

Project :Y220927099

Date.2023.03.22

REV: A0

Antenna SPEC

Customer name: 珠海蔚科Customer project: B-8 无线系列

Customer P/N: _____

B&T P/N: 74220163Spec.: internal antenna -2.4G-Black-1.13 wire-terminal-L=90mm-
shrapnel-48×11.1×5.1mm

Sealed by corporation:

compilation	verify	approval
Huangfeihui	Liulihua	Liulihua

Sealed by customer:

check	verify	approval

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Form no. : B&T- qr-en-002 version: B3

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3、Product drawing

REV.	Date	Revise
A0	23-3-22	

Technical drawing of the antenna assembly. The top view shows a rectangular base with dimensions $\phi 46.00 \pm 0.15$ and $\phi 40.00 \pm 0.15$. The side view shows a height of $\phi 5.10 \pm 0.30$ and a cable length of $\phi 46.00 \pm 0.15$. The 3D view shows the antenna assembly with a terminal cup (1) and a cable (2). The cable is labeled with dimensions $\phi 9.00 \pm 0.30$ and $\phi 11.10 \pm 0.30$. The base is labeled with dimensions $\phi 33.60 \pm 0.15$ and $\phi 48.00 \pm 0.30$. The terminal cup is labeled with dimension $\phi 9.00 \pm 0.30$. The cable is labeled with dimension $\phi 9.00 \pm 0.30$. The base is labeled with dimension $\phi 11.10 \pm 0.30$. The 3D view is labeled with dimension $\phi 9.00 \pm 0.30$.

The technical requirements

1: the antenna welding part is firm, and the cable size is accurate; (Cable maintenance force $\geq 1\text{kgf}$).

2: "φ" important dimensions;

3: Packaging and quality standards refer to BAT packaging specifications quality standards respectively;

4: Products must meet the requirements of ROHS 2.0;

5: The cup of terminal orientation requirement .

Number	Part name	Note
①	Generation I	
②	RF-terminal	
③	Coaxial line	
	Shrapnel	

Designer	Duqinling
Verify	
Approval	
1 > X	± 0.05
1 ~ 9.99	± 0.10
10 ~ 19.99	± 0.15
20 ~ 39.99	± 0.20
40 ~	± 0.30

Name	Project No.	Part No.
internal antenna -2, 4G-Black-L, 13 wire-terminal-l=90mm-shrapnel-48X11.1X5.1mm	Y220927099	74220163

Page 1 of 1

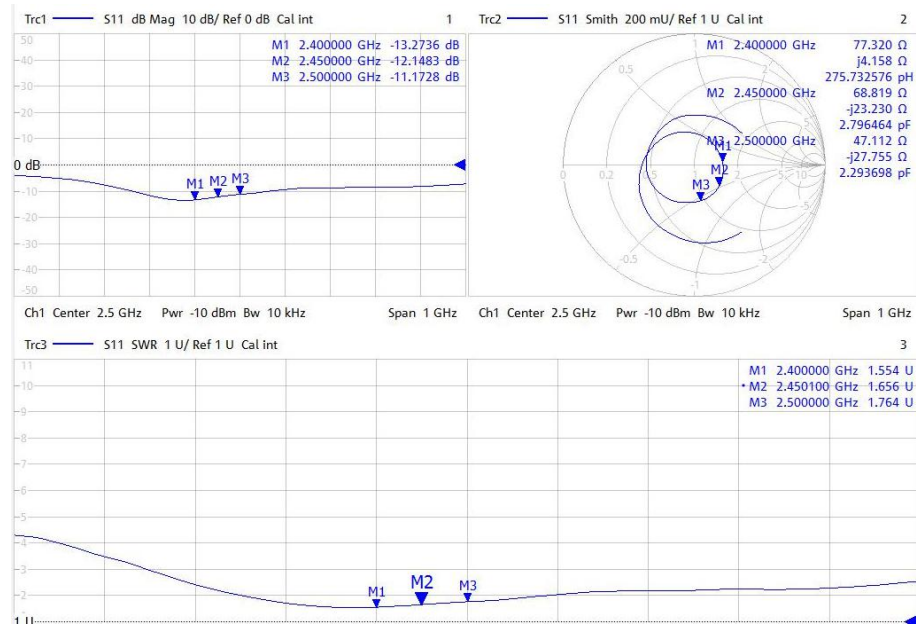
ZHONGSHAN B&T TECHNOLOGY HOLDINGS Co.,.Ltd

4、Properties ¶meter

Electrical Parameter	
Freq Range	2400~2500MHz
Characteristic Impedance	50 Ω
Used in machines VSWR	sample of reference project
The Max input power	<10w
Polarization mode	Polar linearization
Radiation mode	Omni directional
Connector style	terminal
Mechanics Properties	
Length	90 $\pm$ 3mm
Maintain the force	$\geq$ 1kgf
Coaxial cable	Black 1.13 wire
Salt spray test	24H
Environment parameter	
Operating Temp	-30 $^{\circ}$ C~65 $^{\circ}$ C

5、Electrical test report (Fitting machine test)

INPUT S11 Parameter



Electrical Performance Test Parameter Table

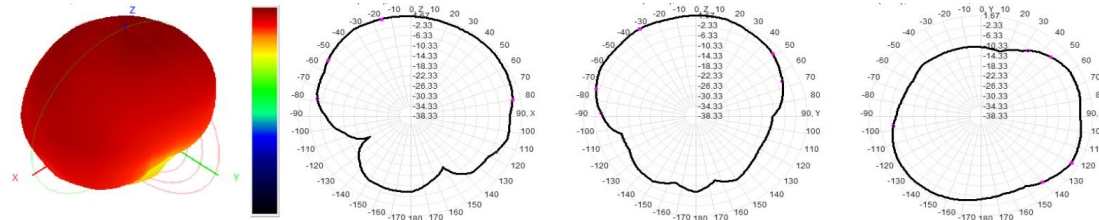
Freq/GHz	2.4	2.45	2.5
VSWR	1.55	1.65	1.76

INPUT -ANT1 Gain & efficiency

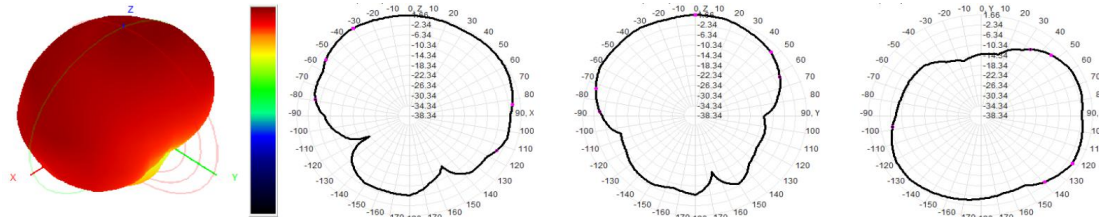
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.0	1.67	49.08
2410.0	1.95	49.97
2420.0	1.96	49.07
2430.0	2.01	50.04
2440.0	2.22	51.42
2450.0	1.65	51.72
2460.0	2.43	52.10
2470.0	2.31	52.48
2480.0	2.33	51.59
2490.0	2.29	50.98
2500.0	1.83	49.22

INPUT Direction diagram

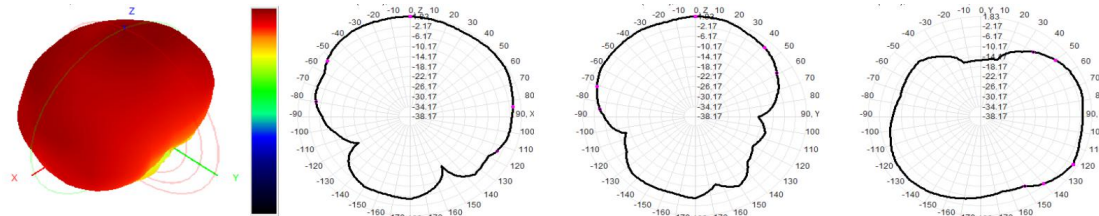
2. 4G (Gain:dBi)



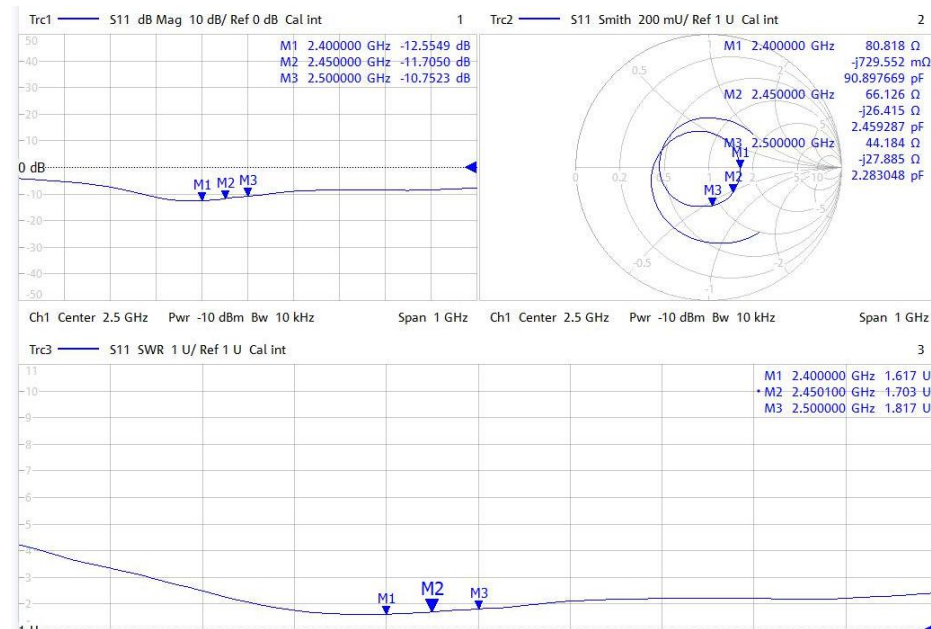
2. 45G (Gain:dBi)



2. 5G (Gain:dBi)



OUTPUT S11 Parameter



Electrical Performance Test Parameter Table

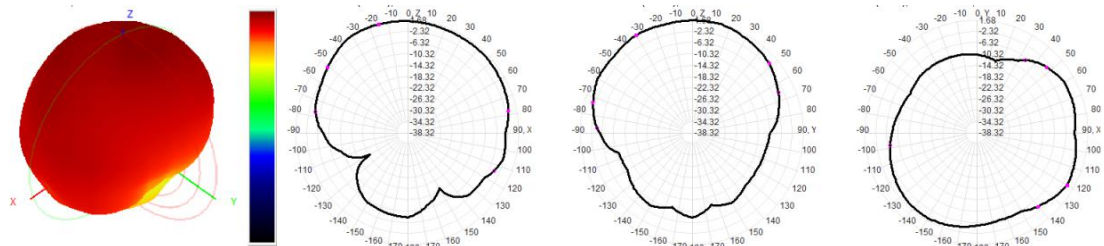
Freq/GHz	2. 4	2. 45	2. 5
VSWR	1. 61	1. 70	1. 81

OUTPUT-ANT2 Gain & efficiency

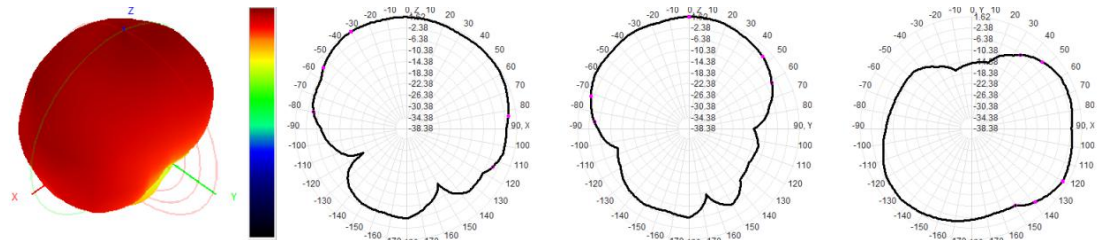
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400.0	1.67	47.02
2410.0	1.93	48.40
2420.0	1.85	47.79
2430.0	1.83	48.80
2440.0	1.84	50.22
2450.0	1.62	50.28
2460.0	2.19	51.46
2470.0	1.84	48.56
2480.0	1.85	48.14
2490.0	1.75	47.57
2500.0	1.95	47.43

OUTPUT Direction diagram

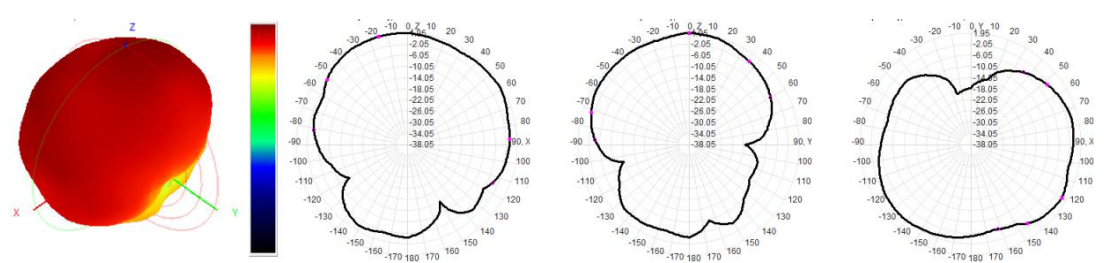
2. 4G (Gain:dBi)



2. 45G (Gain:dBi)



2. 5G (Gain:dBi)



6、Table of Materials and Hazardous Substances

Items are	specifications	The material	RoHS The inspection results (PPM)						ICP Test number	Detection time
			Cd	Pb	Hg	Cr+6	PBB	PBDE		
1	1.13 line	FEP	ND	ND	ND	ND	ND	ND	NGBMR23000169901	2023/2/6
		Tin plated copper wire	ND	ND	ND	ND	ND	ND	CANEC23000141401	2023/2/13
2	shrapnel	Stainless steel	ND	ND	ND	ND	ND	ND	NGBEC2200805803	2022/5/7
		Nickel plating	ND	55	ND	ND	ND	ND	A2220158237101002E	2022/4/28
3	terminal	PBT	ND	ND	ND	ND	ND	ND	NGBEC22001678609	2022/6/8
		Phosphor bronze	ND	ND	ND	ND	ND	ND	CANEC2301145809	2023/2/8

PACKING CRITERION

P/N: 74220163

Spec.: internal antenna -2.4G-Black-1.13 wire-terminal-L=90mm-shrapnel-48×11.1×5.1mm

一、contents of label(according to the customer's name, refer to the corresponding finished product label production requirements. If there is no requirement, it will follow the ordinary label requirements.)

Label for PE bag/ carton, L:10cm;W:6cm

buyer	*****		
vender	Sichuan B&T Communication Technology Co., Ltd.		
Purchase No	*****		
Material No.	*****		
Part name	*****	QC	**
Q'ty/Unit	*****	Manufacture date	****.*.*
Trace code	*****	Running water number	*****

Label for PE bag/ carton, L:10cm;W:6cm

buyer	*****		
vender	Sichuan B&T Communication Technology Co., Ltd.		
Purchase No	*****		
Material No.	*****		
Part name	*****	QC	**
Q'ty/Unit	*****	Manufacture date	****.*.*
Trace code	*****	Running water number	*****

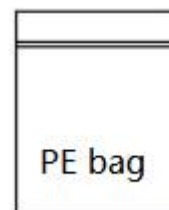
二、Packing requirement

Operating description:

1. inner packing:

____20____PCS/ small bag,

____100____PCS/ big bag

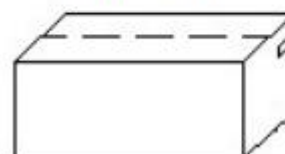


2. outer packing:

3200 PCS/carton



Carton



Notice:

8、 Installation diagram of complete antenna

