

ADD: Shenzhen baoan district for road no. 1 on da industry park 4 5 floor

TEL: 0755-86031011 86030933 FAX: 0755-86033315 WEB: www.shenzhenguyang.com

Product specifications acknowledgment

Recognized manufacturers: _____

Manufacturer: ShenZhen GuYang Commuication Technology Co.,Ltd.

Description : WiFi communication antenna

Product Type: WIFI 2.4/5.8G dual-band black antenna

1. Product echnical parameters

Main technical specifications	
Frequency Range (MHZ)	2400~2500\ 5150~5850
Impedance(Ω)	50
VSWR	≤ 1.92
Admitted Power	10W
Polarization	Linear, Vertical
Connector Type	RP-SMA
Physical Properties	
Antenna Base	TPEE
Operating Temp	-20 $^{\circ}$ C~+65 $^{\circ}$ C
Storage Temp	-40 $^{\circ}$ C~+85 $^{\circ}$ C

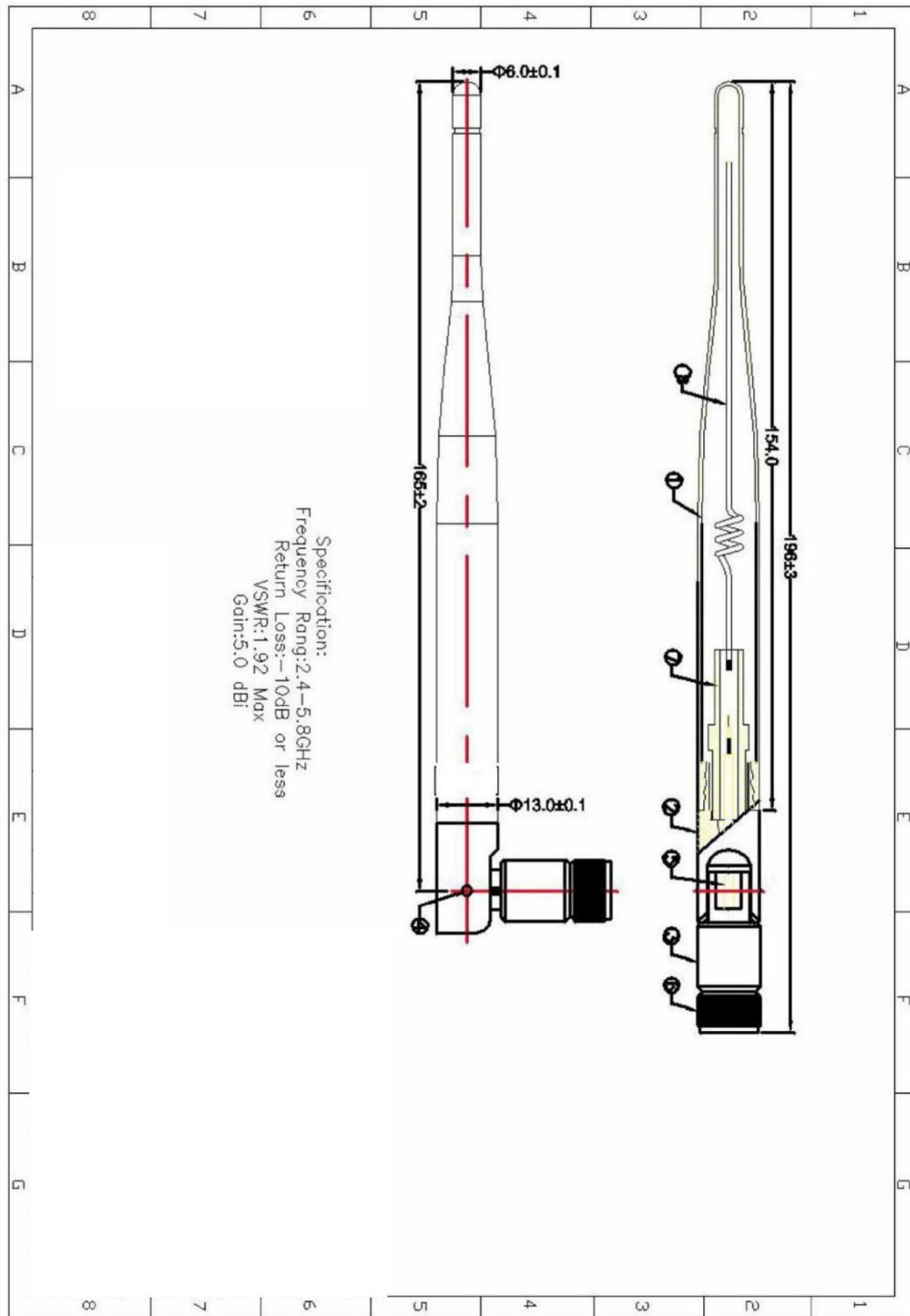
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1. The finished product figure:



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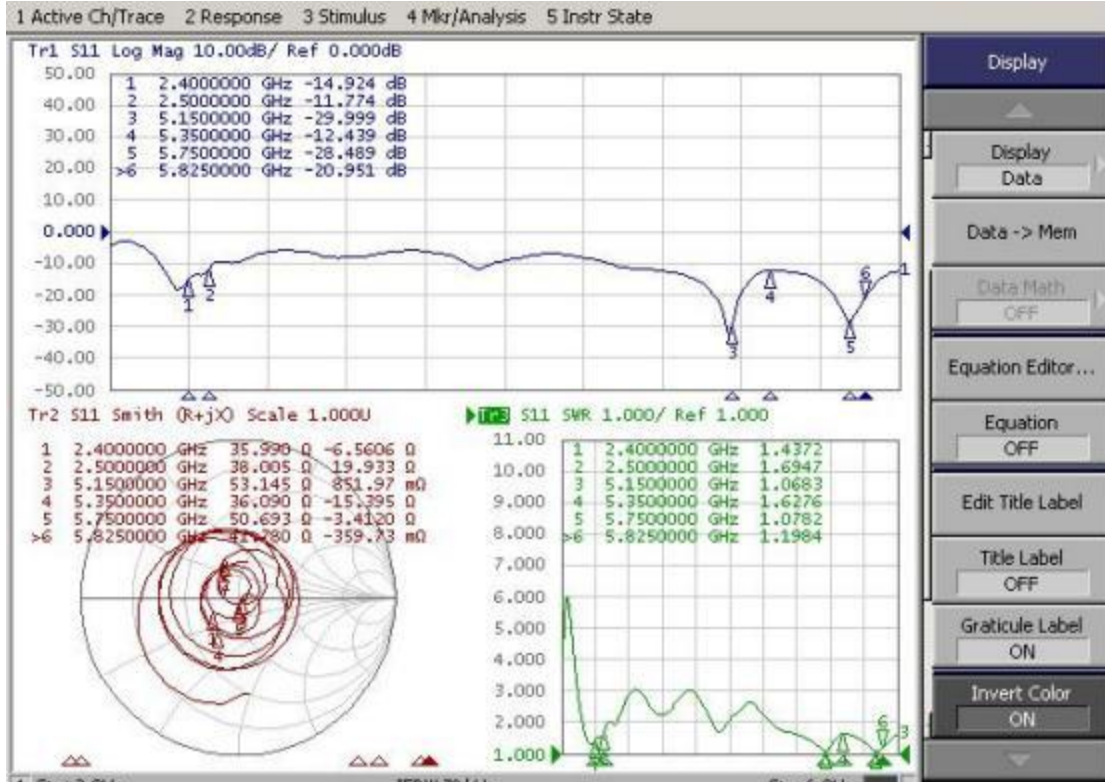
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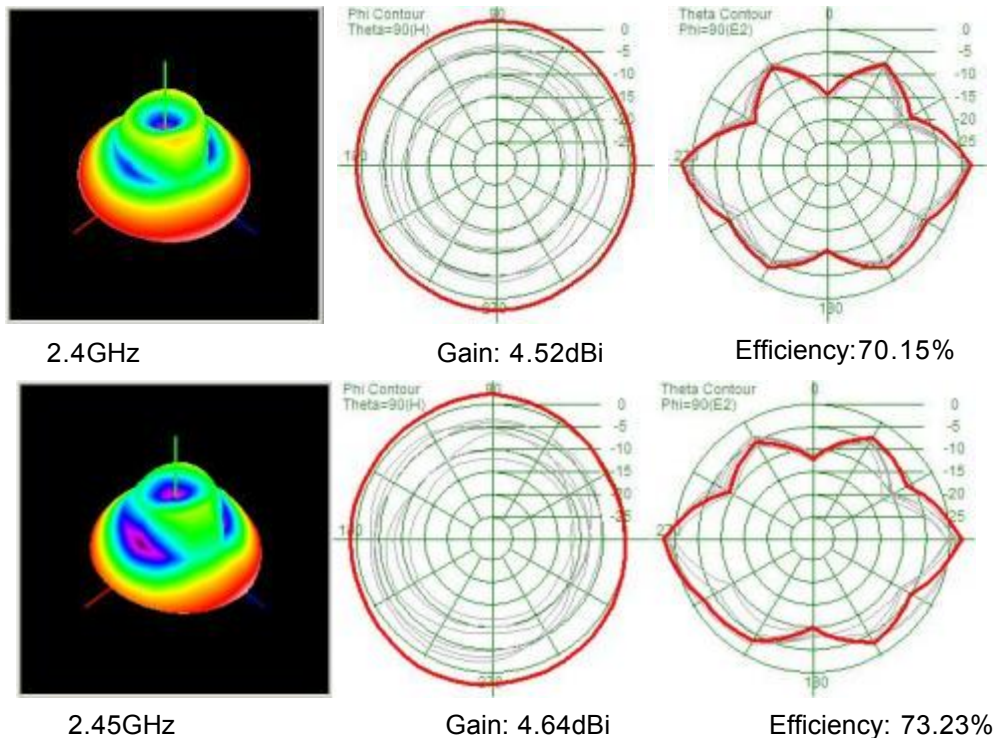
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3. The test report

3.1: Network analyzer test report:



3.2: A dark room 2D, 3D Raditation Pattern

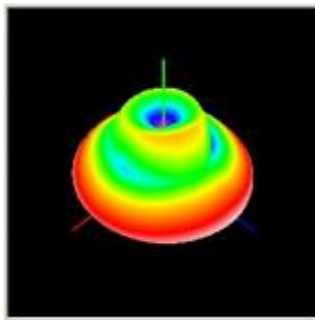


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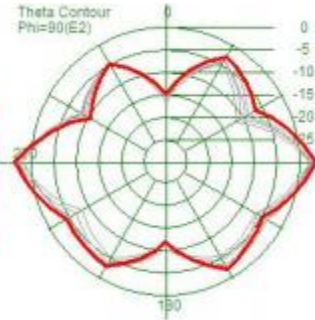
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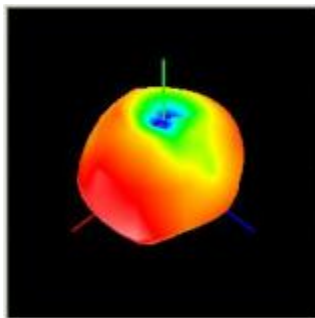
2.5GHz



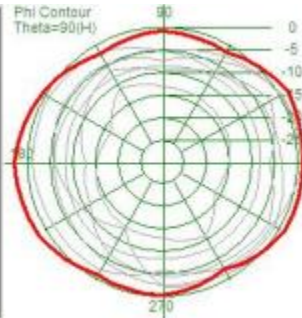
Gain: 4.69dBi



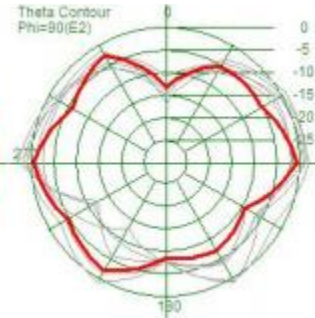
Efficiency: 74.09%



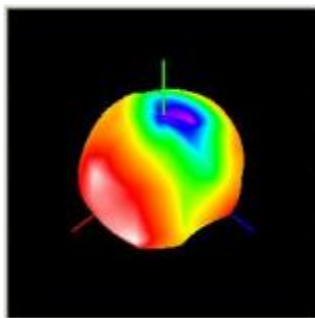
5.15GHz



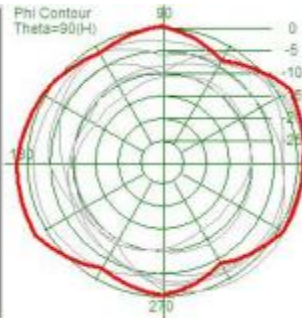
Gain: 4.58dBi



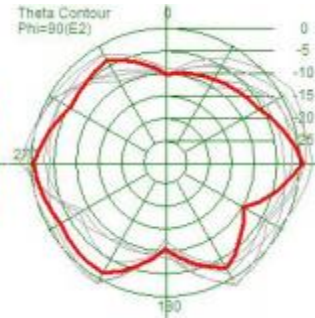
Efficiency: 70.86%



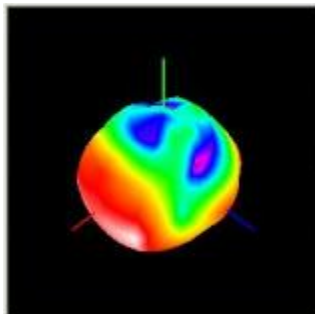
5.35GHz



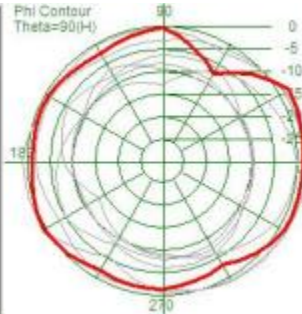
Gain: 4.65dBi



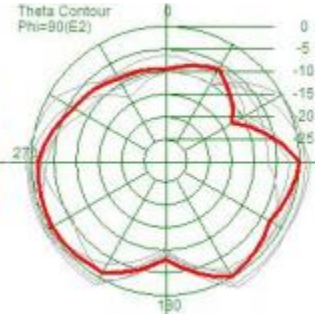
Efficiency: 70.49%



5.75GHz



Gain: 4.73dBi



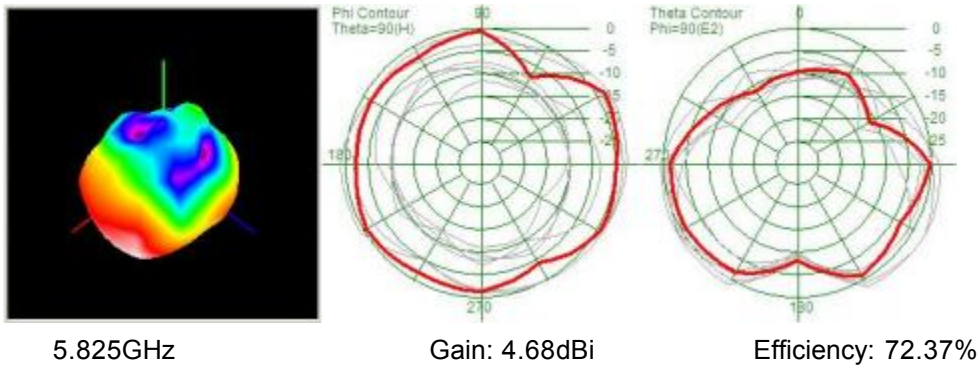
Efficiency: 71.61%

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4. Material requirements

1.Body: ■TPEE; Black
2.Upper base: ■PC; Black
3.Lower base: ■PBT; Black
4.Rivet:■POM; Black
5.Cable: ■Transparent brown RG178
6.Connector: ■ RP-SMA Female pin, black plastic shell

5. Visual inspection

1、 Exterior color: ■Black, Cable:Transparent brown
2、 Appearance Judgment Criteria: No burrs; no damage; no scratches; no color inconsistency; no inner conductor falling off, looseness and other defects.

6. Trial installation inspection

Project	Content	Tool	Test methods and criteria	Result
Assembly inspection	Assembly effect	Caliper	When assembling the antenna with the PCB, chassis, and antenna feeder, the assembly must be smooth and there must be no looseness, difficulty in installation, or failure to install in place.	OK

7. Electrical performance testing

Project	Test methods and conditions	Specifications and requirements	Result
1.Characteristic impedance	Test antenna characteristic impedance with TDR	50Ω±10Ω	OK
2.VSWR	At 2.4GHz-2.5GHz, use a network analyzer to test the standing wave ratio	1.92:1 MAX	OK
3.Return loss	At 2.4GHz-2.5GHz, use a network analyzer to test return loss	-10dB MAX	OK
4. Gain	Test gain and field pattern in 2.4GHz-2.5GHz microwave anechoic chamber	Meet specifications	OK

8. Reliability test

Project	Test methods and conditions	Specifications and requirements	Result
Salt spray test	Salt water concentration 50+/- 10g/l (about 5%); PH6.5-7.2; test temperature 35+/- 1 degree; corrosion time 16H.	Judgment method: Use a 20x magnifying glass to observe after the test; if there is no oxidation defect, it is judged to be qualified.	OK
Vibration test	Vibration frequency 10-2000-10HZ, amplitude 1.52mm 10 times each along the XYZ direction	There is no obvious change in appearance and all electrical parameters meet the specification error.	OK
Drop test	Dropped on a wooden board from 1 meter	There is no obvious change in appearance and all electrical parameters meet the specification error.	OK
Temperature cycle test	High temperature: 65°C ; Low temperature: -20°C Duration: Each temperature lasts 30 minutes Conversion time: 10minutes Cycles: 5 times Recovery Time: 4 to 6hrs	There is no obvious change in appearance and all electrical parameters meet the specification error.	OK
Constant temperature and humidity test	Temperature and humidity : 40°C ± 2°C,90-95%RH Duration: 500hrs Recovery Time: 4 to 6hrs Detection time: 240 & 500hrs	There is no obvious change in appearance and all electrical parameters meet the specification error.	OK
High temperature test	Temperature: 85°C Duration: 240hrs Recovery Time: 4 to 6hrs Detection time: 240 hrs	There is no obvious change in appearance and all electrical parameters meet the specification error.	OK
Low temperature test	Temperature: -40°C Duration: 240hrs Recovery Time: 4 to 6hrs Detection time: 240 hrs	There is no obvious change in appearance and all electrical parameters meet the specification error.	OK