

Shenzhen Zhouda Communication Electronics Co., Ltd

Product specification

CUSTOMER **Shenzhen bellwether Technology Co., Ltd**

CUSTOMER P/N **ZD-166**

OUR MODEL NO: ZD-2400TGXZTH-L=130MM

SPECIFICATIONS: 2.4G 内置金属天线 L=130MM

Q' TY: 5PCS

Date : 2026-9-12

Shenzhen Zhouda Communication Electronics Co., Ltd			客户承认
Engineering	Quality	Approved	签名（盖章）
谢工	黄工	高工	

1. Technical Specification

A. Electrical Characteristics	
Working Frequency Range	2400~2500MHz
S.W.R.	2400~2500MHz:<2.0
Antenna Gain(max Peak)	2400~2500MHz: 3.26dBi
Impedance	50ohm
B. Material	
brass	
C. Environmental	
Operation Temperature	-45℃~+85℃
Storage Temperature	-45℃~+85℃

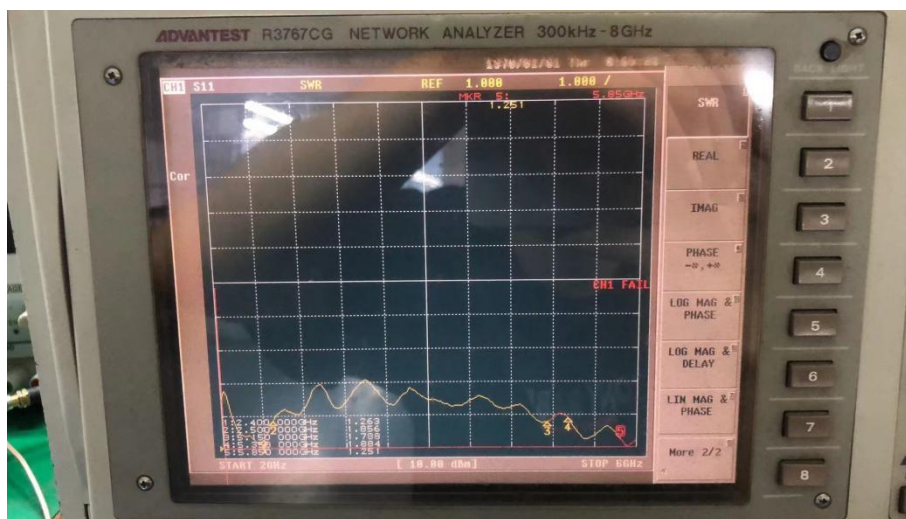
2. Curing antenna S11 Testing Result.

The S11 parameter was performed using a Agilent 8753D Network Analyzer and BEST'S test fixture that was using customer-providing device.

VSWR (Voltage standing wave ratio)

The Voltage Standing Wave Ratio (VSWR) is an indication of how good the impedance match is. VSWR is often abbreviated as SWR. If the transmission line and the antenna are not matched, the antenna will not accept all the power from the transmission line. The part it does not accept is reflected back and forth between the transmitter and the antenna. This sets up a fixed wave pattern along the line which we can measure and which is called the voltage standing wave ration(VSWR).The VSWR (ratio of maximum voltage to the minimum voltage along the line)expresses the degree of match between the transmission line and the antenna. When the VSWR is 1 to 1(1:1) the match is perfect and all the energy is transferred to the antenna prior to be radiated. When the VSWR is 1.5:1, 96% of the power reaches the antenna. By definition VSWR can never be less than 1.VSWR and reflected power are different ways of measuring and expressing the same thing. A high VSWR is indication that the signal is reflected prior to being radiated by the antenna.

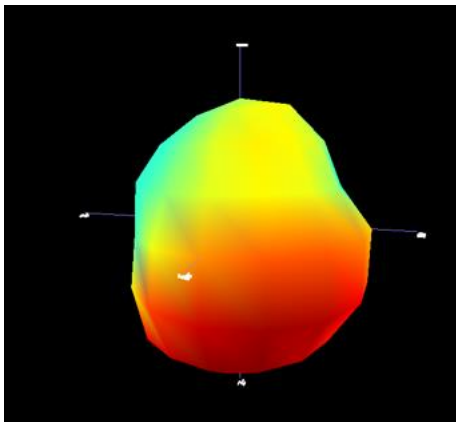
驻波 VSWR



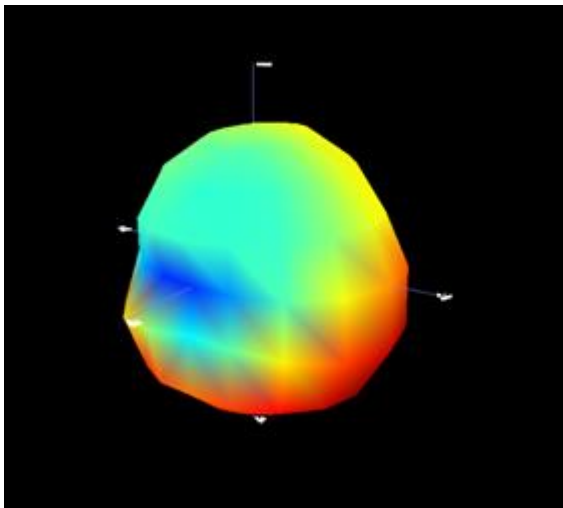
Marker	2400MHz	2450MHz	2500MHz
S.W.R	<2.0		

4.3D Test Report

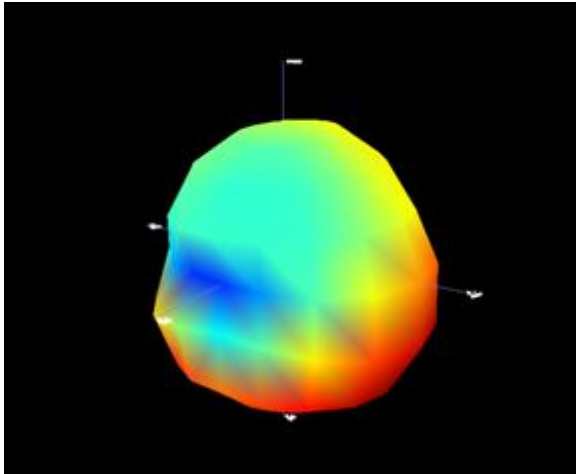
Frequency: 2400MHZ Gain: 3.16dbi



Frequency: 2450MHZ Gain: 3.12dbi



Frequency: 2500MHZ Gain: 3.26dbi



5. Passive test data

Passive Test For 2.4G												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	57.21	-2.43	3.16	1.01	21.153	36.054	3.16	-11.97	5.58	0	45.51	45.06
2450	53.18	-2.74	3.12	0.97	19.152	34.029	3.12	-17.02	5.86	0	45.36	44.92
2500	56.54	-2.48	3.26	1.11	19.506	37.032	3.26	-14.39	5.74	30	45.93	45.51

6.Product appearance picture

