

SPECIFICATION FOR APPROVAL

supplier: Brand

Description: 5.8GWIFI ANTENNA

Specification 5.8 GHz WiFi SMD Antenna (Four-pin solder mount)

Date: 2023.04.03

Remark:

Please return one specification or onecopy of it you're your chop and signature of approval and retain the others for your record. In the event of an order being placed for this part number before the chop and signed with specification (or copy) is returned and without special explanation, itwill be assumed that full approval have beengiven.

CHECKED/DATE	AUDITOR/DATE	APPROVED/DATE
Zhang Bingxiang 2023.04.04	Wu Qianjin 2023.04.04	Luo Daxun 2023.04.04

Address: 2nd Floor, No. 7, Dawang Industrial Zone, Dakang Community, Yuanshan Street, Longgang District, Shenzhen City, Guangdong Province

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一. Picture



二. Electrical parameters:

Frequency	5.15~5.85GHz
Impedance	50Ω
S.W.R.	≤2.0
Antenna Gain	2dBi±0.5@5.8GHz
Polarization	Vertical Polarization
Return Loss	-9.5dB MAX

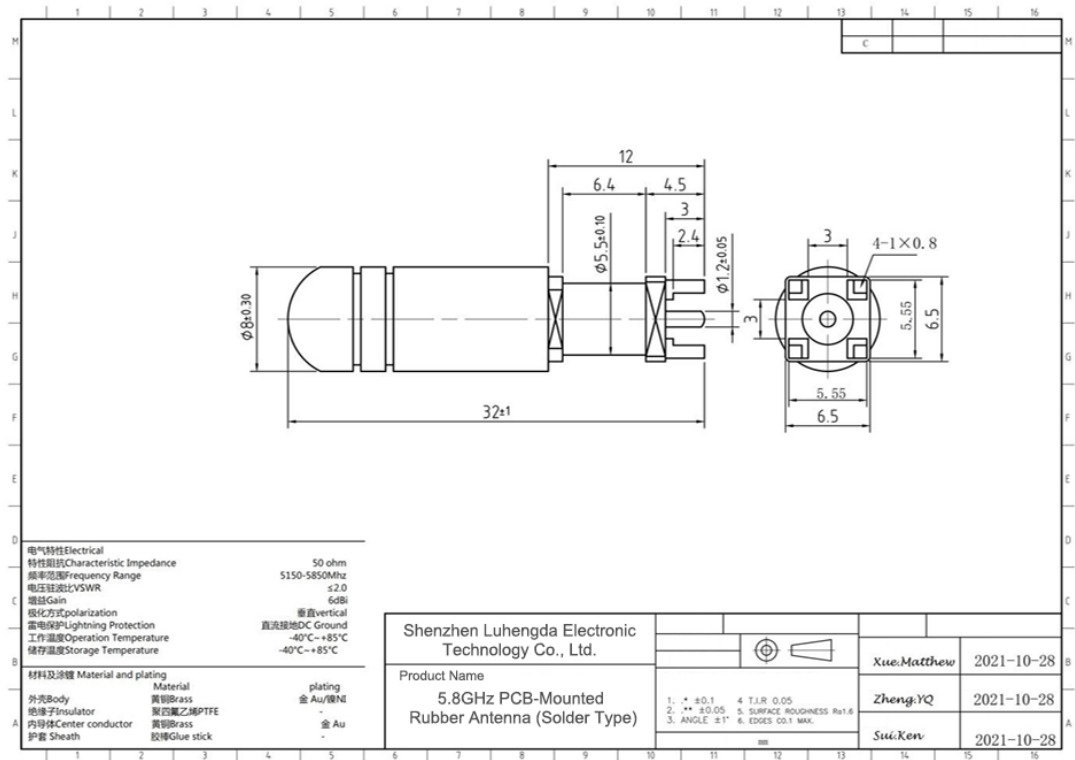
三. Mechanical parameters:

Antenna Colour	black
RF Cable Model	All-Copper Spring
Connect Type	Four-Terminal Solder Mount

四. Operating/ Storage Temperature:

Operating Temperature	-40~85℃
Storage Temperature	-40~85℃

五. Assembly Drawing:



六. Environmental reliability testing:

1、Environmental Testing

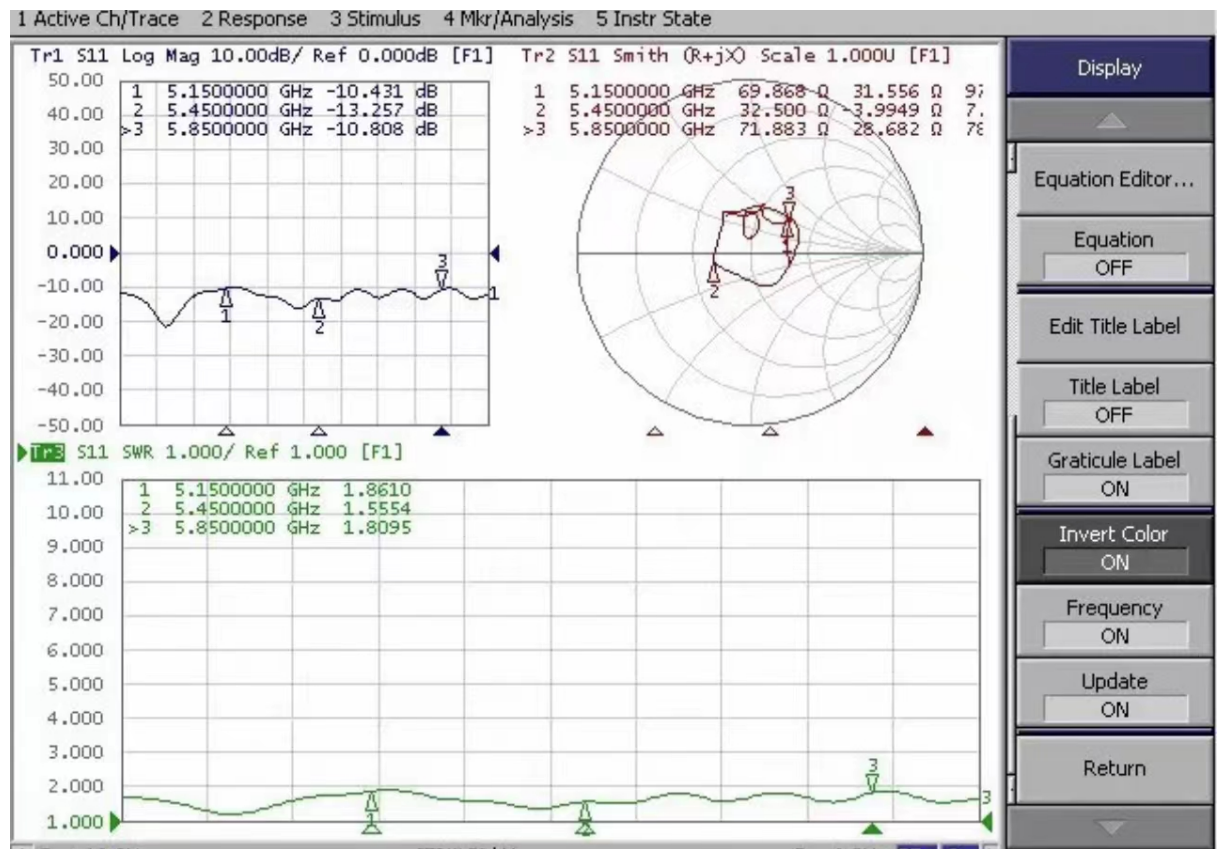
High and Low Temperature Constant Humidity Test Report						
Test Items	High and Low Temperature Constant Humidity Test					
Test Sample Name	5.8G Wi-Fi Antenna		Test date		2022-04-14	
Test / Measurement Equipment	Constant Temperature and Humidity Chamber, Network Analyzer		Test Quantity		5PCS	
Inspection Standard	1. The nickel-plated surface shall have no peeling, cracks, wrinkles, or other defects. The metal part shall not show discoloration, fracture, deformation, or delamination. 2. Electrical performance shall meet design requirements; the VSWR (Voltage Standing Wave Ratio) test must be passed.					
Test Name	Test Items	Requirements	Test Method	Measured Data	Actual Data	
					Sample No.	Result
High Temperature Test	Temperature (°C)	+85±3	According to GB2423.1-89, Chapter 9	+85	1	pass
	Stabilization Time (h)	12		1.2	2	pass
		1		2.3	3	pass
	Test Duration (h)	1		1	4	pass
	Recovery Time(h)				5	pass
Low Temperature Test	Temperature (°C)	-40±3	According to GB2423.1-89, Chapter 8	-40	1	pass
	Stabilization Time (h)	1		1.2	2	pass
		2		2.4	3	pass
	Test Duration (h)	1		1.1	4	pass
	Recovery Time(h)				5	pass
Constant Humidity Test	Temperature (°C)	+40±2	According to GB2423.3-93, Chapter 5	+42	1	pass
	Relative Humidity (%)	90-95		92	2	pass
		21		22	3	pass
	Test Duration (h)	1		1.1	4	pass
	Recovery Time(h)				5	pass

2、Salt Spray Test Report

Test Item	Salt Spray Test			
Test Sample Name	5.8G Wi-Fi Antenna		Test Date	2022-04-14
Equipment Name	Salt Spray Corrosion Test Chamber		Test Quantity	5PCS
Test Method	The test samples were placed inside a salt spray corrosion chamber containing a prepared salt solution. Continuous salt spray exposure was conducted throughout the test period			
Salt Solution Concentration:	52g/L	pH Value: 6.5-7.2		Test Duration: 24h
Actual Test Data	55g/L	Measured Salt Concentration: 6.8		Actual Test Duration: 26h
Test Standard	The test was conducted in accordance with GB/T 10125 – “Corrosion Tests in Artificial Atmospheres – Salt Spray Tests.” Evaluation of results was performed according to GB/T 6461-2002 – “Rating of Specimens and Test Pieces after Corrosion Tests for Metallic and Other Inorganic Coatings on Metallic Substrates.”			
Test Results				
Sample No.	Corrosion Resistance Rating	Actual Measured Data	Evaluation Result	Remarks
1	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	pass	
2	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	pass	
3	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	pass	
4	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	pass	
5	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	pass	

七. Test Parameters

1, V.S.W.R&Return Loss



2, Gain&Efficiency

Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Frequency (MHz)	5150.0	5200.0	5250.0	5300.0	5350.0	5400.0	5450.0	5500.0	5550.0	5600.0	5650.0	5700.0	5750.0	5800.0	5850.0
Efficiency (dBi)	-1.48	-1.38	-1.54	-1.65	-1.66	-1.52	-1.90	-1.89	-1.90	-1.61	-1.57	-1.75	-1.56	-1.53	-1.35
Gain (dBi)	1.70	1.96	1.87	1.99	1.83	1.79	1.58	1.74	1.73	1.98	1.92	2.01	2.15	2.30	2.64
Efficiency (%)	61.05	62.85	60.13	58.40	63.17	60.50	64.59	64.72	64.59	59.08	59.59	56.89	59.87	60.23	63.32

