

Antenna Specification

Supplier name	Shenzhen Hoogwell Communication Technology Co., Ltd.
Supplier address	Room 230 Zhihui Creative,No 2005,Shajing Xihuan Road,Baoan District ,Shenzhen,Guangdong
Product model	AH180-2.4GFPC ANT
Product Name	AH180-BT-L-04
Application	AH180
Sample delivery time	2023-08-22
Customer material code	
Supplier Project Contact	Mingqiu Liu
Phone Number	0755-27201107

Supplier confirmation	RF	MD	Quality	Audit
Customer confirmation	RF	MD	Quality	Audit

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Description:

1. The samples and the acknowledgment shall be made in quadruplicate respectively. Each sample shall be nailed on the top left corner of the acknowledgment cover and sealed with electrostatic bag (electronic material) or thick PP bag.

1. The report mainly provides test data of passive performance parameters of AH180 L BT antenna,

The frequency band of AH180 BT is 2.4-2.483GHz.

The antenna sample is shown in picture (1).



picture (1)

2 Electrical performance

2-1 Specification

AH180 L BT antenna operating frequency band 2.4~2.483 GHz.

Below table is the return loss performance test index of AH180 L BT antenna.

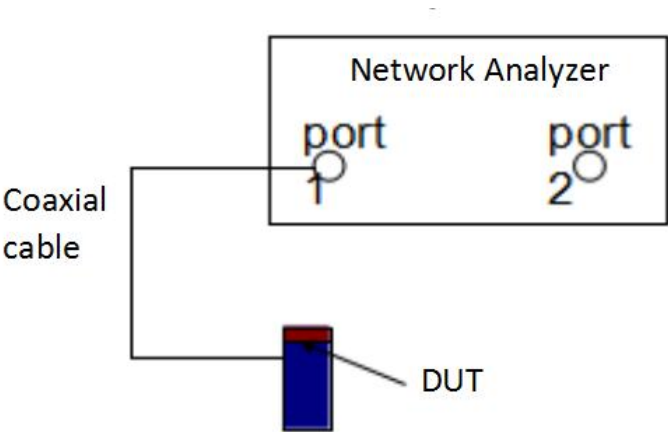
Frequency band (MHz)	Return loss (dB)
2400~2483	≤ -6 dB

2-2 AH180 L BT Antenna Matching Circuit

Not modify

3 Return Loss Test

3-1 Test setup



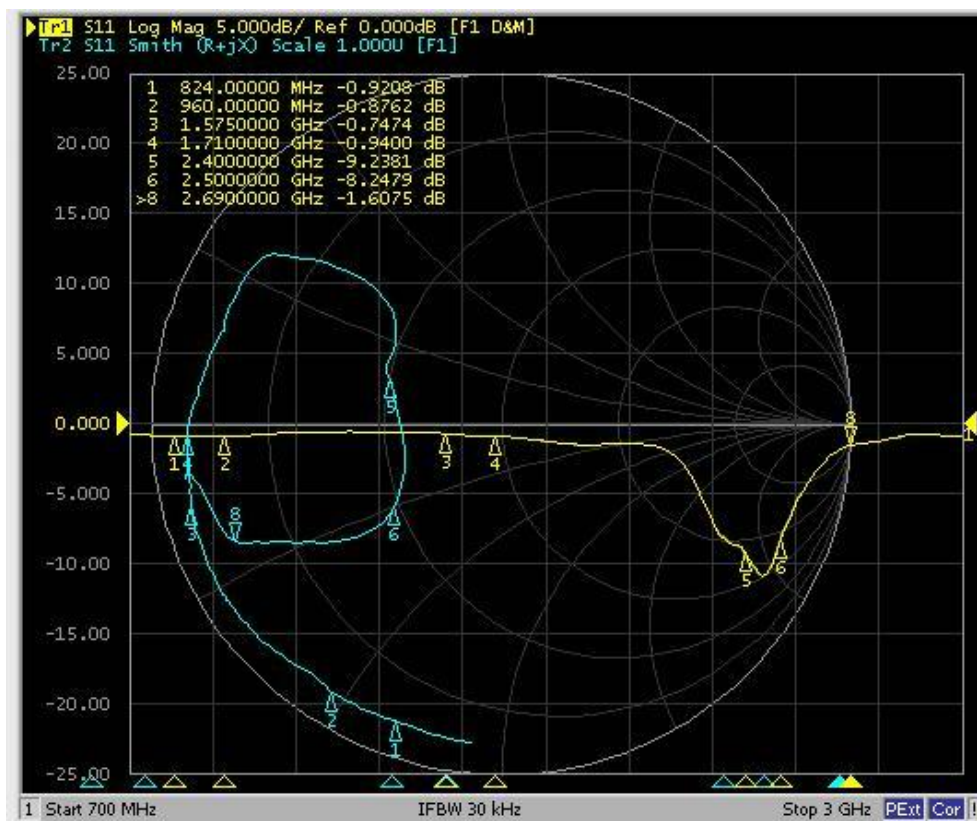
Return Loss Test Setup

3-2 Return Loss Test Data

As shown in the following table, the return loss test data of the edge frequency points of the BT antenna.

Band	Return Loss (dB)	
2400~2500MHz	2400	2485
Free space RL	-9.2	-8.2

3-3 Return Loss



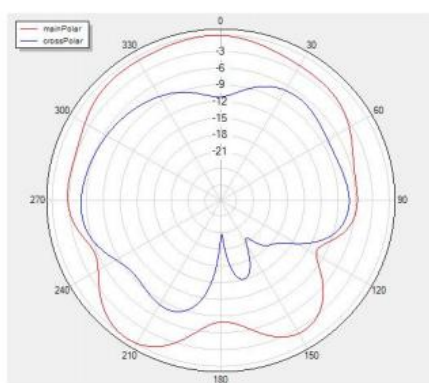
3-4 Passive Efficiency (freed Space)

frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490
gain (dBi)	-3.65	-3.46	-3.49	-3.53	-3.42	-4	-3.54	-3.57	-3.69	-3.98
efficiency (%)	17.35	17.45	17.7	18.43	18.51	18.67	18.47	18.05	17.9	17.81

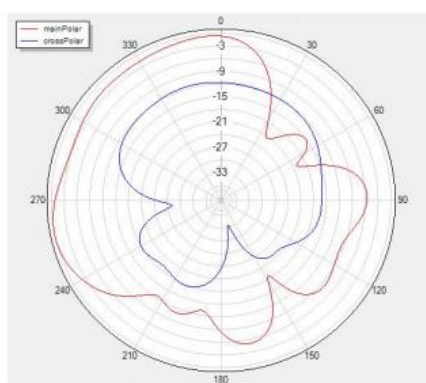
3-5 OTA

	L		
Channel	0	39	78
TRP (dBm)	3.89	4	3.79
TIS (dBm)	-82.35	-82.59	-82.04

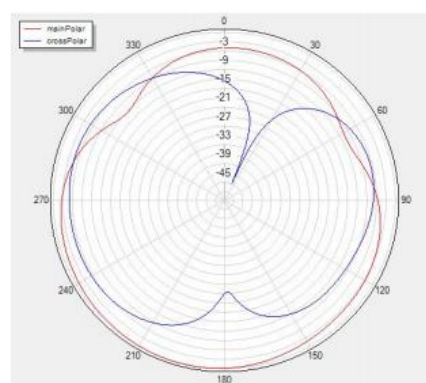
3-6 Polar Graphs



Phi=90

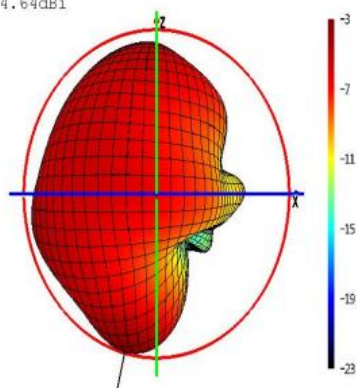


Phi=0

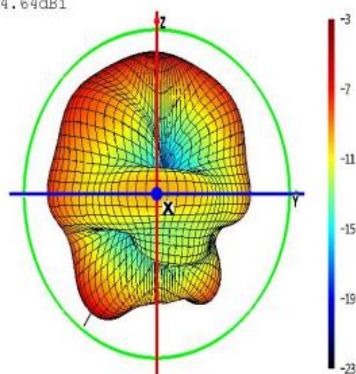


Theta=90

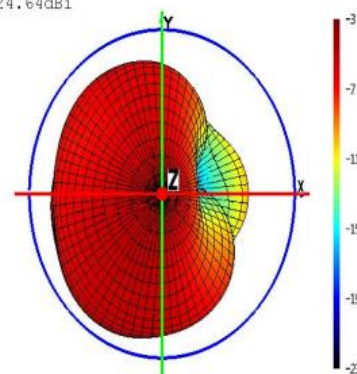
MAX: -3.65dBi
MIN: -24.64dBi



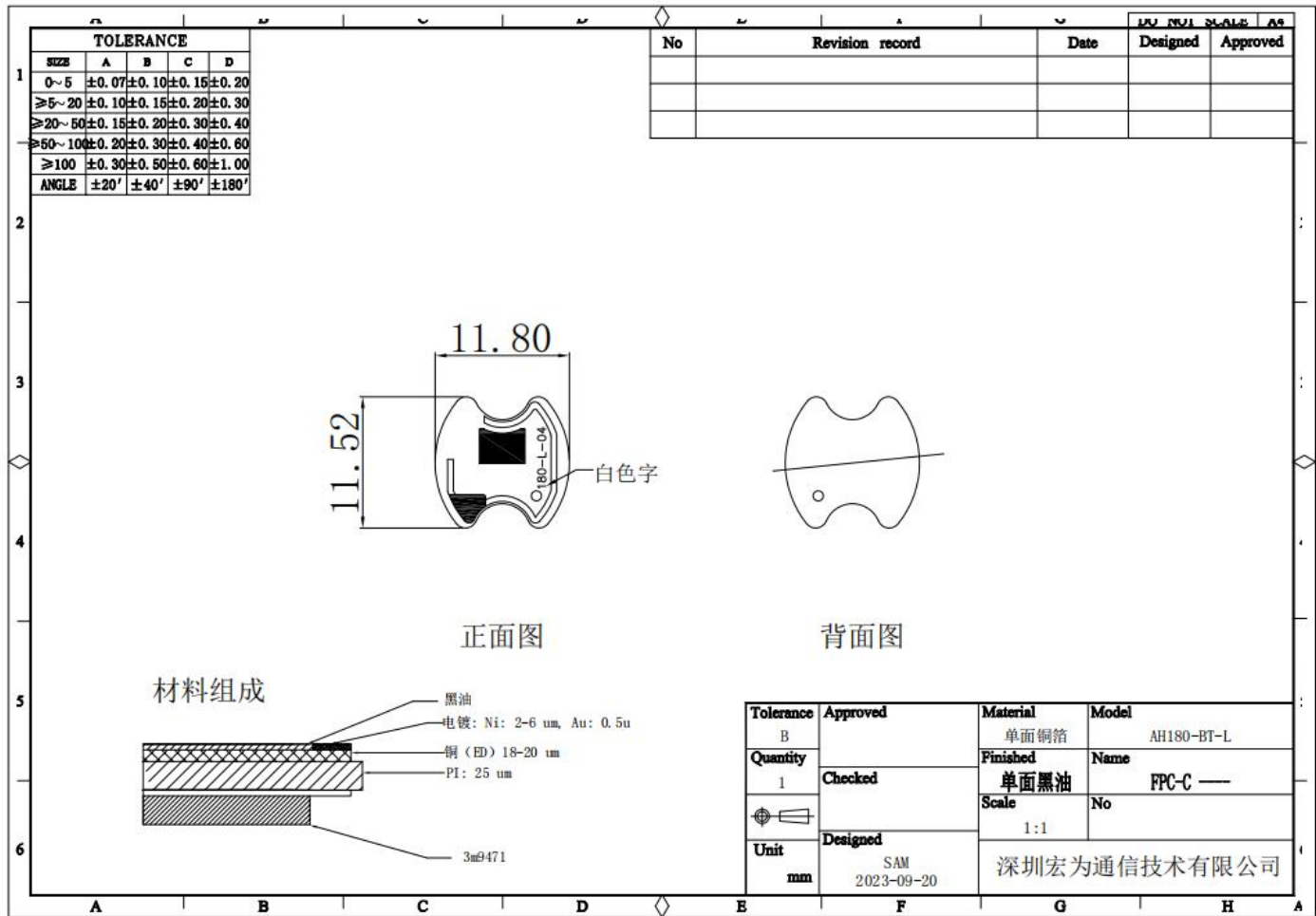
MAX: -3.65dBi
MIN: -24.64dBi



MAX: -3.65dBi
MIN: -24.64dBi



4.Antenna Drawings



5.Appearance and Function Test Report

Item		Requirement	Results
Appearance	Date Code	☒ YYWW ☐ WWYY ☐ Other	☐ Acc ☐ Rej
Inspection	UL Indication		NA
	Visual Inspection	100% visual inspection and tally with customer specification.	☒ Acc ☐ Rej
Testing	FPC O/S Testing	100% visual inspection and no open/short is found.	☒ Acc ☐ Rej
	Insulation Resistance	1*108Ω or higher when DC500V	NA
	SolderabilityTest	No de-wetting or non-wetting is visible.	☐ Acc ☐ Rej
	AdhesionTest	No material shall be attached on the peeled tape.	☐ Acc ☐ Rej
	Au Coating Thk.	Au: 0.5-3 μ" Ni: 100-150 μ"	☒ Acc ☐ Rej
	Canned substances Confirm	Non-inclusion banned substances contained in products	☒ Acc ☐ Rej
	Heat-durability	Tin temperature: 280 ± 5 °C, immersion time: 10sec The base material / protective film shall be free of expansion, lifting, foaming and other phenomena	☒ Acc ☐ Rej
	Pulling test	0.5kg, 30sec, no electrical performance defect	☐ Acc ☐ Rej
	Bending test	R = 0.5mm, 180 ° , 10cyc, no electrical performance defect	NA

Num.	Profile tolerance	Requirement	Measured Data						Judge
1		11.8±0.2							√Acc□Rej
2		11.52±0.2							
3									
4									
5									
6									

Product composition or Parts List

[illegible]

8.Process flow chart

