Shenzhen Yunding Communication Electronics Co., LTD

TEL：+86 0755-23073599 FAX：+860755-23097189 E- mail: wht0809@163. com

acknowledgement

APPROVAL SHEET

client :	Foscombe
Product name specification DESCRIPTION:	External antenna SMA-2.4G&5G 2 dBi 1.5 black L109 mm folding
P / N PART NO.:	**YD-C01-0028**
Customer material number CUS PART NO.:	**303305000098**
date D AT E:	**2024.11.6**

Genting is signed in a sample

engineering ENGINEERING DEPARTMENT	QA Q C DEPARTMENT	vocational work SALES DEPARTMENT

The customer acknowledges the signature

engineering ENGINEERING DEPARTMENT	QA Q C DEPARTMENT	purchase PURCHASING DEPARTMENT

Tel.: 075523073599

※ The admission is in triplicate, and Hui company admits the signature

※ Approval induplicate, please signed by yourcompany.

Address: 3015, Jinzhi Center,
Aviation Road, Baoan District,
Shenzhen

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1. Test items and equipment

	test item	equipment
1.S11 parameters (S-parameter)	1. Echo loss (Return Loss) 2. Voltage standing wave ratio (VSWR)	Network analyzer: Agilent E5071B HP8753D
2. Active testing (Active)	1. Emission Power (TRP) 2. Receiving Sensitivity (TIS)	1. Dark room: ETS7x4x3m (3D) ChamberETS 5x3x3 m (3D) Chamb er 2. Comprehensive tester: Agilent 8960E5515B 2 StarPoint SP6011 Cmw500
3. Passive test (Passive)	1. Antenna gain (Gain) 2. Antenna efficiency (Efficiency)	1. Dark room: ETS7x4x3m (3D) ChamberETS 5x3x3 m (3D) Chamb er 2. Network analyzer: Agilent E5071B HP8753D

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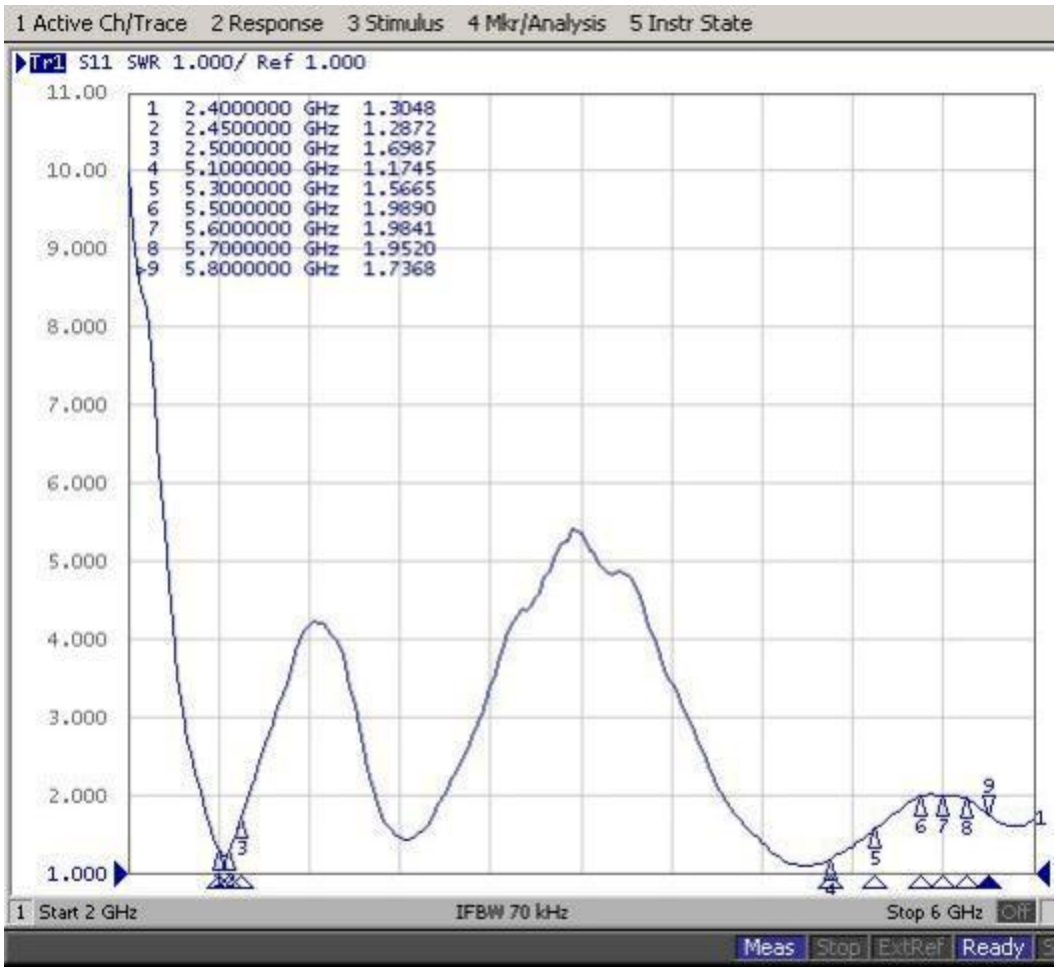
2. Antenna performance: SWR



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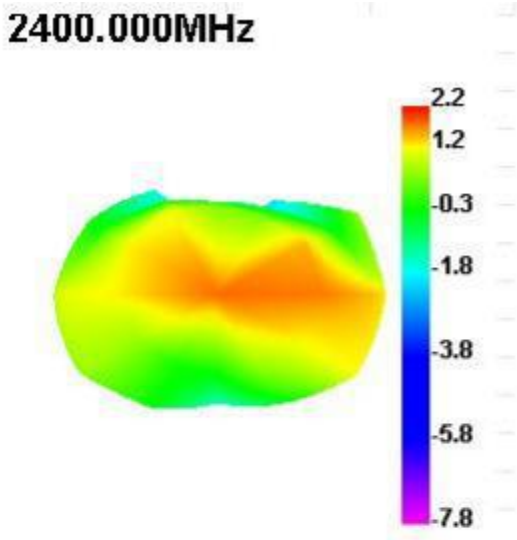
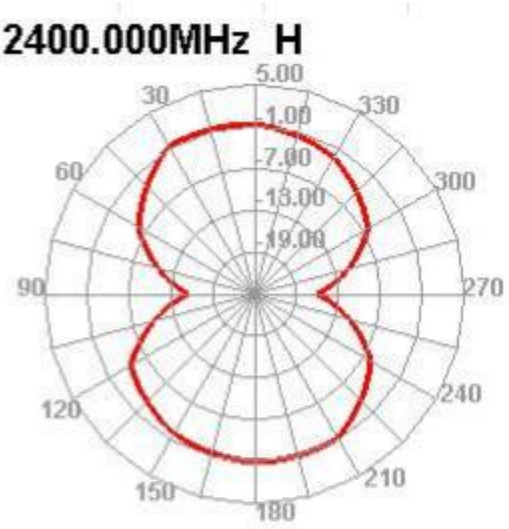
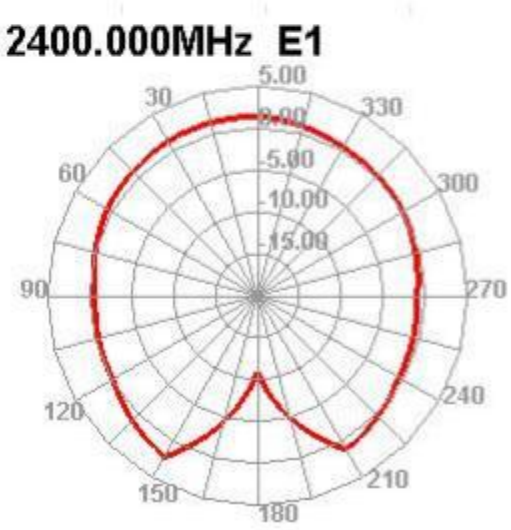
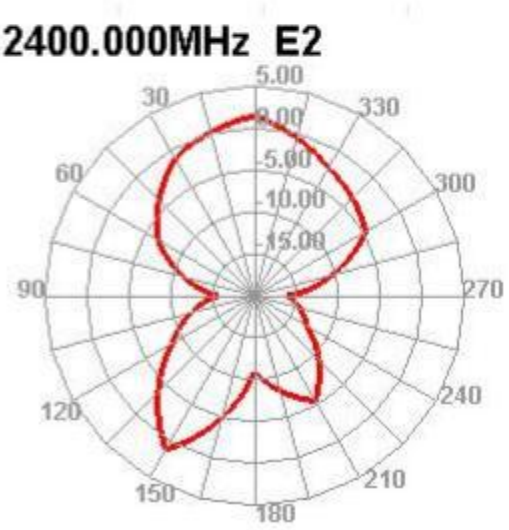
3. Antenna efficiency and gain

Passive Test For WIFI2.4		
Freq (MHz)	Effi (%)	Gain (dBi)
2400	71.37	2.23
2410	69.52	2.33
2420	66.39	2.04
2430	65.35	1.83
2440	68.57	1.85
2450	72	1.9
2460	73.97	1.95
2470	74.82	2.07
2480	75.82	2.17
2490	77.08	2.31
2500	75.18	2.36









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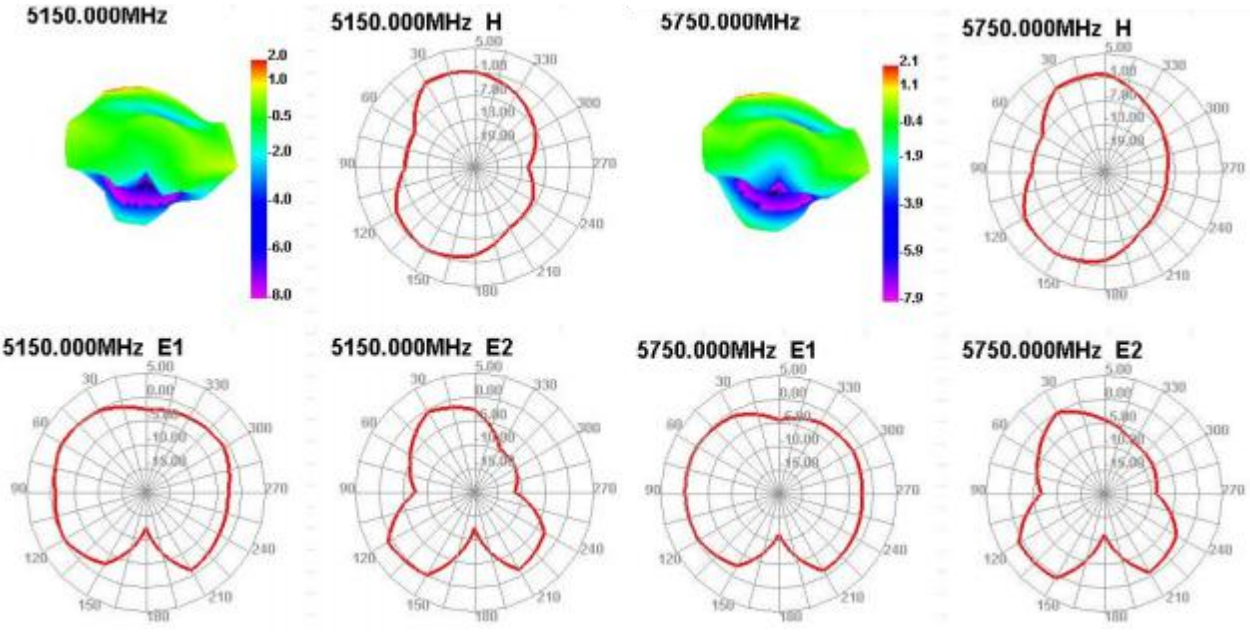
Passive Test For WIFI5.8		
Freq (MHz)	Effi (%)	Gain (dBi)
5150	54.68	2.03
5250	52.41	1.44
5350	56.02	2.16
5450	56.88	1.23
5550	56.56	1.79
5650	57.46	2.01
5750	57.58	2.07
5850	58.39	1.95



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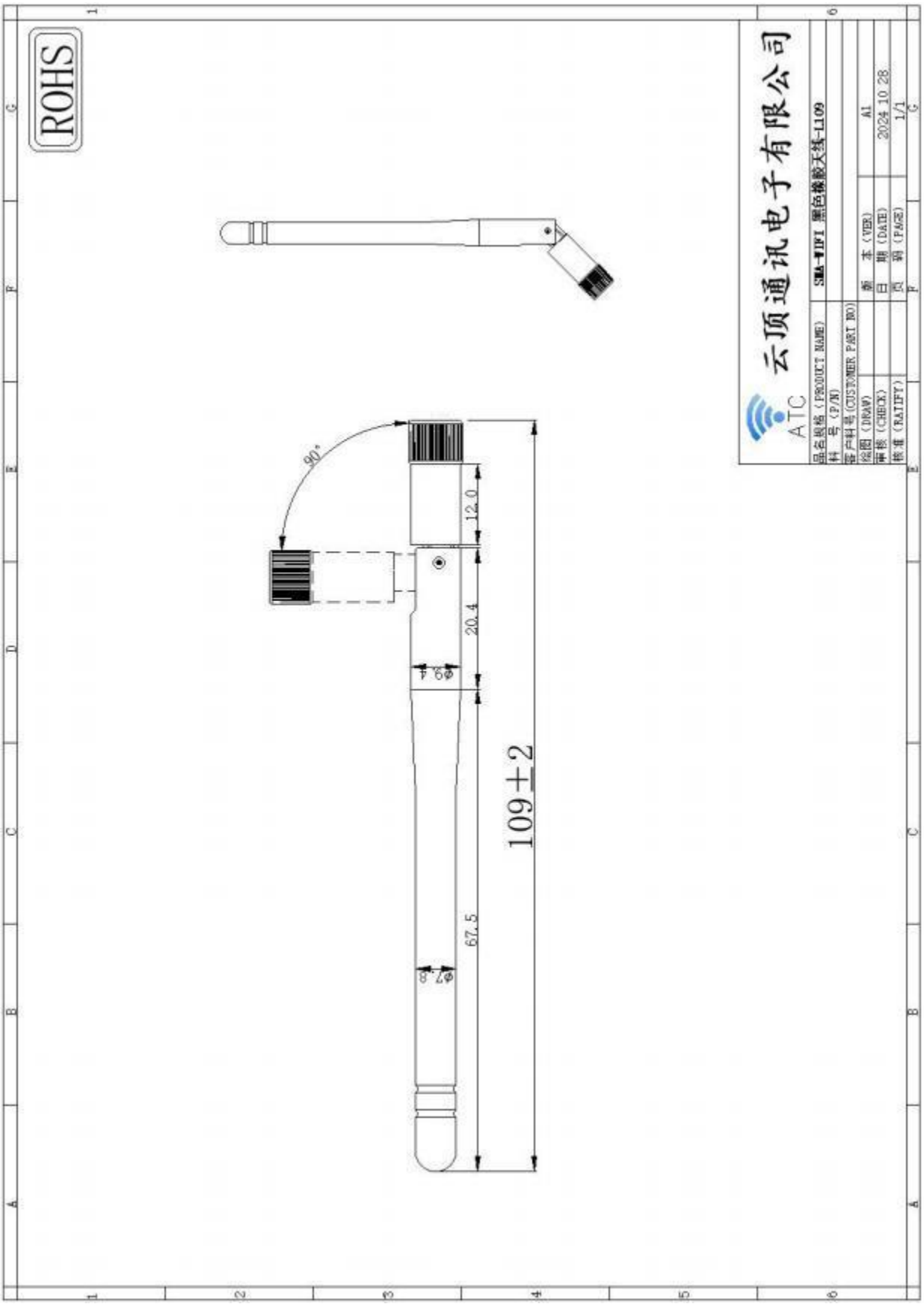
4. Antenna structure diagram:



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Electrical technical parameters

Electrical performance index		Electrical Specifications	
frequency range	2400~2500/5150~5850 MHz	Frequency Range	2400~2500/5150~5850 MHz
voltage standing-wave ratio	≤2.0	VSWR	≤2.0
input impedence	50Ω	Input Impedance	50Ω
gain	2 DBI	Gain	2 DBI
Mechanical indicators		**Mechanical Specifications**	
Antenna color	black	Antenna color	Black
Interface form	SMA	Input connector	SMA
Antenna length	109mm	Antenna length	109mm
working temperature	-40℃~+85℃	Working Temperature	-40℃~+85℃
Working humidity	20~80%	Working Humidity	20~80%

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Environmental Performance Test (Environment performance test):

project	test condition	test result
Storage environment	Test temperature, humidity, air pressure without specified: 1. The temperature is-30℃ ~ + 80℃ 2. Relative humidity is 45% -85% 3. Air pressure is 86 kpa-106 kpa	Electrical and mechanical properties are normal
thermocycling	Five cycles were performed between 70℃ and -40℃ and then under normal conditions 1-2H, check the appearance quality.	Dimensions shall meet the requirements and shall be satisfied In the mechanical and electrical performance
Resistance to constant damp and heat test	Relative humidity: 95 ± 3%, test temperature: 40℃. After a sustained 2H action, The electrical performance is measured within 5 min after the removal, and the test article is in the normal strip Part under 1-2H, to check the appearance quality	Dimensions shall meet the requirements and shall be satisfied In the mechanical and electrical performance
vibration test	Vibration frequency range: 10-55 HZ, displacement amplitude: 0.35 MM, acceleration amplitude: 50.0M/S, Scan cycle times: 30 times	Electrical and mechanical properties are normal
fall-down test	1M falls 3 times in the axis direction vertical to each other	Electrical and mechanical properties are normal

Project	Test condition	Test results
Storage environment	Testtemperature,humidity, pressure without stated condition as follwings:1. Temperature:-30 ℃ ~+80℃ ;2. Relative humidity:45%-85%;3, Pressure:86 kpa-106 kpa	Electrical and mechanical performance normal
High and low temperature test	Having 5 times cycle between -40℃ to 70℃, Then in common condition1-2 hours test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.

Resistance constant hot and humid test	Relative humidity:95±3%, Test temperature: 40℃, last 2 hours, put it after5 min test the electrical function. Test products during common condition1-2 hours, Then test exterior quality.	Measurement satisfied with electrical and mechanical performance normal.
Vibration test	Vibrate Frequency:10-55 HZ; Distance:0.35 mm; Acceleration:50.0m/s; Sweep frequency cycle:30 times	Electrical and mechanical performance normal
Fall test	From 1 m height fall down3 times freely (vertical direction)	Electrical and mechanical performance normal

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