Shenzhen XINHENGYANG Technology Co., Ltd

SPECIFICATION

Customer Name: _____

Product Model: SS131

Customer P/N : _____

XINHENGYANG P/N: _____

SPECIFFCATIONS: BT-2402MHZ-2480MHZ

Production date: 2024-12-05

Sample Version: R1

XINHENGYANG		
FICTION	DQE	R&D
Customer		
PUR	QC	R&D

Manufacturer: Shenzhen Xinhengyang Technology Co., LTD

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Network address: https://www.xhy-2008.com

Number	Effective date	Change record
R1	2024-12-05	Initial release

1、The basic parameters

A. Electrical Characteristics	
Frequency	**2402MHZ-2480MHZ**
VSWR	**2402MHZ-2480MHZ：<4.5**
Avg Efficiency	**2402MHZ-2480MHZ：>15%50 ±**
Impedance	**25 Ohm**
Polarization	**Linear**
Peak Gain	**2402MHZ-2480MHz: -3.38 dBi**
B. Material & Mechanical Characteristics	
Material of Radiator	**PCB**
Cable Type	/
Connector Type	/
Dimension	/
C. Environmental	
Operation Temperature	**- 20 ˚C ~ + 60 ˚C**
Storage Temperature	**- 30 ˚C ~ + 70 ˚C**

2、Electrical Specification

Those specifications were specially defined for SS131 model.

3、VSWR

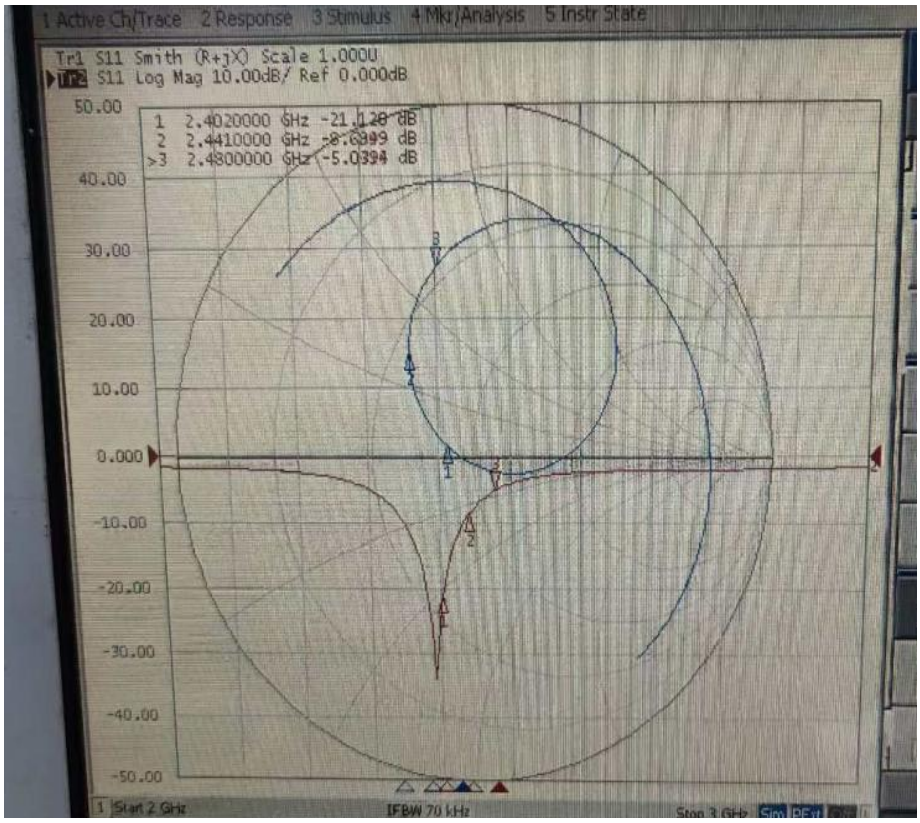
1 Measuring Method

1.A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR

2. Keeping this jig away from metal at least 20cm

2 Measurement frequency points and VSWR value

BT-2402MHZ-2480MHZ



4、 Anechoic chamber

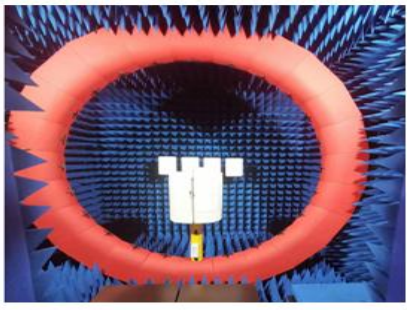
Introduction:

Microwave darkroom and no reflection chamber, absorbing short wave darkroom dark room. Microwave darkroom by electromagnetic shielding room, filtering and isolation, grounding device, the ventilation duct, indoor distribution system, monitoring system, ceiling wave material part. It is based on the wave absorbing material as the lining of the shield room, it can absorb the most of the electromagnetic energy into the six wall is a better simulation of the free space conditions.

The main working principle of microwave anechoic chamber is according to the electromagnetic wave in the medium from the low magnetic guide magnetic direction of propagation rules, absorbing materials to guide the electromagnetic wave using high permeability, through resonance, a substantial absorption of electromagnetic wave radiation energy, by coupling the electromagnetic energy into heat energy.

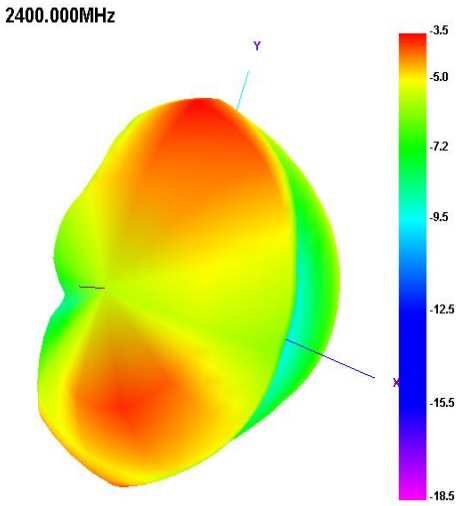
main performance ：

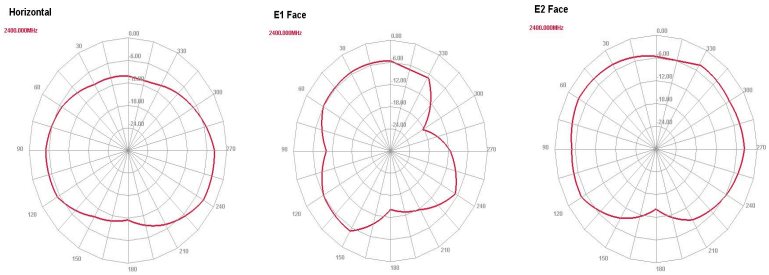
Frequency range:400MHz ~ 6GHz ceiling reflected wave loss materials: 400MHz ~ 6GHz is equal to or more than 15dB (microwave absorbing material by composite wave absorbing materials, namely tapered containing carbon sponge suction wave material paste in ferrite)



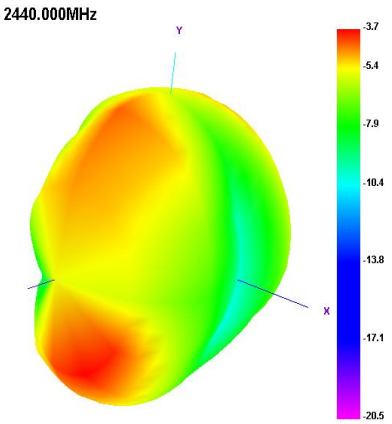
5、Gain table of Antenna

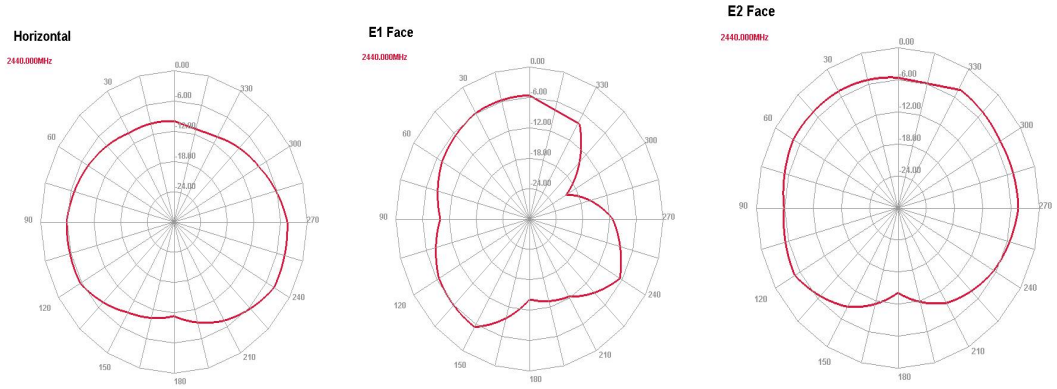
Passive field pattern-BT-2402MHZ



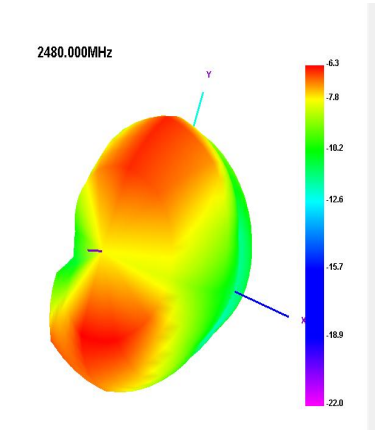


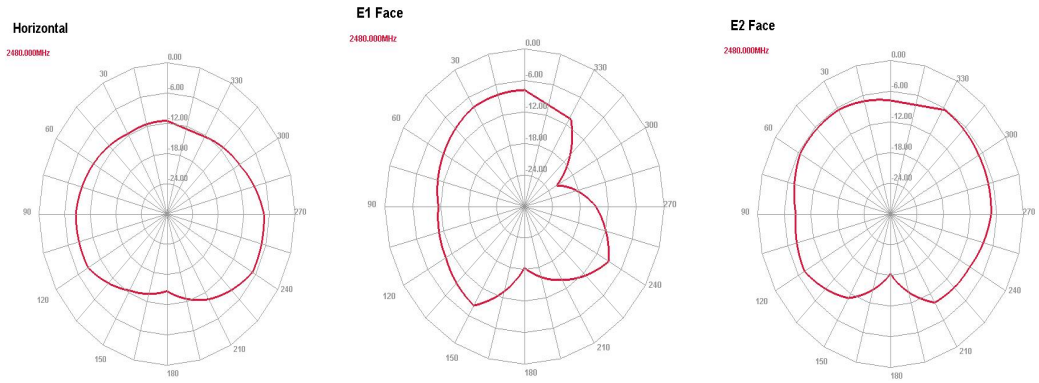
Passive field pattern-BT-2440MHZ





Passive field pattern-BT-2480MHZ

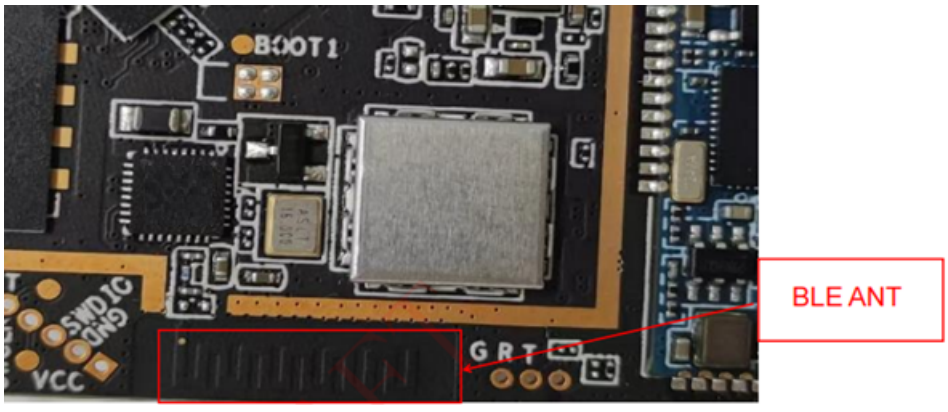




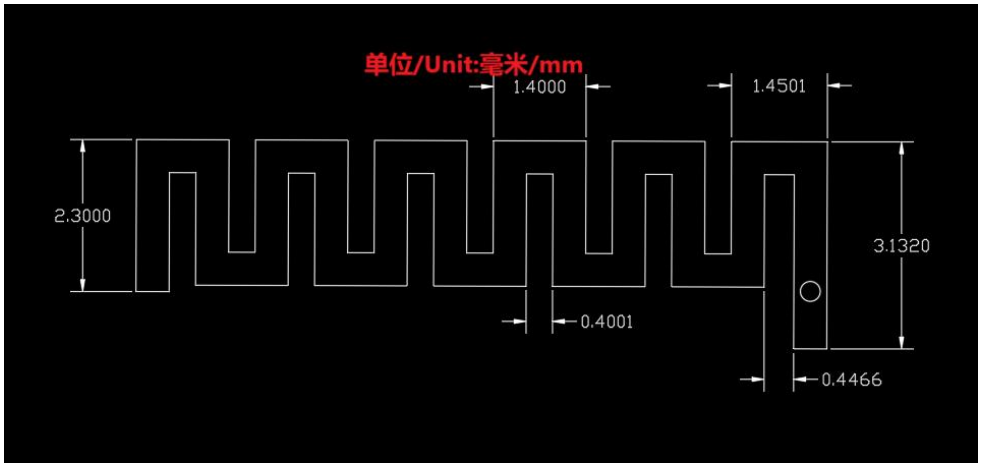
Passive efficiency gain

无源效率			
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	23.6	-6.27	-3.48
2410	24.18	-6.17	-3.38
2420	23.24	-6.34	-3.52
2430	23.5	-6.29	-3.4
2440	21.19	-6.74	-3.75
2450	18.24	-7.39	-4.32
2460	14.23	-8.47	-5.39
2470	11.79	-9.28	-6.28
2480	12.01	-9.2	-6.26
2490	11.59	-9.36	-6.38
2500	11.54	-9.38	-6.57

6、Antenna picture



7，Machine picture


单位/Unit:毫米/mm
1.4000
1.4501
2.3000
3.1320
0.4001
0.4466

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