

承认书

Customer: _____

Customer P/N: _____

Zhongchi P/N: ZCA2450-33B200-SMA

Description : 2.4/5.8G5dbi刀锋双频SMA胶棒天线

Zhongchi Checked By:	Customer Approved By:

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1. Revision History

Revision	Date	Change Notification	Description
1.0	2024-11-13	初版	

2. Specification

Sample Photo	
	
A. Electrical Characteristics	
Frequency	2400-2500/5150-5850MHz
S.W.R./	≤ 2.0
Gain	5.0 $\pm$ 0.5dBi@2400-2500/5150-5850MHz
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Brass
Material of Plastic	Body: ABS
SMA Male	Au Plated
Connector Pull Test	≥ 3 Kg
Connector Torque Test	None
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

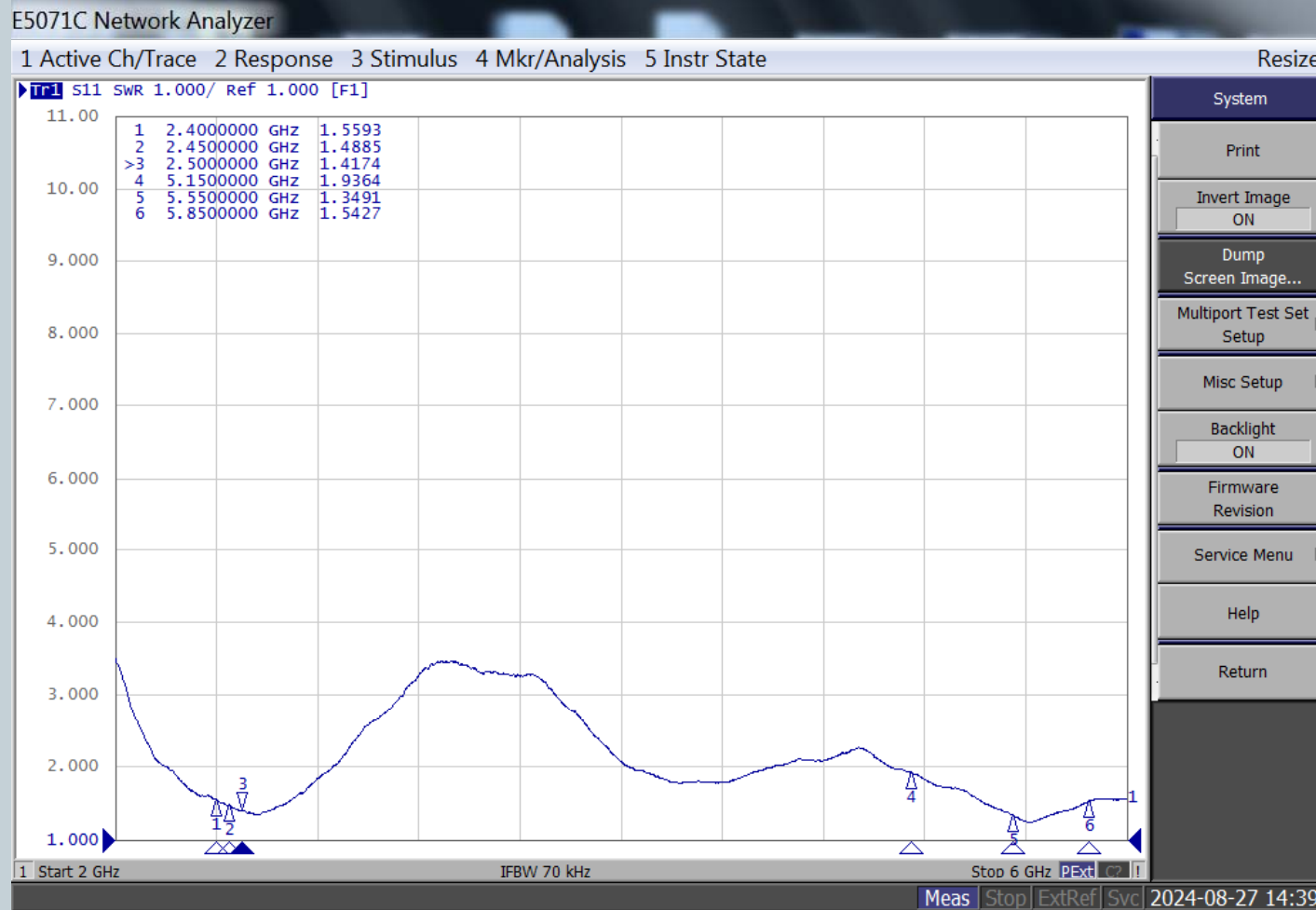
3. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes) Cycles: 24	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E4	Life (High Temp.)	GB / T 2423 . 2 - 89 Temp: 80°C; Time: 48 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

VSWR Test

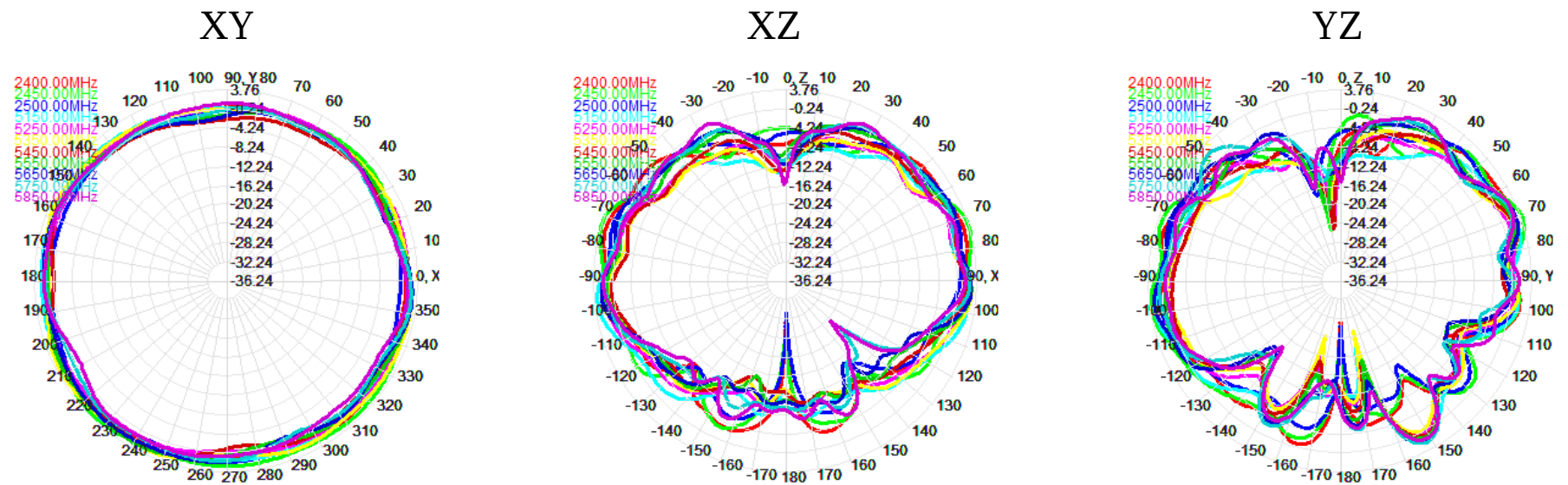
WiFi (2400-2500/5150-5850MHz)

3



2D Radiation Pattern

WiFi



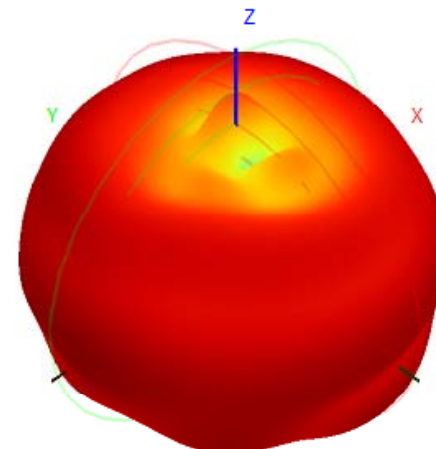
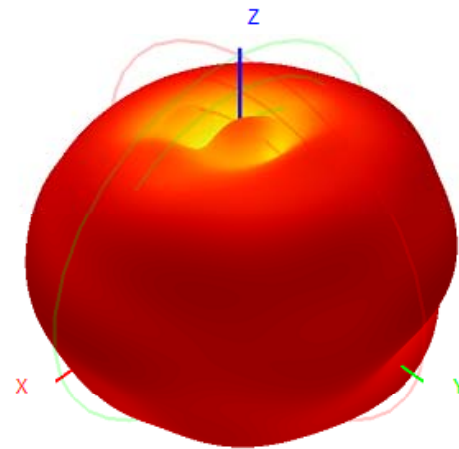
3D Radiation Pattern

WiFi

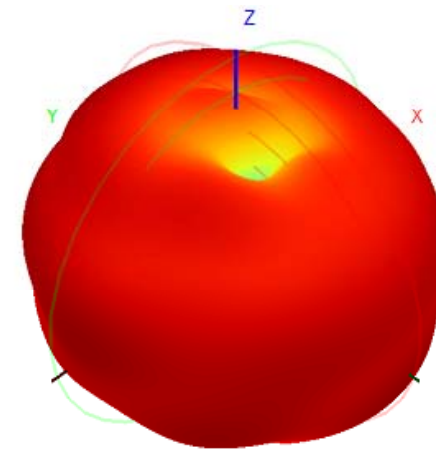
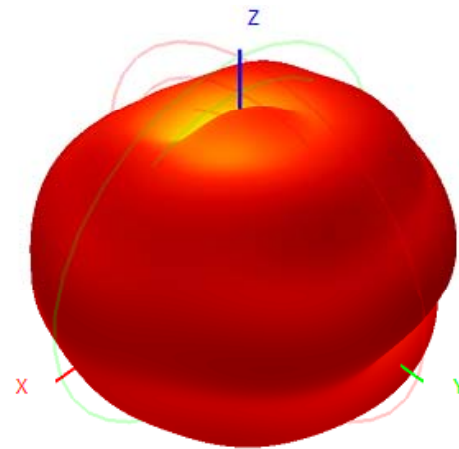
Front View

Back View

2400 MHz



2500 MHz



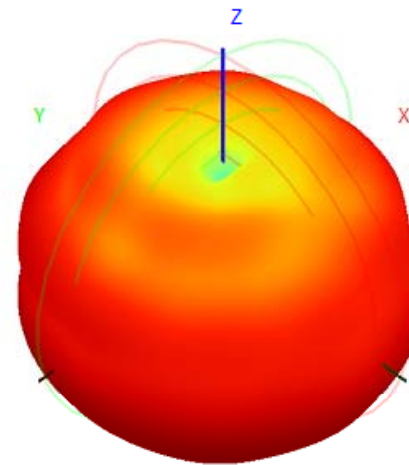
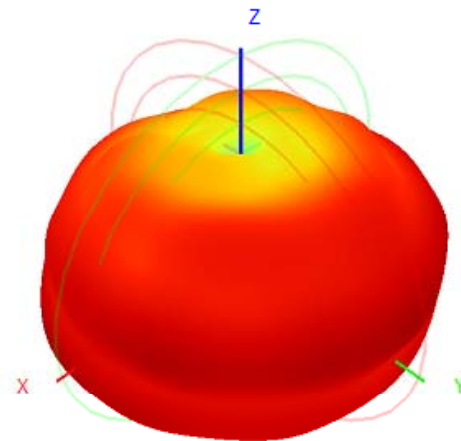
3D Radiation Pattern

WiFi

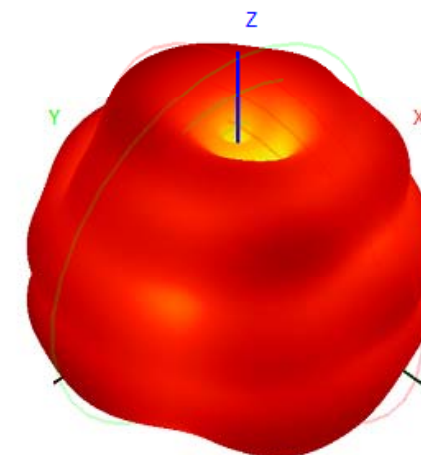
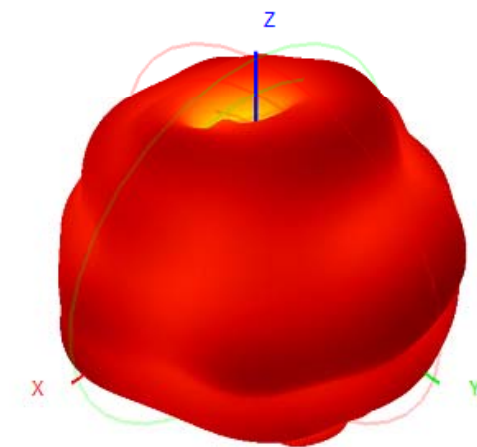
Front View

Back View

5150 MHz



5850 MHz



Results Summary

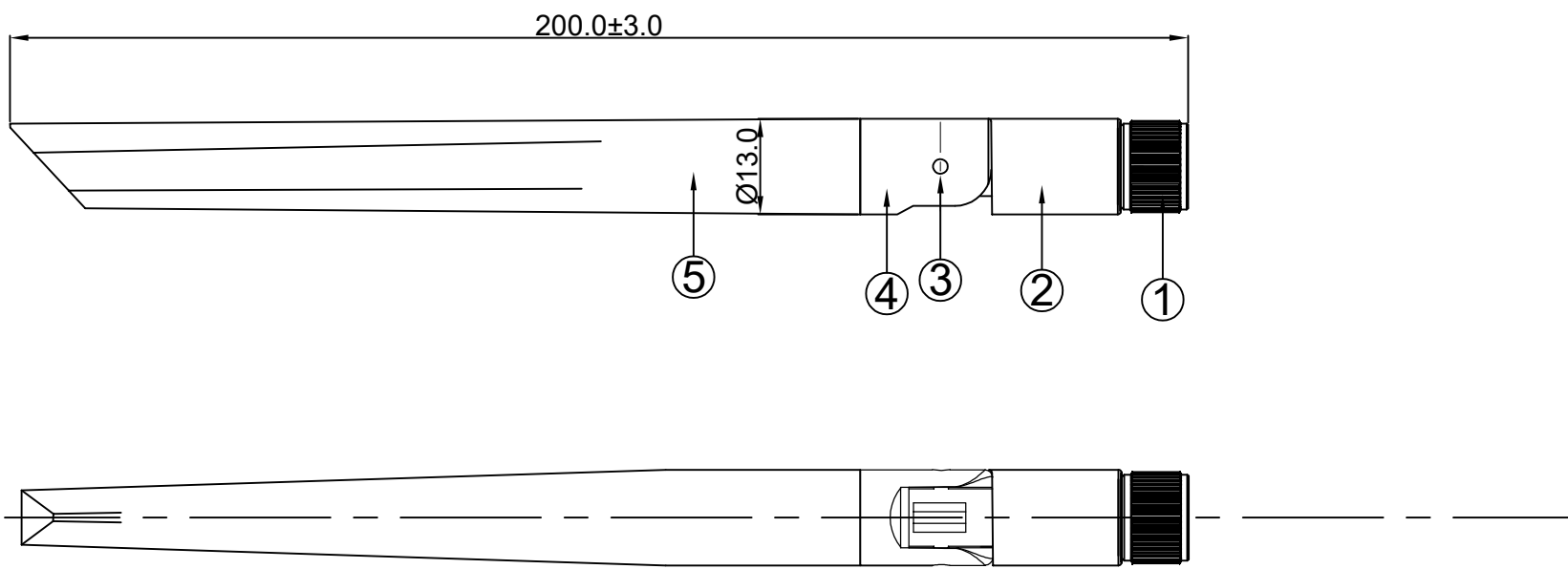
VSWR

Frequency (MHz)	WiFi
2400	1.55
2500	1.41
5150	1.83
5550	1.34
5850	1.54

Results Summary

WiFi Antennas

Frequency (MHz)	Peak gain(dBi)	Efficiency (%)
2400.0	2.77	75.47
2450.0	3.90	77.27
2500.0	2.19	71.56
5150.0	3.80	77.49
5250.0	2.61	64.97
5350.0	2.99	67.81
5450.0	2.78	61.98
5550.0	2.61	66.37
5650.0	3.06	72.86
5750.0	2.73	63.79
5850.0	2.30	63.82



			1
1	SMA 内螺内孔	Au Plated	1
2	Bottom Base	PC,Color:Black	1
3	Rivet	POM Black	2
4	Bottom Base	PC,Color:Black	1
5	Antenna Cap	TPE,Color:Black	1
NO	PART NAME	DESCRIPTION	Q.TY

Dongguan Zhongchi Electronic Technology Co.,Ltd
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PART NAME: 2.4/5.8G Antenna

PART NO.: ZCA2450-33B200-SMA DATE: 2024-11-13

APPROVED BY	CHECKED BY	DESIGNED BY		Tolerance
		Huang YongHua	UNITS: mm	X.X ±0.50
			SCALE: 1/1	X.XX±0.15
			REVISION: A	X° ±3°