



Shenzhen XINHENG YANG Technology Co., Ltd

SPECIFICATION

Customer Name: _____

Product Model: _____ BC211 _____

Customer P/N : _____

XINHENG YANG P/N: _____

SPECIFICATIONS: _____ BT-2402MHZ-2480MHZ _____

Production date: _____ 2025-07-03 _____

Sample Version: _____ R1 _____

XINHENG YANG		
FICTION	DQE	R&D
Customer		
PUR	QC	R&D

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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: -3.82dBi 2440MHZ: -2.13dBi 2480MHZ: -1.76dBi
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 BC211 model.

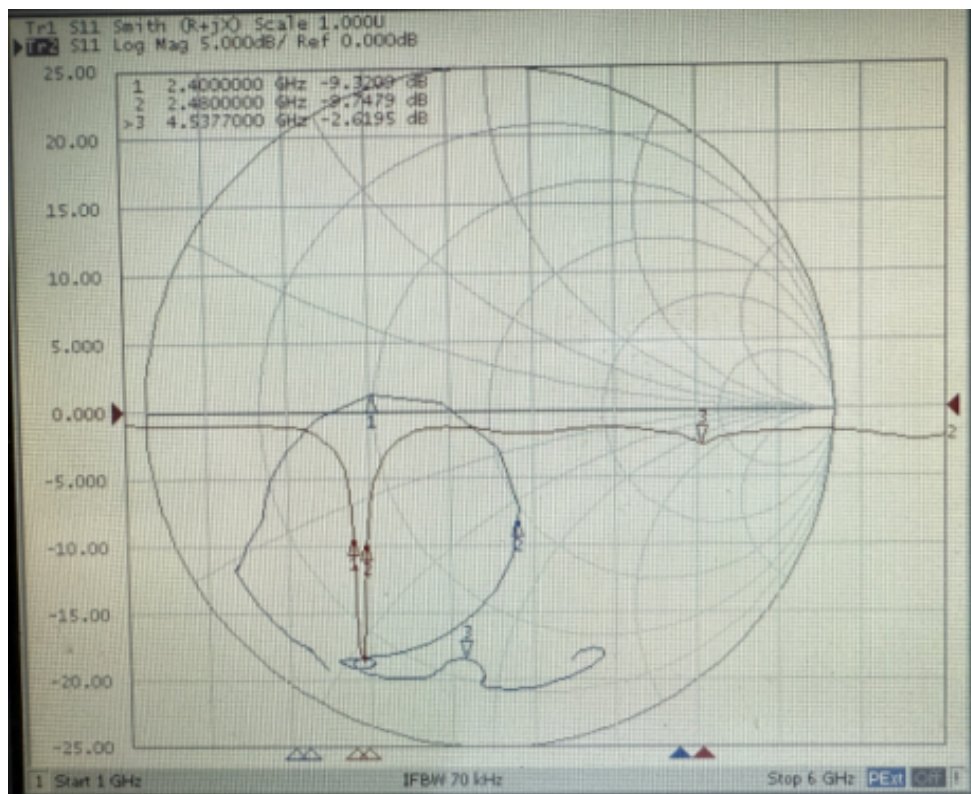
3、VSWR

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

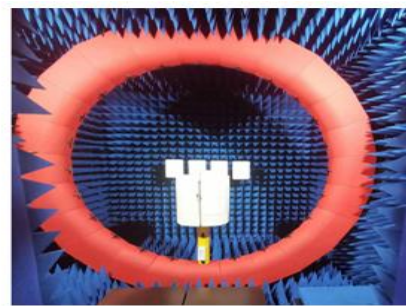
Introduction:

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.

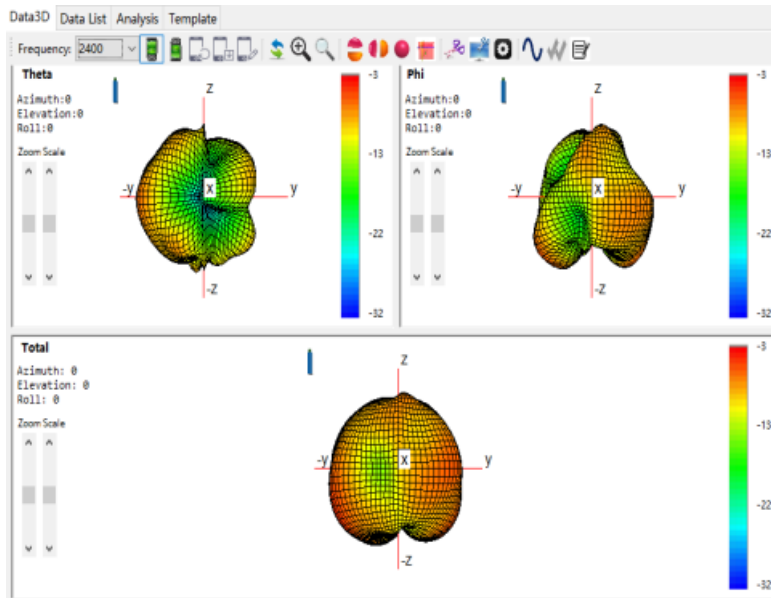
main performance :

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)

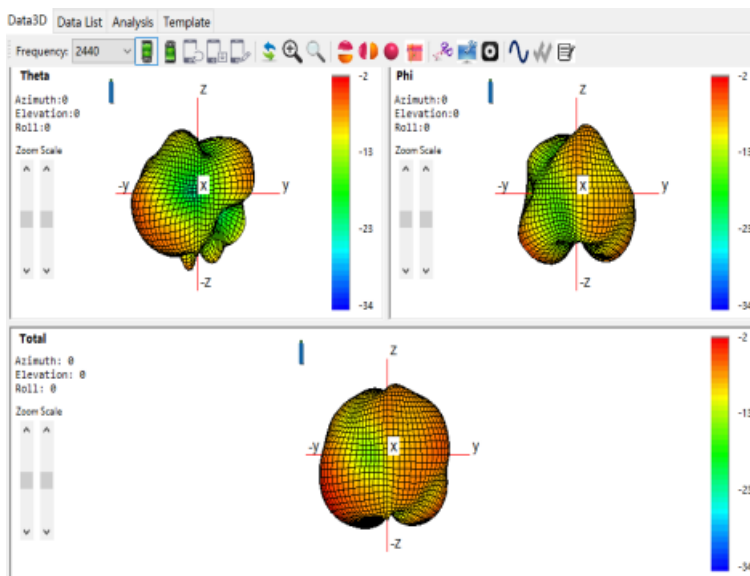


5、Gain table of Antenna

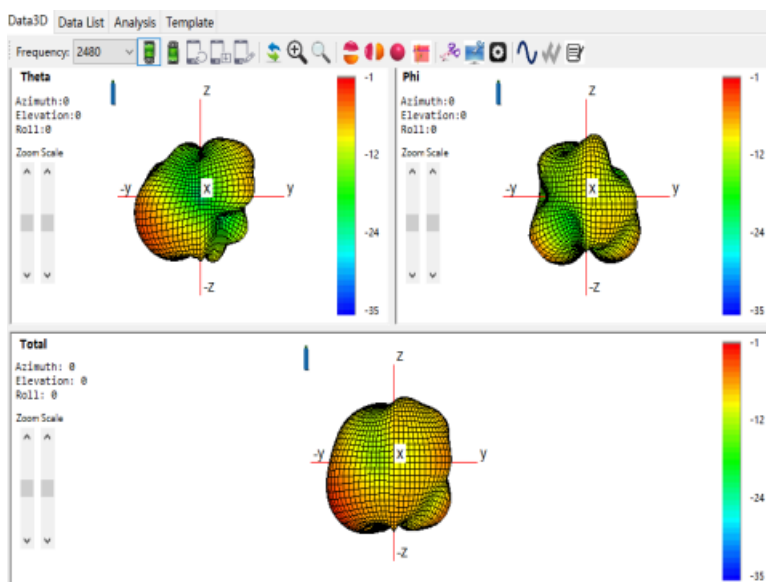
Passive field pattern-BT-2402MHZ



Passive field pattern-BT-2440MHZ



Passive field pattern-BT-2480MHZ

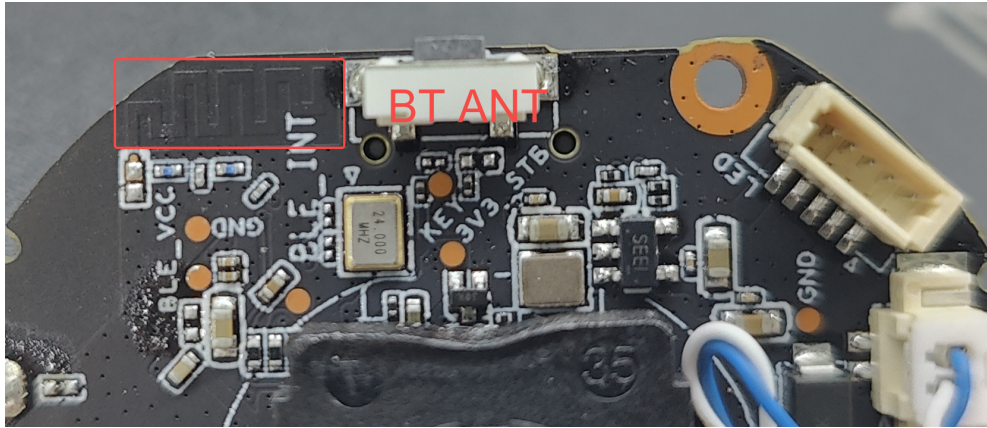


Passive efficiency gain

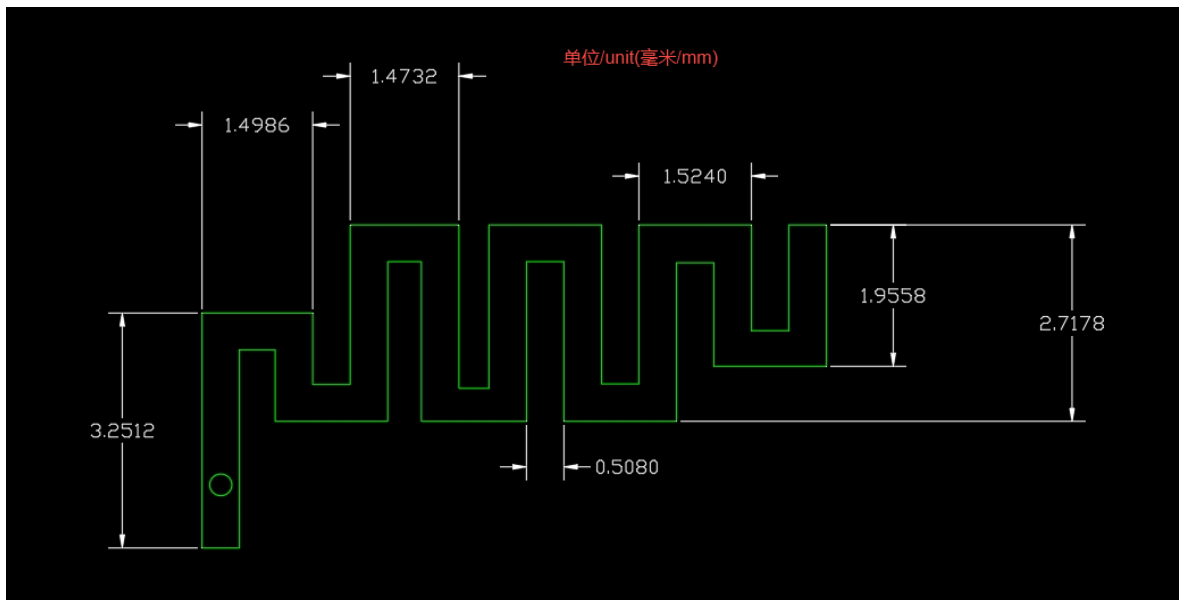
Freq (MHz)	Gain (dBi)	Effi (dB)	Effi (%)
2350	-6.22	-9.88	10.28
2360	-5.65	-9.41	11.47
2370	-5.14	-8.96	12.71
2380	-4.73	-8.55	13.97
2390	-4.42	-8.16	15.29
2400	-3.82	-7.59	17.4
2410	-3.1	-7.23	18.94
2420	-2.83	-7.23	18.91
2430	-2.55	-7.14	19.31
2440	-2.13	-7.04	19.77
2450	-1.82	-7	19.97

Freq (MHz)	Gain (dBi)	Effi (dB)	Effi (%)
2460	-1.82	-7.23	18.93
2470	-1.76	-7.5	17.79
2480	-1.84	-7.82	16.51
2490	-2.02	-8.2	15.12
2500	-2.7	-8.58	13.87
2510	-2.81	-8.68	13.55
2520	-2.94	-8.9	12.88
2530	-3.38	-9.18	12.09
2540	-3.47	-9.27	11.82
2550	-3.36	-9.45	11.36

6, Antenna picture



7、 Antenna drawing siz



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