

东 莞 众 驰 电 子 有 限 公 司
Dongguan Zhongchi Electronics Co.Ltd.

承认书

Customer: _____

Customer P/N:

Zhongchi P/N: ZCA2450-6B1350-FAKRA-B

Description : 2.4/5.8G双频天线

Zhongchi Checked By:	Customer Approved By:

东莞市众驰电子有限公司

Product Number: ZCA2450-6B1350-FAKRA-B

Product Name: 2.4/5.8 Antenna

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Product Number: ZCA2450-6B1350-FAKRA-B
Product Name: 2.4/5.8 Antenna

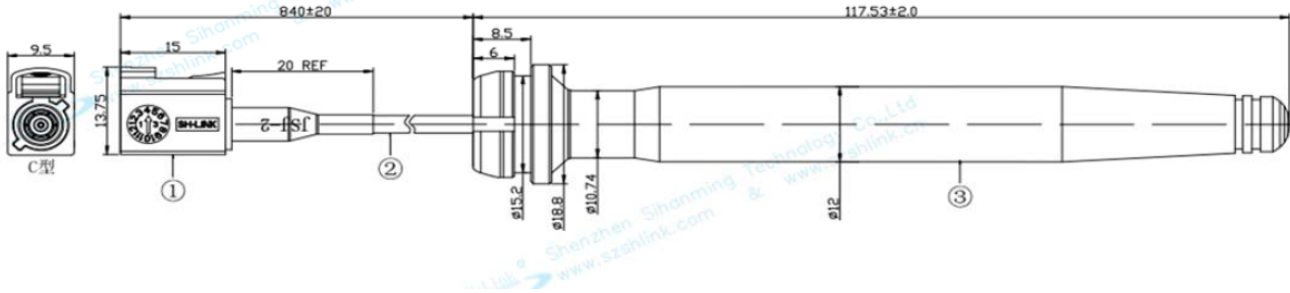
1. Revision History

Revision	Date	Change Notification	Description
1.0	2025-1-15	初版	

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2. Specification

Sample Photo	
 The technical drawing shows a side view and a top view of the antenna. The side view includes dimensions: 9.5 (top width), 13.75 (height), 15 (width of the base), 20 REF (reference length), 8.5 (height of the connector), 6 (width of the connector), 117.53±2.0 (total length), and 12 (diameter of the main body). The top view shows a circular base with a diameter of 9.5. The drawing also includes a cross-section of the antenna body showing internal components and a label 'C型' (C-type) on the base. A watermark 'Sihonming Technology Co., Ltd. www.szshlink.com' is visible across the drawing.	
A. Electrical Characteristics	
Frequency	2.4/5.8G
S.W.R.	<= 2.0
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	Brass
Material of Plastic	Body: ABS
Cable Type	RG-316 Black
Connector Type	FAKRA B
Connector Pull Test	>= 3 Kg
Connector Torque Test	None
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C

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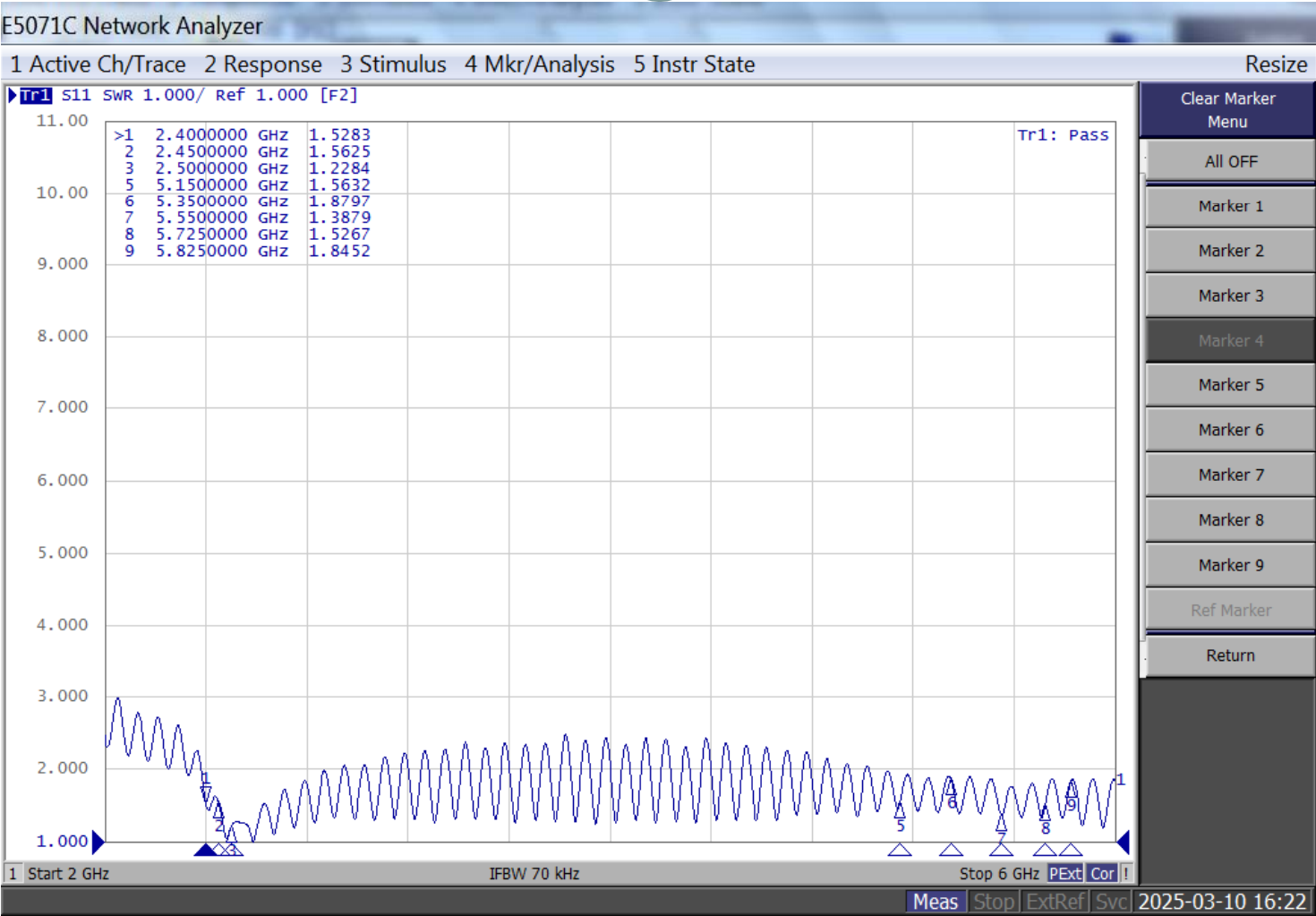
3. Characteristics and Reliability Test

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

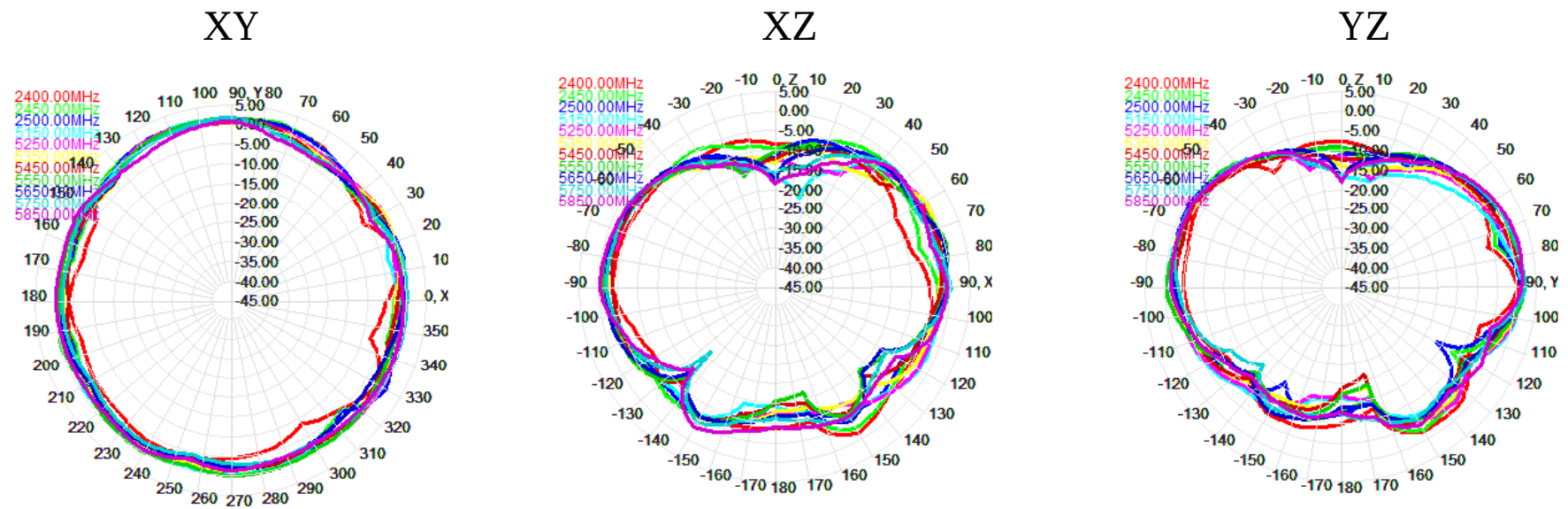
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3. Antenna - S Parameter Test Data

4



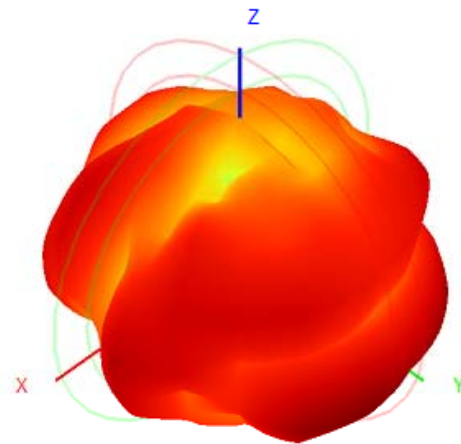
2D Radiation Pattern



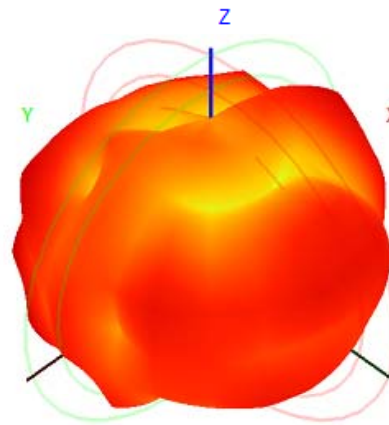
3D Radiation Pattern

2400 MHz

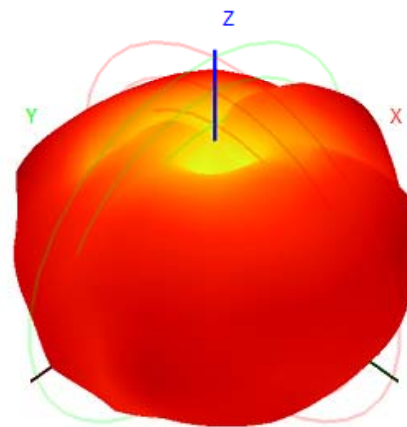
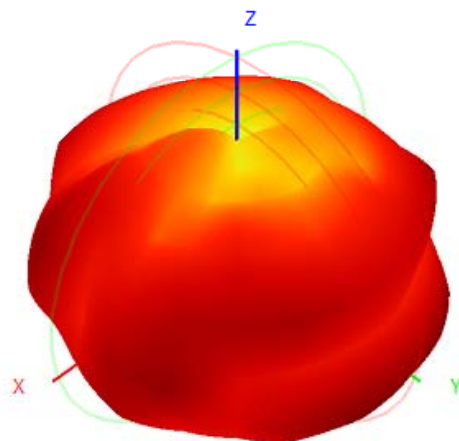
Front View



Back View



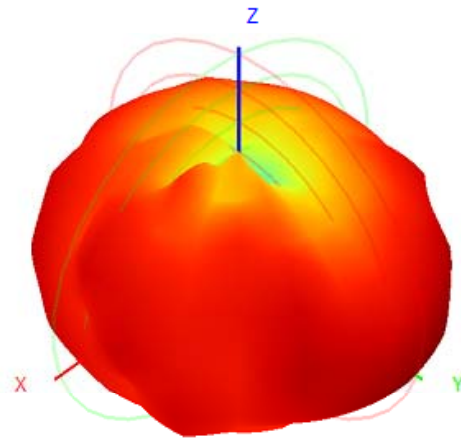
2500 MHz



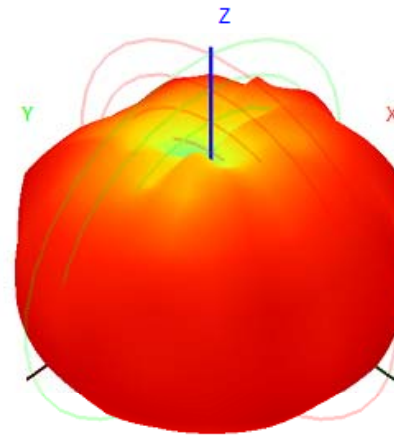
3D Radiation Pattern

5150 MHz

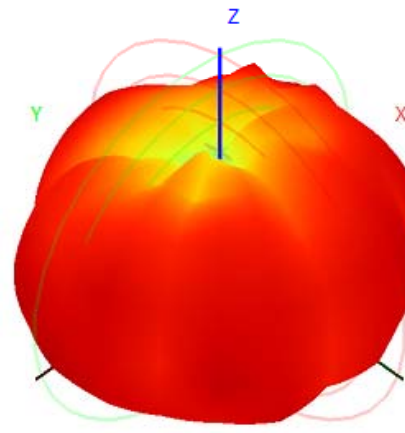
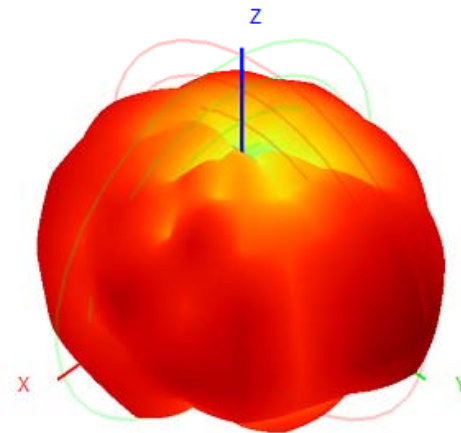
Front View



Back View



5850 MHz



Results Summary

Frequency (MHz)	Wifi	
	Peak gain(dBi)	Efficiency (%)
2400	1.46	40.02
2450	1.94	44.28
2500	1.58	45.18
5150	1.57	46.96
5250	1.70	44.97
5350	1.72	46.56
5450	1.72	46.50
5550	1.86	45.78
5650	1.65	44.76
5750	1.87	43.36
5850	1.59	43.95