

Shenzhen Xinhengyang Technology Co., LTD

SPECIFICATION

Customer Name: Zhejiang Bainuo Electric Co. LTD

Product Model: Visual doorbell

Customer P/N :

XINHENGYANG P/N: TC.001.RANT3216F245M0X

SPECIFICATIONS: 2.4G

Production date: 2023-05-30

Sample Version: V2.0

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

Manufacturer: Shenzhen Xinhengyang Technology Co., LTD

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Number	Effective date	Change record
V1.0	2023-05-30	Initial release

—、 The basic parameters

A. Electrical Characteristics	
Frequency	2400MHZ~2500MHZ
VSWR	< 2.0
Avg Efficiency	>27%
Impedance	50 ± 25 Ohm
Polarization	Linear
Peak Gain	2.4G:0.97dBi
B. Material & Mechanical Characteristics	
Material of Radiator	ceramic red
Cable Type	/
Connector Type	/
Dimension	/
C. Environmental	
Operation Temperature	- 20 °C ~ + 60 °C
Storage Temperature	- 30 °C ~ + 70 °C

二、Electrical Specification

Those specifications were specially defined for Bainuo-Visual doorbell model.

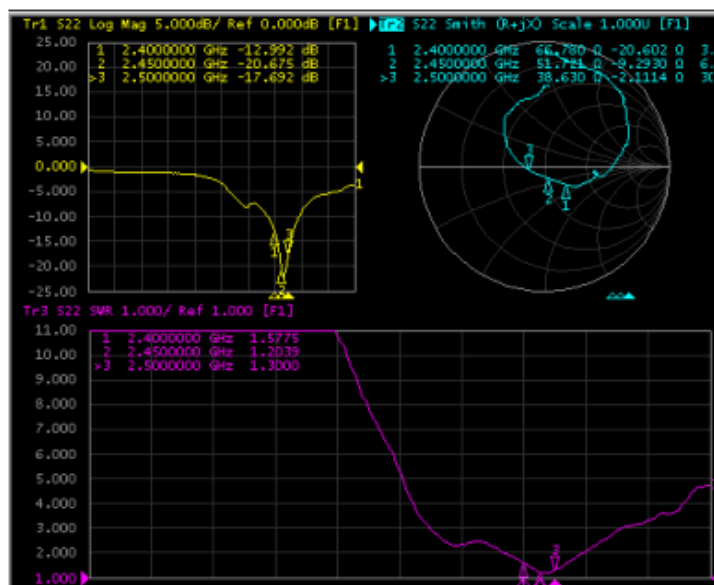
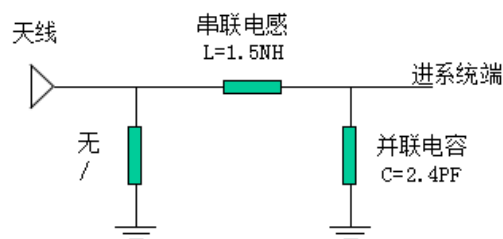
三、VSWR

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



四、Anechoic chamber

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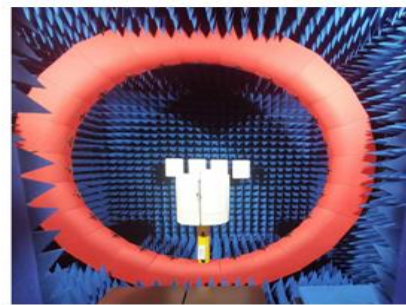
Introduction:

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.

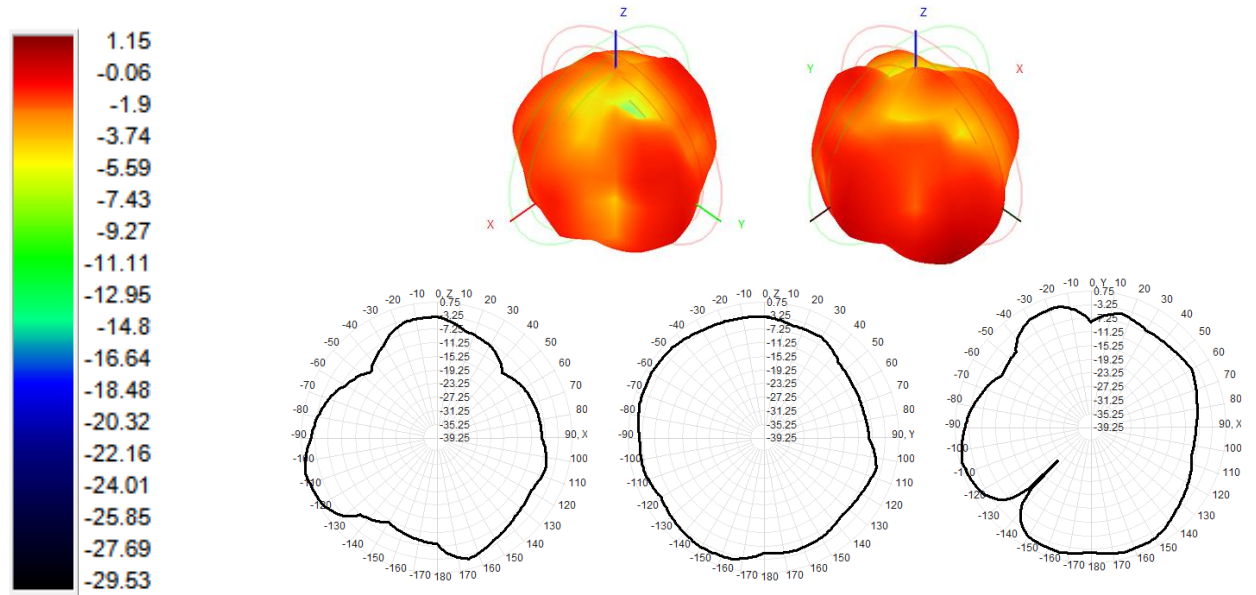
main performance :

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)



五、Gain table of Antenna

Passive field pattern diagram-2.4G



Passive efficiency & Gain

2400MHZ-2500MHZ		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	32.50	0.77
2410	33.75	0.82
2420	32.35	0.75
2430	32.77	0.78
2440	34.66	0.91
2450	29.17	0.78
2460	33.46	0.83
2470	32.77	0.81
2480	33.54	0.85
2490	29.99	0.85
2500	28.43	0.97

六、Machine Picture



七、Antenna position



八、 ROHS

Antenna TC.001.RANT3216F245M0X meets RoHS requirements.

九、 Product packaging instructions

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

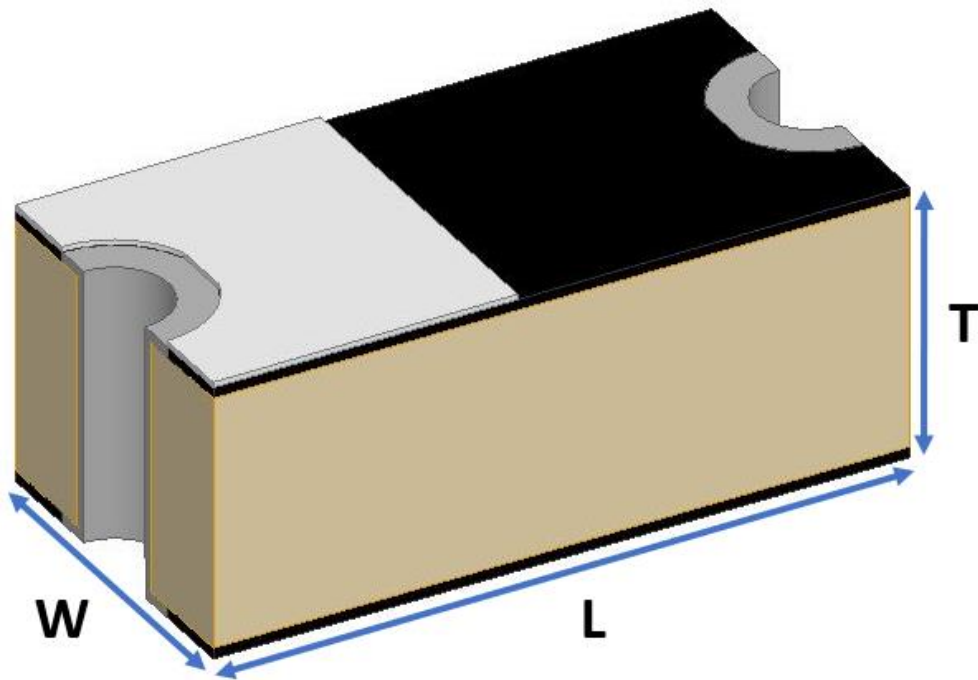
B. the smallest packing unit logo must have the manufacturer trademarks, product model, name, code and quantity.

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

*****END*****

3216 Chip antenna

For Bluetooth / WLAN Applications



P/N: WAN3216F245W36

	Dimension (mm)
L	3.23 ± 0.20
W	1.66 ± 0.20
T	1.23 ± 0.20