (dBi)	Efficiency (%)
<b>2400</b>	3.52	<b>55.71</b>
<b>2410</b>	3.57	<b>55.27</b>
<b>2420</b>	3.54	<b>55.60</b>
<b>2430</b>	3.55	<b>55.87</b>
<b>2440</b>	3.87	<b>56.83</b>
<b>2450</b>	3.89	<b>56.05</b>
<b>2460</b>	3.96	<b>56.76</b>
<b>2470</b>	3.81	<b>57.30</b>
<b>2480</b>	3.90	<b>57.77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

## ➤ Antenna direction diagram

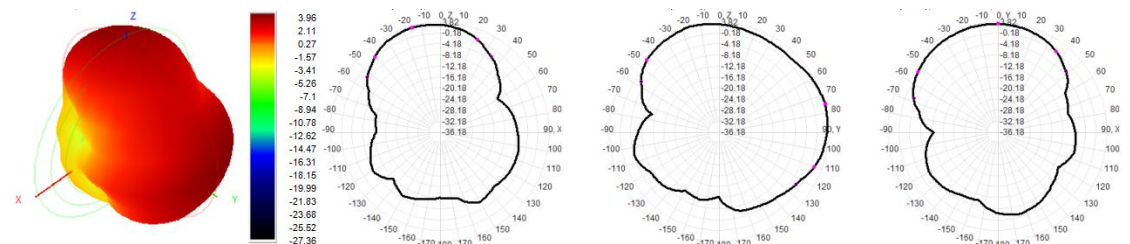
2400MHz



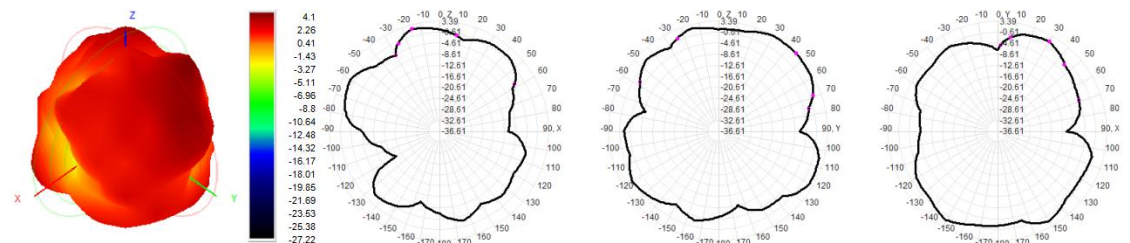
2450MHz



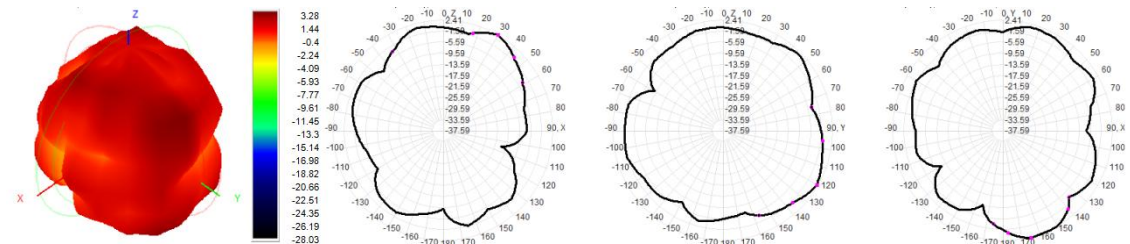
2500MHz



5150MHz



5500MHz



5850MHz

