



## SPECIFICATION FOR APPROVAL

Customer: Picksmart

Brand: Qiyuan

Description: glue stick antenna

Specification

/part no: External antenna/50  $\Omega$  /868~930MHz/2.0  
dBi@868~930MHz/SMA male pin/black  
knife-shaped SMA antenna

日期 Date: 2023.07.27

备注 Remark: Please return specification or one copy of it with your chop and signature of approval and retain the others for your record. In the event of an order being placed for this part number before the chop and signed with specification (or copy) is returned and without special explanation, it will be assumed that full approval have been given.

Customer signature and seal::

CHECKED/DATE	AUDITOR/DATE	APPROVED/DATE



# Specifications

Customer P/N:

Specification: External antenna/50 Ω /868~930MHz/2.0d  
Bi@868~930MHz/SMA male pin/black  
knife-shaped SMA antenna

Description: glue stick antenna

Supplier: Qiyuan

Producer: Qiyuan

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CHECKED/DATE	AUDITOR/DATE	APPROVED/DATE
Zhang Bingxiang 2023.07.27	Wu Qianjin 2023.07.27	Luo Daxun 2023.07.27

(Directory)

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<b>( Resume )</b>					
Revision number	Revise chapters	modify pages	effective date	Changes	Change Recorder
V1.0					





<b>Frequency</b>	868~930MHz
<b>Impedance</b>	50Ω
<b>S.W.R.</b>	≤3.0
<b>Antenna Gain</b>	2.0dBi±0.5@868~930MHz
<b>Polarization</b>	vertical polarization
<b>Return Loss</b>	-7.0dB MAX

**(Mechanical parameters):**

<b>Antenna Colour</b>	Black
<b>RF Cable Model</b>	RG178, Transparent brown
<b>Connect Type</b>	SMA 公头公针

**(Operating/ Storage Temperature) :**

<b>Operating Temperature</b>	-40~85℃
<b>Storage Temperature</b>	-40~85℃

**(Structural drawings):**





(environmental test)

High and low temperature constant humidity test report						
Test project	High temperature, low temperature and constant humidity test					
Test sample name	glue stick antenna	Test date	2023.06.20			
Experimental/Testing Equipment	Constant temperature and humidity test chamber network analyzer	Test numbers	5PCS			
Inspection standards	1. 1. The metal surface coating must have no defects such as peeling off, cracks, or wrinkles; the non-metal parts must not have discoloration, cracking, deformation, degumming, or other defects. 2. 2. The electrical test meets the design requirements; the voltage standing wave ratio test is qualified.					
Test Name	Pilot projects	Requirements	Test Method	Actual Test Data	result	
					Sample	determination
High Temperature Test	Temperature (°C)	+80±3	According to GB2423.1-89 Chapter 9 Carry out according to prescribed method	+85	1	qualified
	Temperature stability time of test sample (h)	1		1.2	2	qualified
	Test duration (h)	1		2.3	3	qualified
	Recovery time (h)	1		1	4	qualified
						5
Low Temperature Test	Temperature (°C)	-40±3	According to GB2423.1-89 Chapter 8 Carry out according to prescribed method	-40	1	qualified
	Temperature stability time of test sample (h)	1		1.2	2	qualified
	Test duration (h)	2		2.4	3	qualified
	Recovery time (h)	1		1.1	4	qualified
						5
Constant damp heat test	Temperature (°C)	+40±2	According to GB2423.1-89 Chapter 5 Carry out according to prescribed method	+42	1	qualified
	Relative humidity(%)	90-95		92	2	qualified
	Test duration (h)	21		22	3	qualified
	Recovery time (h)	1		1.1	4	qualified
						5

(Salt spray test)



Salt Spray Test Report				
Test project	Salt spray test			
Test sample name	glue stick antenna	Test date	2023.06.20	
Device Name	Salt spray corrosion test chamber	Test numbers	5PCS	
test method	Place the test sample into the prepared salt solution test chamber and salt spray corrosion chamber for continuous spray test			
Salt solution concentration	52g/L	Salt solution pH value: 6.5-7.2	Test cycle: 24 hours	
Actual test data	55g/L	Salt solution pH value: 6.8	Test cycle: 26 hours	
Test standards	The test was carried out in accordance with GB/T10125 "Artificial Atmosphere Corrosion Test, Salt Spray Test"; the results were in accordance with GB/T6461-2002 "Rating of metal and other inorganic coatings on metal substrates after corrosion test of specimens and specimens" rating.			
Results				
number	Corrosion resistance level	Actual test data	Assessment results	Remarks
1	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
2	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
3	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
4	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	
5	Rp/Ra=10/10vsB	Rp/Ra=10/10vsB	qualified	





**(Test equipment):**



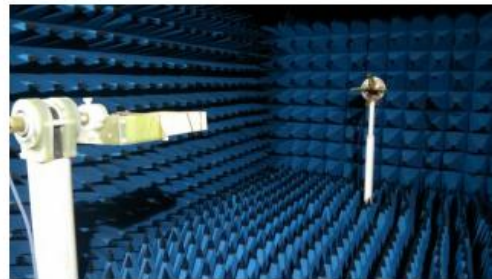
安捷伦 E5071C 网络分析仪



HP 8594E 频谱分析仪



CMW-500

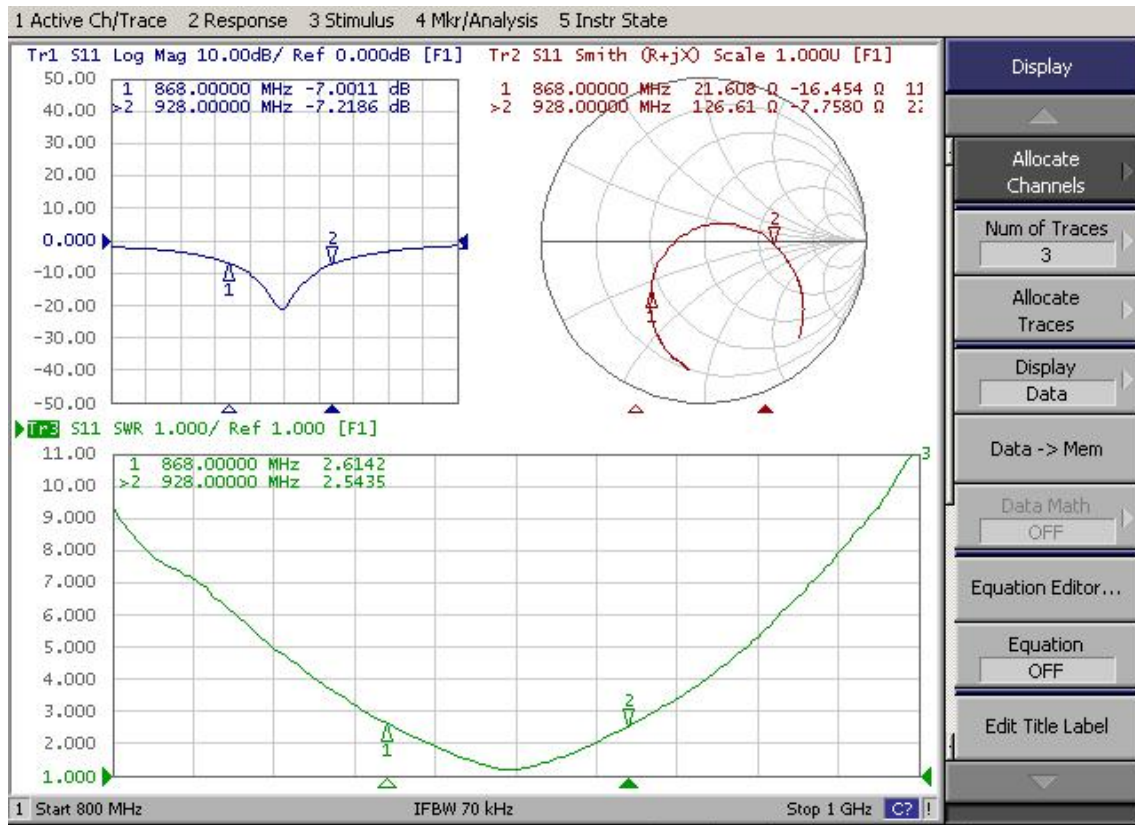


微波暗室



## (Testing Parameters)

### (V.S.W.R&Return Loss)



### (Gain&Efficiency)

<b>FEITUKEJI</b>							
Frequency ID	1	2	3	4	5	6	7
Frequency (MHz)	820.0	840.0	860.0	880.0	900.0	920.0	940.0
Gain (dBi)	0.58	1.48	1.86	0.48	1.60	2.01	1.83
Efficiency (%)	49.48	53.38	58.43	59.86	56.56	56.47	55.29



## 2D、3D Radiation Patter

