Antenna Specification

Supplier name	Shenzhen Hoogwell Communication Technology Co., Ltd.
Supplier address	Room 230 Zhihui Creative,No 2005,Shajing Xihuan Road,Baoan District ,Shenzhen,Guangdong
Product model	1502B13SMA2000
Product Name	2.4G/5G 双模天线，LONG 250mm，
Application	
Sample delivery time	2020-08-20
Customer material code	1502B13SMA2000
Supplier Project Contact	Sam zhang
Phone Number	18665808162

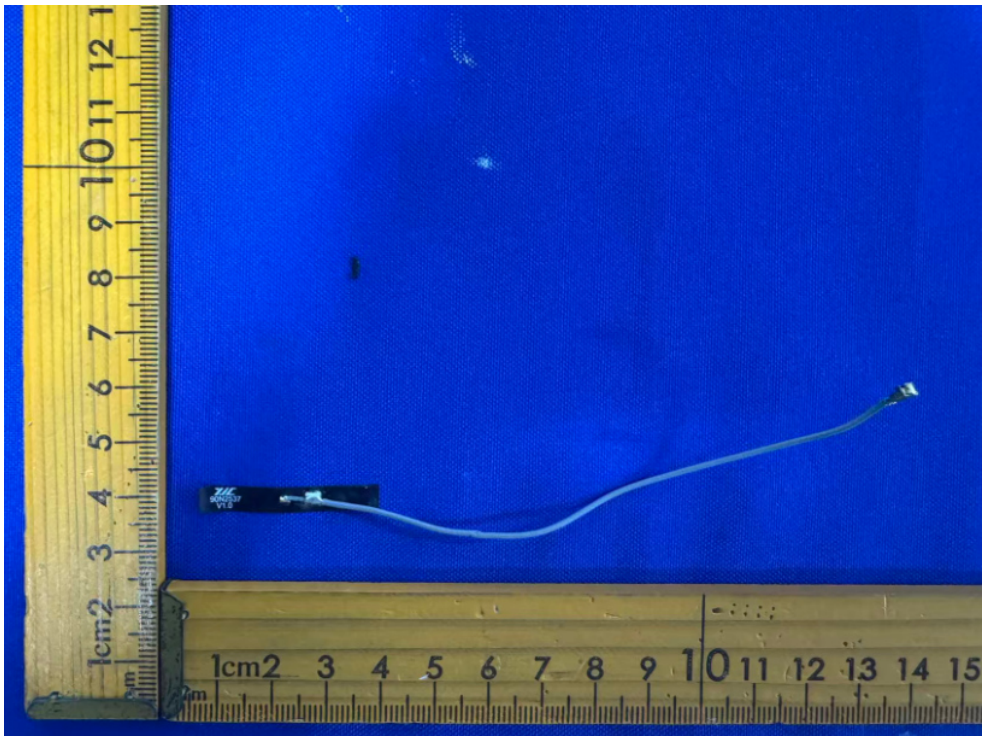
Supplier confirmation	RF	MD	Quality	Audit
	Sky	Sam	Sweet	Frank
Customer confirmation	RF	MD	Quality	Audit

Directory

1. Cover
2. Directory
3. product picture
4. Electric performance
5. Reliability test criteria
6. Packaging instructions

Description:
1. The samples and the acknowledgment shall be made in quadruplicate respectively. Each sample shall be nailed on the top left corner of the acknowledgment cover and sealed with electrostatic bag (electronic material) or thick PP bag.

1.Product drawing



Picture（1）

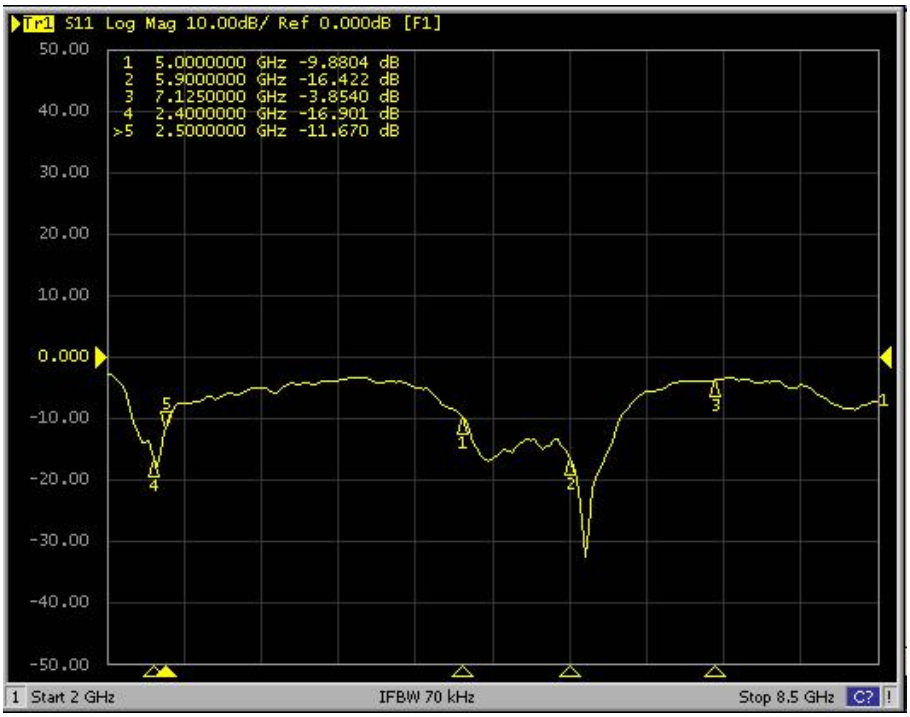
2 Performance Parameters

2-1 Performance Parameters

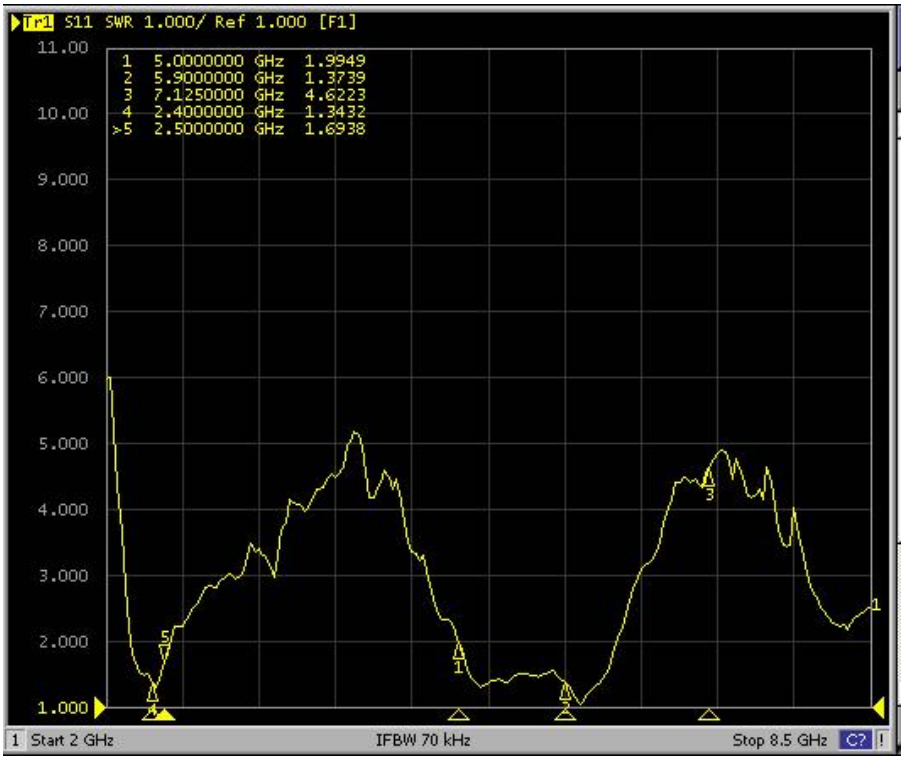
Electrical Parameters	
Frequency Range	2.4-2.5GHz 5.1-5.8GHz
Input Impedence	50Ω
Standing-wave Ratio	≤3.0
Gain	2.4G:2dBi 5.2G:2.37dBi 5.8G 2.93dBi
Power Capacity	/
Through The Test	breakover
Polarization Mode	Linear
Radiation Direction	All-direction
Frequency Range	SMA-J
Mechanical Parameters	
Terminal Maintenance Force	/
Antenna Material	Cu
Coax	GR178
Salt Spray Test	24H
Enviromental Parameter	
Working Temperature	-30℃~65℃

2-2Performance Test

S11



SWR

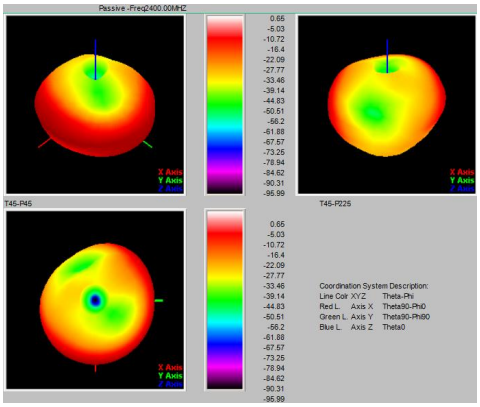


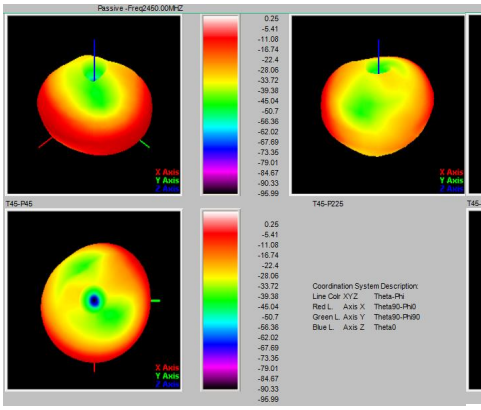
2-2 antenna effeciency

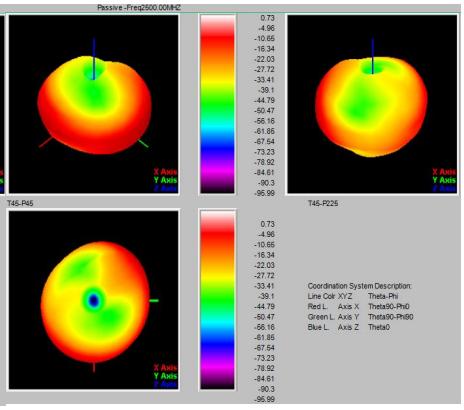
frequency 频率 (MHz)	gain 增益 (dBi)	efficiency 效率(dB)	efficiency 效率(%)
2400	1.92	-1.95	63.76
2410	2.00	-2.14	61.13
2420	1.06	-1.84	65.43
2430	1.03	-1.61	69.09
2440	1.01	-1.76	66.65
2450	1.89	-1.76	66.74
2460	1.78	-1.52	70.55
2470	1.75	-1.61	68.95
2480	1.63	-1.75	66.77
2490	1.44	-1.80	66.08
2500	1.44	-2.03	62.62

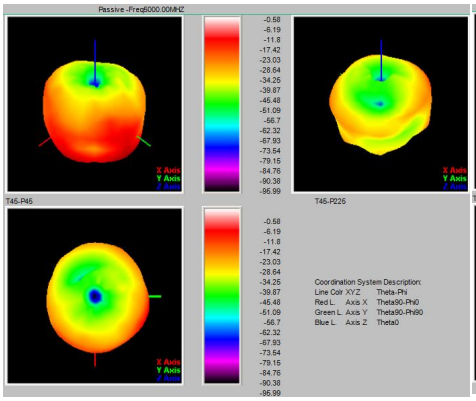
frequency 频率 (MHz)	gain 增益 (dBi)	efficiency 效率(dB)	efficiency 效率(%)
5000	2.94	-1.59	69.3
5050	2.84	-1.51	70.63
5100	2.11	-1.32	73.86
5150	2.16	-1.13	77.07
5200	2.34	-1.31	73.89
5250	2.27	-1.9	64.62
5300	2.86	-2.11	61.56
5350	2.74	-1.94	63.95
5400	3.00	-1.36	73.14
5450	2.25	-1.21	75.74
5500	2.23	-1.33	73.54
5550	2.92	-1.7	67.61
5600	2.88	-1.67	68.1
5650	2.68	-1.58	69.56
5700	2.93	-1.45	71.68
5750	2.85	-1.74	66.99
5800	2.09	-1.78	66.45
5850	2.66	-2.06	62.22
5900	2.2	-2.59	55.13
5950	2.41	-2.55	55.58
6000	2.05	-2.59	55.06

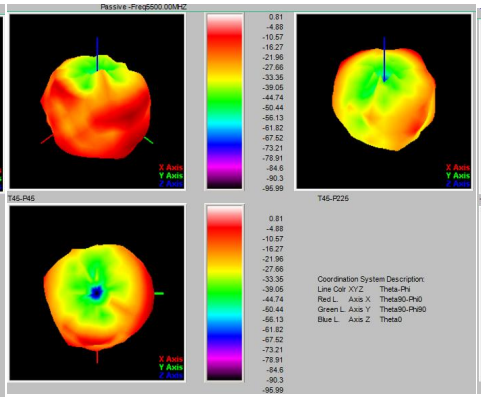
3D graph

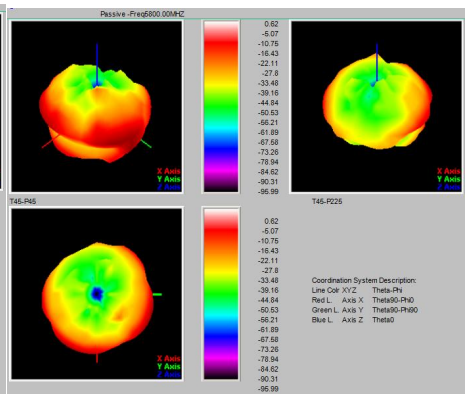

Passive -Freq2400.00MHZ
T45-P45
T45-P225
Coordination System Description:
Line Color XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0


Passive -Freq2450.00MHZ
T45-P45
T45-P225
Coordination System Description:
Line Color XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0


Passive -Freq2500.00MHZ
T45-P45
T45-P225
Coordination System Description:
Line Color XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0


Passive -Freq5000.00MHZ
T45-P45
T45-P225
Coordination System Description:
Line Color XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0


Passive -Freq5500.00MHZ
T45-P45
T45-P225
Coordination System Description:
Line Color XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0


Passive -Freq5800.00MHZ
T45-P45
T45-P225
Coordination System Description:
Line Color XYZ Theta-Phi
Red L. Axis X Theta90-Phi0
Green L. Axis Y Theta90-Phi90
Blue L. Axis Z Theta0

3.**Reliability test report**

test item		test method	acceptance standard	Judgment results
1	V.S.W.R	Set the network analyzer parameters for testing	According to the specifications to be tested	**PASS**
2	Plug in damage	Set the network analyzer parameters for testing	According to the specifications to be tested	**PASS**
3	salt atmosphere	Temperature 35° C humidity 95% saline concentration 5%; test for 24 hours	After 2H, there was no obvious bad appearance: frequency offset of 5%	**PASS**
4	constant temperature and humidity	Temperature 80° C test 12H to-40° C Test 12H: Humidity 90%: Test 24 hours	After 2H, there was no obvious bad appearance: frequency offset of 5%	**PASS**