SPECIFICATION FOR APPROVAL

(CUSTOMER)	Guangdong nine United Technology Co., LTD
(MODEL NO)	
(PART NO)	
(MODEL NO)	5G green PCB built-in antenna 1.13 gray L=150MM
(PART NO)	YJC-6N150-G13
(MPQ)	100PCS
(BRAND)	YJC
(DATE)	2023-04-24
(QUANTITY)	15PCS

APPROVED SIGNATURES			APPROVED SIGNATURES		
PREPARED BY	CHECKED BY	APPROVED BY	TESTED BY	CHECKED BY	APPROVED BY

Note: The sample shall be delivered in one copy, which shall be signed by the supplier manually and stamped with the company's official seal. The specification shall provide one paper file and one electronic file.

Add: Building C, Guangming Valley, Hongyu, No. 11, Shiwei Community, Ma Tian Ban, Guangming District, Shenzhen

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APPROVAL SHEET

CUSTOMER NAME	
CUSTOMER P/N	
PART NAME	5G green PCB built-in antenna 1.13 gray L=150mm
P/ N	YJC-6N150-G13
APPROVAL REV.	A1
DELIVERY DATE	April 24, 2023
PREPARED BY	Yin Feijie
CHECKED BY	Fang Wenfeng
APPROVED BY	Fang Wenfeng

Customer Approved		
Prepared By	Checked By	Approved By

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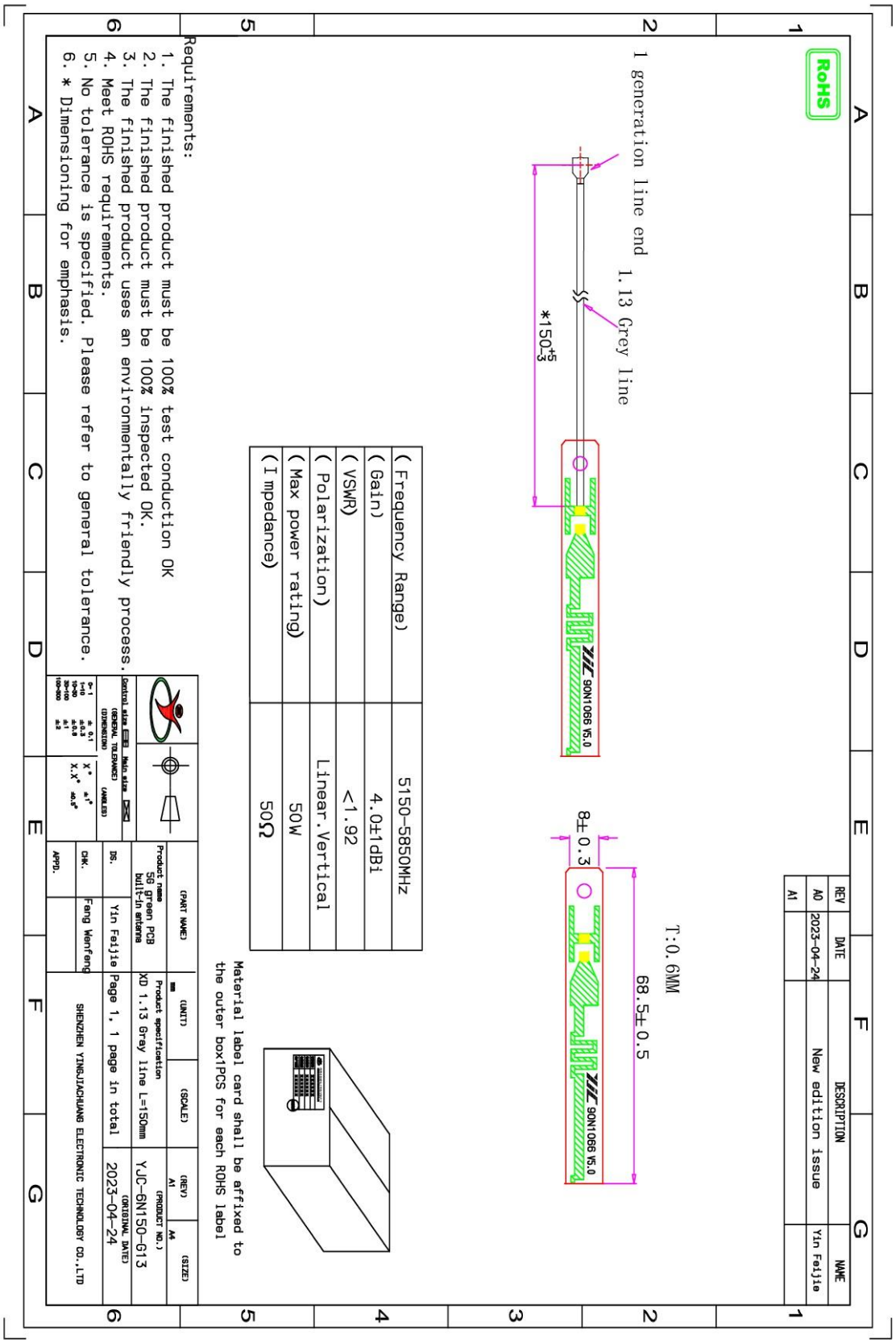
Catalogue

Resumer：

Version	Changes and reasons	date	publish
A/0	Issued	April 24, 2023	
A/1	Change the PCB board to optimize the commissioning	April 24, 2023	

Product plan：



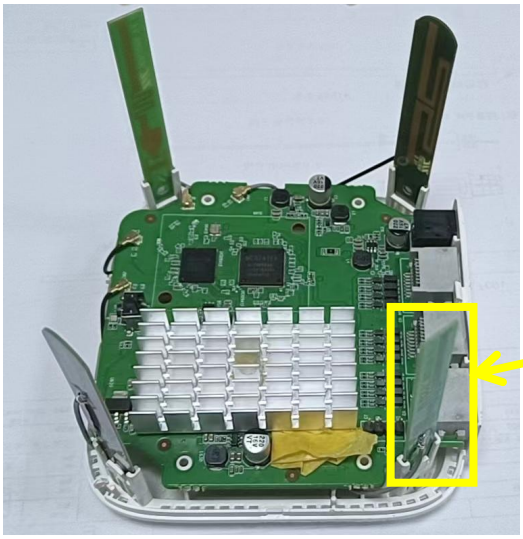
Antenna technical parameters and environmental testing:

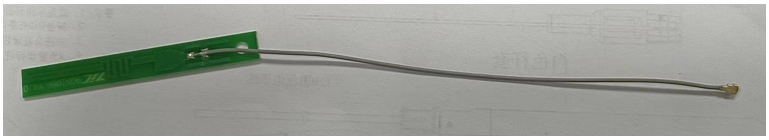
Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	5150-5850MHz	Cable Color	Gray
VSWR	＜1.92	Input connector	XD
Input Impedance	50 Ω	Cable length	150mm
Direction	All	Working Temperature	-20℃~+70℃
Gain	5.0±1dBi	Working Humidity	20%~80%

Environmental performance test:

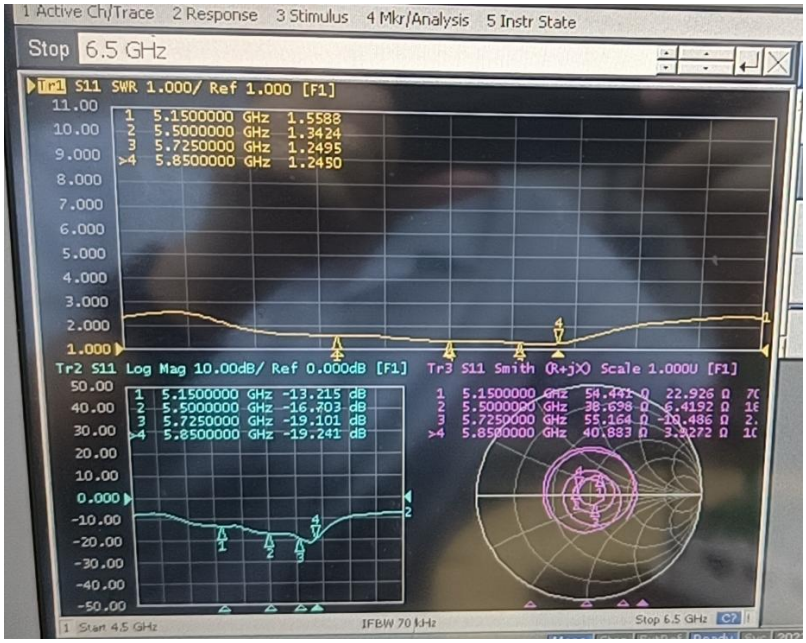
Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is - 30 ℃ ~ + 80 ℃ 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performace is normal
High and low temperature test	Between 70 ℃ and -20 ℃ for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and meet the performance of mechinery and electric.
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 ℃. Lasts 2 h after, try to take out the determination of electrical properties, within 5 min after try 1-2 h under article normal thing, check the appearance quality	Size should meet the requirements and meet the performance of mechinery and electric.
vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times	Electrical and mechanical performace is normal
Fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical performace is normal

Antenna physical diagram and attached location diagram：





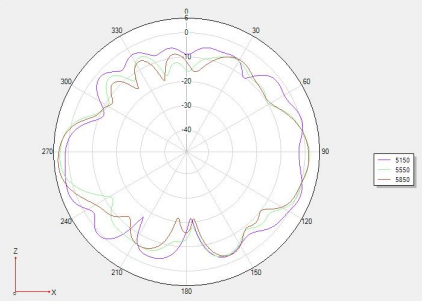
Antenna performance test diagram:



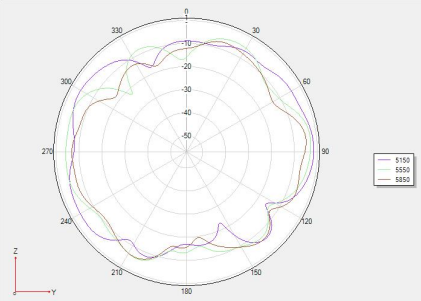
2D and 3D test data (5G)：

Frequency	Efficiency (%)	Gain.(dBi)
5150MHz	49.79	4.45
5250MHz	47.41	4.21
5350MHz	48.31	4.44
5450MHz	48.84	4.61
5550MHz	48.05	4.83
5650MHz	47.48	4.5
5750MHz	53.57	5.24
5850MHz	51.77	5.13

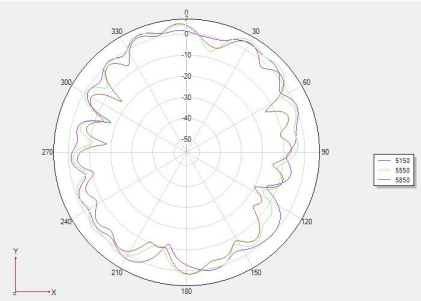
Phi 0 2D:



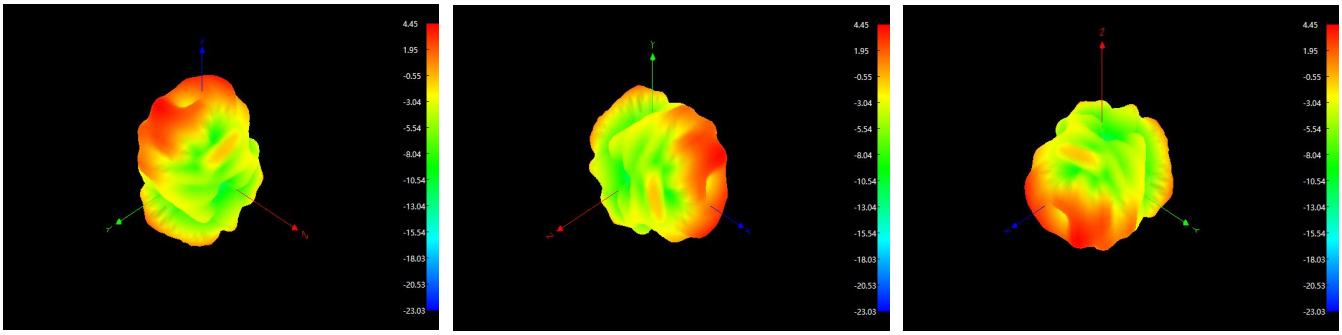
Phi 90 2D



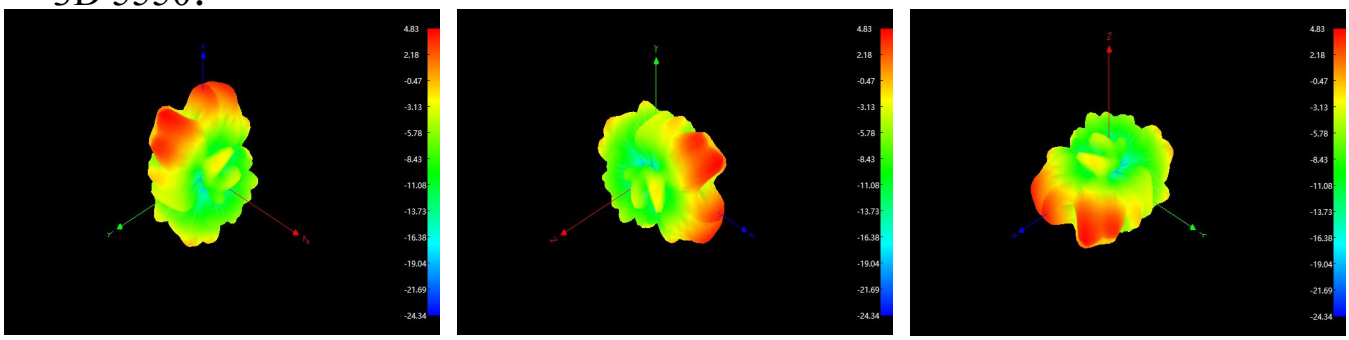
Theta 90 2D



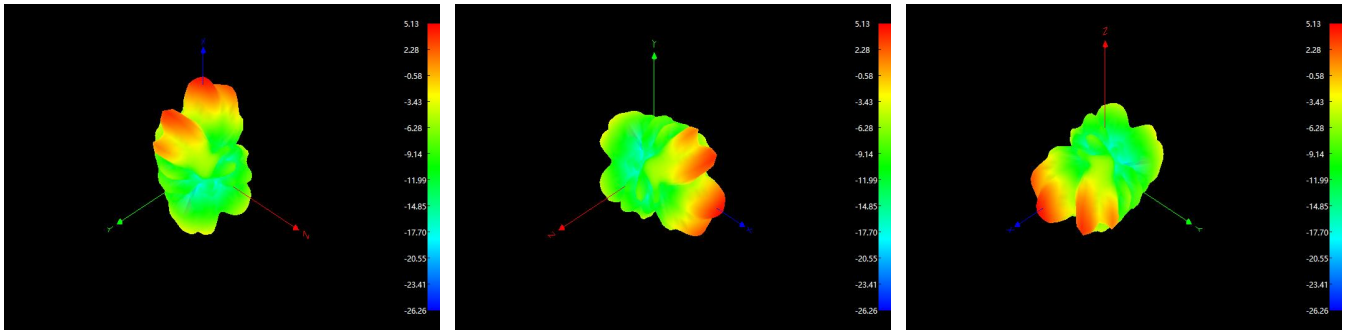
3D 5150：



3D 5550：



3D 5850：



OTA active test data statistics：

Item	Measurement	Band	Channel	Frequency	Total
1	TRP	WIFI_A (54M)	36	5180	17.45
2	TRP	WIFI_A (54M)	48	5240	17.03
3	TRP	WIFI_A (54M)	165	5825	17.4
4	TIS(EIRP)	WIFI_A (54M)	36	5180	-70.11
5	TIS(EIRP)	WIFI_A (54M)	48	5240	-70.96
6	TIS(EIRP)	WIFI_A (54M)	165	5825	-70.91
7	TRP	WIFI_AX_UNII (135M)	36	5180	16.19
8	TRP	WIFI_AX_UNII (135M)	48	5240	16.32
9	TRP	WIFI_AX_UNII (135M)	165	5825	17.12
10	TIS(EIRP)	WIFI_AX_UNII (135M)	36	5180	-55.37
11	TIS(EIRP)	WIFI_AX_UNII (135M)	48	5240	-56.85
12	TIS(EIRP)	WIFI_AX_UNII (135M)	165	5825	-54.68

Material RoHS conformity declaration form

This is to certify that the delivery to your company's components, raw materials, auxiliary materials used and the additives in the production engineering are accord with RoHS environmental requirements of the restrictions on the use of hazardous substances directive (RoHS directive 2011/65 / EU)

About components used raw materials, packaging materials, auxiliary materials and additives used in the production process such as composition of the report is as follows:

Component /Part Name	Material Composition	ICP report #	Test Org.	Test Date	Content of harmful substances (ppm)						PASS?
					Cd	Pb	Hg	Cr $^{6+}$	PBB	PBDE	PASS
PCB	PCB	CANEC2221844502	SGS	22/10/20	ND	12	ND	ND	ND	ND	PASS
Wire rod	Teflon coaxial cable	SZXEC2202766604	SGS	22/08/18	ND	ND	ND	ND	ND	ND	PASS
Eco-friendly tin wire	Eco-friendly tin wire	SHAEC2206174502	SGS	22/06/13	ND	181	ND	ND	ND	ND	PASS
terminal	copper	CANEC2301145810	SGS	23/02/08	ND	5	ND	ND	ND	ND	PASS
	Gold coating	A2220404860101001C	CTI	22/09/17	ND	ND	ND	ND	ND	ND	PASS
	Rubber core	A2230035037101002E	SGS	23/02/06	ND	ND	ND	ND	ND	ND	PASS