

**Product Number: 34.WF24581201**

**Product Name: WIFI 2.4/5.8GHz Antenna PCB board L=120mm rear end IPEX antenna base**

**Index:**

- 1. Specification**
- 2. Characteristics and Reliability Test**
- 3. Antenna - S Parameter Test Data**
- 4. Field plot**
- 5. Antenna size diagram**

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## 1. Specification

A. Electrical Characteristics	
Frequency 天线频率	2400-2500MHZ ~ 4900-5900MHZ
S.W.R. 驻波比	< 2.5
Antenna Gain 天线增益	3 dBi
Polarization 极化方式	Linear 线性极化
Impedance 阻抗	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator 材质	FR-4
Cable Type 线材类型	RG-1.13
Connector Type 天线接口	I-pex
Cable length 天线长度	面板边上算 12CM
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

## 2. 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-	Holding with individual specification; force applied	1. Directive DUT specification

**Product Number: 34.WF24581201**

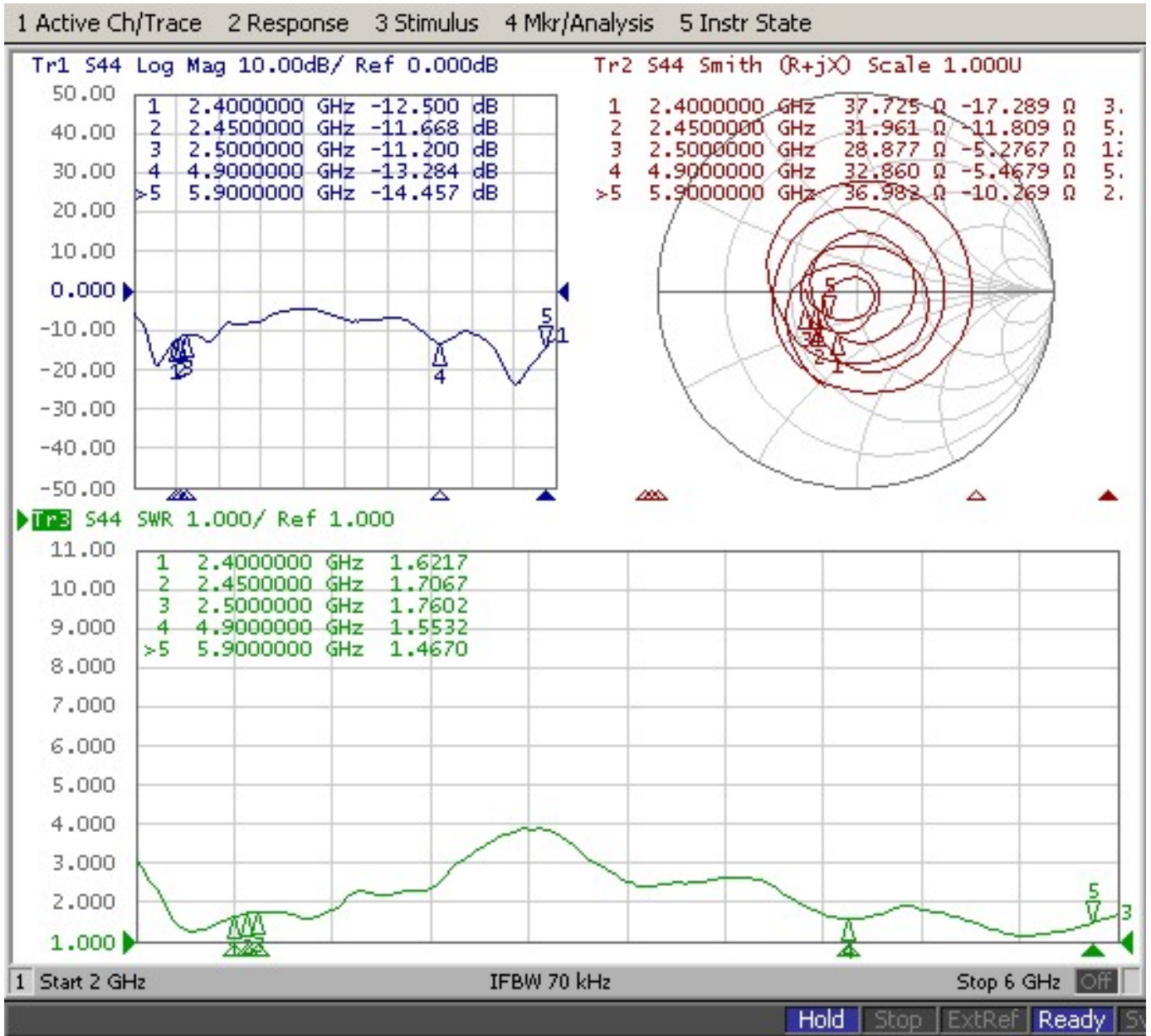
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	<b>Pull Test</b>	to axis of terminal	2. Frequency Tol.<= 5%
<b>M5</b>	<b>Terminal-Torque Test</b>	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
<b>M6</b>	<b>Dimension</b>	Inspection of dimension, color, material, package, surface process	Directive DUT specification
<b>E1</b>	<b>Salt Spray</b>	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%
<b>E2</b>	<b>Humidity</b>	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%
<b>E3</b>	<b>Thermal Shock</b>	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%
<b>E4</b>	<b>Life (High Temp.)</b>	GB /T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
<b>R1</b>	<b>RoHS</b>	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
<b>R2</b>	<b>PFOS</b>	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
<b>R3</b>	<b>PFOA</b>	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

Product Number: 34.WF24581201

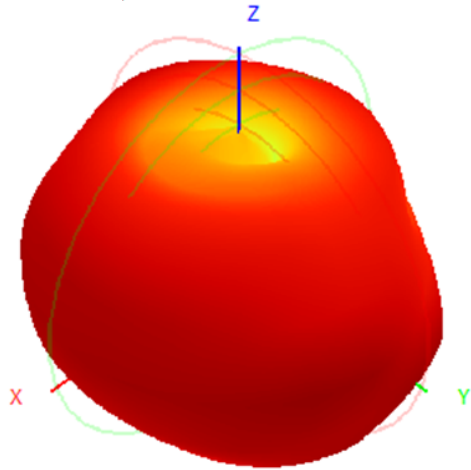
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### 3. Antenna - S Parameter Test Data

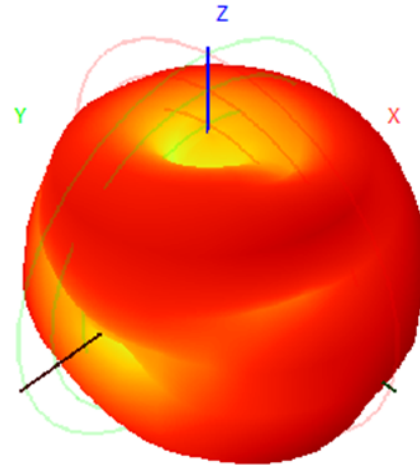


## 4. Field plot

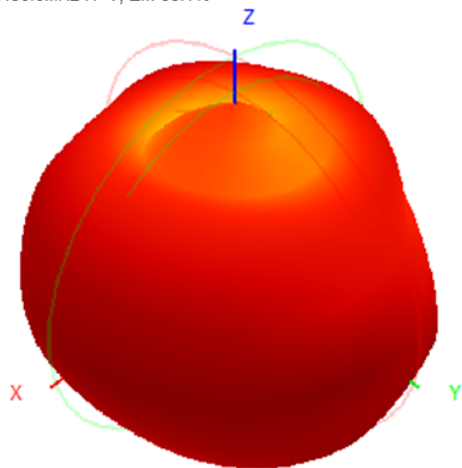
2400.0MHz H+V, Eff: 42.7%



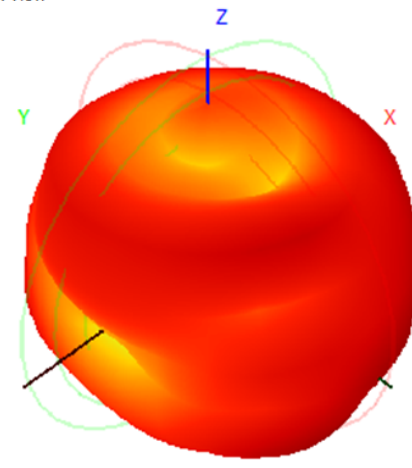
Back View



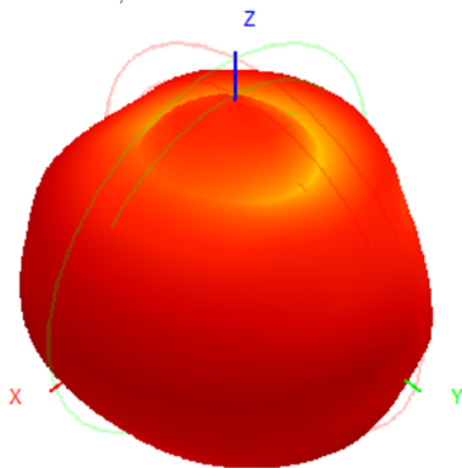
2450.0MHz H+V, Eff: 36.1%



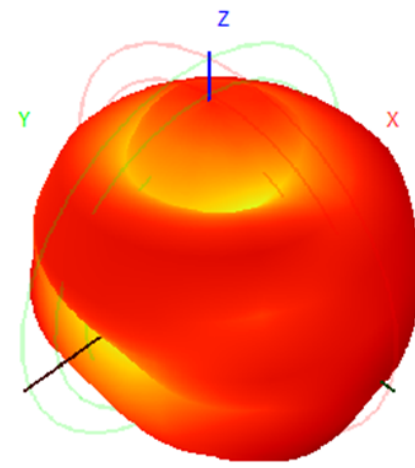
Back View



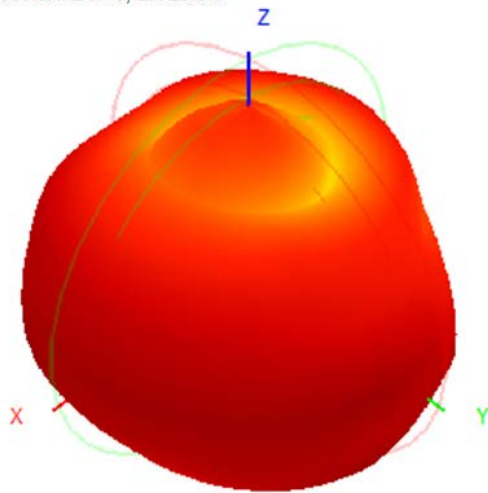
2500.0MHz H+V, Eff: 24.0%



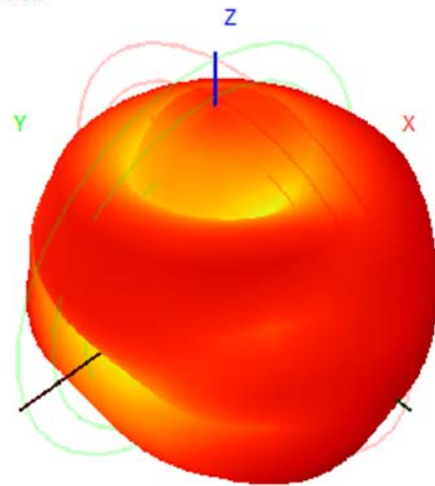
Back View



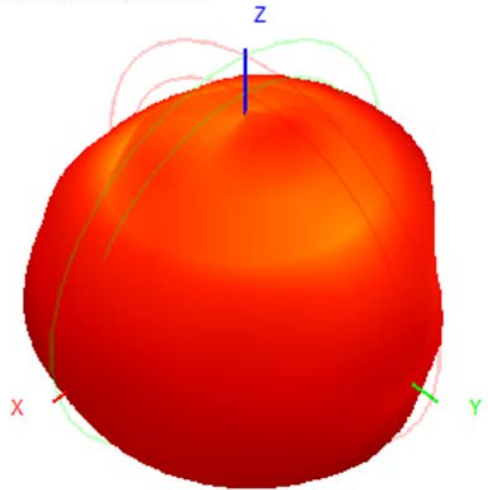
4900.0MHz H+V, Eff: 26.3%



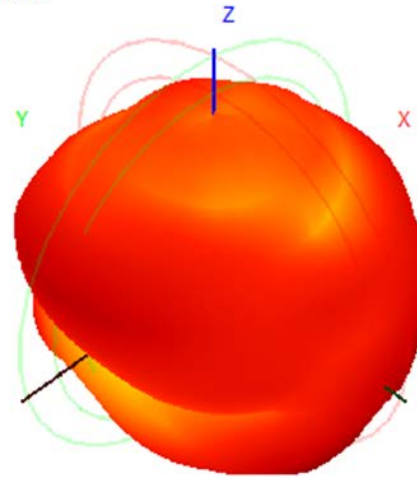
Back View



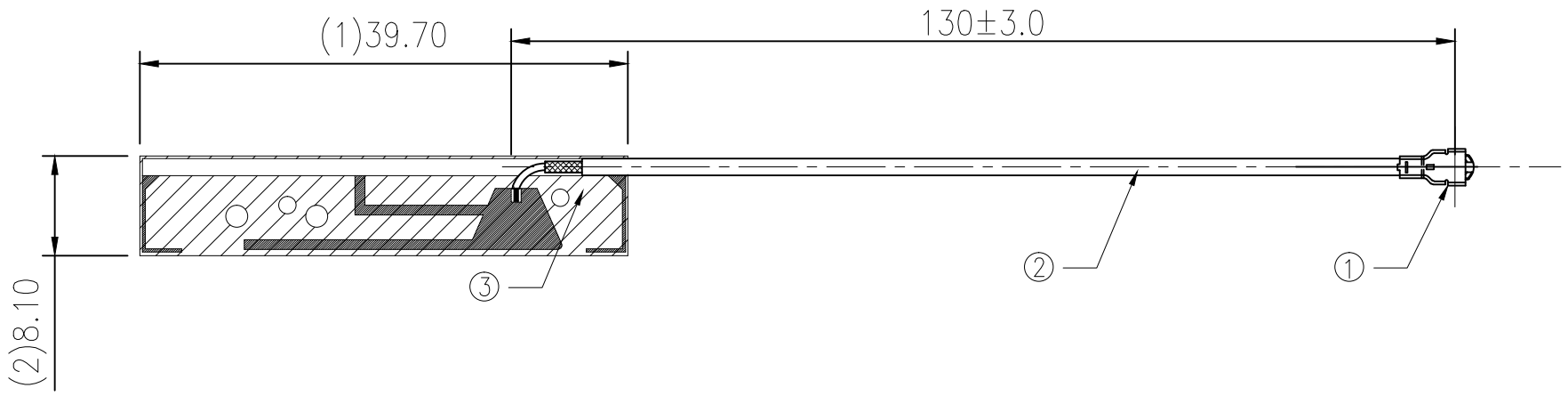
5900.0MHz H+V, Eff: 9.3%



Back View



REV.	FILE No.	DRAWN BY	DATE
A0	ECN130003	YAOXIA	2013.01.03



- SPECIFICATION:
1. NORMAL IMPEDANCE: 50Ω;
  2. FREQUENCY RANGE: 2.4GHz~2.5GHz;5.15GHz~5.85GHz;
  3. VSWR: 2.0 Max;
  4. PEAK GAIN: 3dBi TYPICAL;
  5. 圖面上標有“\*”符號的尺寸為重點管控尺寸。

3	PCB	MATERIAL:FR-4;T:0.4mm	1	N/A
2	RF CABLE	1.13CABLE,BLACK	1	N/A
1	RF CONNECTOR	MHF PLUG FOR 1.13CABLE	1	N/A
ITEM	PART NAME	DESCRIPTION	Q'TY	REMARK

DWG TYPE: CUSTOMER DRAWING				
GENERAL TOLERANCE: UNLESS OTHERWISE SPECIFIED			TITLE: 2.5/5G 双频内置PCB 天线	
X.X	±0.35	X.X*	±3*	APPD:
X.XX	±0.25	X.XX*	±2*	CHECK:
X.XXX	±0.15	X.XXX*	±1*	DRAW: FENG.ZH
			DATE: 2016.12.11	SCALE: UNIT: PAGE: 1:1 mm 1/1
			DWG No.: FG-2450B-001R	

COPIANCE WITH THE REQUIEMENT:  RoHS;  HF;  SONY SS-00259;  OTHER.  
\*NO USING RESTRICTED AND BANNED SUBSTANCE