



Shenzhen XINHENG YANG Technology Co., Ltd

SPECIFICATION

Customer Name: _____

Product Model: _____ **BW511** _____

Customer P/N : _____

XINHENG YANG P/N: _____

SPECIFICATIONS: _____ **BT-2402MHZ-2480MHZ** _____

Production date: _____ **2025-02-19** _____

Sample Version: _____ **R1** _____

XINHENG YANG		
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>

R & D, production and sales of professional wireless terminal antenna



1、The basic parameters

A. Electrical Characteristics	
Frequency	2402MHZ-2480MHZ
VSWR	2402MHZ-2480MHZ: <4.5
Avg Efficiency	2402MHZ-2480MHZ: >15%
Impedance	50 $\pm$ 25 Ohm
Polarization	Linear
Peak Gain	2402MHZ: 0.2dBi 2440MHZ: -0.74dBi 2480MHZ: -0.96dBi
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 BW511 model.

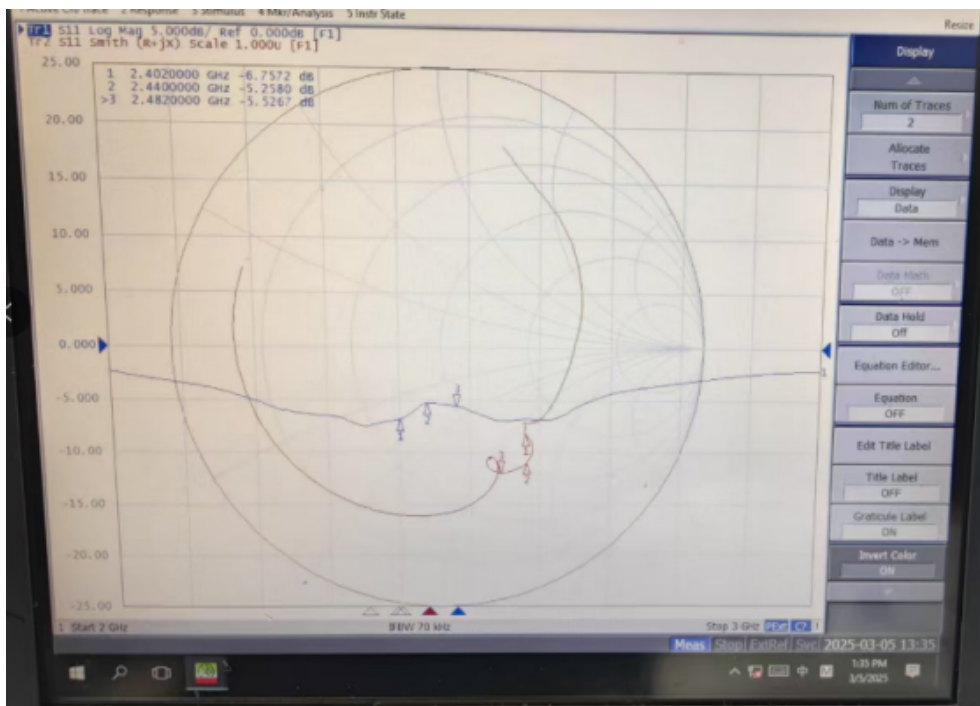
3、VSWR

1 Measuring Method

1. A $50\ \Omega$ 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

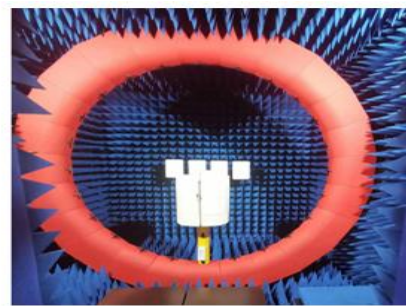
Introduction:

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.

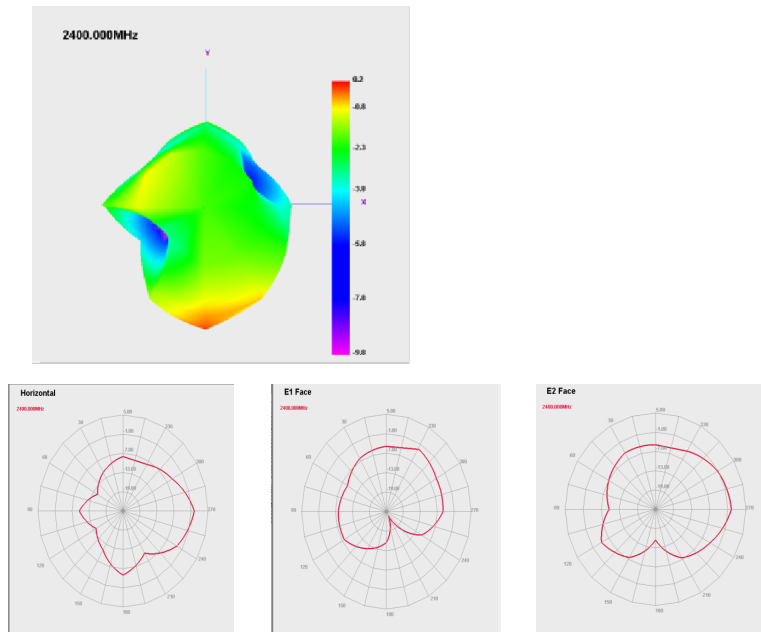
main performance :

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)

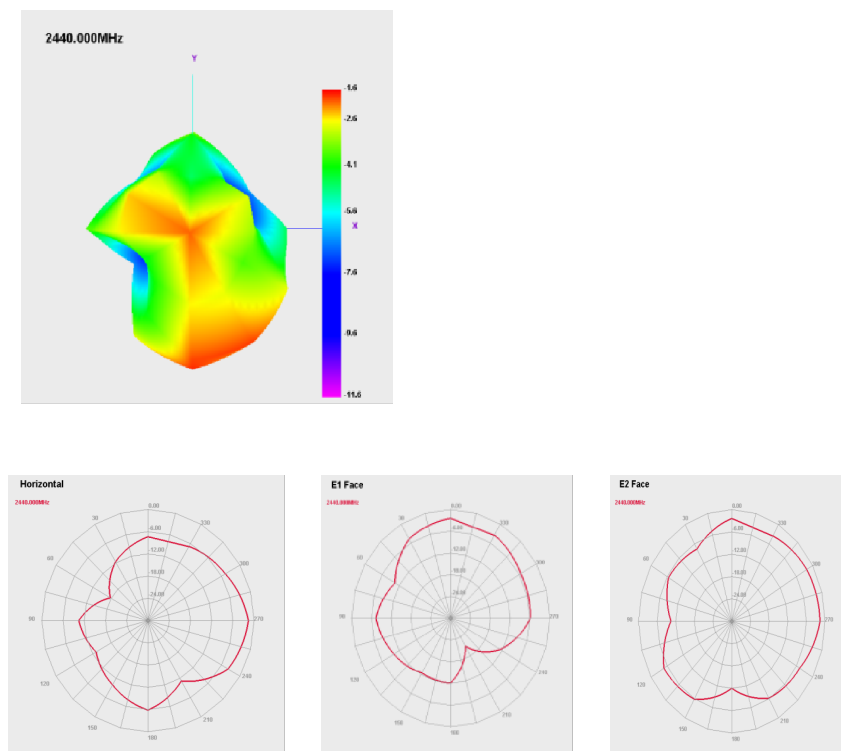


5、Gain table of Antenna

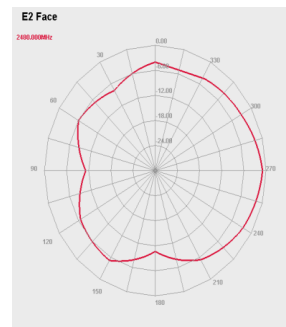
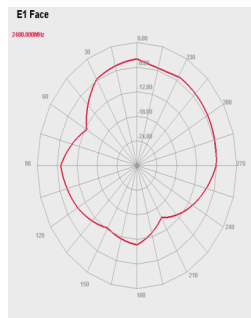
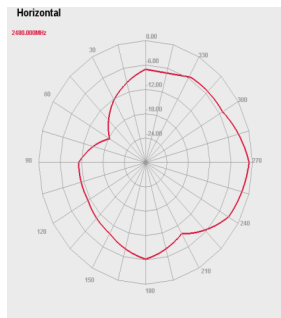
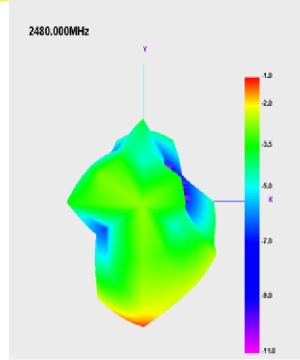
Passive field pattern-BT-2402MHZ



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	22.89	-6.4	0.17
2410	24.97	-6.03	0.2
2420	24.76	-6.06	-0.11
2430	24.13	-6.17	-0.74
2440	20.82	-6.81	-1.62
2450	19.83	-7.03	-1.71
2460	17.99	-7.45	-2.06
2470	17.96	-7.46	-1.82
2480	21.18	-6.74	-0.96
2490	24.97	-6.03	-0.09
2500	27.05	-5.68	0.19