



Shenzhen Shuodian Electronic Technology Co.,Ltd
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Specification book

for

BT Antenna

Customer part number

Company material number

WA-outdoor PTC 2.4G BT-FPC-90MM

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1. Confirmation by both parties

1.1 Customer confirms signature

Clients:

Customer Department/Position	Signature of the confirmer	Confirm the date
Hardware/RF		
structure		
Project manager		
Commerce/Procurement		
Audit		

1.2 Shuodian Technology confirms and signs

Department/Position	Signature of the confirmer	Confirm the date
Antenna Engineer		
Structural engineer		
Project manager		
QA		
Audit		



2. General matters

2.1 Scope of application

This antenna is used in outdoor **PTC BT**

2.2 Operating temperature

range This product is

used in the temperature

range of **-20 ~ +65 ° C**

2.3 Storage temperature

range This product is

stored at **-30 ~ +75 ° C**

3. Product general specification table

NO .	ITEMS	DETAILS
1	Model	outdoor PTC BT
2	Frequency band	2400MHz-2500MHz
3	VSWR	≤2.0
4	Gain	3.55dBi
5	Impedance	50Ω
6	Antenna type	Dipole

7	Antenna picture	
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4. Product specification details

4.1 Product structure parameters

4.11 Product material composition:

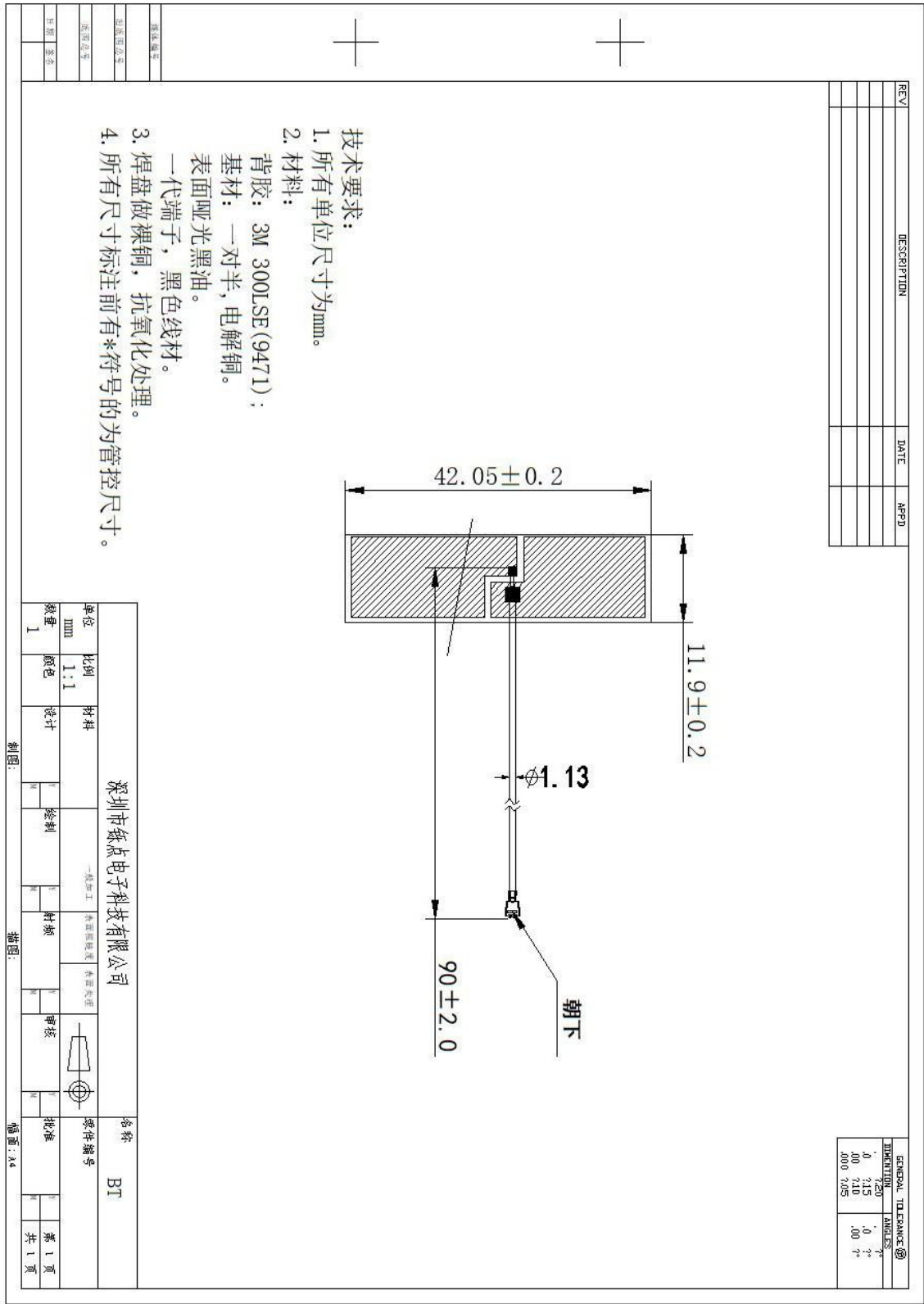
Serial number	Materials	Specification (MM)
1	FPC	42.05*11.9 Black
2	Coaxial line	First-generation terminal, wire diameter $\phi 1.13$, black wire, length 1.00

4.11 Appearance

The product has a good appearance, without scars, sweat stains, protrusions and other serious defects that affect the appearance.

4.12 Structural dimensions

Product Drawings:





4.2 Product electrical performance test data

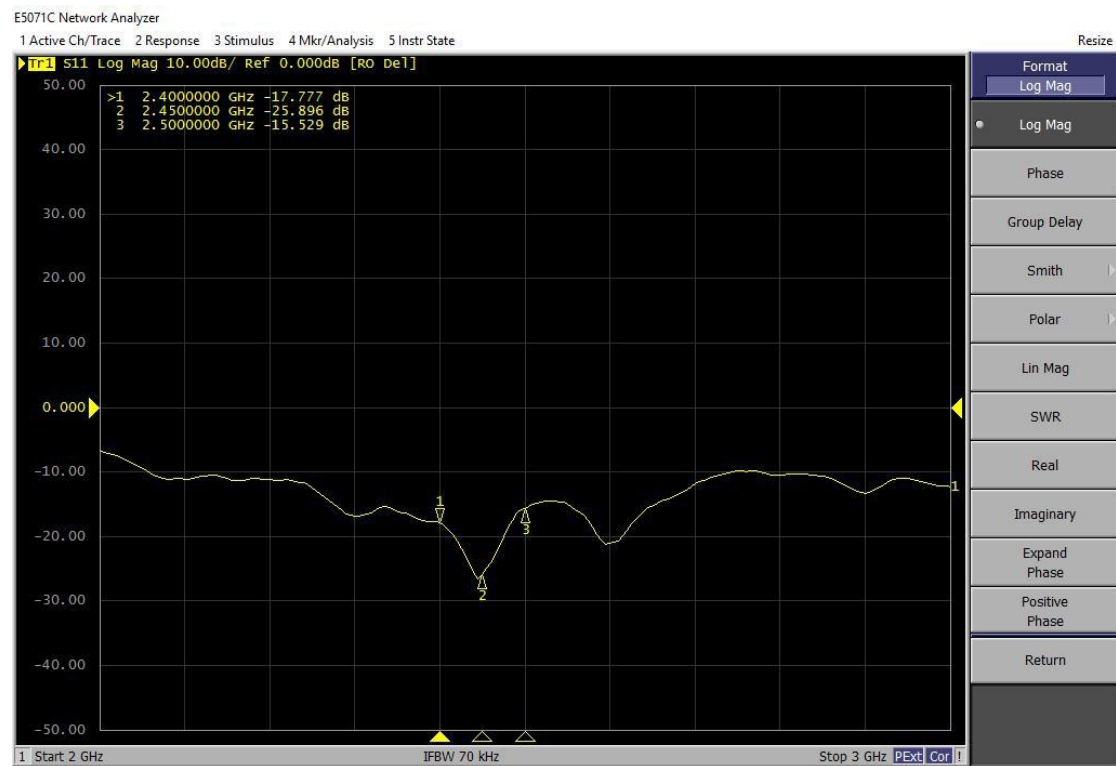
4.21 Test environment and instruments and equipment

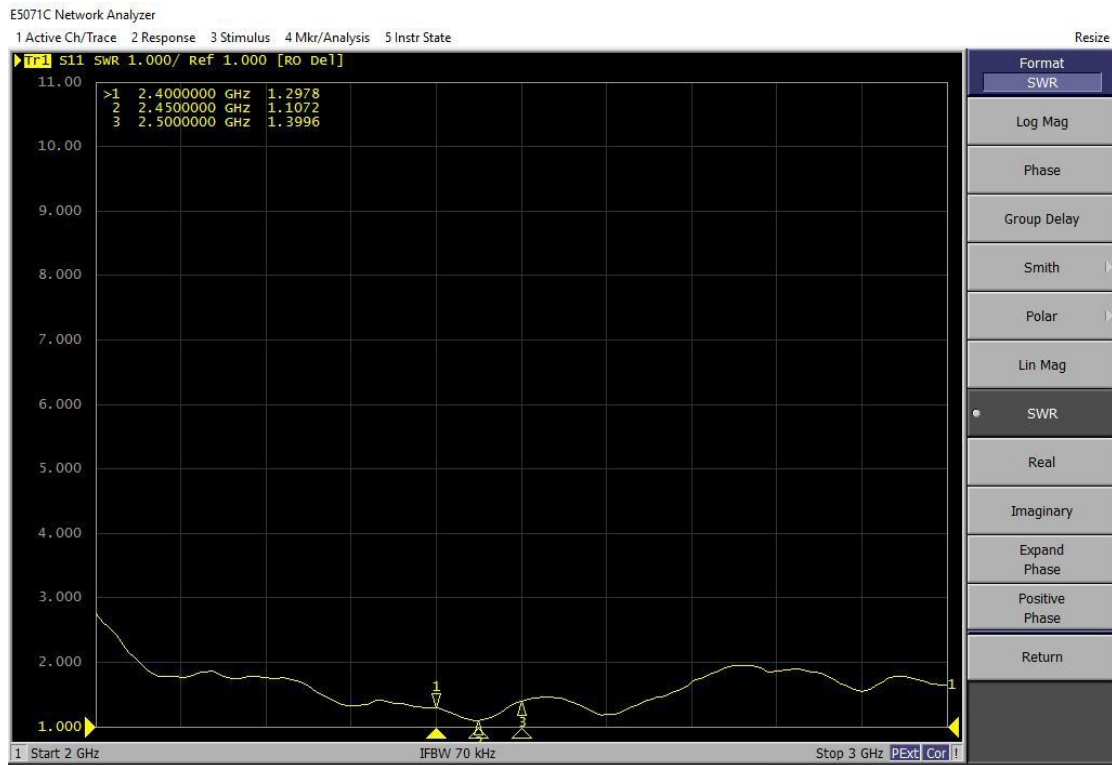
Test Environment:	Test Equipment:
Temperature: 10℃——+30℃	Network analyzer
Relative Humidity: ≤80%	KEYSIGHT E5071C
Atmospheric pressure: 750mmkg±30mmkg	Multi-probe microwave anechoic chamber

4.22 Product Electrical Performance Test Data:

4.22.1 S11 Diagram of the Product:

Marker (MHz)	2400	2450	2500
Return Loss	-17.77	-25.89	-15.52
VSWR	1.29	1.10	1.39





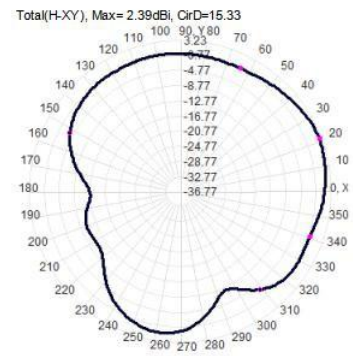
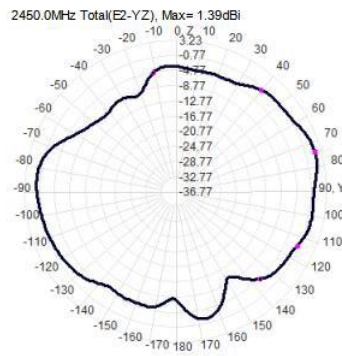
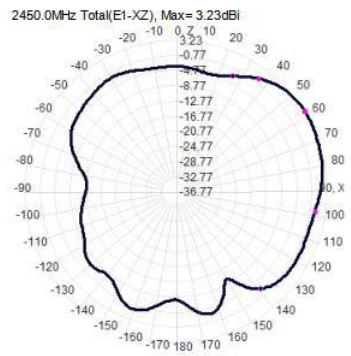
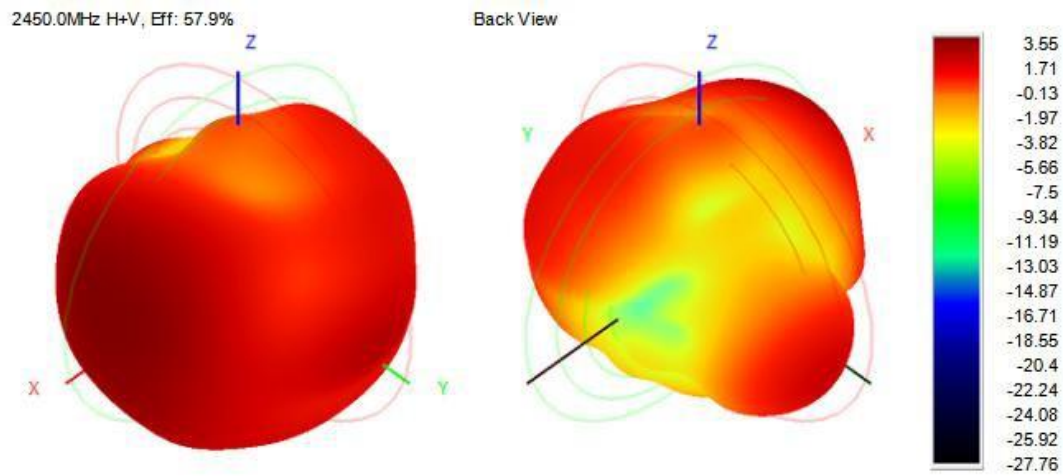
4.22.2 Gain Efficiency and Pattern of Antenna:

Antenna Gain Efficiency:

Frequency (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.86	2.94	2.98	3.06	3.30	3.55	3.78	3.91	3.98	4.16	4.37
Efficiency (%)	55.55	55.21	55.23	55.63	57.35	57.87	57.82	57.79	57.34	59.95	61.26

Directions:

2450MHz:



5. Product packaging method

包装方式:

自封袋包装, 每包 200PCS。



6. Document history

Document No.	
日期/Release Date	2025/12/19
Author	Hungjie
Review/Review	WH

Document history table

Revised History

Date	Version	Revised Record
2025/12/19	1.00	New Project