



深圳市云动创想科技有限公司
Shenzhen Airsmart Technology Co., Ltd.

Material acknowledgment certificate

Acknowledgement number: _____

Material number: 6111500870

supplier: Shenzhen Feimin Technology Co., Ltd.

project: FM-S855-P1G

NAME OF MATERIAL: Built-in 2.4G Bluetooth antenna

Materials specifications: 2.4G, MW-P1G-1.1, black 0.81 line, IPEX
2nd generation, line length 40

Reasons for sending samples: _____

Remarks:

Supplier material production confirmation: (must be stamped)

Formulate	To examine	Approval	Seal

Approved by Yundong Creative:

To bear	To examine	approval	quality	Seal

Revision history

version	date	state
A1	2024-12-27	First edition

Change content:

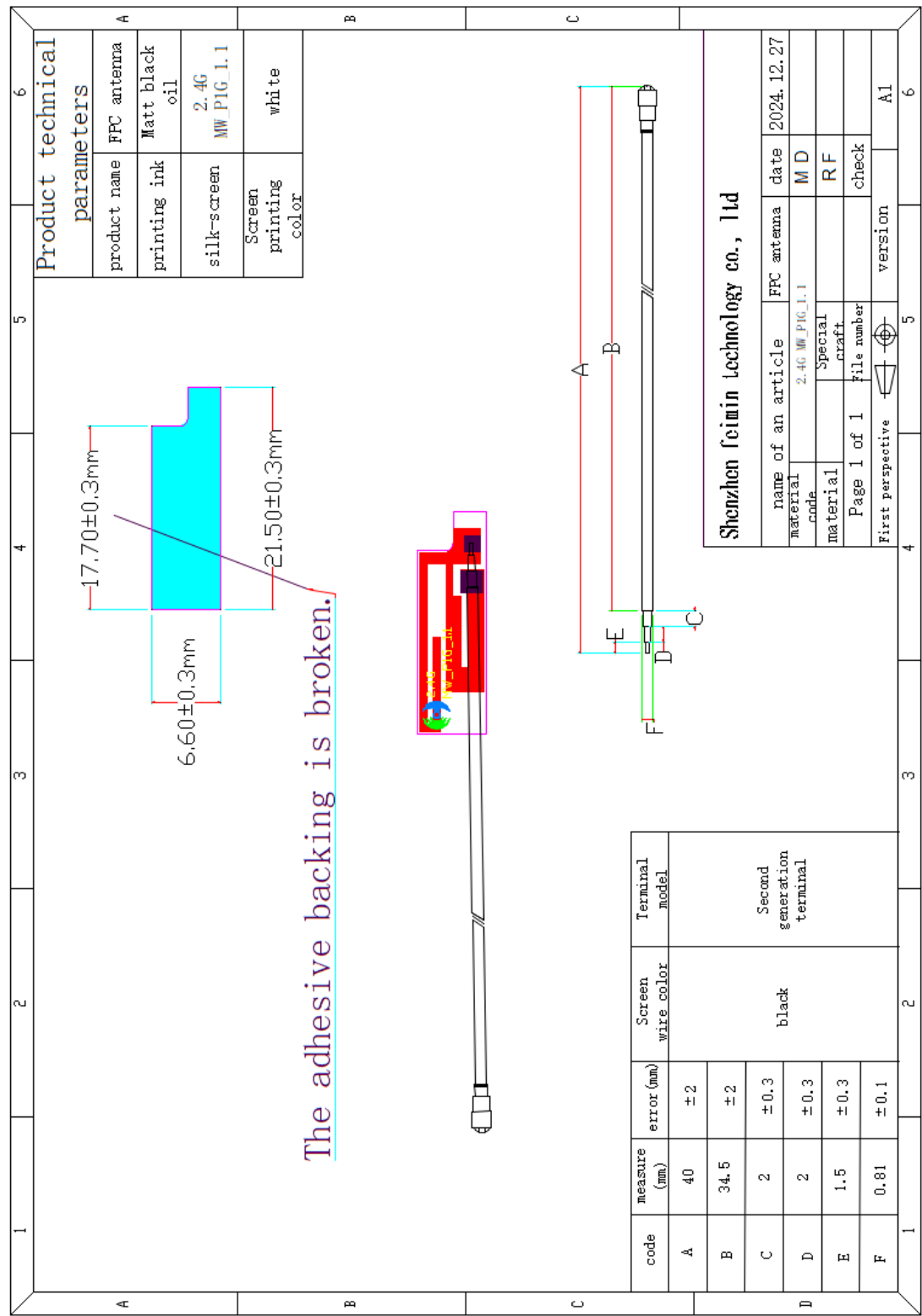
First change:

Before the change: (If necessary, please add the corresponding pictures, and describe the change details clearly here)

After the change: (If necessary, please add the corresponding pictures, and describe the change details clearly here)

1. Project Information

1.1.Appearance and Dimensions

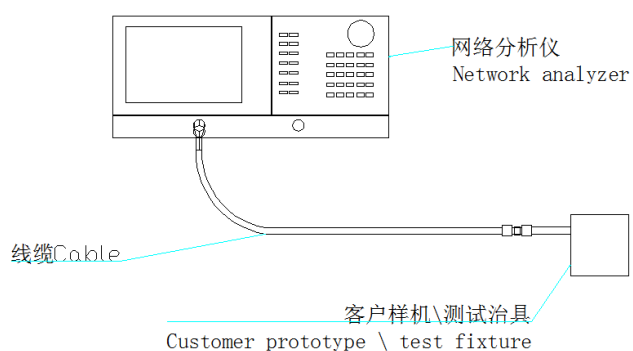


2. Electrical Characteristics

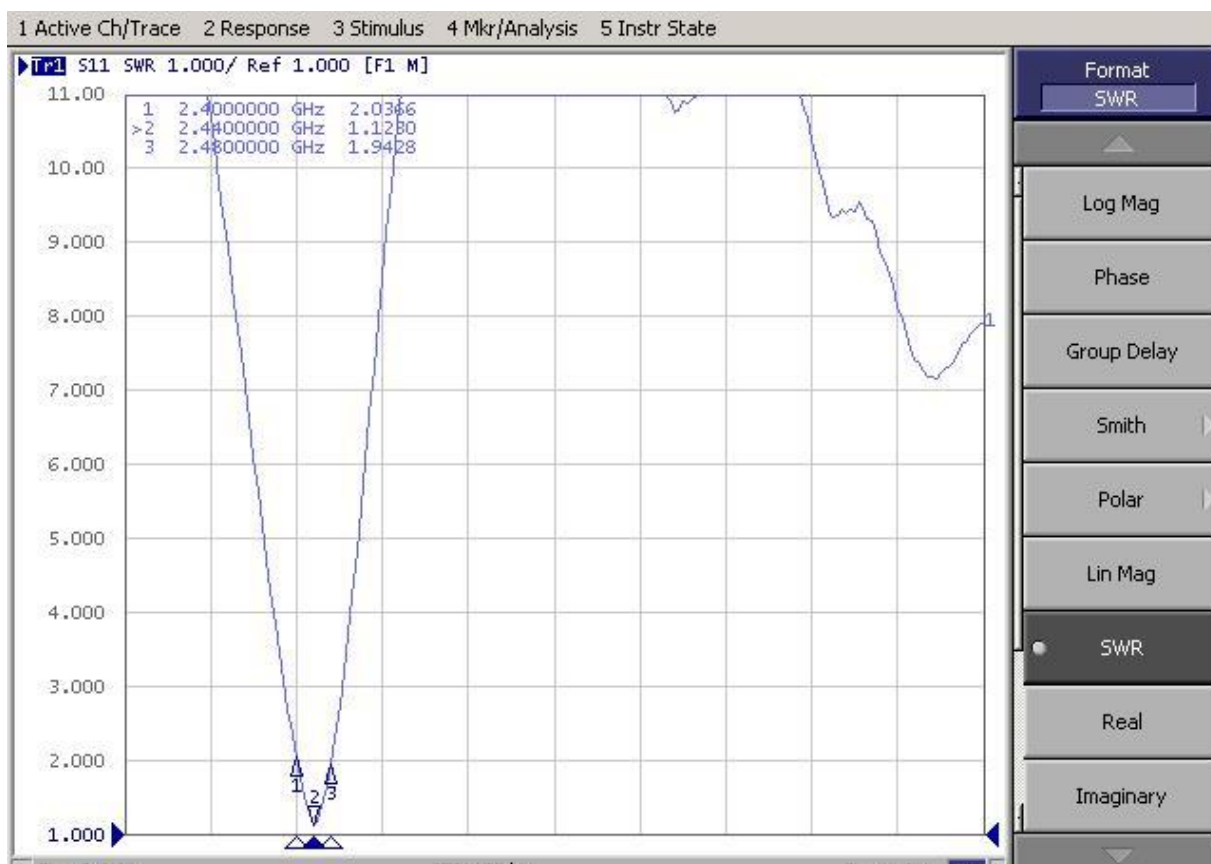
2.1. Test Environment Conditions

Temperature	Ordinary Temperature (5 to 35℃)
Humidity	Ordinary Humidity (25 to 85% RH)

2.2. Measurement method

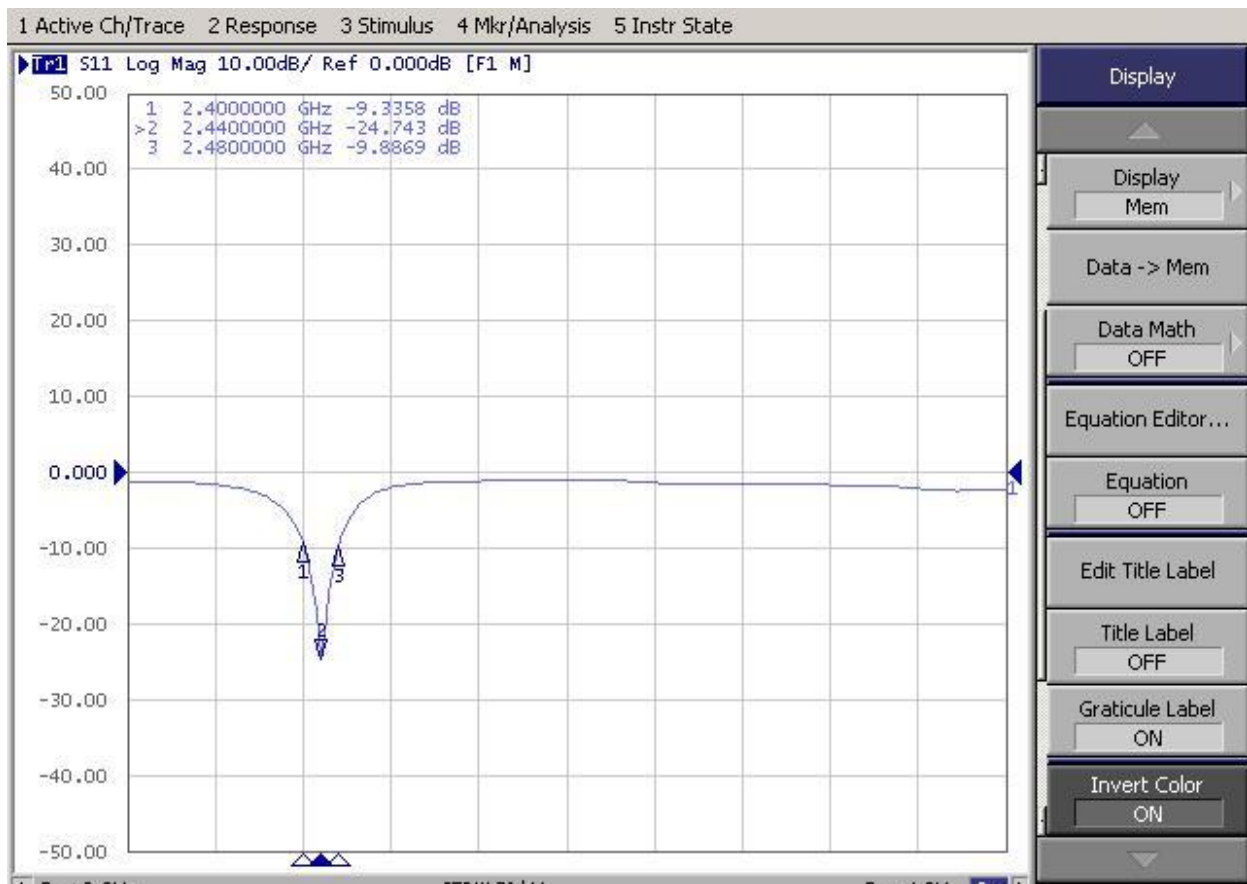


2.2.1. VSWR



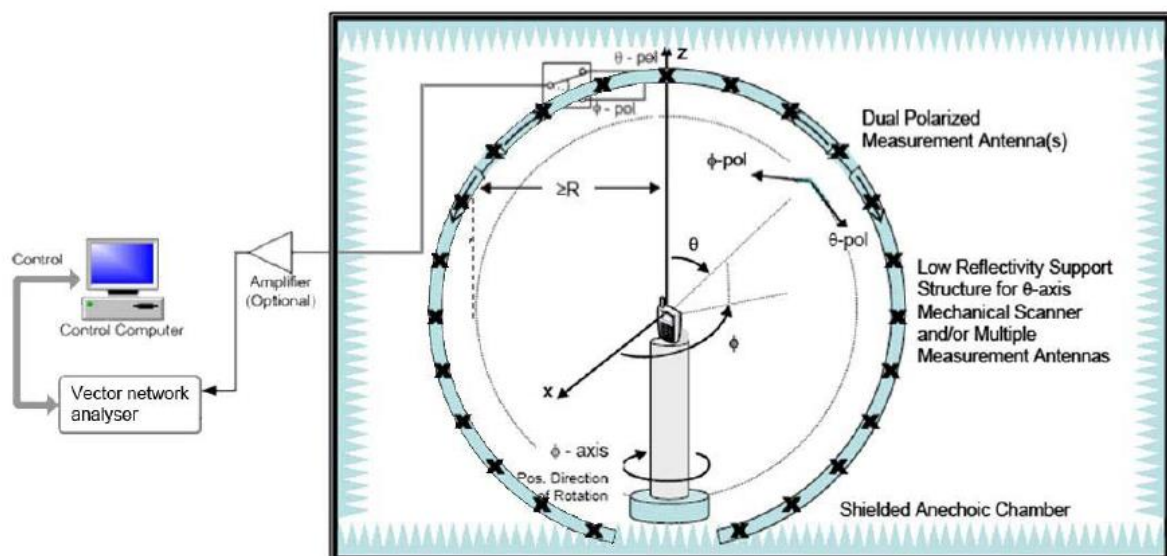
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2.2.2. Log Mag



2.3. Efficiency and Gain

2.3.1. Test system

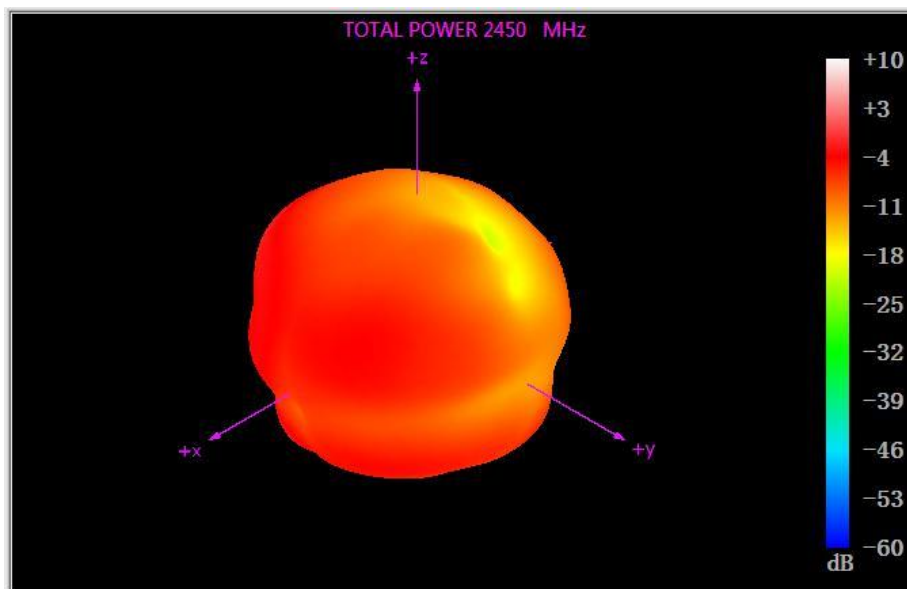


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2.3.2. No-source test data

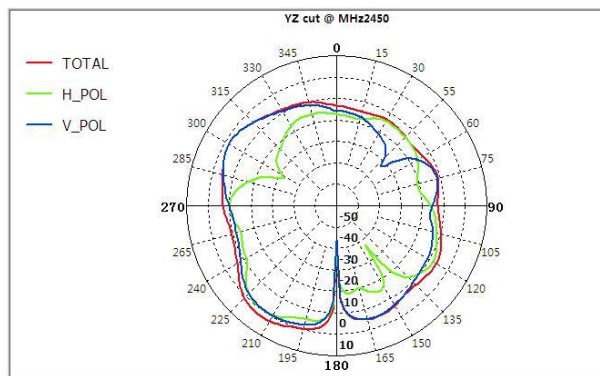
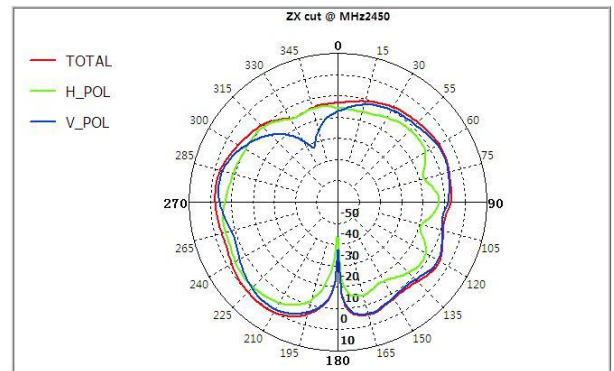
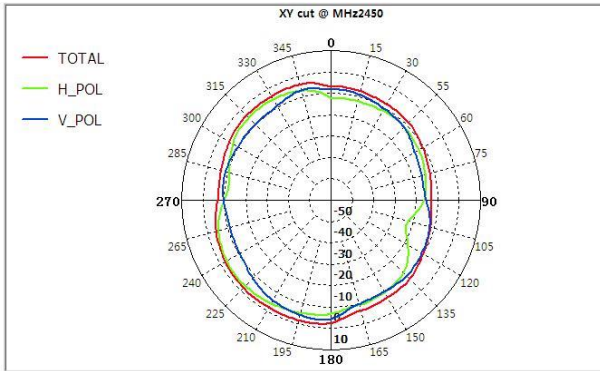
Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400 MHz	2.76	41.22
2410 MHz	2.86	42.5
2420 MHz	3.15	43.73
2430 MHz	3.29	43.53
2440 MHz	3.12	41.42
2450 MHz	2.96	40.91
2460 MHz	2.63	40.85
2470 MHz	2.67	40.75
2480 MHz	2.31	39.62
2490 MHz	2.59	40.7
2500 MHz	2.87	40.71

2.3.3. 3D Radiation Drawing



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2.3.4. directional drawing of horizontal plane



3. Notes

1、When installing, pay attention not to be too close to the metal parts to avoid affecting the antenna performance.

2、This antenna is only suitable for this model. The position of the antenna cannot be changed arbitrarily. If it is used on other machines and the effect is poor, it is not related to our company.

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4. Reliability test

project	Test methods and conditions	Specifications and requirements
Storage environment	The temperature, humidity, and air pressure are tested as follows without specification. : 1、The temperature is $-30^{\circ}\text{C}\sim+80^{\circ}\text{C}$ 2、Relative humidity is 45% to 85% 3、The pressure is 86Kpa-106Kpa.	There is no obvious change in appearance, and the electrical parameters are consistent with those before the test.
Salt spray test	Salt water concentration $50 \pm 10\text{g/l}$ (about 5%); PH 6.5-7.2; test temperature $35\pm 1^{\circ}\text{C}$; corrosion time 16H.	
Vibration test	Vibration frequency 10-2000-10HZ, amplitude 1.52mm, 10 times in X, Y, Z directions.	
Drop test	Falls from 1M onto a wooden board	
Tensile force test	Test the instrument with a pull-off force gauge: $\geq 12\text{N}$	
Constant temperature and humidity test	Temperature and humidity : $40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 90-95%RH duration: 4H Recovery time: 1-2H	
High and low temperature testing	Perform 5 cycles between 70°C and -20°C , then 1-2H under normal conditions	



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5.Product packaging specification

product name: FPC antenna

Antenna form: FPC+shielded wire

1、Labeling requirements

The inner label is 7CM long and 4CM wide

The outer label is 7CM long, about 5CM

supplier	Shenzhen Feimin Technology Co., Ltd.
product name	*****
Material coding	*****
Specifications	*****
quantity	***PCS

client's name			
supplier	Shenzhen Feimin Technology Co., Ltd.		
Order number	*****		
Material coding	*****		
Specification model	*****	product name	*****
quantity	*****PCS	QC:	
spare parts	***PCS	Notes	

2、Packing process

Job description:

1. The product __PCS is packed in PE open pockets, and the inner label is affixed to each pouch; Put the __ small bag into the big PE sealing tape bag, except the tail number and spare parts.
2. Each box contains __ large bags of products, and the boxes are sealed with adhesive tape in the shape of "I".
3. Paste the outer label on the upper right corner of the box, and there must be no missing or wrong filling.

3、Precautions

When packing the box, please pay attention to lay the antenna flat and avoid serious shaking after sealing. If the whole box is not filled, it needs to be filled with foam to avoid transportation Circumstances that caused product defects in the process.

