APPROVAL SHEET

CUSTOMER NAME		
CUSTOMER P/N		
PART NAME	2.4G black FPC built-in antenna, 1.13 black wire L=180MM	
P/ N	YJC-6N180-B42	
APPROVAL REV.	A0	
DELIVERY DATE	December 30, 2024	
PREPARED BY	Yin Feijie	
CHECKED BY	Fang Wenfeng	
APPROVED BY	Chauhan	
Customer Approved		
Prepared By	Checked By	Approved By

Address: Building C, Hongyu Guangming Valley, No. 11, Youma Gang Road, Ma Tian Street, Guangming District, ShenzhenDongguan Branch: Yingjiachuang Industrial Park, No. 2 Yinhe 3rd Road, Shishuikou, Qiaotou Town, Dongguan CityHangzhou Office: 212, Building B, Dahua Jianghong International Innovation Park, 369 Internet of Things Street, Binjiang District, HangzhouMianyang Office: No. 4F-34 Wanxiang High-tech International, No. 35 Mianxing East Road, Mianyang High-tech Zone, Sichuan

Provincetelephone: 0755-27810060 fax: 0755-27810057 website: http://www.szsyjc.com

catalogue

1、 cove。。。。。。。。。。。。。。。。。。。。。。。。。。。。。。。。。1

2、 catalogue。。。。。。。。。。。。。。。。。。。。。。。。。。。。。。。2

3、 resume。。。。。。。。。。。。。。。。。。。。。。。。。。。。。。3

4、 Antenna plan。。。。。。。。。。。。。。。。。。。。。。。。。。。。。4

5、 Antennatechnicalparameters and environmental performance tests。。。。。。。。。。5

6、 Thephysicaldiagramoftheantennaandthediagramofitsattachedposition。。。。。。。。5

7、 Antenna performance test diagram。。。。。。。。。。。。。。。。。。。。。。6

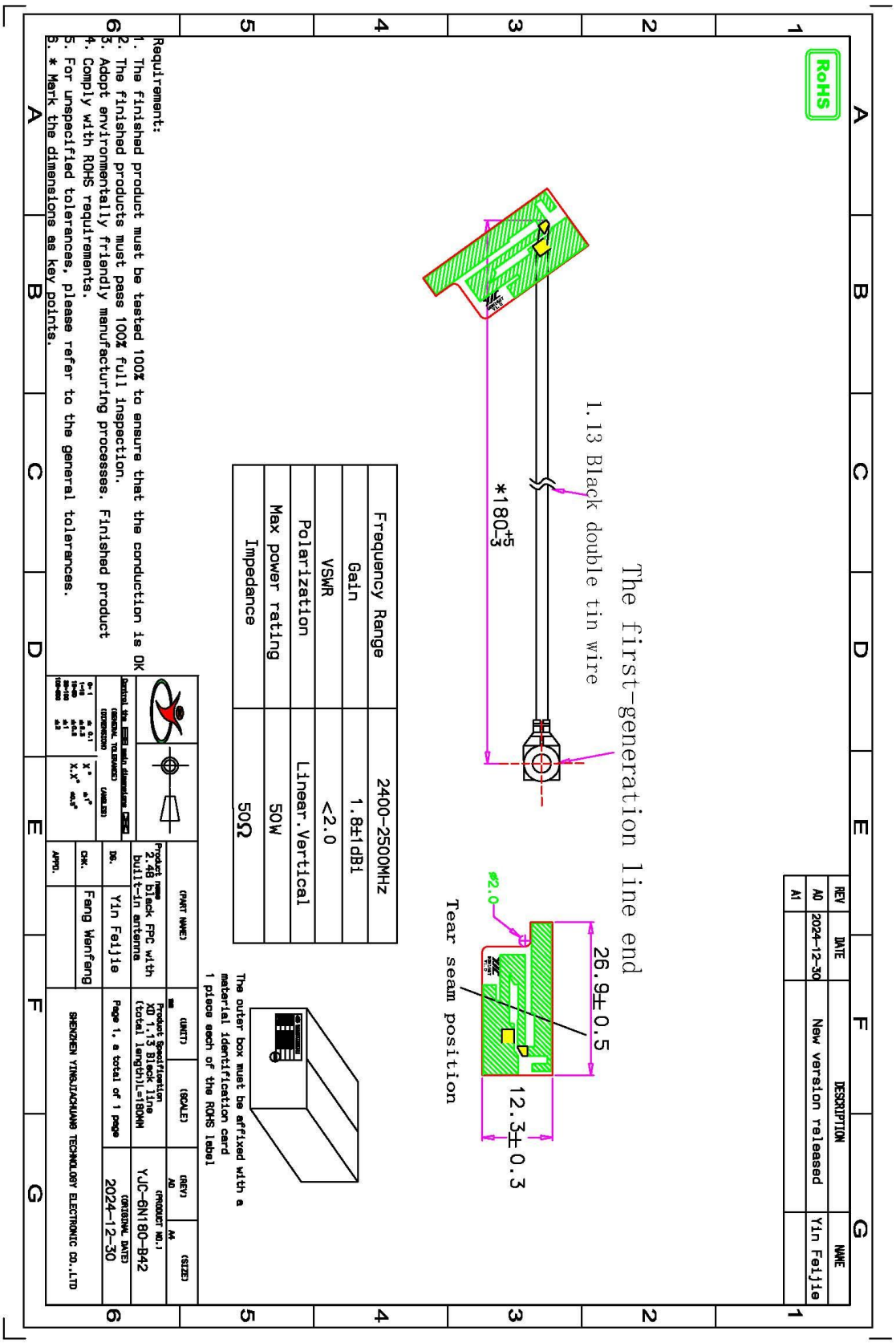
8、 2D and 3D test data (2.4G)。。。。。。。。。。。。。。。。。。。。7

9、 ROHS Material Control Report。。。。。。。。。。。。。。。。。。。。。。。8

Resume：

Version	Change content and reasons for the change	Date	Issue
A0	First edition release	December 30, 2024	

Antenna floor plan：



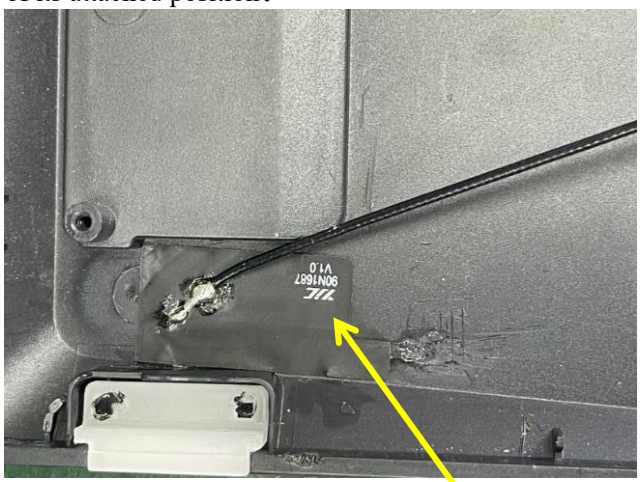
Antenna technical parameters and environmental testing:

Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500MHz	Wire Color	Black
VSWR	＜2.0	Input connector	XD
Input Impedance	50 Ω	Wire Length	180MM
Direction	All	Working Temperature	-20℃~+70℃
Gain	1.8±1dBi	Working Humidity	20%~80%

Environmental performance test:

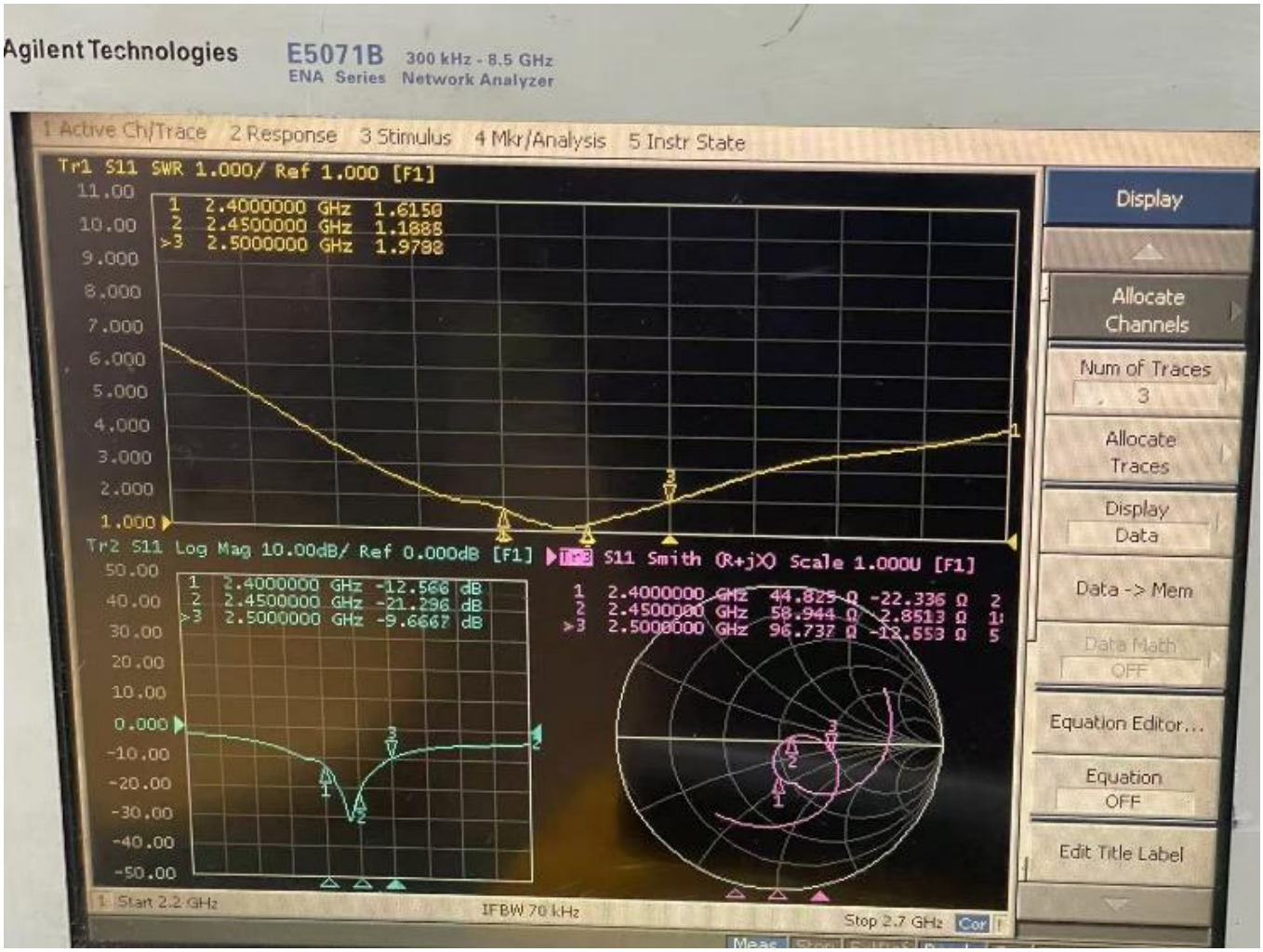
Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is - 30 ℃ ~ + 80 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performace is normal
High and low temperature test	Between 70 ℃ and -20 ℃ for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and meet the performance of mechinery and electric.
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 ℃. Lasts 2 h after, try to take out the determination of electrical properties, within 5 min after try 1-2 h under article normal thing, check the appearance quality	Size should meet the requirements and meet the performance of mechinery and electric.
vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times	Electrical and mechanical performace is normal
Fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical performace is normal

The physical diagram of the antenna and the diagram of its attached position:



Antenna attachment location map

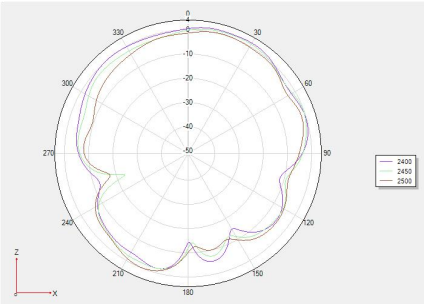
Antenna performance test diagram:



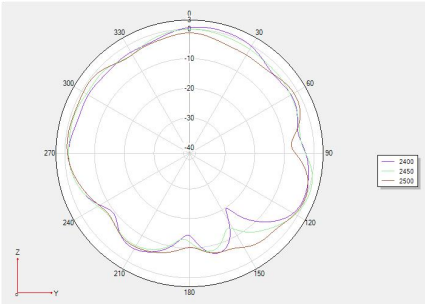
2D and 3D(2.4G) test data:

Frequency(MHz)	Efficiency (%)	Gain.(dBi)
2400MHz	44.57	1.76
2410MHz	46.94	1.84
2420MHz	47.92	1.93
2430MHz	41.89	1.89
2440MHz	44.16	1.75
2450MHz	42.41	1.87
2460MHz	46.94	1.81
2470MHz	40.21	1.97
2480MHz	39.95	1.75
2490MHz	40.98	1.83
2500MHz	47.52	1.92

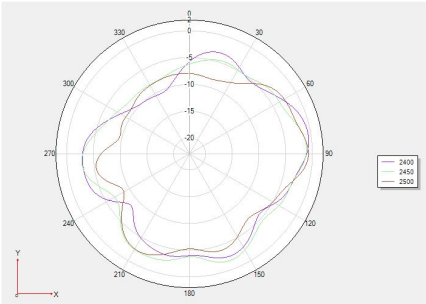
Phi 0 2D



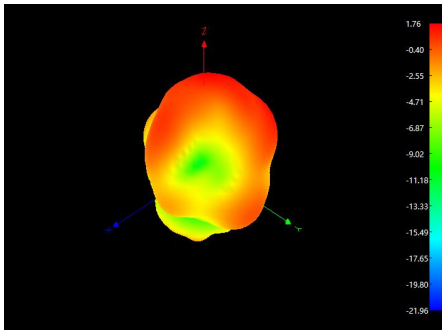
Phi 90 2D



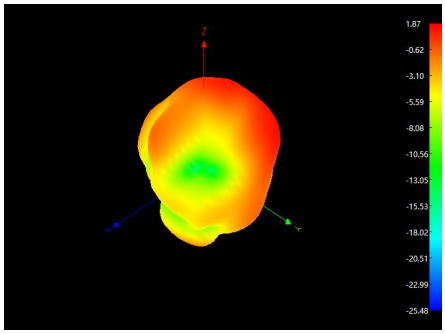
Theta 90 2D



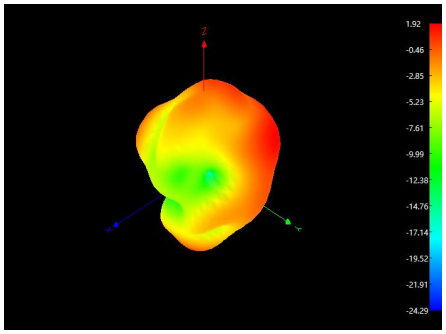
3D 2400



3D 2450



3D 2500



Material RoHS conformity declaration form

This is to certify that the delivery to your company's components, raw materials, auxiliary materials used and the additives in the production engineering are accord with RoHS environmental requirements of the restrictions on the use of hazardous substances directive (RoHS directive 2011/65 / EU)

About components used raw materials, packaging materials, auxiliary materials and additives used in the production process such as composition of the report is as follows:

Component /Part Name	Material Composition	ICP report #	Test Org.	Test Date	Content of harmful substances (ppm)						PASS?
					Cd	Pb	Hg	Cr^{6+}	PBB	PBDE	PASS
Wire rod	Coaxial cable	CANEC24002746206	SGS	24/02/23	ND	ND	ND	ND	ND	ND	PASS
friendly tin wire	friendly tin wire	SHAEC24006459102	SGS	24/04/10	ND	78	ND	ND	ND	ND	PASS
Terminal	Phosphor bronze	CANEC24000977302	SGS	24/01/22	ND	6	ND	ND	ND	ND	PASS
	Gold coating	A2240410234101001E	CTI	24/07/16	ND	ND	ND	ND	ND	ND	PASS
	Rubber core	A2240126395101003E	CTI	24/03/16	ND	ND	ND	ND	ND	ND	PASS
FPC	Ink	ETR24902229M01	SGS	24/09/23	ND	ND	ND	ND	ND	ND	PASS
	3M9471LE	SHAEC23021627701	SGS	23/12/27	ND	ND	ND	ND	ND	ND	PASS
	Copper foil	A2240082746101006E	CTI	24/03/01	ND	ND	ND	ND	ND	ND	PASS