



Tengxiang Electronics Co., Ltd.

Product Number: AN2450-PCB25BX

Product Name: Antenna

Specification For Approval

Date: 2022.7.22

Version: 1.0

Customer:

Customer P/N:

122-20130-000

T X P/N:

AN2450-PCB25BX

Description :

2.4G/5G PCB

1.13mm

L=200mm+IPEX

Tengxiang Checked By:		Customer Approved By:	
DRAWN		TESTED BY	
CHECKED BY		CHECKED BY	
Q.C.DEPT.		Q.C.DEPT.	
APPROVED BY		APPROVEDBY	



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TEL:86-769-81873082 FAX:86-769-82663788



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Index:

- 1. Specification**
- 2. Characteristics and Reliability Test**
- 3. Antenna - S Parameter Test Data**
- 4. Antenna - Radiation Pattern Test Data**
- 5. Mechanical and Packing Drawing**

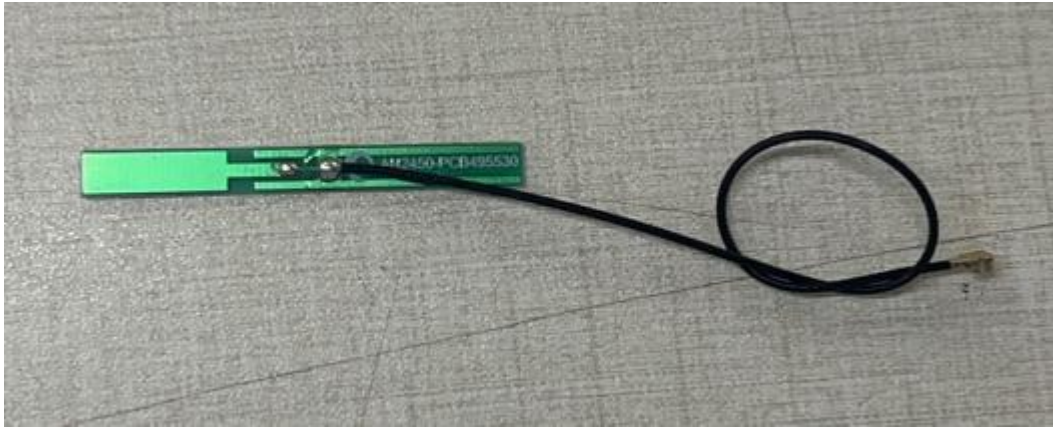
Revision History

Revision	Date	Change Notification	Description
1.0	2022.7.22		

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1. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400-2500 MHz /5150-5850MHz
S.W.R.	<= 2.0 / <= 2.5
Antenna Gain	2.32 dBi / 2.27 dBi
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Cable Type	OD1.13mm ,Black
Connector Type	I-PEX
C. Environmental	
Storage Temperature	- 40°C ~ +80 °C
Operation Temperature	- 40°C ~ +80 °C

Product Number: AN2450-PCB25BX

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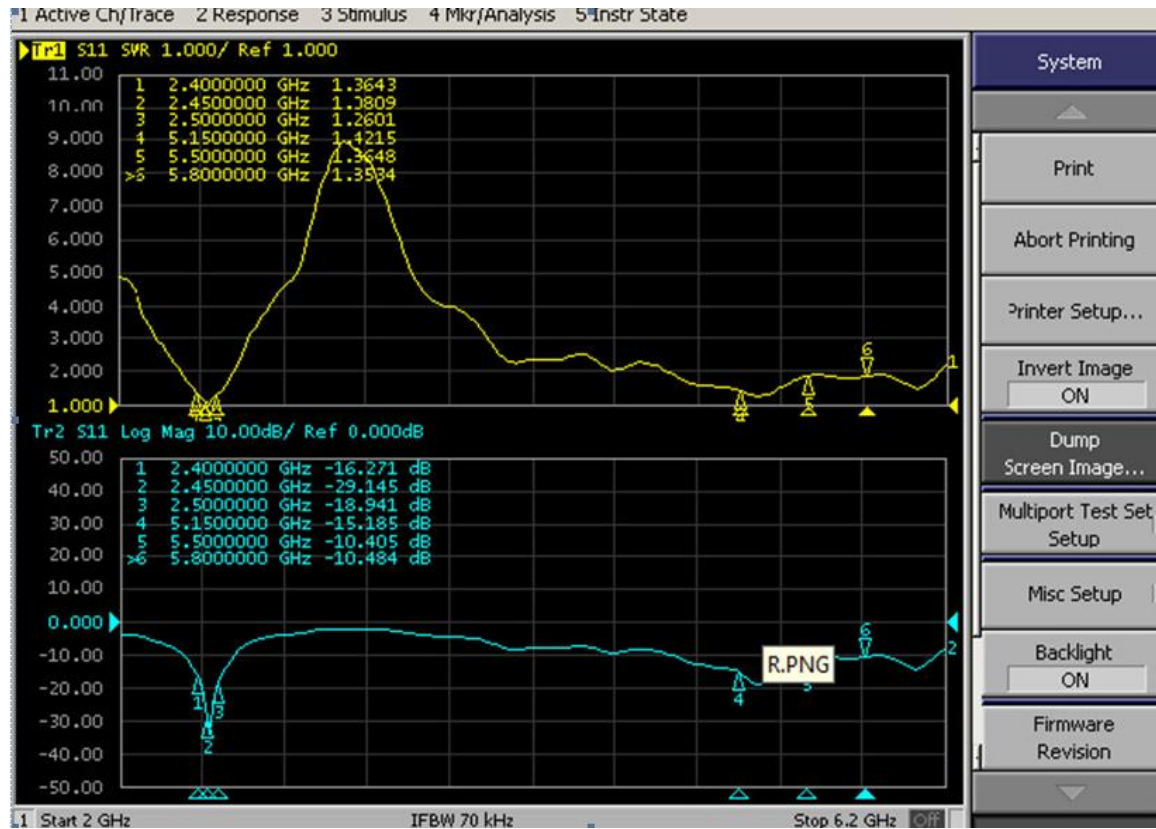
2. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements	Result
1	V.S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification	PASS
2	Insertion Loss	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification	PASS
3	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification	PASS
4	Solderability	GB / T2423.28-2005 Temp: $260 \pm 5^{\circ}$ C; Duration: 5 seconds	Tin evenly on full	PASS
5	Pull Test	Holding with individual specification; force applied to axis of terminal .	1. Directive DUT specification 2. Frequency Tol. $\leq 5\%$	PASS
6	Dimension	Inspection of dimension, color, material, package, surface process.	Directive DUT specification	PASS
7	Salt Spray	GB / T 2423.17-2008 Temp: 35°C ; RH: $\geq 95\%$; NaCl solution: $\geq 5\%$; Time: 24H	1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	PASS
8	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863/EU	PASS

Product Number: AN2450-PCB25BX

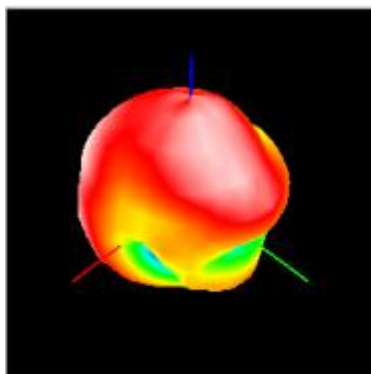
Product Name: Antenna

3. Antenna - S Parameter Test Data

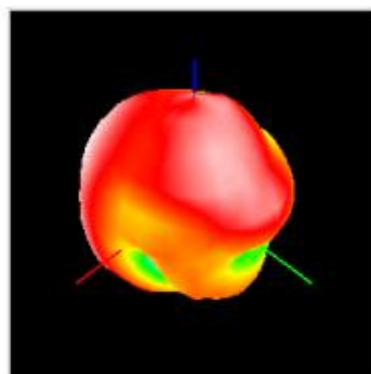


Frequency (MHz)	2400.0	2450.0	2500.0	5150.0	5550.0	5850.0
Efficiency (%)	60.5	70.4	67.9	55.2	65.9	59.4
Gain (dBi)	1.67	2.32	2.18	2.05	2.27	1.67

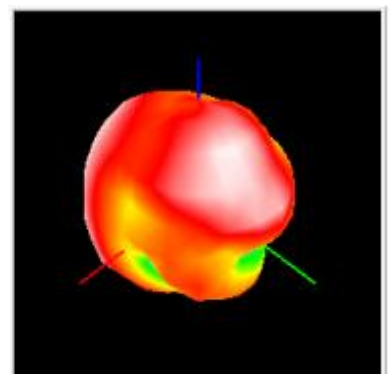
4. Antenna - Radiation Pattern Test Data



2400MHz



2450MHz



2500MHz

Product Number: AN2450-PCB25BX

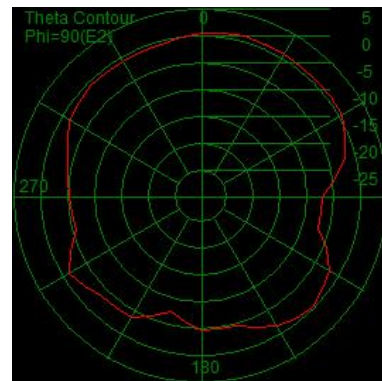
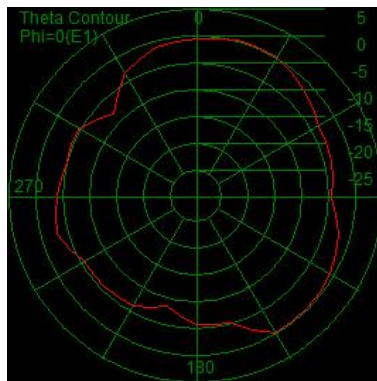
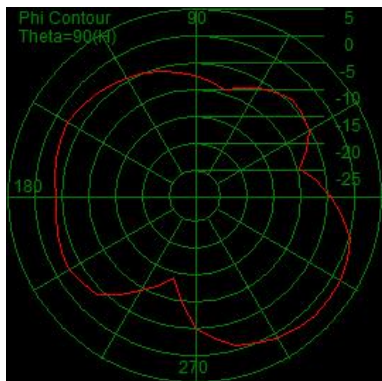
Product Name: Antenna

XY_Plane

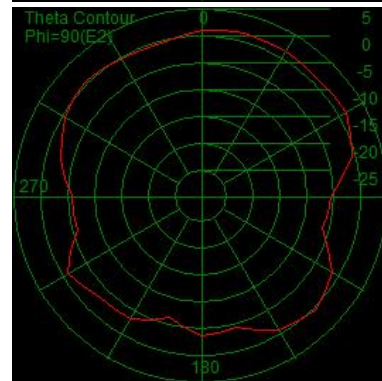
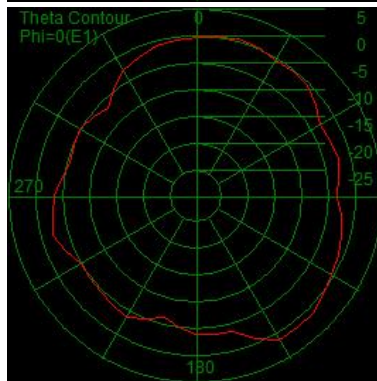
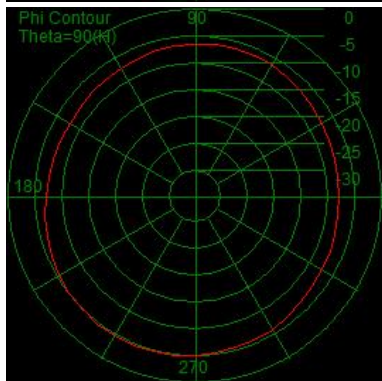
XZ_Plane

YZ_Plane

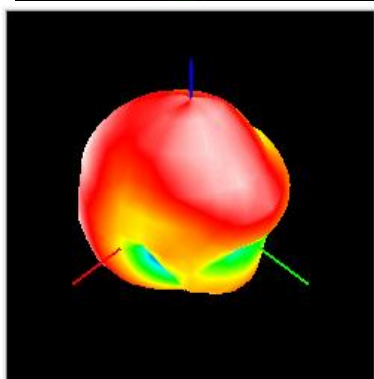
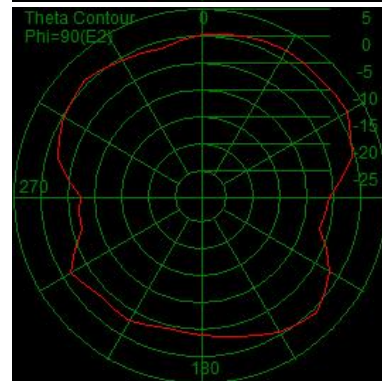
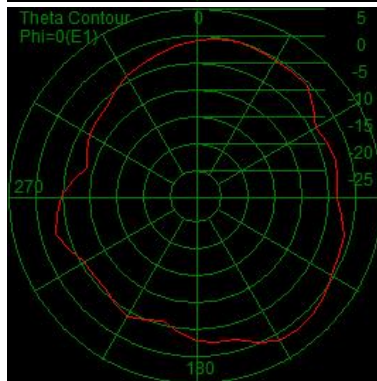
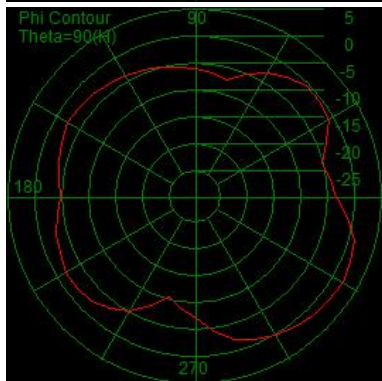
2400MHz



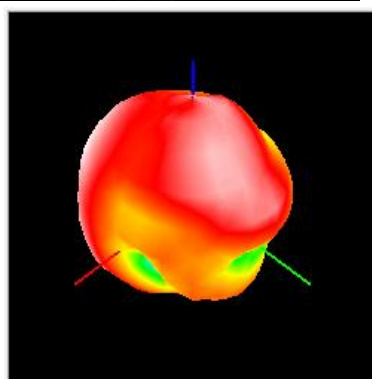
2450MHz



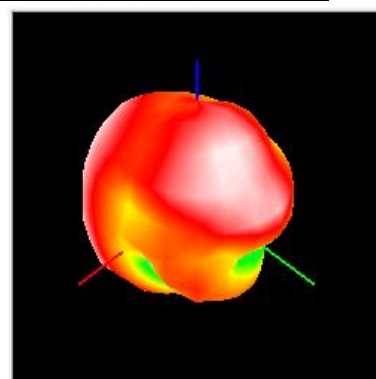
2500MHz



5150MHz



5550MHz



5850MHz

Product Number: AN2450-PCB25BX

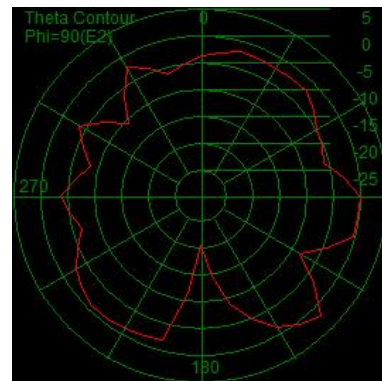
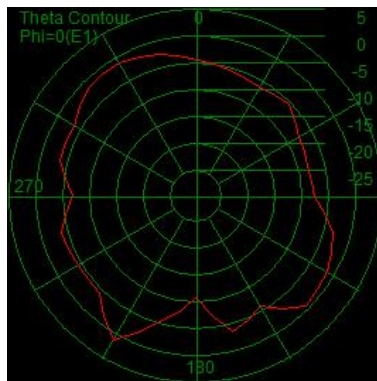
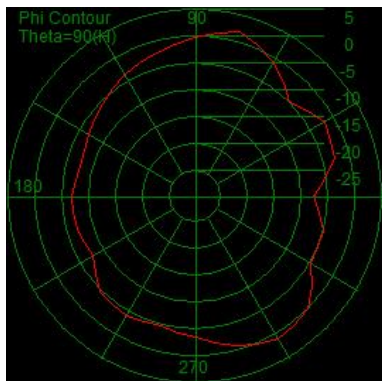
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XY_Plane

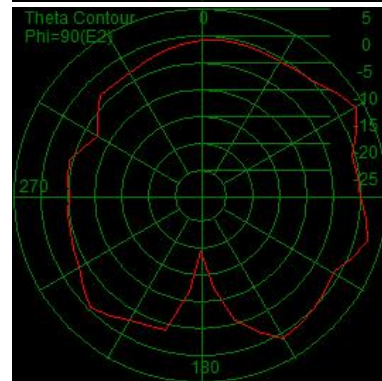
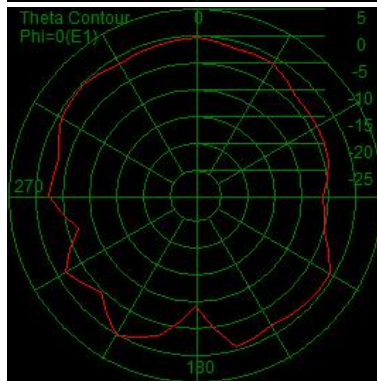
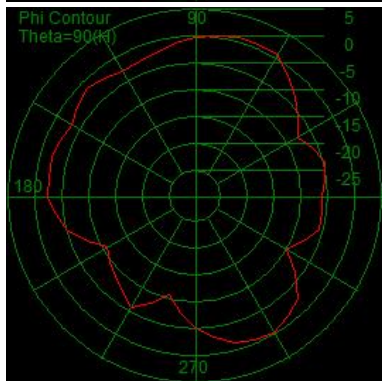
XZ_Plane

YZ_Plane

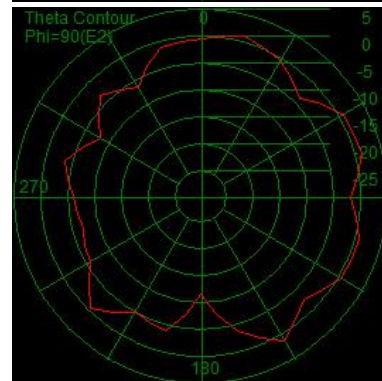
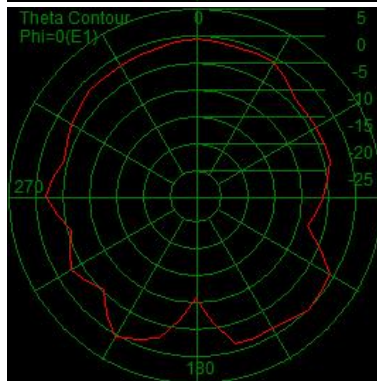
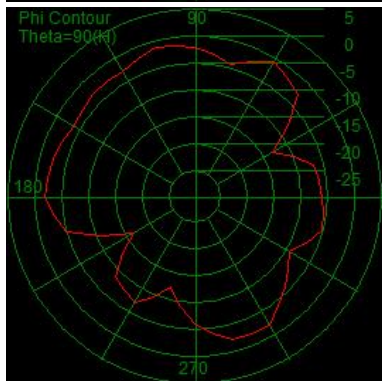
5150MHz



5550MHz



5850MHz

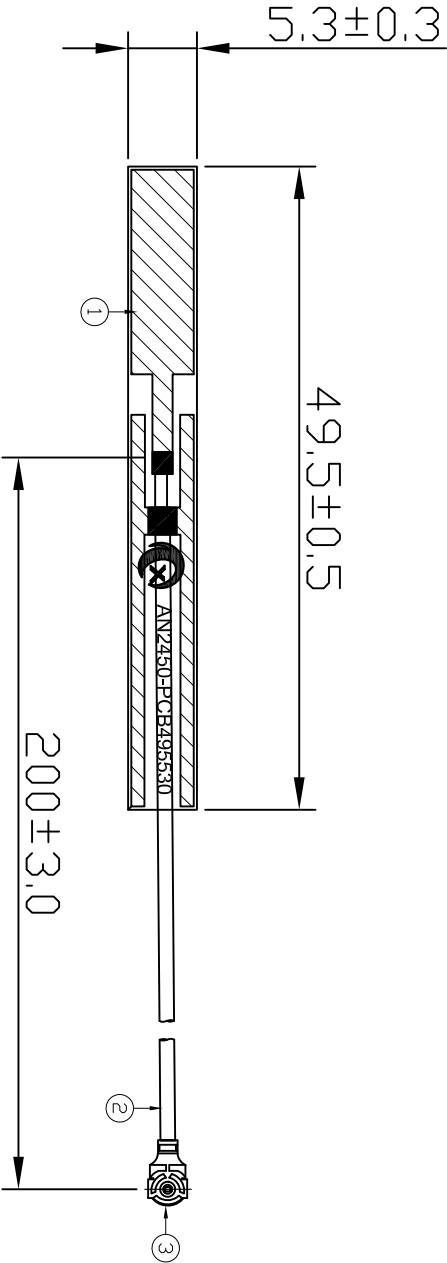


5. Mechanical Drawing See attached files

SIGN	DATE	DESCRIPTION	APPROVER
△			
△			
△			

HF	☐
RoHS2.0	☒
REACH	☐
CONFIDENTIAL	

焊接區 (OSP)
布線區



Note:

- 1.Mark * is important dimension;"Cpk "Identify for process control(Cpk $\geq$ 1.33).
2. Tolerance:Unmarked tolerance refer to the standard tolerance please.
- 3.Pay attention to the direction of the connector.



Tengxiang Electronics Co., Ltd.

3	CR-113-ZP-A	I-PEX	CU	gold-plated	1
2	CB-113BS	Coaxial Cable	OD1.13 mm	Black	1
1	AN2450-PCB495530	PCB	FR4	green	1
No.	Part Number	Name	Material	Finish	Q'ty

TITLE: 2400-2500 / 5150-5850 MHz					
PART NO.: AN2450-PCB25BX			CUSTOMER P/N: / TP25/TP310 L/P0118050402A-RIA		
APP BY	CHK BY	RF BY	DES BY	Tolerance	
			L RK	UNITS: mm	X.X ±0.5
			2022/06/27	SCALE: 1/1	X.XX ±0.2
				REVISION: A	X ±1