

SPECIFICATION FOR APPROVAL

CUSTOMER :	yuanchuan
PART NAME :	External dual band wifi antenna L=194mm
PART NO. :	
DZZ NO. :	N12-7417-R0A
REV. :	1.0

	MANUFACTURERR SIGNATURE	CUSTOMER SIGNATURE
APPROVED BY:		
DATE:		

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PCB Antenna Assembly

Specification(With housing)

1.Electrical Properties

- 1.1 Frequecy range.....2400~2500MHz&5150~5850MHz
- 1.2 Impedance.....50Ω Norminal
- 1.3 VSWR (Matching Transmit Trace on board) ...≤2
- 1.4 Radiation.....Omni
- 1.5 Gain(Peak).....3dBi
- 1.6 Polarization.....Linear
- 1.7 Admitted Power.....1W
- 1.8 Cable.....Φ1.37 cable
- 1.9 Connector.....CCT-1

2.Physical Properties

- 2.1 Working Temperature.....-30°C ~ +75°C
- 2.2 Storage Temperature.....-30°C ~ +75°C

Antenna Design for External dual band wifi antenna L=194mm V1.0

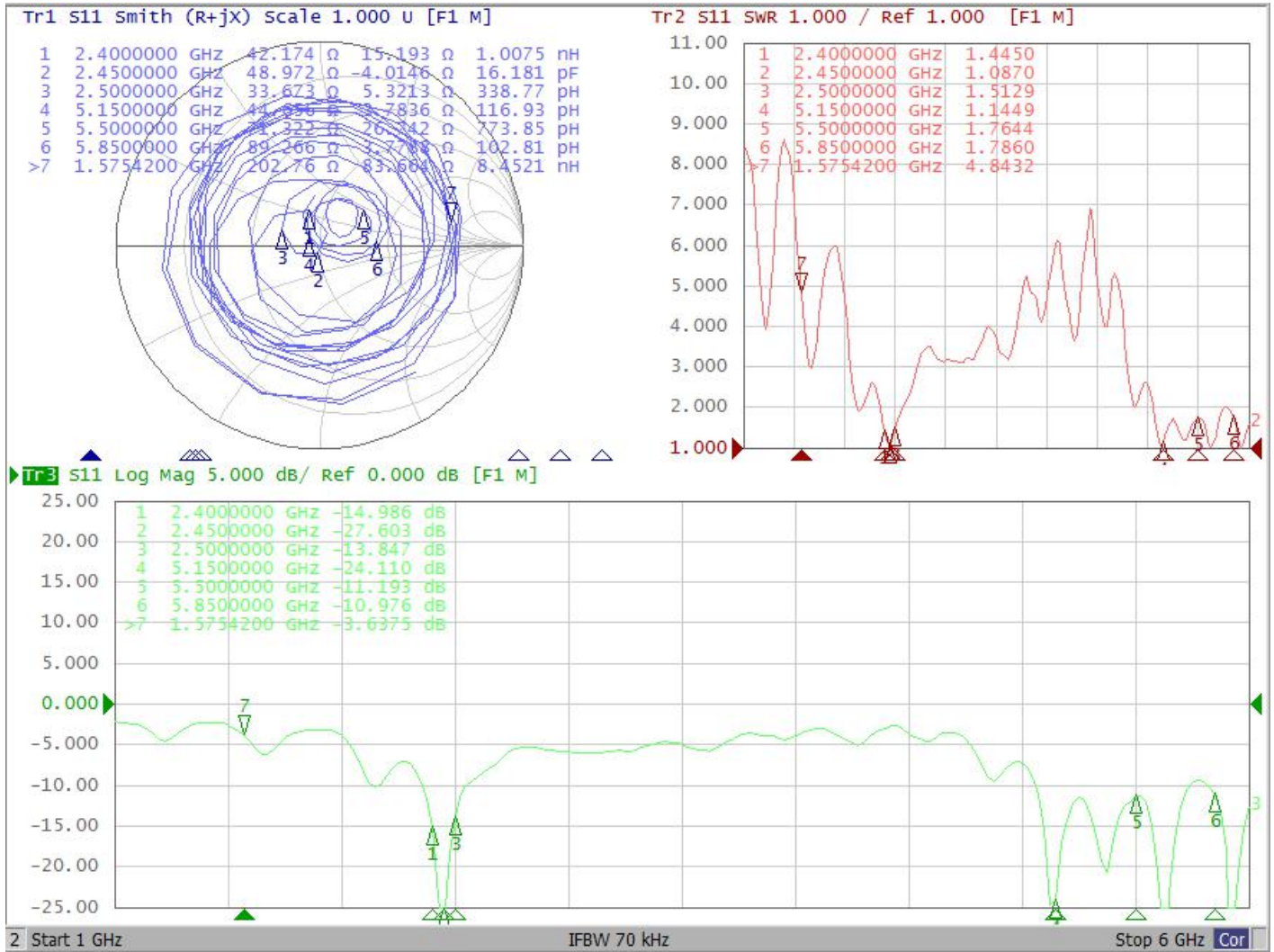
Document Number	DZZ-20230913
1st Released Date	13/09/2023
Author	Huiping Feng
Review By	Huiping Feng

Specification

Rough description	2.4G /5G ANT
Item	Initial Specification
Impedance	50Ω Norminal
Test environment	With housing
Spectrum	None
Frequency range	2400~2500MHz&5150~5850MHz
Antenna Type	Dipole
VSWR	(Matching Transmit Trace on board)≤2
Gain(Peak)	3dBi
Radiation	Omni
Polarization	Linear
Rad. efficiency	≥60%
Power	1W
Connector Type	CCT
Cable Type	Φ1.37 coaxial cable
Cable Length	grey L=194mm
Isolation	None

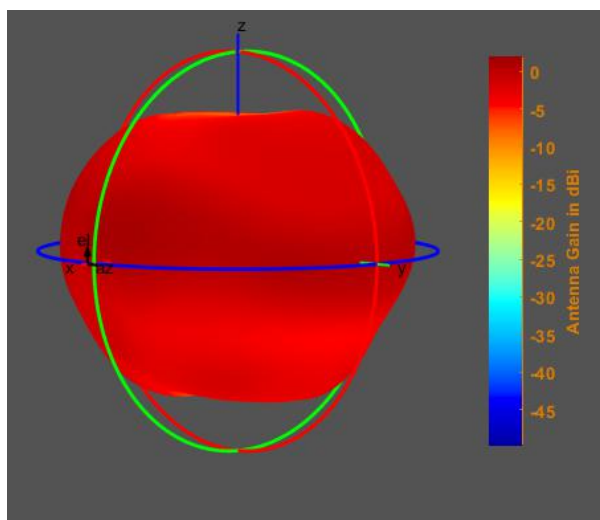
1. Passive

1.1 S11 VSWR Smith test results

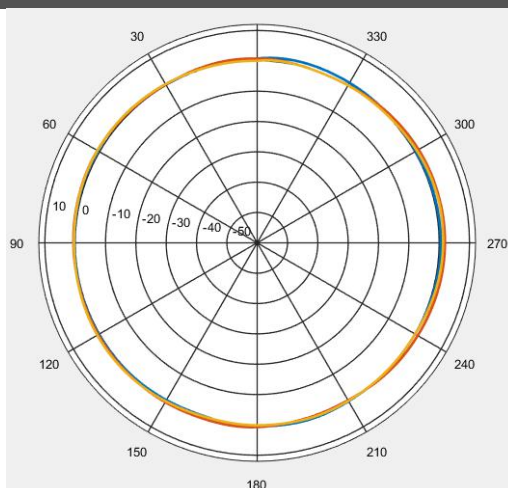


1.2 2.4G radiation pattern

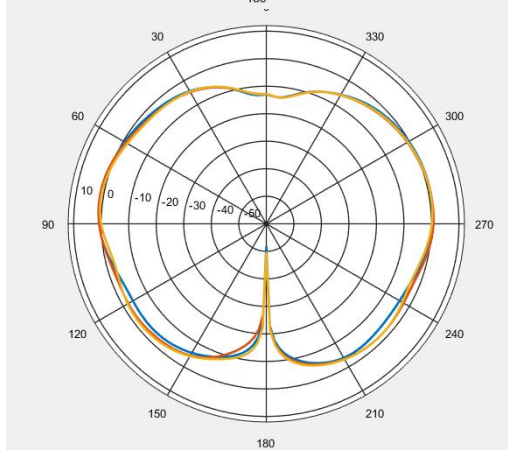
2.45GHz



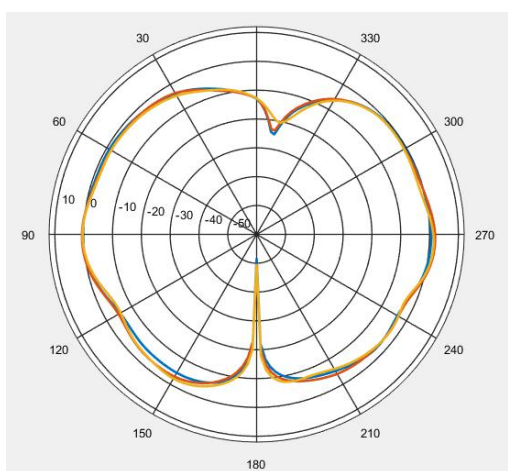
X-Y



X-Z

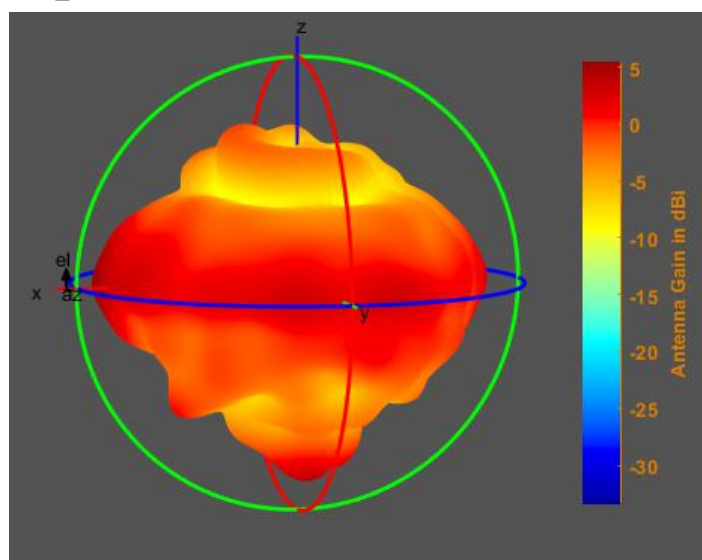


Y-Z

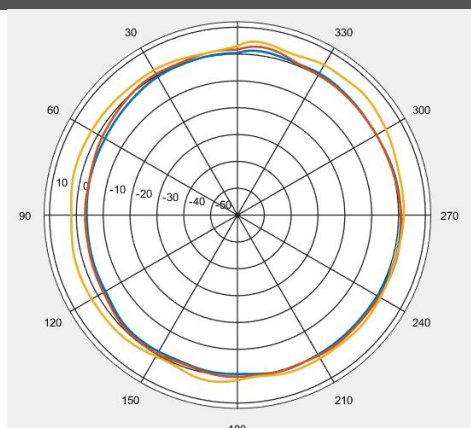


1.3 5G radiation pattern

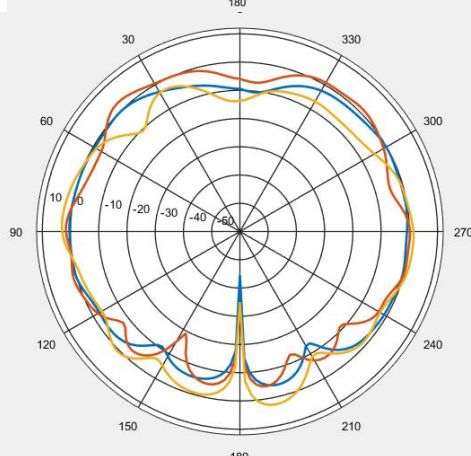
5.5GHz



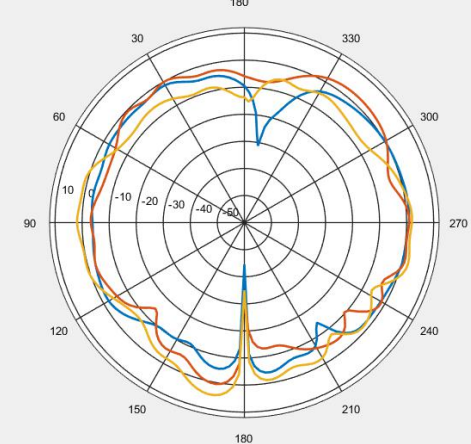
X-Y



X-Z

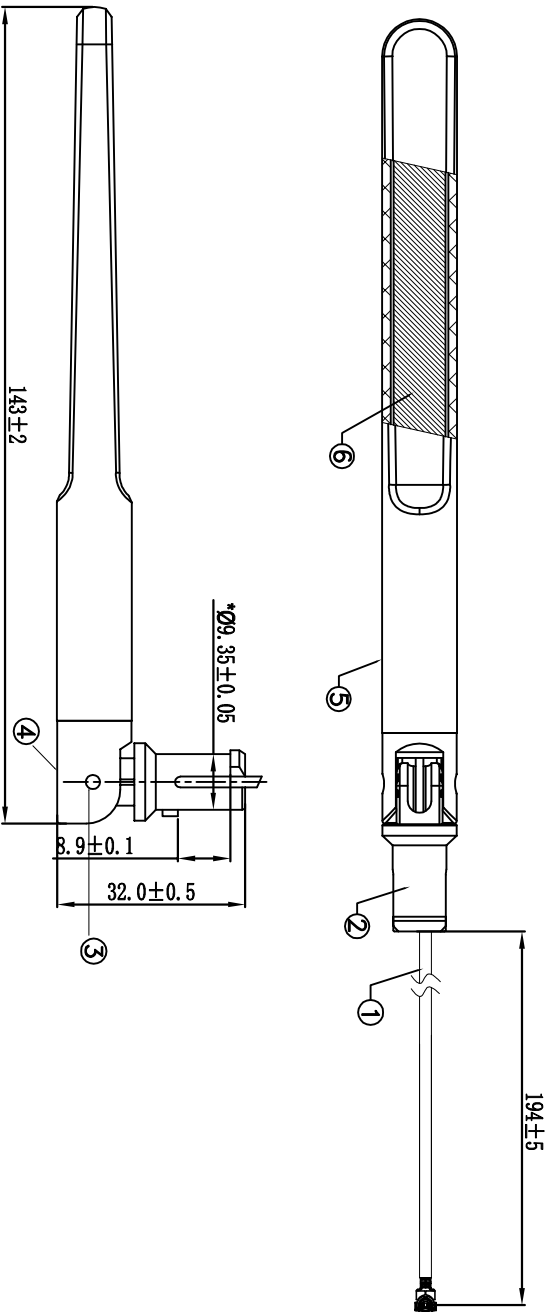
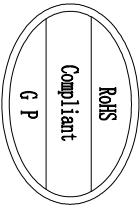


Y-Z



1.4 2.4G 5G Effi

Freq	Effi	Gain	Freq	Effi	Gain
(MHz)	(%%)	(dBi)	(MHz)	(%%)	(dBi)
2400	72.8	2.89	5100	68.29	2.57
2410	72.91	2.76	5200	69.35	2.91
2420	73.11	2.98	5300	71.58	2.94
2430	73.26	3.03	5400	72.15	2.99
2440	74.75	3.05	5500	71.65	3.12
2450	75.29	3.14	5600	70.21	3.25
2460	74.77	3.12	5700	69.12	3.40
2470	73.98	3.13	5800	68.08	3.61
2480	73.59	3.00	5900	68.50	3.71
2490	72.55	2.98			
2500	71.29	2.99			



- remark: remarks: comment
- Marked with “*” as the key size, the unmarked tolerance size is tested according to ± 0.15
 - Please refer to the drawing if the dimensions are not marked.
 - RoHS compliant
 - Shipping method: Single shipment

D	
Rev	Description
A	New drawing
1	

Shenzhen free technology Co., LTD									
		Third Angle	Project	Dual frequency	Date		2023.9.11		
0~10	±0.2	○	PartName	external antenna	Designed by		tianjin fengnuiping		
10~18	±0.5	◎	Part No.		Checked by				
18~30	±0.8	⊥	Material	N/A					
30~40	±1.0	∠			Approved by				
40~	±2.0	Angle±0.5°	dwg No.		Unit		mm	Scale	1:1
location		N/A						Rev	A

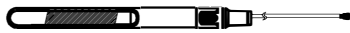
Product packaging specification

date: 2023.9.11

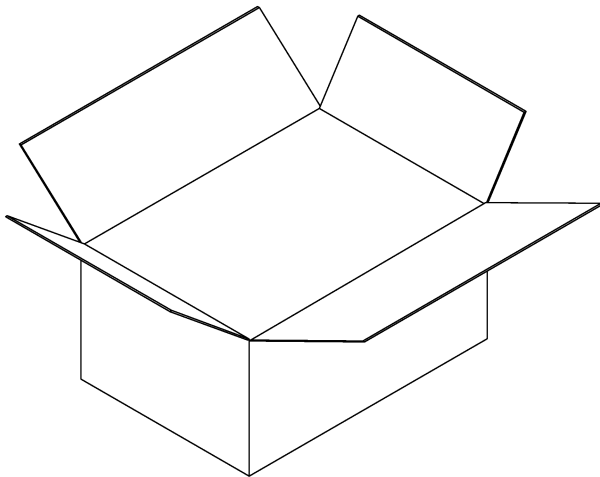
page: 1 of 1

Product name: External antenna

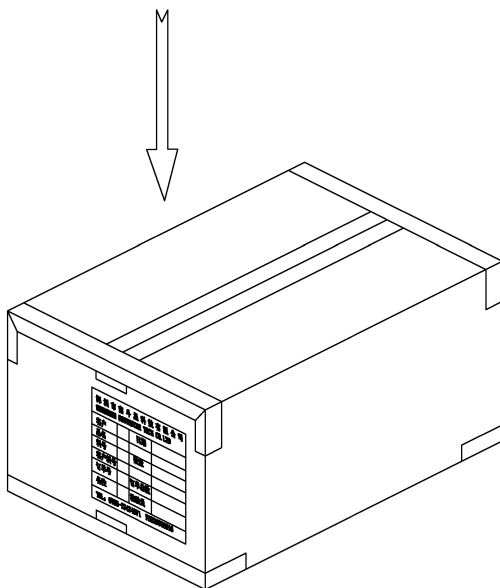
一: Finished antenna



Two: Put it in a PE bag



4. The actual packing shall prevail



Four: The box is sealed, and the outer box is affixed with our production label and ROHS label.