

深圳市华源显控技术股份有限公司

Acknowledgement Letter

SPECIFICATION FOR APPROVAL

客户名称

CUSTOMER NAME:

产品名称

PRODUCT NAME: 2.4/5.8G PCB antenna L=300mm+ terminal

Product model:

MODEL

P/N:
B

REV:

	MANUFACTURER SIGNATURE	CUSTOMER SIGNATURE
CHECKED BY:		
APPROVED BY:		
DATE:	2023/5/26	

Manufacturer: Guangzhou Fukonn Vanguard intelligent Technology Co., Ltd.
Address: Room 301, Building 5, No.728 Shibe Industrial Road, DashiSub-district, Panyu District, Guangzhou China

Contents

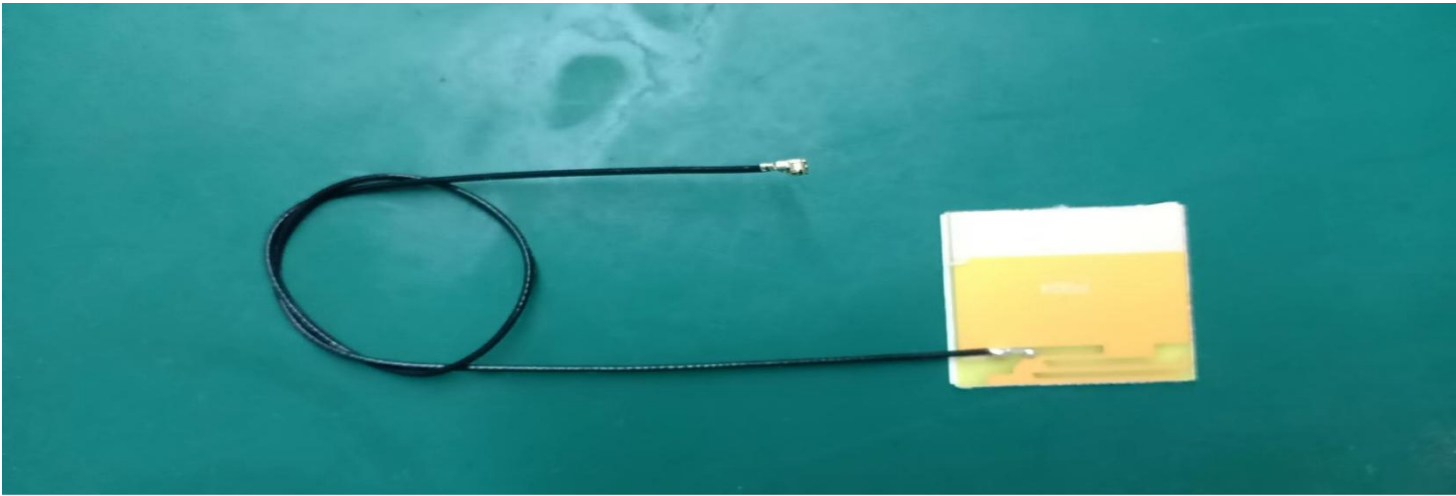
<i>Item</i>	<i>Description</i>
1.-----	SpecificationTable
2.-----	Finished product image
3.-----	Testreport
4.-----	ReliabilityTestReport

1. Specification
Table:

Main technical parameters of the product

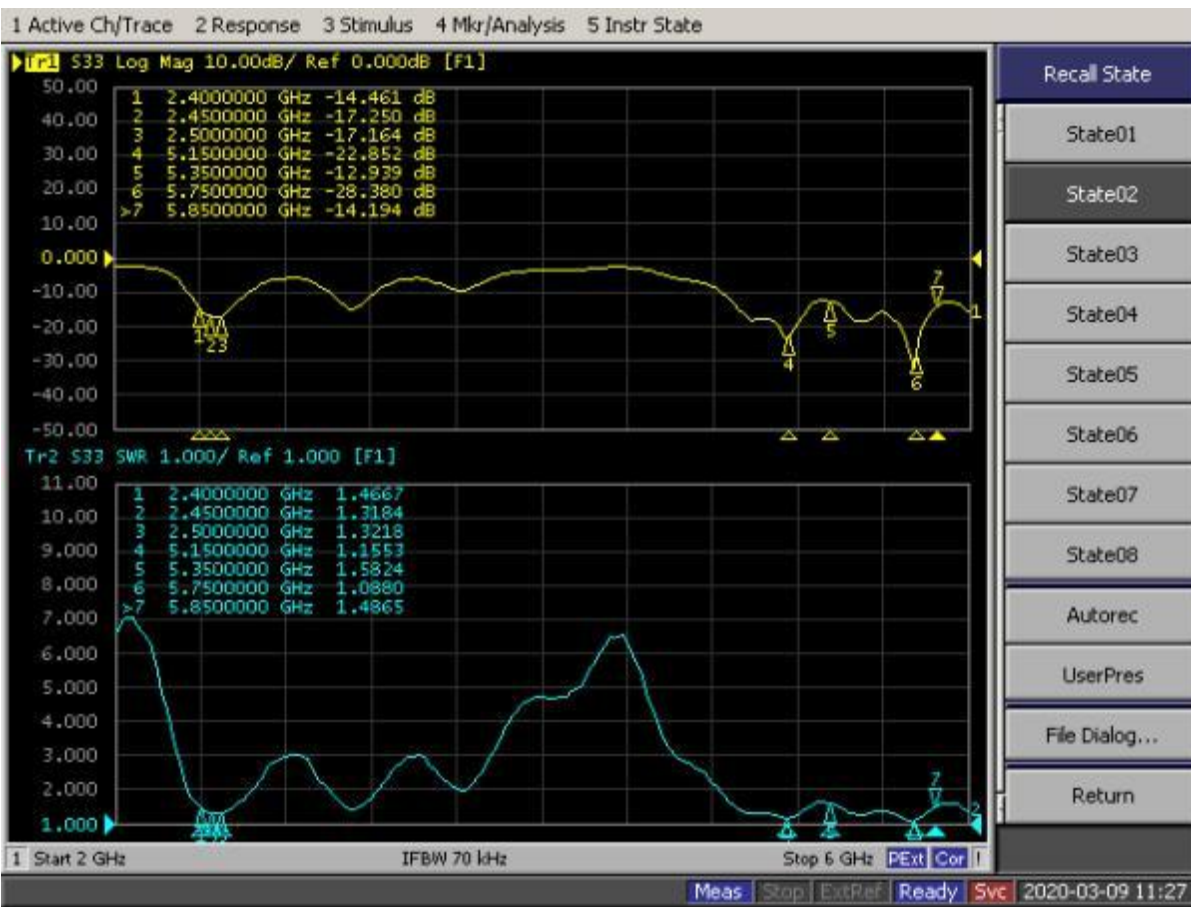
Main technical indicators		Main technical specifications	
frequency range (MHZ)	2400-2500 5150-5825	Frequency Range (MHZ)	2400-2500 5150-5825
Characteristic impedance (Ω)	fifty	Impedance(Ω)	fifty
Gain (dBi)	> 1	Gain(dBi)	> 1
Antenna efficiency/%	>50%	Antenna Efficiency/%	>50%
Output voltage standing wave ratio	≤ 1.92	VSWR	≤ 1.92
Radiation direction	omnidirectional	Radiation Pattern	Omnidirectional
maximum power	1W	Admitted Power	1W
Polarization mode	Linear polarization	Polarization	Line,Vertical
Connection method	Coaxial line+1.13 terminal	Connector Type	RF Cable+1.13 Terminal
Dielectric Strength	/	Dielectric Strength	/
Contact impedance	/	Contact impedance	/
physical property		Physical Properties	
Antenna body material	PCB	Antenna Base	PCB
working temperature	-20 $^{\circ}$ C~+60 $^{\circ}$ C	Operating Temp	-20 $^{\circ}$ C~+60 $^{\circ}$ C
Storage temperature	-20 $^{\circ}$ C~+60 $^{\circ}$ C	Storage Temp	-20 $^{\circ}$ C~+60 $^{\circ}$ C

2. Finished product image:



3. Testreport

3.1NetworkAnalyzerTestReport



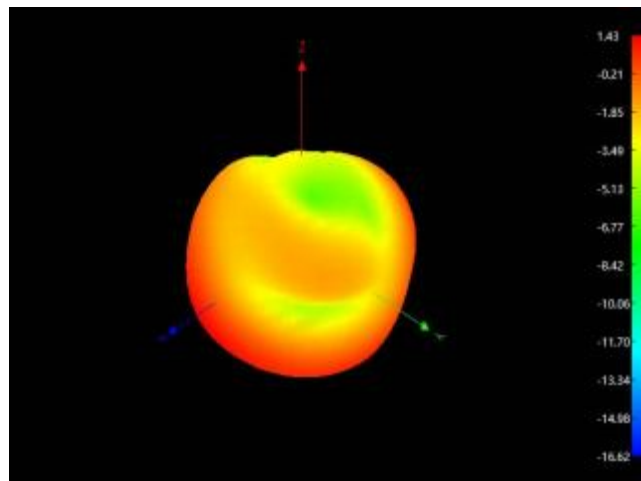
3.2:Darkroom2D,3DRadiationPattern(wholemachinedata))

3.2.1Efficiencyandgain

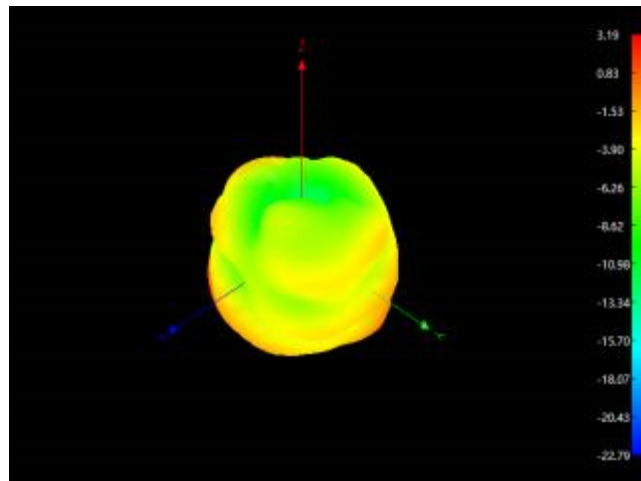
Frequency / MHz	Efficiency / dB	Efficiency / %	Gain/ dBi
2400	-3.59	43.76	2.57
2450	-3.86	37.87	2.37
2500	-3.61	43.55	2.83
5150	-2.45	56.88	2.56
5350	-2.61	46.05	2.37
5550	-2.50	54.29	3.19
5700	-2.45	52.58	2.64
5825	-2.30	50.83	2.85

3.2.22D/3Dfieldpatternndiagram

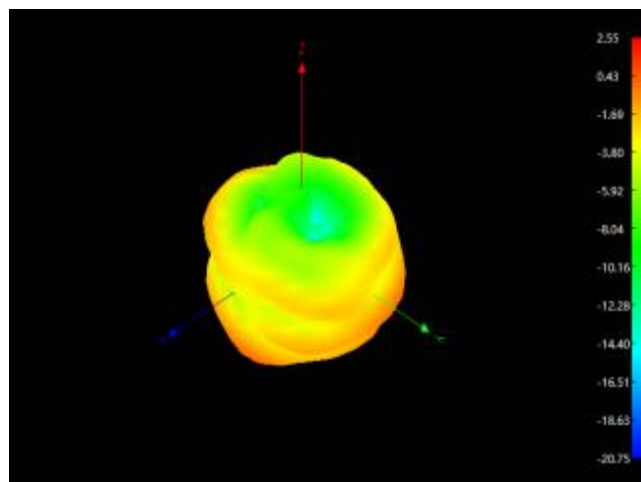
ANT 3D Radiation with MaxGain



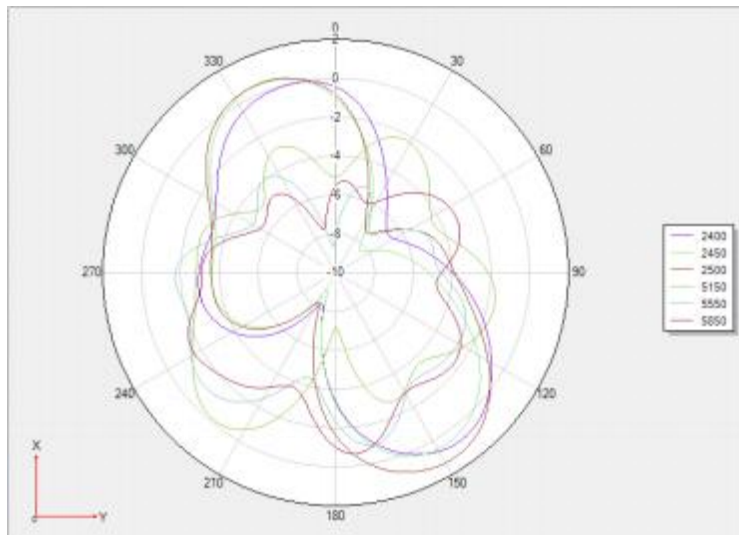
2450MHz



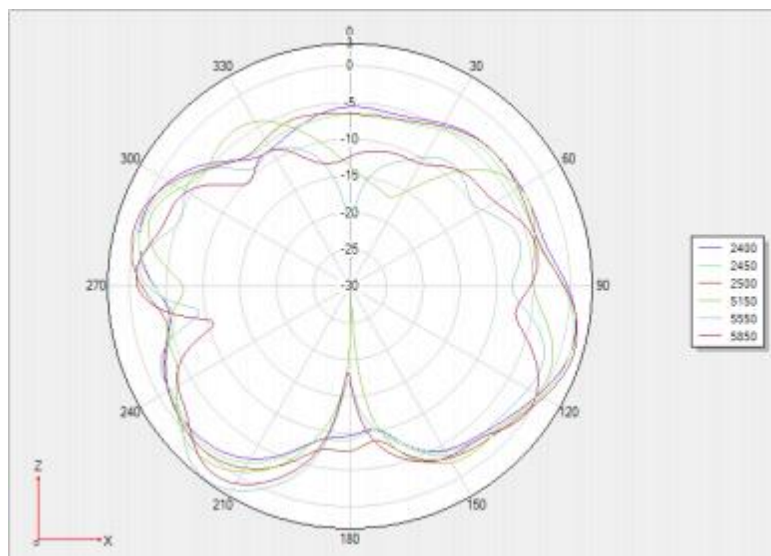
5550MHz



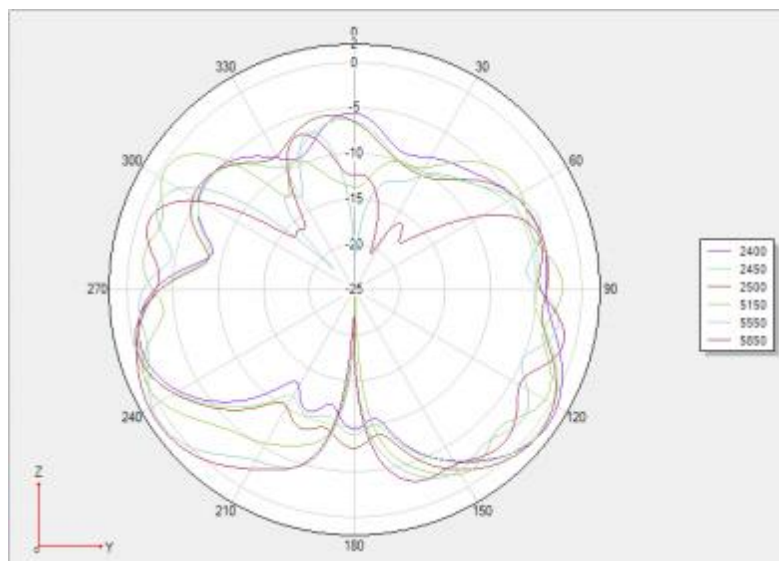
5850MHz



Theta 90 2D 图



Phi 0 2D 图



Phi 90 2D 图

4. Reliability Test Report

Test content

Test project	Test conditions	Judgment criteria	Number of experiments	determine
1. High temperature test	Placed in an environment of $60C^{\circ} \pm 2C^{\circ}$ for 4H	After being placed at room temperature for 2 hours, all dimensions meet normal requirements, and there are no abnormal phenomena such as deformation, warping, or delamination in appearance, indicating normal performance	5pcs	qualified
2. Low temperature test	-Placed in an environment of $20C^{\circ} \pm 2C^{\circ}$ for 4H	After being placed at room temperature for 2 hours, all dimensions meet normal requirements and there are no abnormalities such as deformation, warping, or delamination in appearance Phenomenon, normal performance	5pcs	qualified
3. Temperature cycling test	Place in an environment of $60C^{\circ} \pm 2C^{\circ} C$ for 30 minutes, then remove and place at room temperature 5 minutes, in an environment of $-20^{\circ} C \pm 2C^{\circ} C$ Leave it for 30 minutes, then remove it and let it sit at room temperature Leave it for 5 minutes;	After 5 cycles, all dimensions meet the normal requirements and there are no abnormal phenomena such as deformation, warping, or delamination in appearance, indicating normal performance	5pcs	qualified
4. Heat resistant	Place in an environment with a temperature of $40C^{\circ} \pm 2C^{\circ} C$ and a humidity of $93 \pm 2\%$ RH for XXH	After being placed at room temperature for 4 hours, all dimensions meet normal requirements and there are no abnormalities such as deformation, warping, or delamination in appearance Phenomenon, normal performance	5pcs	qualified
5. Salt spray test	Salt solubility at 10-55 degrees: 500 ml/hr Salt solution concentration: $5\pm 1\%$ Test time: 48 hours	No oxidation or rust on the surface	5pcs	qualified
6. Air tightness test	Air pressure 0.05M PA, inflation for 12 seconds	Soak the entire product in water, inflate for 12 seconds, and no water bubbles will emerge	5PCS	qualified
Final conclusion	<input checked="" type="checkbox"/> qualified <input type="checkbox"/> Unqualified			