

Shenzhen SKYLink Technology Co.,Ltd

Antenna Specification for Approval

Customer Name : _____

Product Name : _____ BM1

Part NO.: _____ BM1.V2.C081.50B.2

Write By : _____ Zhengfeng Fang

Issued Date: _____ 2022-10-20

Customer

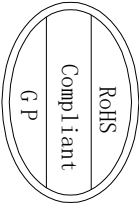
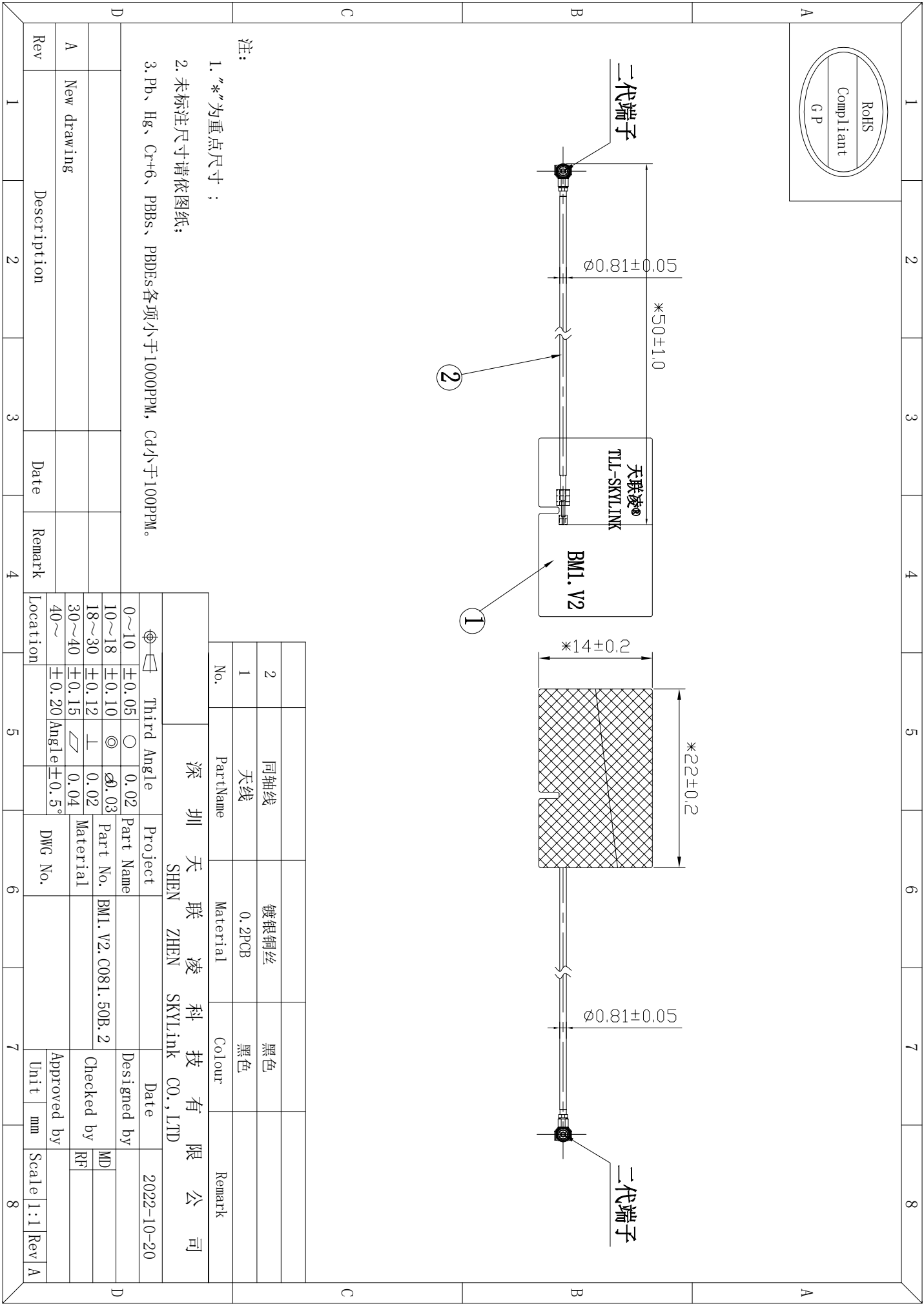
R&D Dept	Business Dept	Approved By

SKYLink

R&D Dept	Engineer Dept	Approval

● Specification Summary

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz 5150MHz ~5850MHz
Log Mag	<-10dB
Efficiency	>35%
Peak Gain	2.4G: 1.54dbi,5G:1.77dbi
Impedance	50 Ohm
Polarization	Line
B. Material & Mechanical Characteristics	
Material of Radiator	Cu
Cable Type	0.81mm Black
Connector Type	2
Dimension	At Attachment
Heat-durability	280±5°C, 10sec.
C. Environmental Characteristics	
Operation Temperature	- 20 °C ~ + 80 °C
Storage Temperature	- 30 °C ~ + 85 °C



注:

1. “*”为重点尺寸；
2. 未标注尺寸请依图纸；
3. Pb、Hg、Cr+6、PBBS、PBDES各项小于1000PPM, Cd小于100PPM。

Rev				Description		Date	Remark
1				New drawing			

2	同轴线	镀银铜丝	黑色	
1	天线	0.2PCB	黑色	
No.	PartName	Material	Colour	Remark

深 圳 天 联 凌 科 技 有 限 公 司				SHEN ZHEN SKYlink CO., LTD			
Third Angle		Project	Part Name	Date	2022-10-20		
0~10	± 0.05	$\bigcirc$	0.02				
10~18	± 0.10	$\odot$	$\varnothing 0.03$				
18~30	± 0.12	$\perp$	0.02	Part No.	BM1. V2. C081. 50B. 2		
30~40	± 0.15	∇	0.04	Material			
40~	± 0.20	Angle	$\pm 0.5^{\circ}$	DWG No.			
Location				Approved by	Unit	mm	Scale
							1:1
							Rev A

● Test Equipment & Conditions

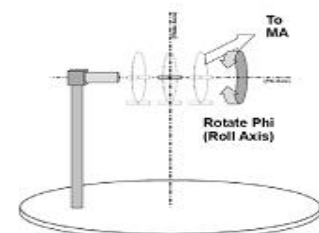
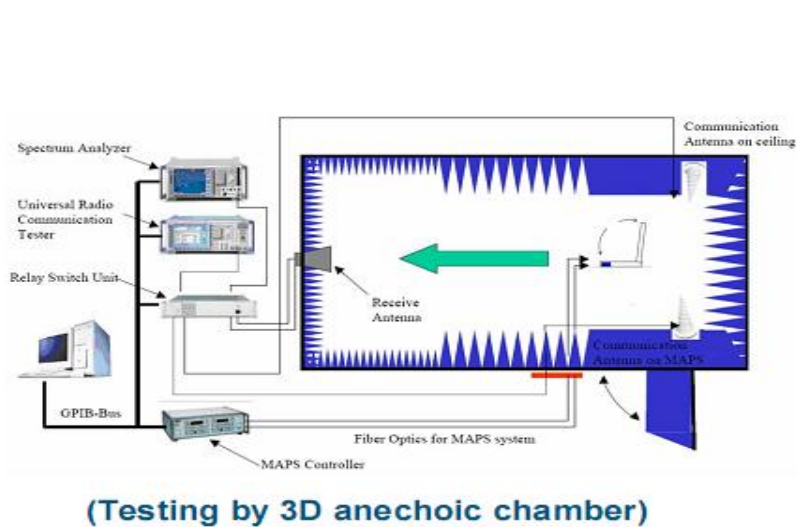
1. Network Analyzers :

Agilent 8753D 5071B

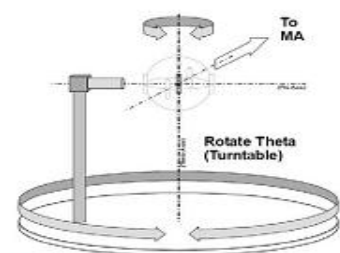
Communications Test Set:

Agilent E5515C CMW500

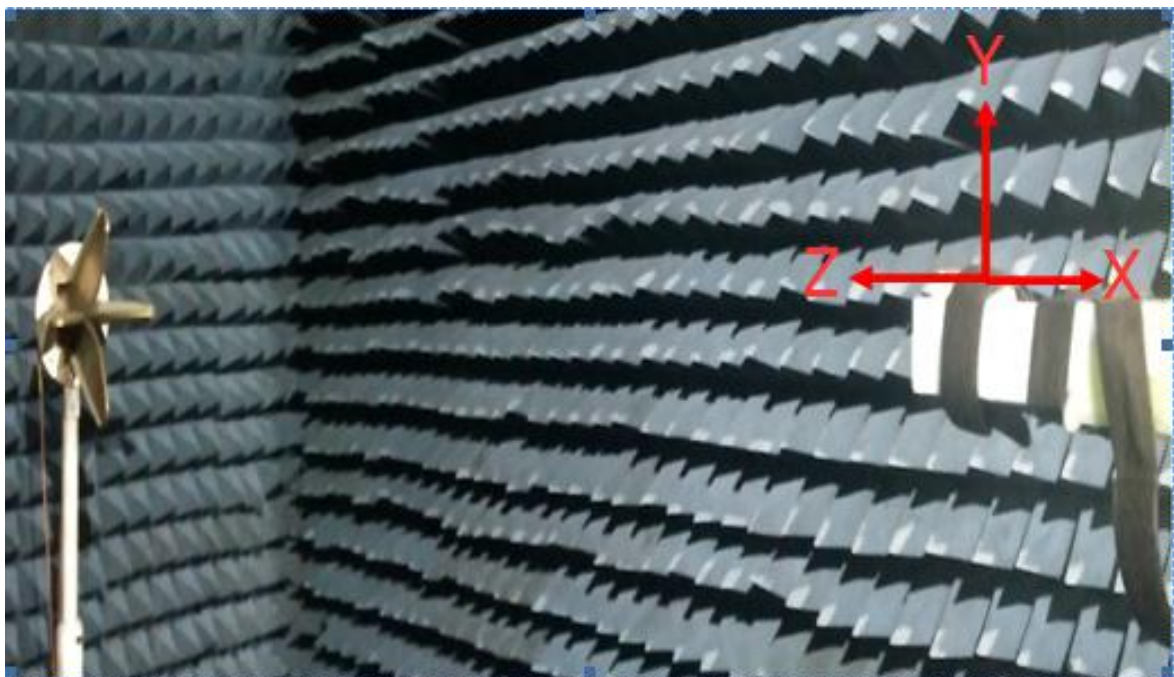
2. 3D Chamber Test System



Phi axis test



Theta axis test



◆ Log Mag



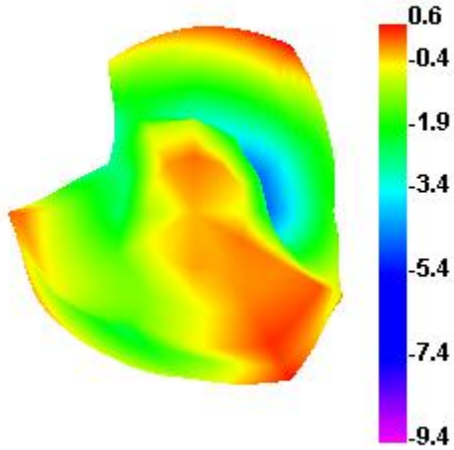
◆ Gain & Efficiency

Freq (MHz)	Effi (%)	Gain (dB)
2400	39.78	0.61
2410	40.8	0.85
2420	42.88	1.13
2430	44.46	1.4
2440	42.94	1.5
2450	39.1	1.27
2460	39.07	1.31
2470	38.99	1.3
2480	39.88	1.39
2490	41.7	1.54
2500	40.79	1.45

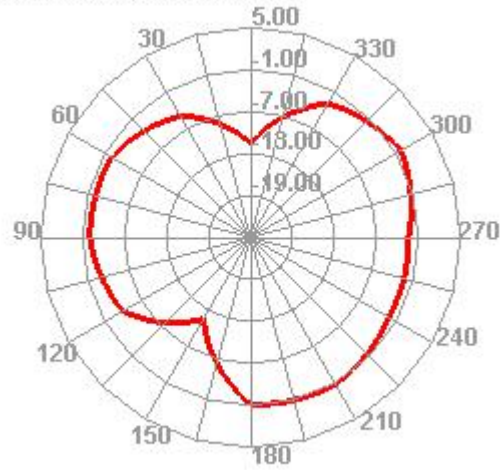
Freq (MHz)	Effi (%)	Gain (dB)
5150	40.67	1.51
5200	41.82	1.56
5250	42.07	1.31
5300	40.98	1.27
5350	42.37	1.49
5400	41.3	1.46
5450	40.25	1.59
5500	41.21	1.77
5550	40.68	1.47
5600	38.17	0.87
5650	36.21	0.71
5700	37.64	0.58
5750	36.62	0.92
5800	38.08	1.34
5850	42.43	1.46

◆ Radiation Pattern

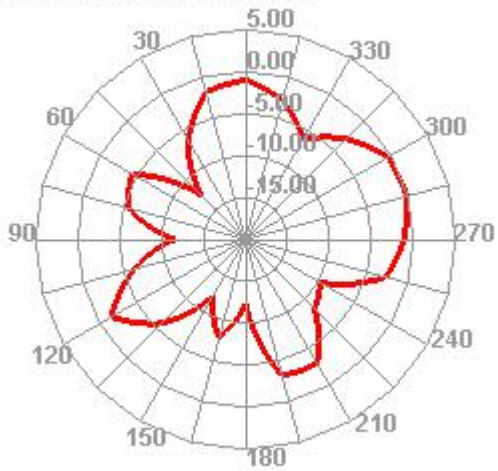
2400.000MHz



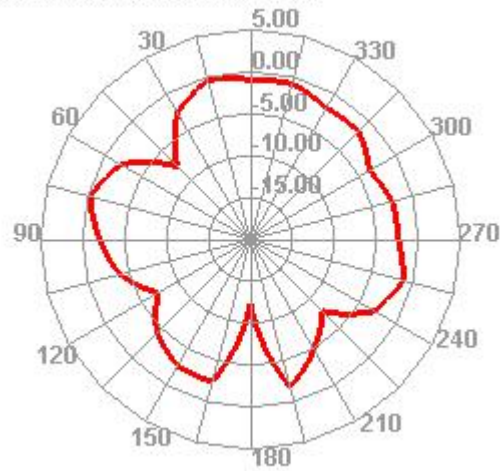
2400.000MHz H



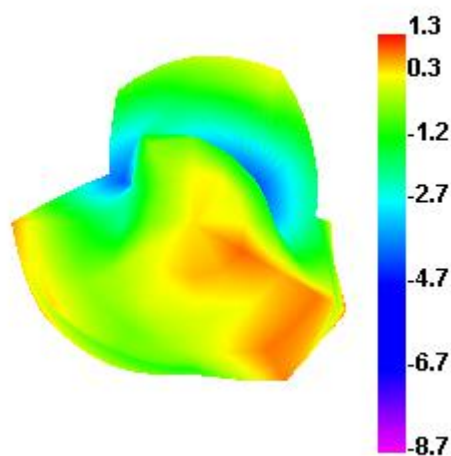
2400.000MHz E1



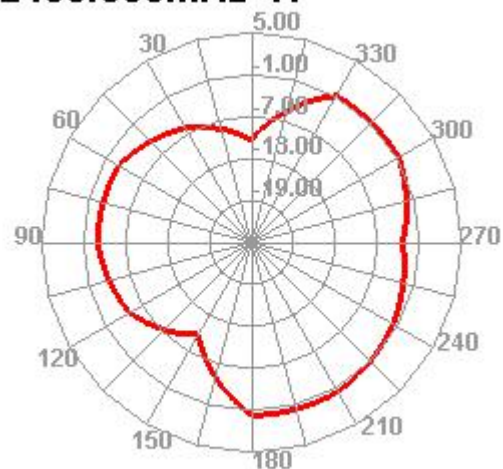
2400.000MHz E2



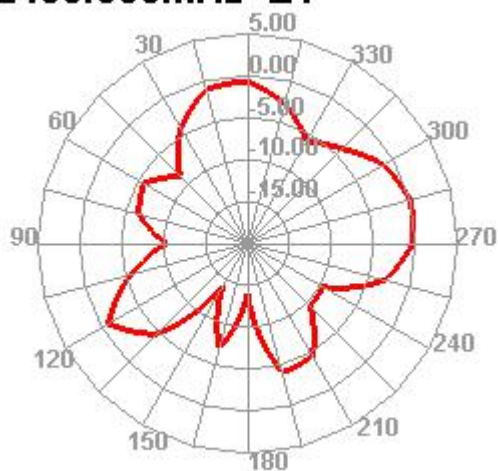
2450.000MHz



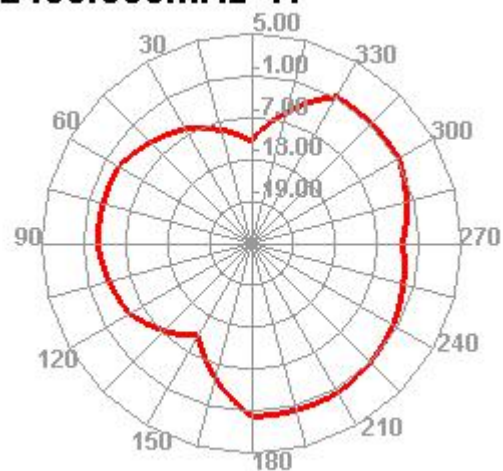
2450.000MHz H



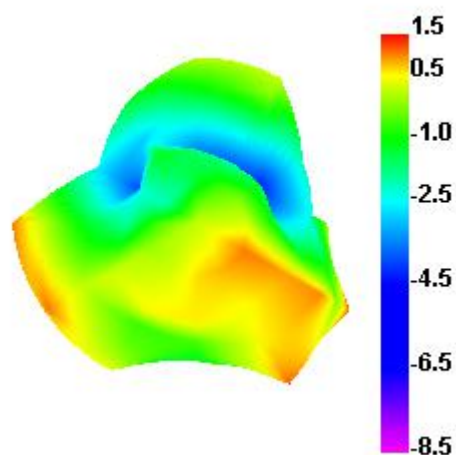
2450.000MHz E1



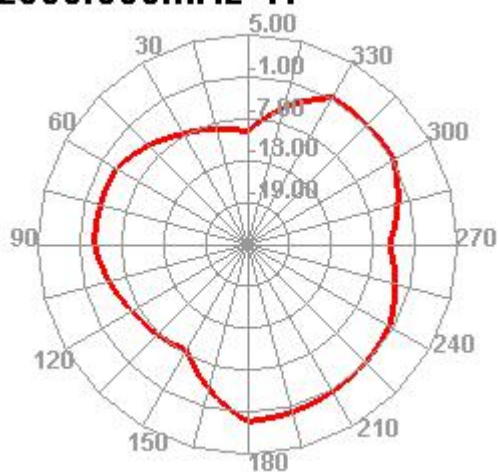
2450.000MHz H



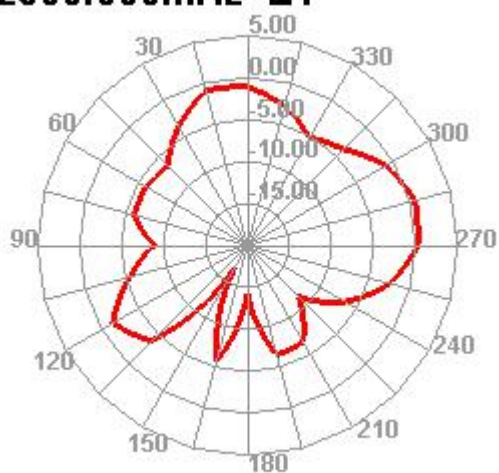
2500.000MHz



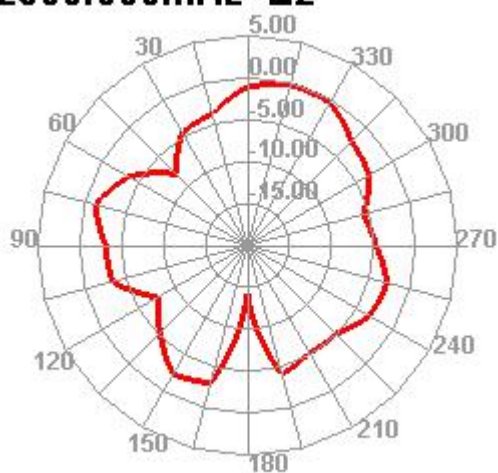
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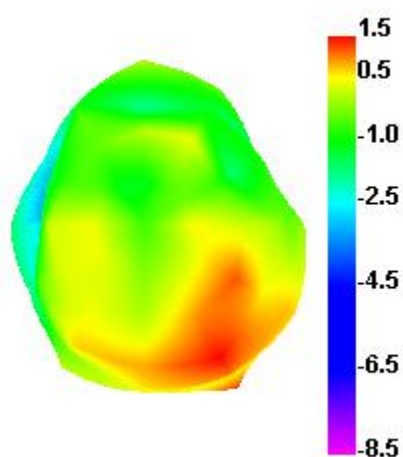
2500.000MHz E1



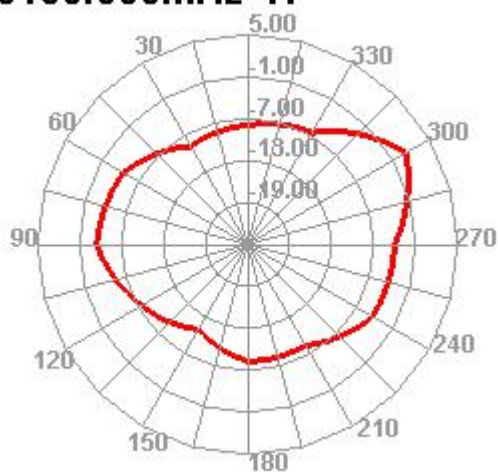
2500.000MHz E2



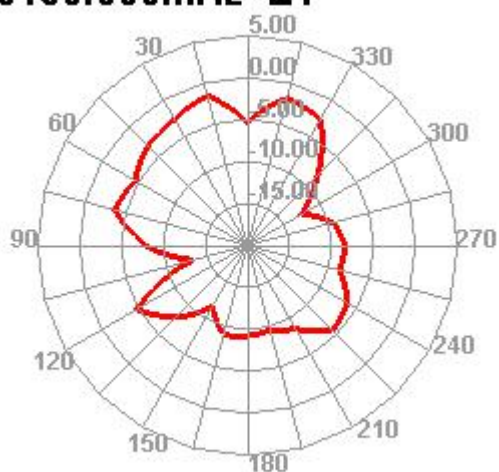
5150.000MHz



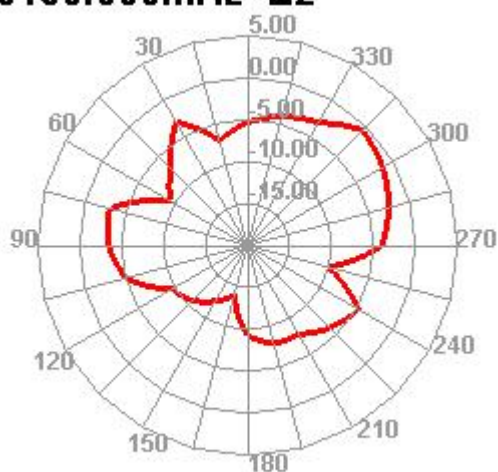
5150.000MHz H



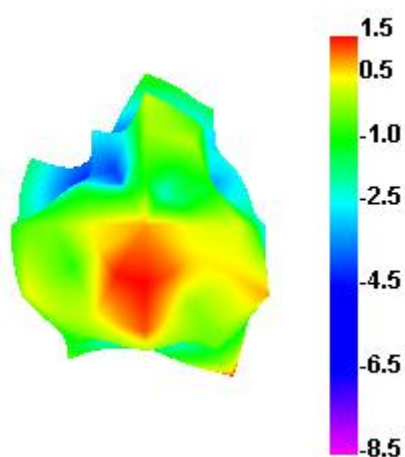
5150.000MHz E1



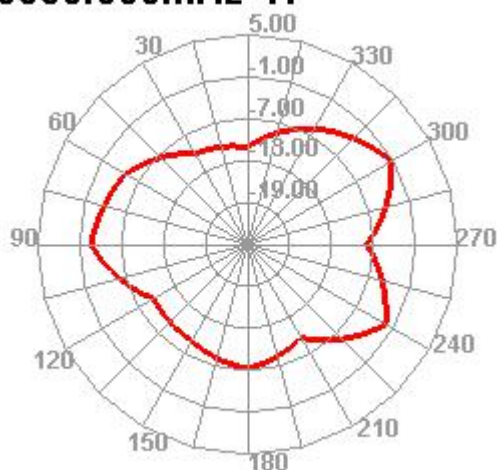
5150.000MHz E2



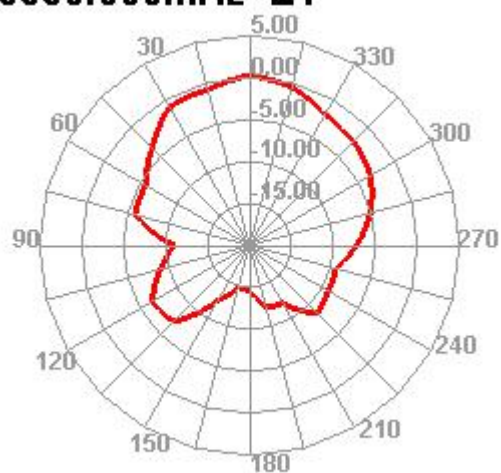
5550.000MHz



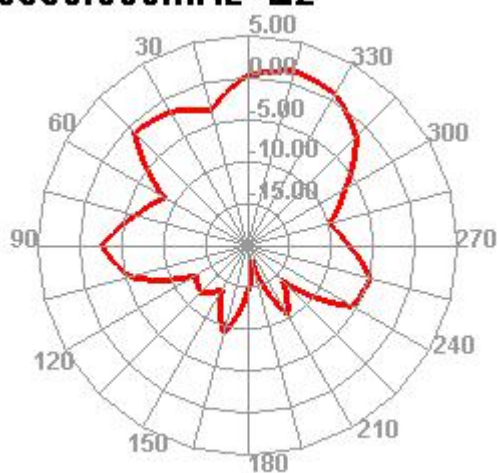
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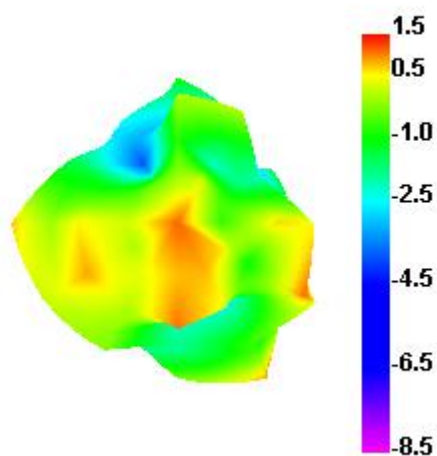
5550.000MHz E1



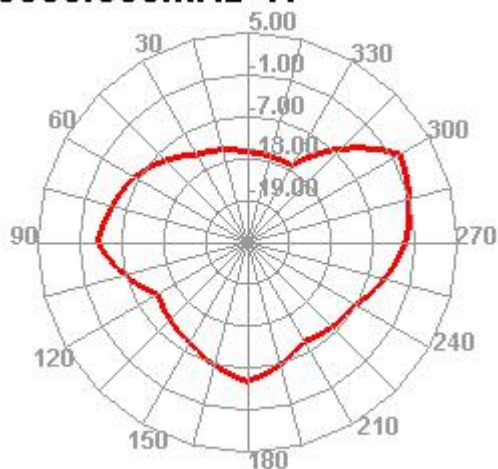
5550.000MHz E2



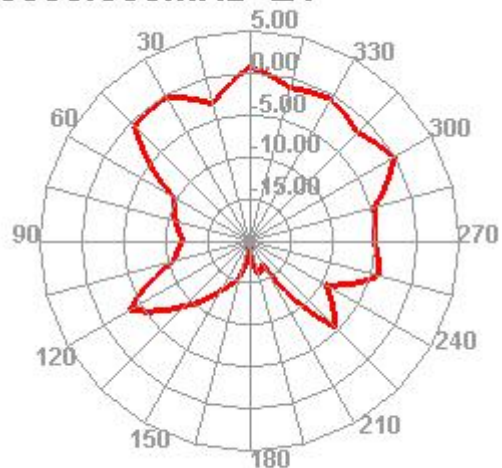
5850.000MHz



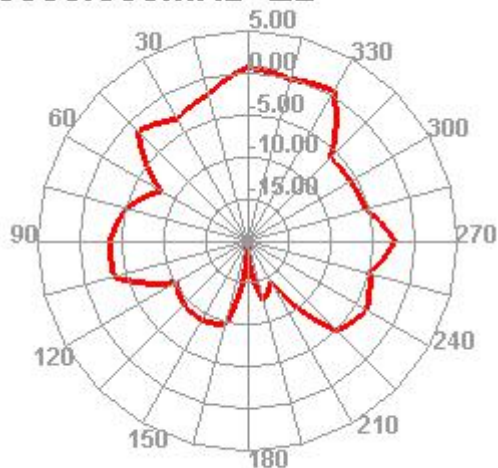
5850.000MHz H



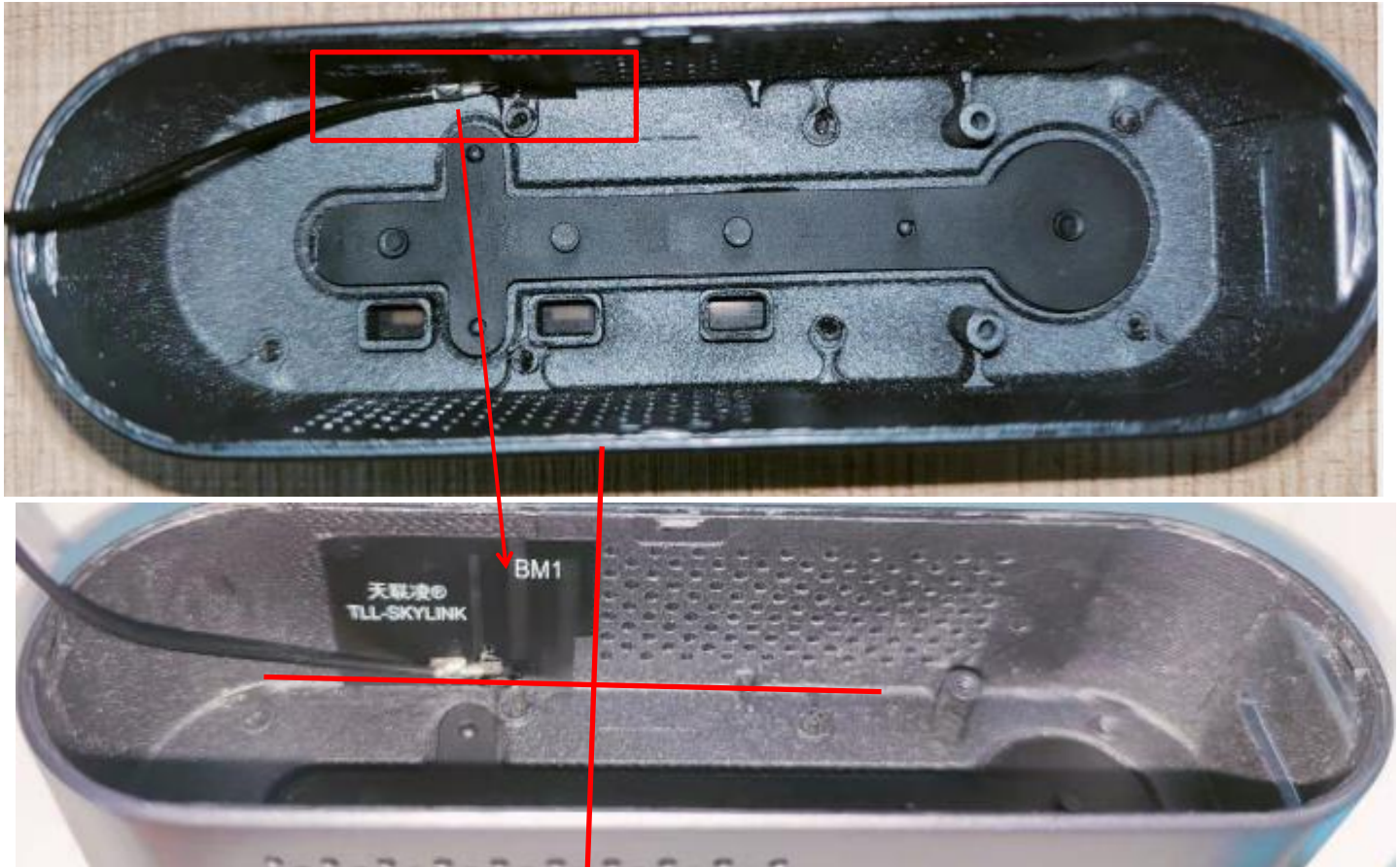
5850.000MHz E1



5850.000MHz E2



◆ Antenna Picture



◆ Reliability Test

Test Item		Test condition	Equipment	Specification	Result
1	Low Temp. Storage Test	Temperature: -30℃, Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-down the temp. to -30℃ in one hour, store antenna for 44 hours; step-up temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
2	High Temp./High Humid Storage Test	Temperature: 85℃ Humidity: 85% RH Time:48hrs Test condition: Placing antenna in a Low/High Temperature Chamber, keep the temp is 25℃ and humidity is 65% for one hour, then step-up the temp. to 80℃ and the humidity up to 85% in one hour, store antenna for 44 hours; step-down temp to 25℃,test antenna after 2 hours.	Temp.&Humi. Tester	No material deformation is allowed. Electronic Performance is ok .	PASS
3	Salt-Spray 6 pray Test	Placing antenna in the Salt-Spray Tester ,set the test condition , Temp: $35\pm 2^{\circ}\text{C}$ Humidity: 85% NaCl salt spray :$5\pm 1\%$.PH value :6.5~7.2 Test time:24hours	Salt-Spray Tester	No color change No appear rusting	PASS