

Product Specification

Customer Name: An Ji Li An

Project Name: 2. 4G PCB Built-in antenna

Product Spec: YG-2. 4G-N2420-1. 13-IPEX1-105

P/N:

Date: 2025. 04. 30

Production Address: No.901, Building 3,Changying Zhigu Industrial Park,
Yanhe West Street, Dalingshan Town, Dongguan City

DRAWN	CHK	APR
Chen	Becky	Alice

Customer Approve

DRAWN	CHK	APR

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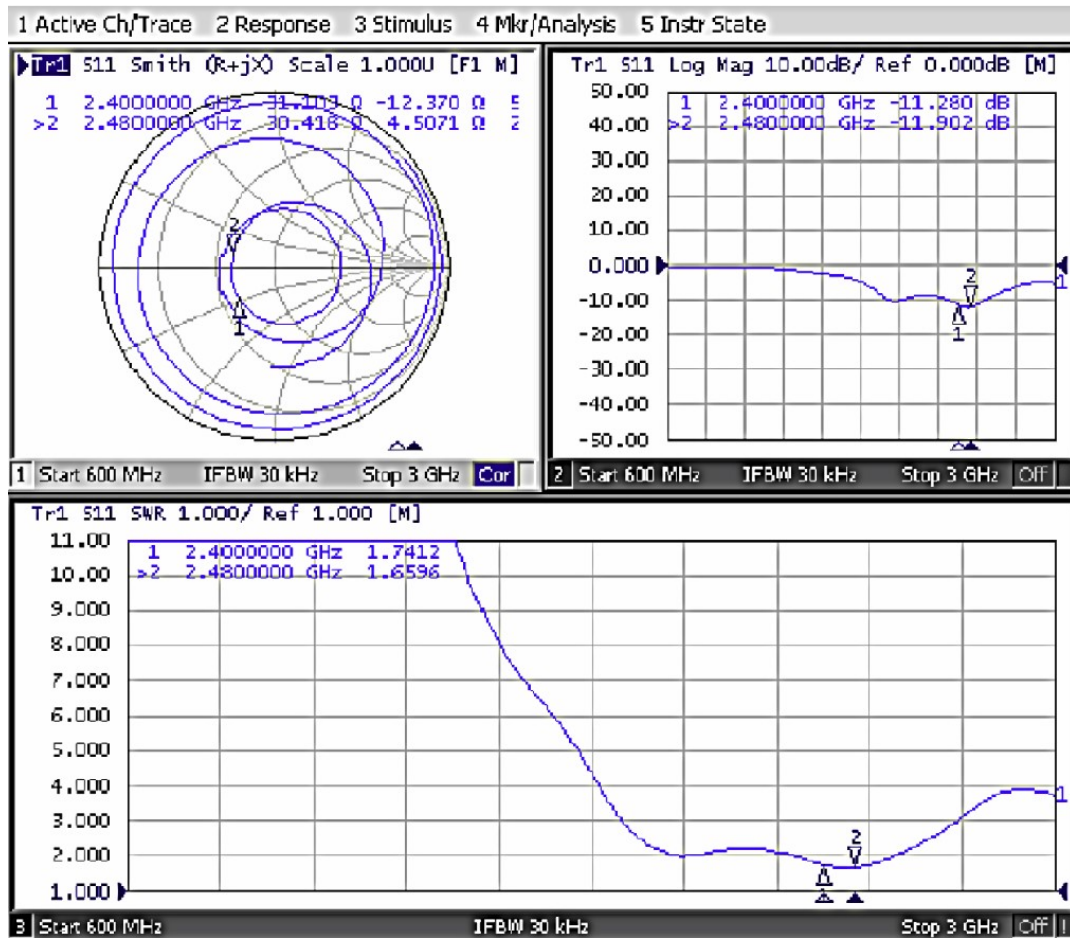
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Electrical Performance Index

Electrical Specifications	
2400-2500MHZ	
VSWR	≤2.0
GAIN	0.36~1.13 DBI
Radiation	OMNI
Polarizatin	LINEAR
Input Impedance	50 Ω
Mechanical Specifications	
Input connector	IPEX-1
Antenna materia	PCB
Working Temperature	-35℃~+80℃
Working Humidity	40~85%

Test report

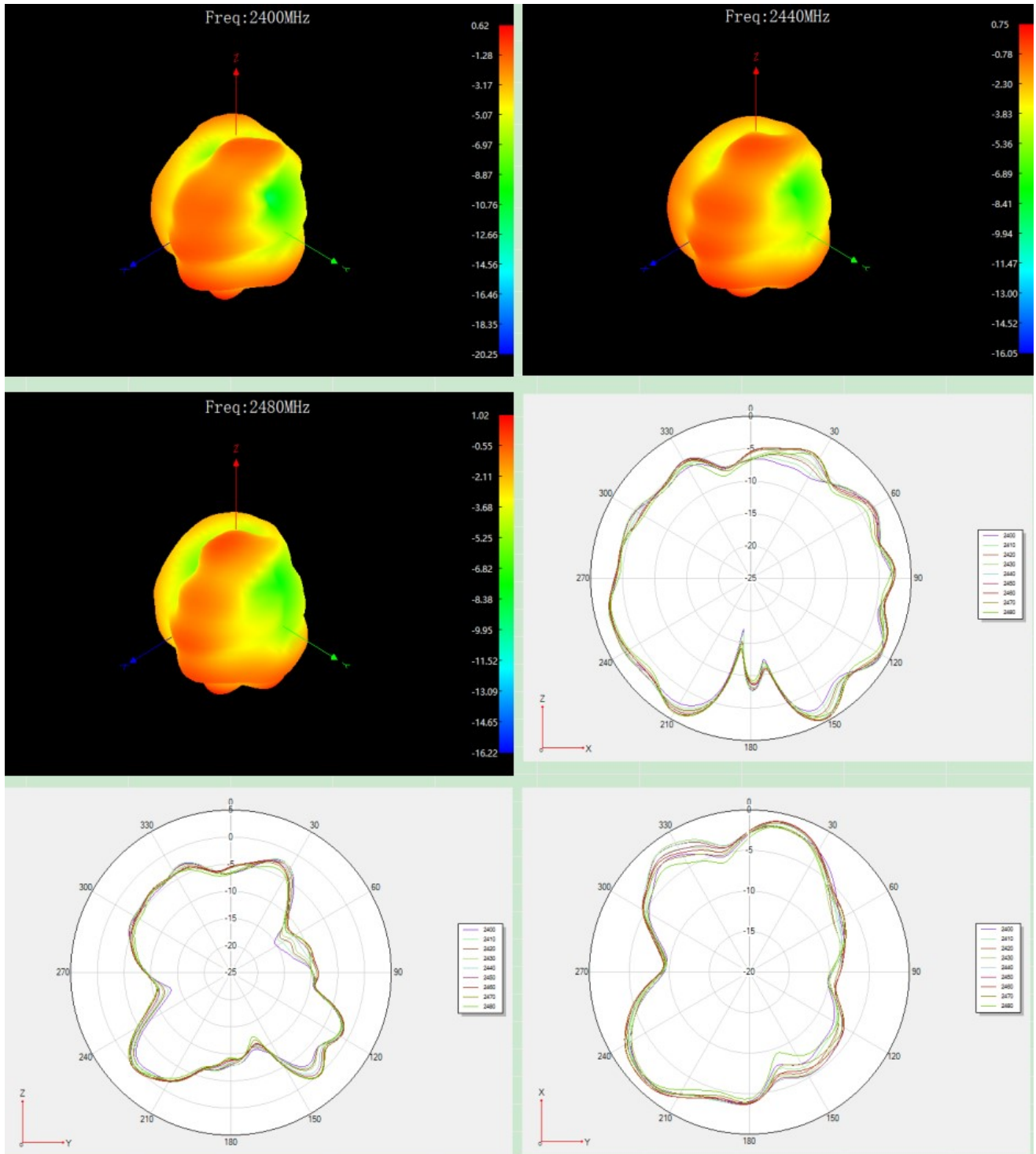
1. Antenna in wave diagram

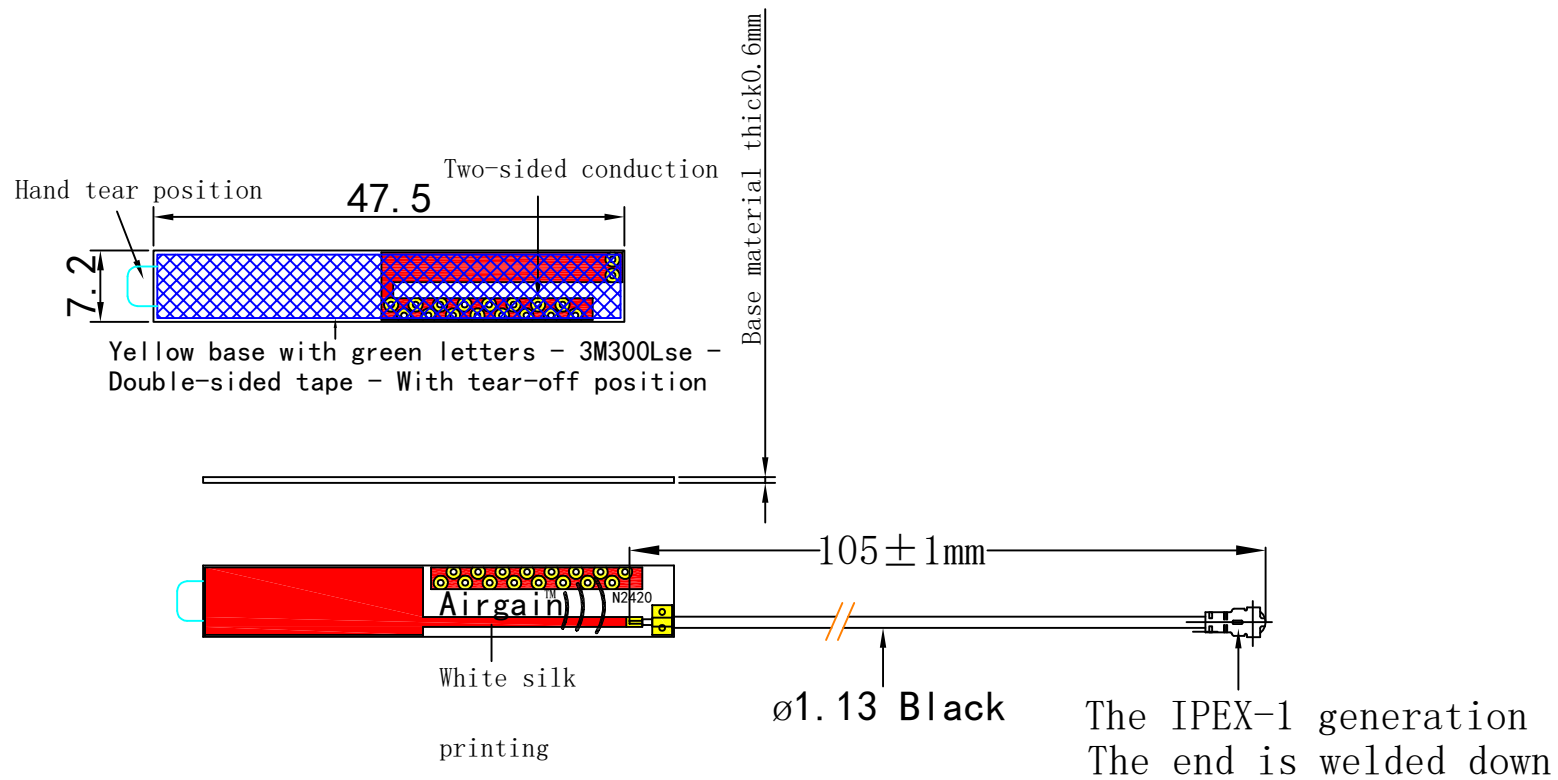


2. antenna effecency

Frequency/Mhz	Efficiency / %	MaxGain/dBi
2400	38.97	0.62
2410	40.76	0.63
2420	40.36	0.36
2430	40.09	0.38
2440	42.85	0.75
2450	42.36	0.84
2460	42.46	1.13
2470	40.55	1.13
2480	41.64	1.02

3. antenna pattern





ELECTRICAL CHARACTER:
100%OPEN/SHORT test



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						Code	C601011	Draw NO	A201143	
						P/N	2. 4G YG-0824			
Chage record				Date	Changer	Model	YG-2. 4G-N2420-1. 13-IPEX1-105			
Scale:			1: 1	Paper	A4	Drawing	ZHANG	Date	2025. 03. 04	
Free		Unit:	mm	Rev:	A	CHK		Page	1/1	

Testing Equipment and Principle

testing facility :

Network Analyzers :

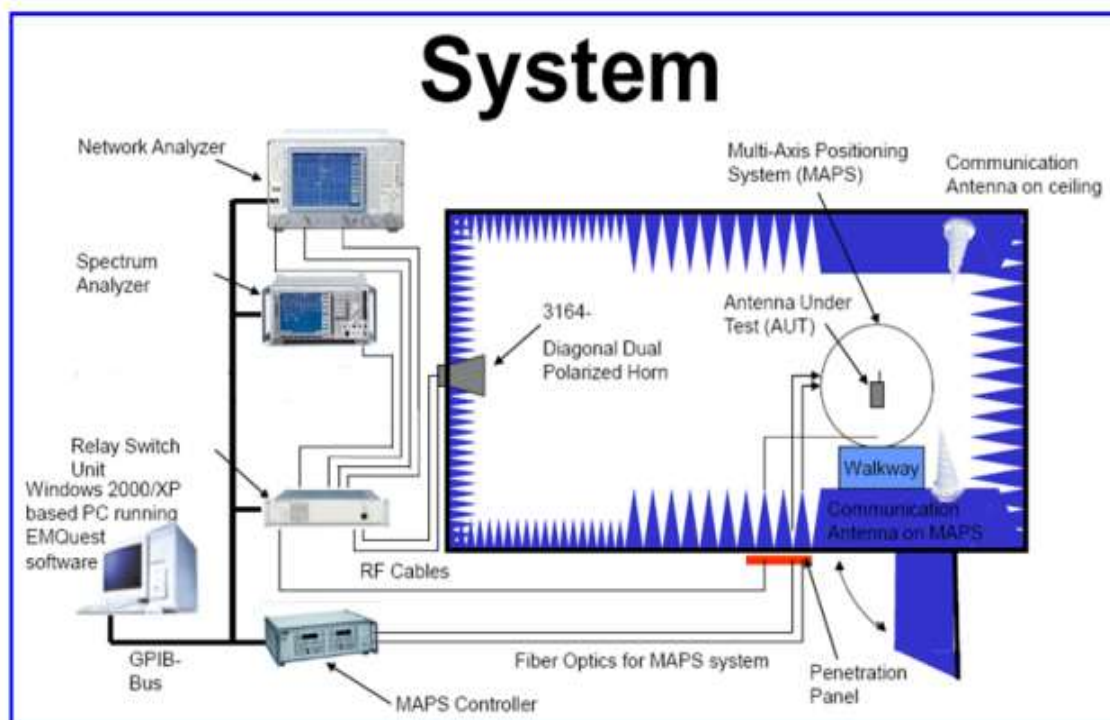
Agilent 8753D 5071B

Communications Test Set:

Agilent E5515C

3D Chamber Test System:

The test principle



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Reliability test report

test item		test method	Require	Result
C1	V. S. W. R.	Design net analyzer parameters for testing	According to the material specifications to be tested	pass
M1	antenna gain	Design the parameters of the antenna dark chamber for testing	According to the material specifications to be tested	pass
M2	Vibration	GB / T2423. 48-2008 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80to 20 Hz3 directions;	1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
M6	Random Drop	GB / T2423. 8-1995 Single: Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 、 fracture 2. Frequency Tol. $\leq 5\%$	pass
E3	Dimension	Inspection of dimension, color, material, package, surface process.	Directive DUT specification	pass
E4	Temperature and Humidity Chamber	GB / T 2423. 3-2006 Temp: 80° C / 12 H; -40° C / 12H RH: $\geq 90\%$; Time: 24H	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
E5	Thermal Shock	GB / T 2423. 22 - 2008 - 40° C (30 minutes) to + 80° C (30 minutes); Cycles: 24 - 40° C	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
R1	Aging test	GB / T 2423. 2 - 2008 Temp: 80° C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol. $\leq 5\%$	pass
M1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2015/863/EU	pass