SPECIFICATION

Product Model: DB325

Customer P/N :

XINHENGYANG P/N:

SPECIFFCATIONS: WIFI-2400MHZ-2500MHZ

Production date: 2024-11-26

Sample Version: R1

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

Manufacturer: Shenzhen Xinhengyang Technology Co., LTD

Address: 1 / F, Building B, Aerospace micromotor Building, No.7 Langshan No.2 Road, Xili Street, Nanshan District, Shenzhen

Tel: 0755-83600916 Email: gc@xhy-2008.com

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

Number	Effective date	Change record
R1	2024-11-26	Initial release

1、The basic parameters

A. Electrical Characteristics	
Frequency	**2400MHZ-2500MHZ**
VSWR	**2400MHZ-2500MHZ：<2.0**
Avg Efficiency	**2400MHZ-2500MHZ：>50%**
Impedance	**50 ± 25 Ohm**
Polarization	**Linear**
Peak Gain	**2400MHZ-2500MHZ：2.91dBi**
B. Material & Mechanical Characteristics	
Material of Radiator	**FPC black**
Cable Type	**generation**
Connector Type	**Φ1.13 WIFI-L=34MM±2.0MM**
Dimension	**/**
C. Environmental	
Operation Temperature	**- 20 ˚C ~ + 60 ˚C**
Storage Temperature	**- 30 ˚C ~ + 70 ˚C**

2、Electrical Specification

Those specifications were specially defined for DB325 model.

3、VSWR

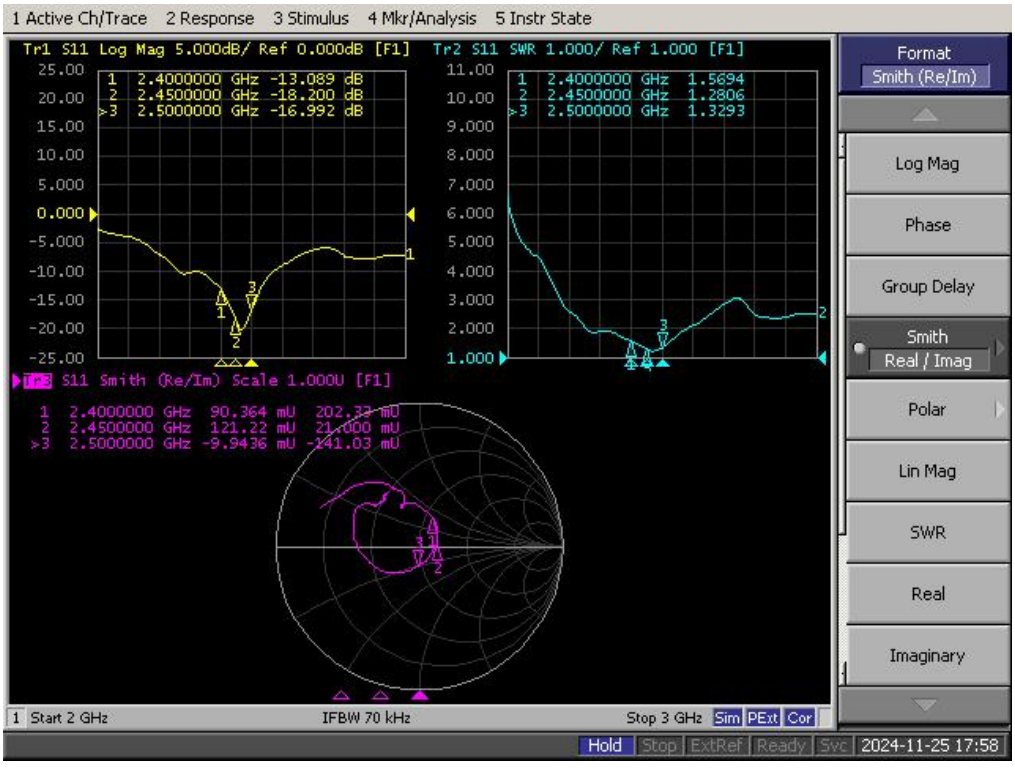
1 Measuring Method

1.A 50Ω 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

WIFI-2400MHZ-2500MHZ



4、 Anechoic chamber

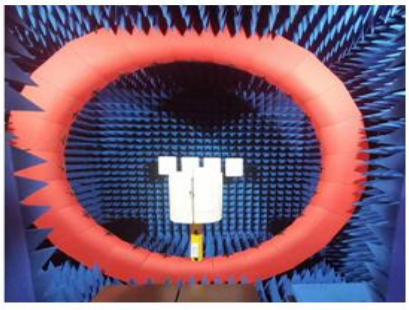
Introduction:

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.

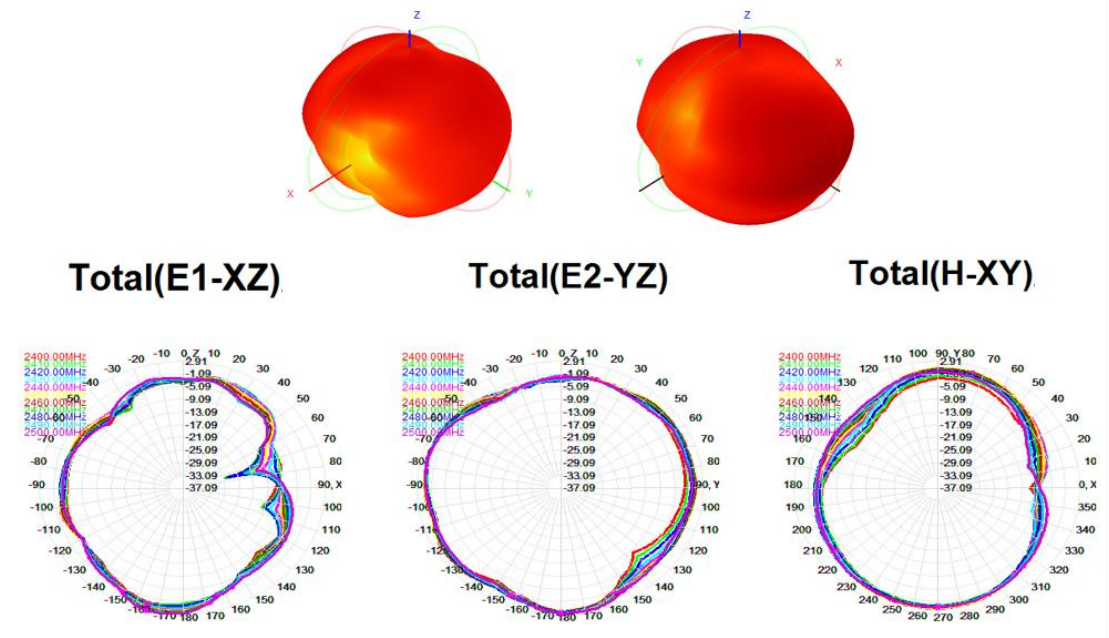
main performance ：

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-WIFI-2400MHZ-2500MHZ



Passive efficiency gain

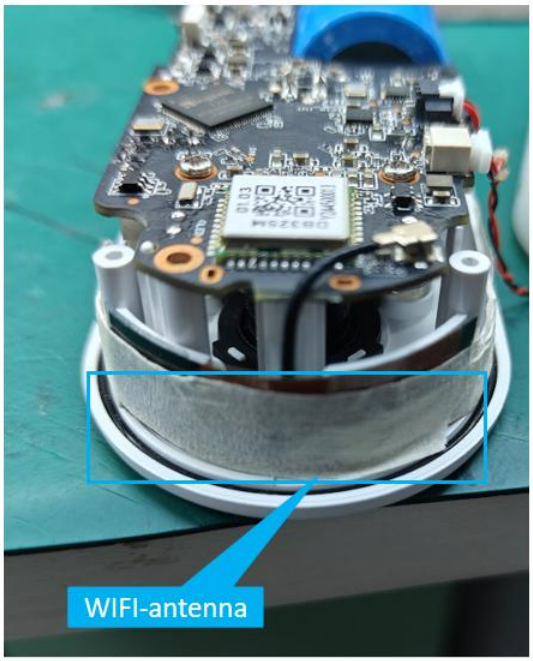
WIFI-2400MHZ-2500MHZ			
Frequency (MHz)	Efficiency (dBi)	Gain (dBi)	Efficiency (%)
2400	-2.76	2.01	53.00
2410	-2.67	2.13	54.06
2420	-2.40	2.20	57.53
2430	-2.07	2.45	62.09
2440	-1.88	2.54	64.90
2450	-1.86	2.91	65.20
2460	-1.94	3.82	63.92
2470	-2.13	2.67	61.22
2480	-2.22	2.73	60.02
2490	-2.37	2.56	58.00
2500	-2.39	2.59	57.68

OTA active

WIFI

Test Condition		Free Space	
band	Channel	TRP (dBm)	TIS (dBm)
802.11B 11Mbps	1	13.54	-88.13
	3	13.34	-87.46
	5	12.57	-88.37
	6	12.09	-87.82
	7	12.63	-88.77
	8	12.34	-88.39
	9	12.00	-88.10
	11	12.23	-88.13
	13	12.09	-88.28

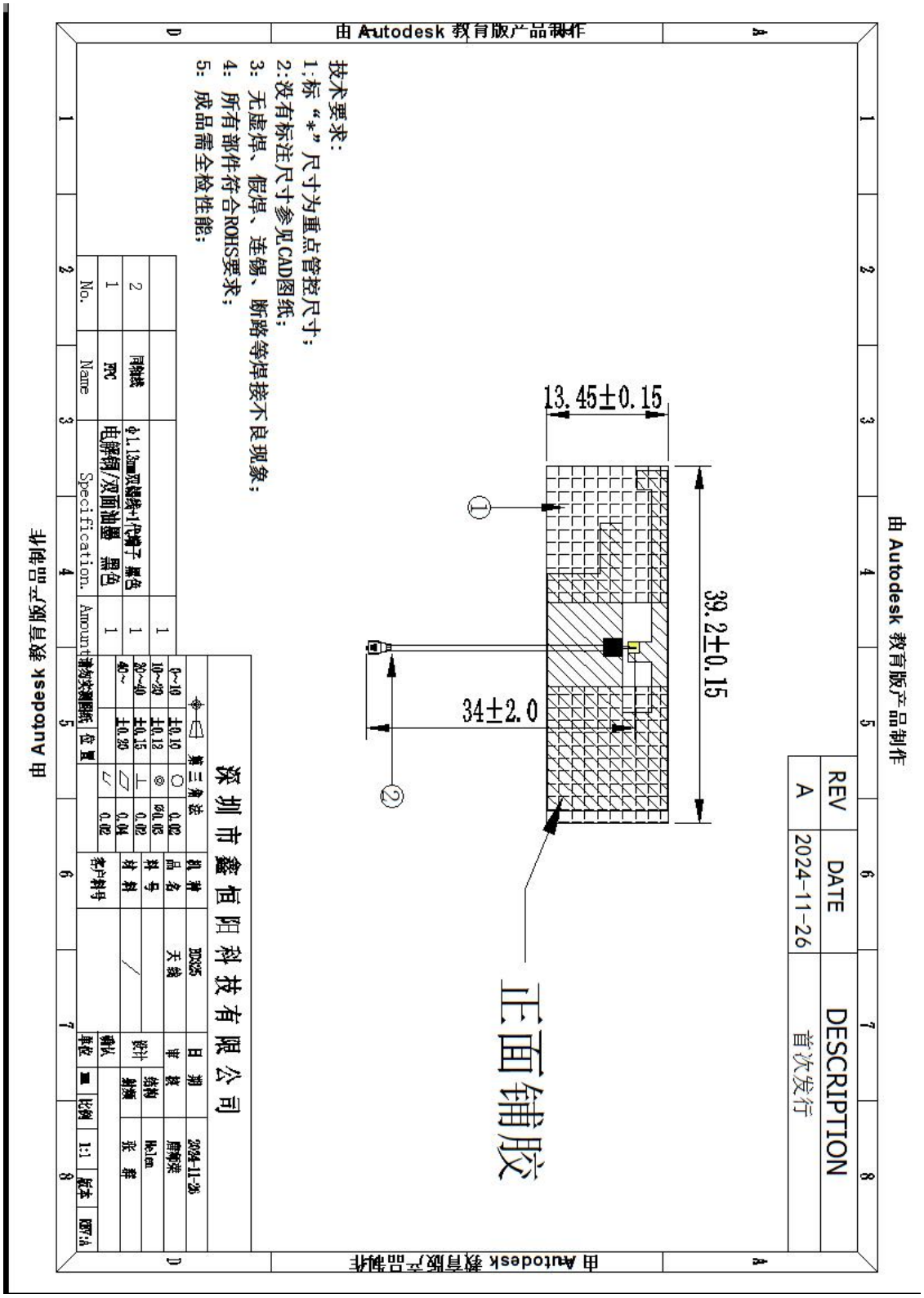
6、Antenna assembly drawing



7，Machine picture

8，Machine motherboard picture

9、Antenna drawing size



10、ROHS

Antenna _____ meets RoHS requirements.

11、 Product packing instructions

A. packing should meet the moistureproof, vibration, pressure and mildew proof, etc.

B. the smallest packing unit logo must have the manufacturer trademarks, product model, name, code and quantity.

C. in the attached packing list, certificate of approval, and the factory inspection report.

**********END**********