

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，长 110mm， SMA 内露纹， 内孔
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

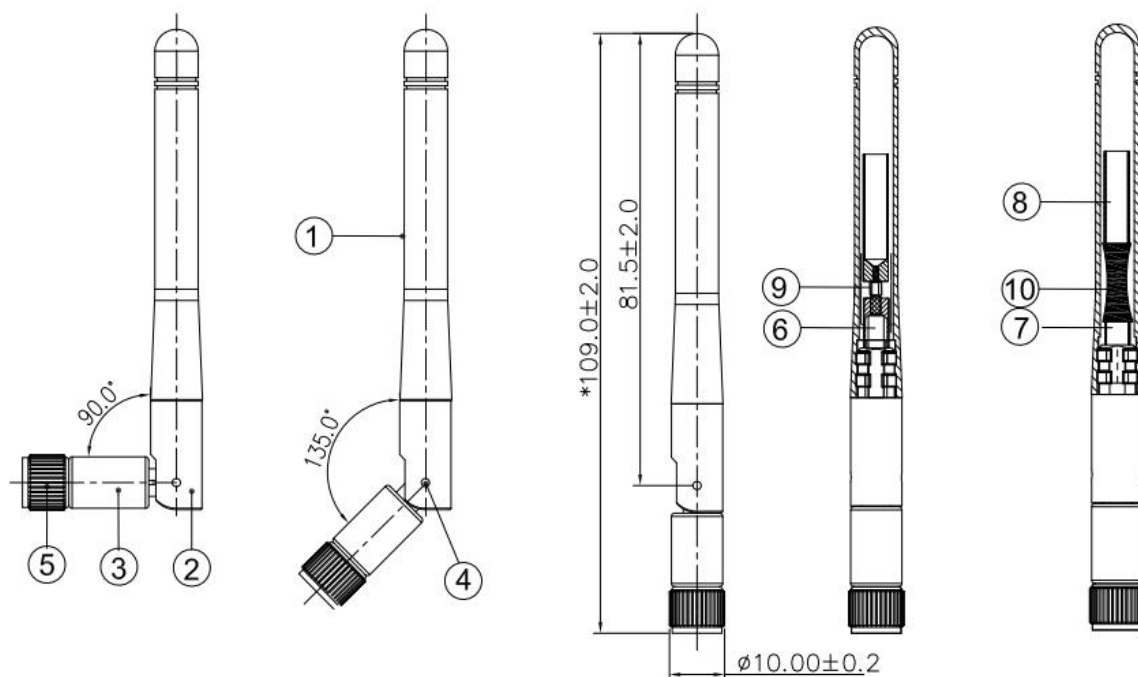
Directory

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)

1-1 Specification parameters

Order number	name	Specifications / materials	remarks
1	COVER	PC+PBT TPEE	
2	cable	RG178	
3	antenna	copper	
4	SMA	SMA-J	
5	Antenna size	109mm	+/-2mm

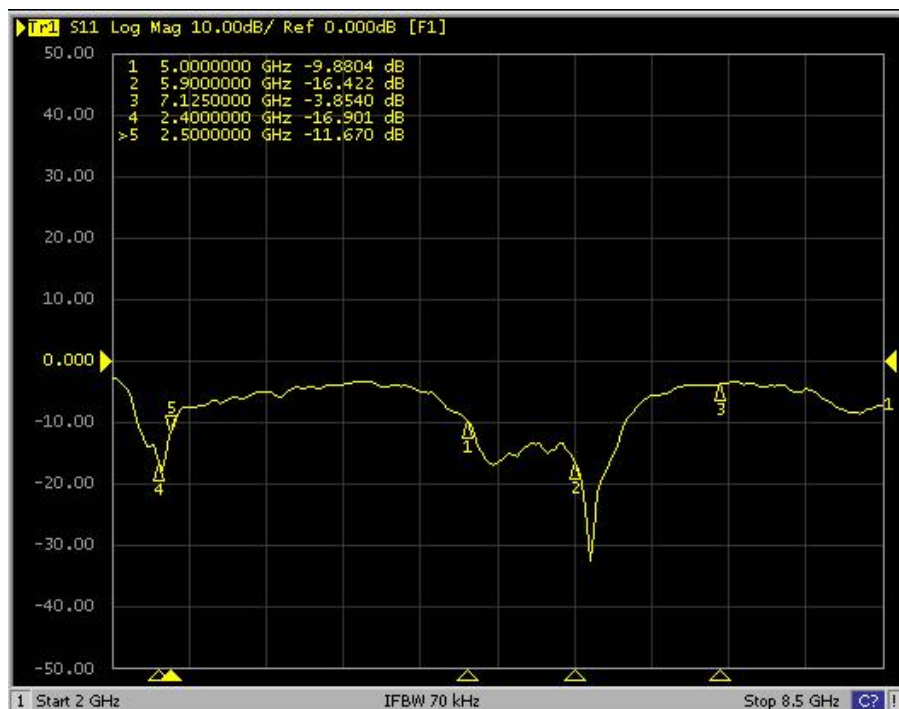
2 Performance Parameters

2-1 Performance Parameters

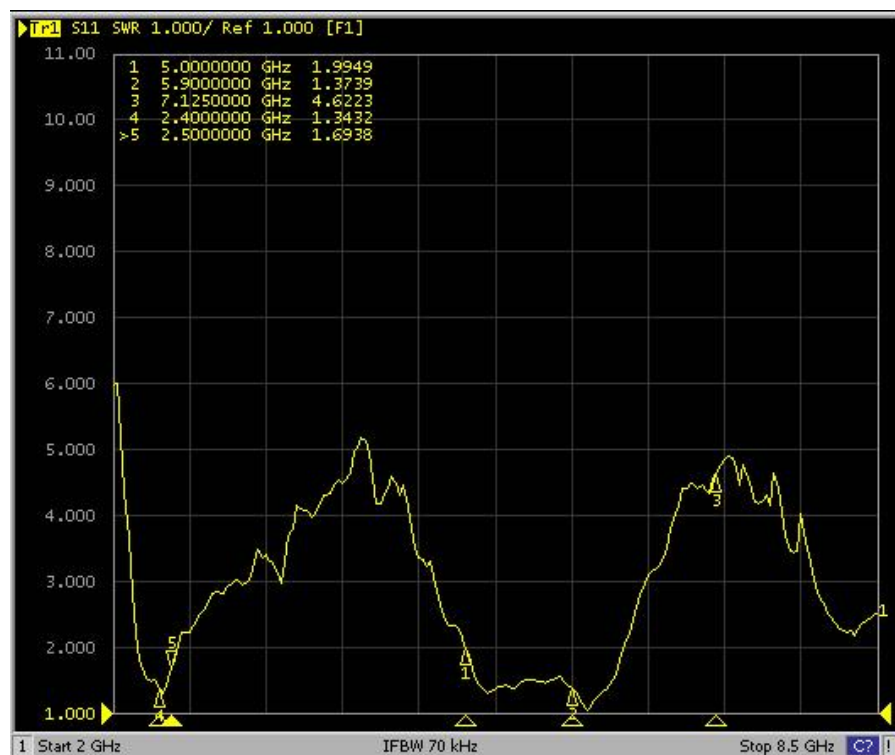
Electrical Parameters	
Frequency Range	2.4-2.5GHz 5.1-5.8GHz
Input Impedence	50 Ω
Standing-wave Ratio	≤ 3.0
Gain	2dBi
Power Capacity	/
Through The Test	breakover
Polarization Mode	Linear
Radiation Direction	All-direction
Frequency Range	SMA-J
Mechanical Parameters	
Terminal Maintenance Force	/
Antenna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

2-2 Performance Test

S11



SWR



2-2 antenna effeciency

frequency 频率 (MHz)	gain 增益 (dBi)	efficiency 效率(dB)	efficiency 效率(%)
2400	2.92	-1.95	63.76
2410	3.05	-2.14	61.13
2420	3.06	-1.84	65.43
2430	3.03	-1.61	69.09
2440	3.01	-1.76	66.65
2450	2.89	-1.76	66.74
2460	2.78	-1.52	70.55
2470	2.75	-1.61	68.95
2480	2.63	-1.75	66.77
2490	2.44	-1.80	66.08
2500	2.44	-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	3.11	-1.32	73.86
5150	3.16	-1.13	77.07
5200	3.34	-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	3.35	-1.36	73.14
5450	3.25	-1.21	75.74
5500	3.23	-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	3.09	-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

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

4.Packaging Standard

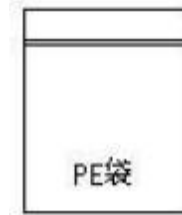
Product Material No: 1502B13SMA2000

Product specification: antenna,2.4~2.5GHz

Packaging:

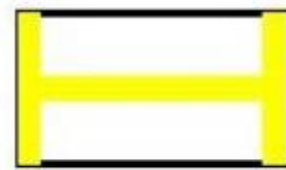
1. Internal packaging:

Product 50 PCS into the small PE bag



2.

Quantity / box according to the actual
packing



纸箱



matters need attention:

1. Whether to add a partition board, pearl cotton;
2. Attachment of labels, such as ROHS;