

Product Specification

Customer Name: _____

Project Name: _____

Product Spec: Antenna: 31.85mm in length and
10.1mm in width.Black wire 1.13,
1 - IPEX, L = 80mm.

Customer P/N: _____

REV: V1.0 _____

Date: 2025-06-04 _____

Drawing	Check	Approved
Gongze Rao	Xichun Wu	Zhenhua Jiang



Customer Approve

Check	Approved	Approval

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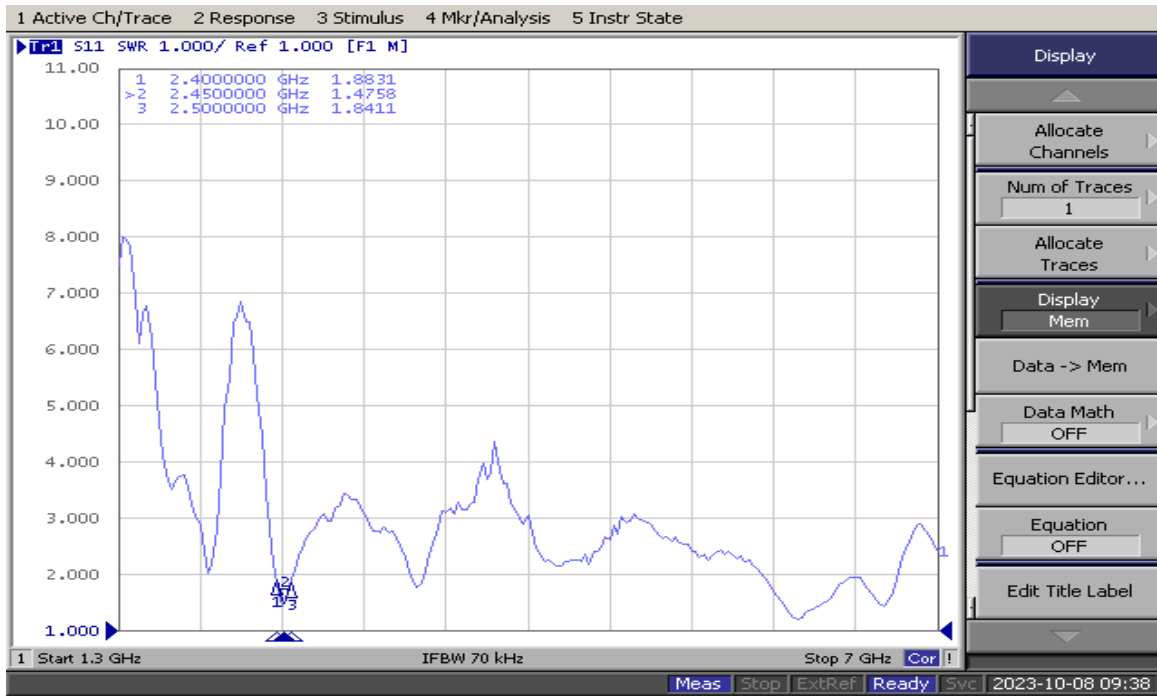
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3. Electrical Performance Index

Electrical Specifications	
Frequency range: 2400-2500 MHz	
VSWR	≤2.0
GAIN	≤3.01DBI
Radiation	OMNI
Polarizatin	LINEAR
Input Impedance	50 Ω
Mechanical Specifications	
Input connector	IPEX
Antenna materia	FPC
Working Temperature	-30℃~+80℃
Working Humidity	40~85%
Real picture	

4. Test report

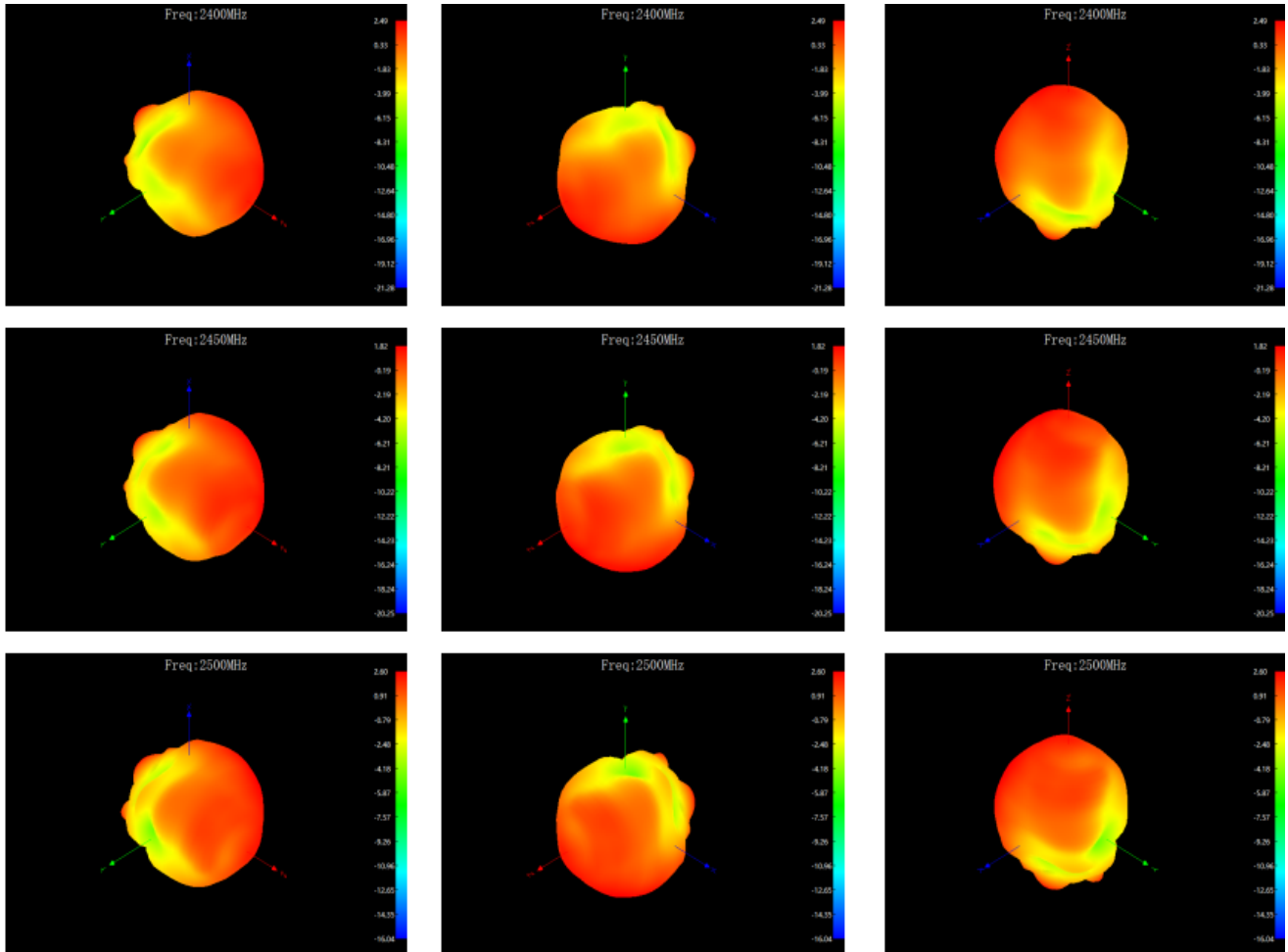
1.1. Antenna Standing Wave Diagram:



2.2. Antenna Efficiency and Gain:

Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	63.53	2.49
2410	62.81	2.92
2420	63.68	2.68
2430	66.07	2.33
2440	64.42	2.6
2450	61.66	1.82
2460	62.23	2.38
2470	57.81	2.11
2480	63.97	2.78
2490	60.26	3.01
2500	60.39	2.6

3.3. 3D Pattern of 2.4G:



5. Testing Equipment and Principle

1. Testing Equipment:

Network Analyzers :

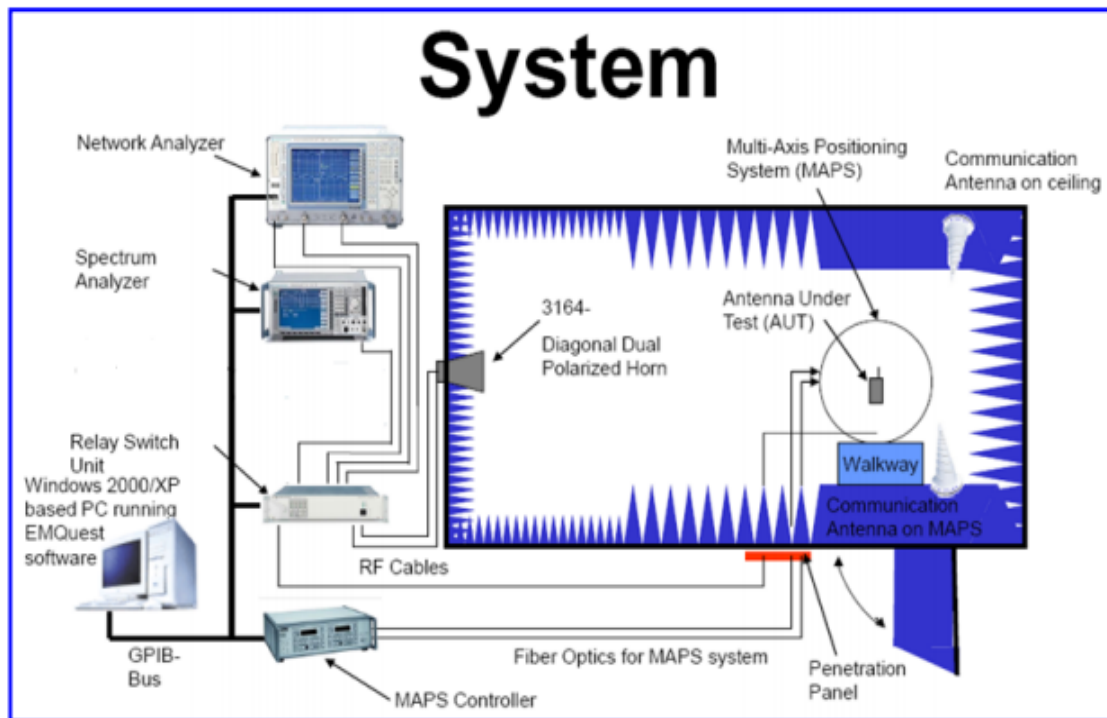
Agilent 8753D 5071B

Communications Test Set:

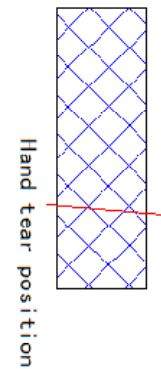
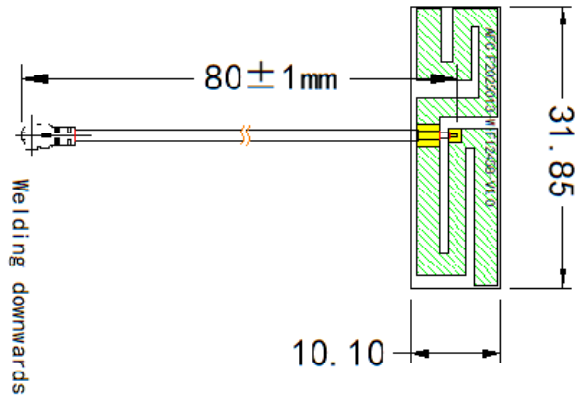
Agilent E5515C

3D Chamber Test System:

2. Testing Principle:



6. Product Drawing



Component Material and Process Description

Serial Number	Material	DESCRIPTION
①	FR4	PI
②	Coaxial Line	BLACK IPEX
③		

1. of copper material; Colorless substrate;
 2. gold-plated area; Blue represents the adhesive backing area;
 3. not damage the circuit;
 4. area should be conductive with the circuit;
 5. have any dirt, scratches, black spots;
 6. leakage or detachment after gold plating;
 7. of PI (electrolytic copper) substrate;
 8. ml), and surface ink (Kaiyao/YuLi/Ruo Tin/Luo/Li/au) (>0.0mm);
 9. 171 300LSE (viscosity needs to be tested at high and low temperatures).
 10. C (60min) (conversion time 30min) 70 C (60min) (conversion time:
 11.) minutes) After a total of five cycles, it was left at room temperature for
 12. ing, curling, ink drooping, or bulging;
 13. idation on the surface of the folded finger (salt spray test is required):

Shenzhen Zhongke Wireless Technology

Project	Product Name	Unit
WIFI2458	MFI2458	mm
Item number	MFC F2025013-MFI2458-V1.0	Proportion
Material quality	PI	
appearance		

2	3	4	5	6	7
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7. Reliability test report

Test item	Test method	Requirement	Result
C 1 V. S. W. R. Electrical Standing Wave Ratio	Design network analyzer parameters for testing	Meets the specification of the object to be measured	pass
M 1 Antenna gain	Test the design parameters of the antenna dark room.	Meets the specification of the object to be measured	pass

M 2	Vibration	GB / T2423.48-2008 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80to 20 Hz3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol. ≤5%	pa ss
M 6	Random Drop	GB / T2423.8-1995Single: Height: 1.0 Meter; 3 directions; 1 time for each direction 单支天线, 高 1m; 3 个方向各 1 次	1. No parts separated、 fracture 2. Frequency Tol. ≤5%	pa ss
E 3	Dimension	Inspection of dimension, color, material, package, surface process.	Directive DUT specification	pa ss
E 4	Temperature and Humidity Chamber	GB / T 2423.3-2006Temp: 80° C / 12 H; -40° C / 12H RH: ≥ 90%; Time:	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. ≤5%	pa ss
E 5	Thermal Shock	GB / T 2423.22 - 2008- 40° C (30 minutes) to + 80° C (30 minutes); Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. ≤5%	pa ss
R 1	Aging test	GB /T 2423.2 - 2008Temp: 80° C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. ≤5%	pa ss
M 1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863/EU	pa ss

8. Code for product packaging

Product Name/Specification

一、Label Requirements

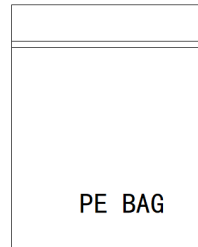
Purchase order number	*****
Material code	*****
Product name and specifications	*****
Quantity/unit	*****
Remarks	*****

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Material code	*****
Product name and specifications	*****
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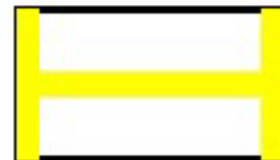
二、Packing requirements

Homework instructions:

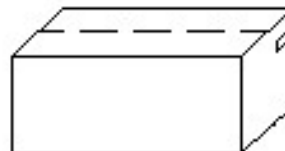
1. Inner packaging :
product_50_PCS A small bag.



2. Outer packaging:
Quantity/box based on actual quantity



carton



Note:

1. Do we need to add dividers or bubble wrap;
2. Labeling, such as ROHS;