

# RK25-UHF RFID UHF Antenna

## Datasheet

AUTHORIZED SIGNATURE	
<b>Data</b>	

**Customer name**      欣技資訊股份有限公司  
**Product Name**      70\*70mm 3D Antenna FCC MMCX right angle 60mm cable  
**Product Number**    FI-A0710-FCC-02  
**Version**              1  
**Date issued**         2019/1/31

## 1. Electrical Characteristics

Antenna (天線)		
1	Antenna model(天線規格)	70mm*70mm*10mm
2	Frequency Range(頻率範圍)	902MHz ~ 928MHz
3	V.S.W.R (駐波比)	1.6 MAX
4	Return Loss @ Operating Frequency	-12dB MAX
5	Band With@10dB(10dB 頻寬)	350 MHz MIN
6	Gain(增益)	2.5 dBi Typical
7	Axial Ratio @ Fc	1.6 MAX
8	Beamwidth (@3dB)	110 Typical
9	Impedence (阻抗)	50Ω
10	Polarization (極化方式)	R.H.C.P.
11	Weight	13.0g Typical

## 2. Material (材料)

No	Part Name	SPEC
1	Antenna	FR4
2	Resistance (電阻)	100Ω (0603)
3	Capacitance (電容)	100pF (0603)
4	RF Cable (線材)	RG178
		L=60mm
5	RF Connector (接頭)	MMCX Right Angle

### 3. Environment Condition

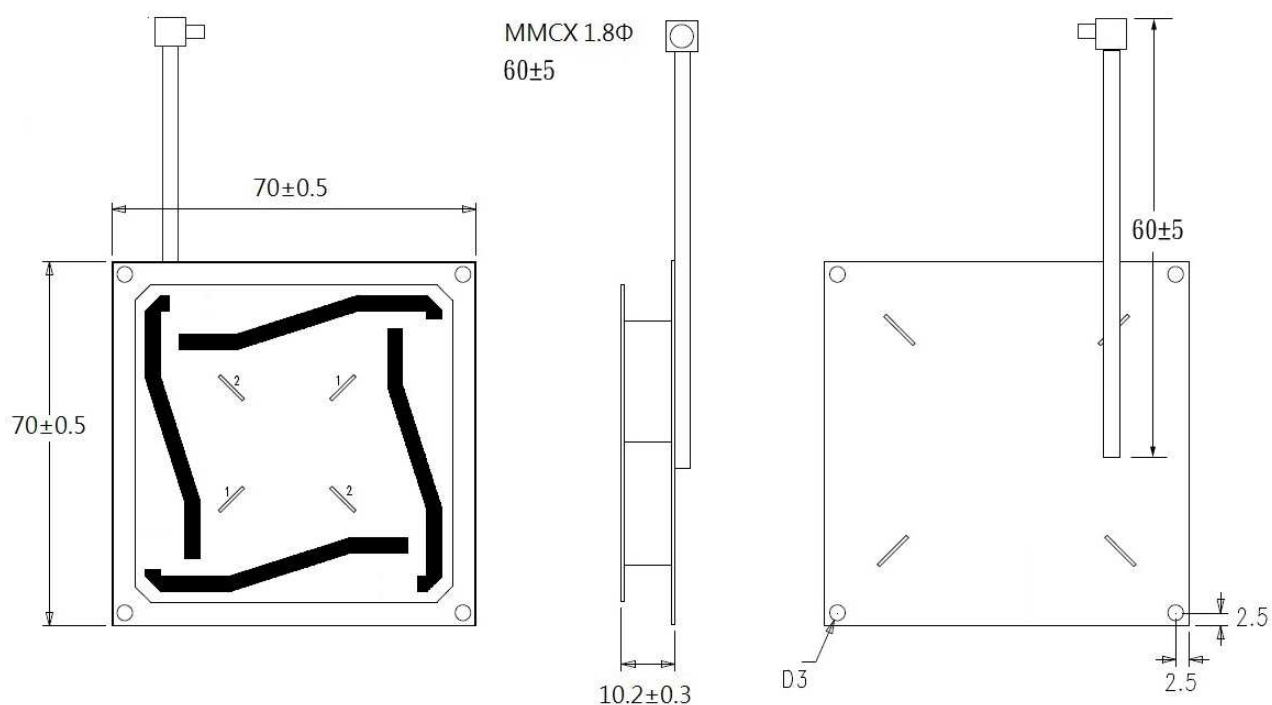
1	Working Temp (工作溫度)	-40°C ~ +85°C, 10% ~ 95% RH
2	Storage Temp (貯存溫度)	-55°C ~ +100°C, 10% ~ 95% RH

### 4. Dimensions (尺寸)

Tolerance Unless

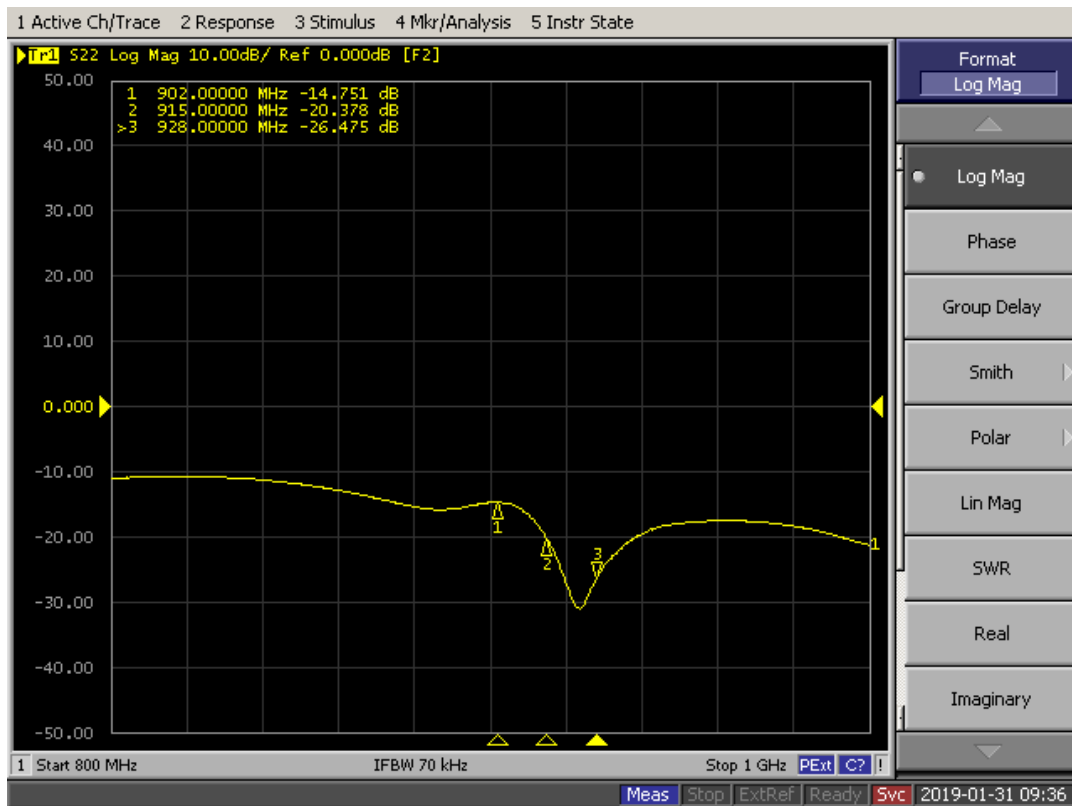
Otherwise Specified:  $\pm 0.2$

Unit: mm

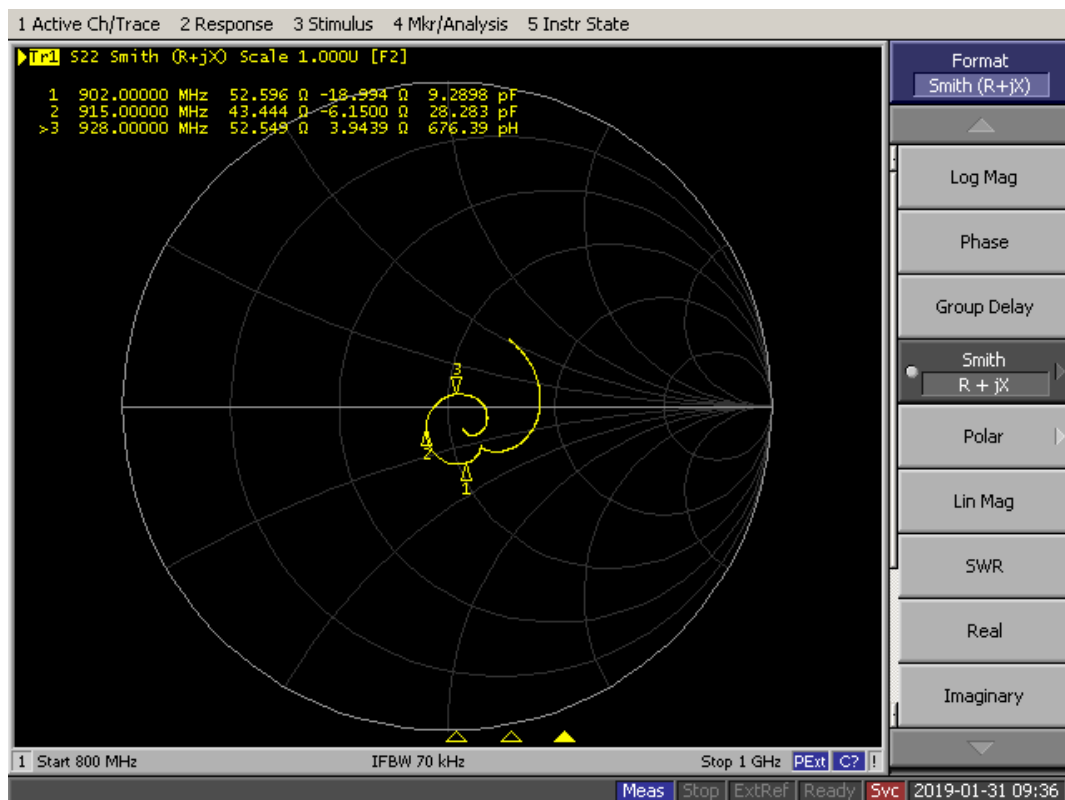


## 5. S-parameter Data

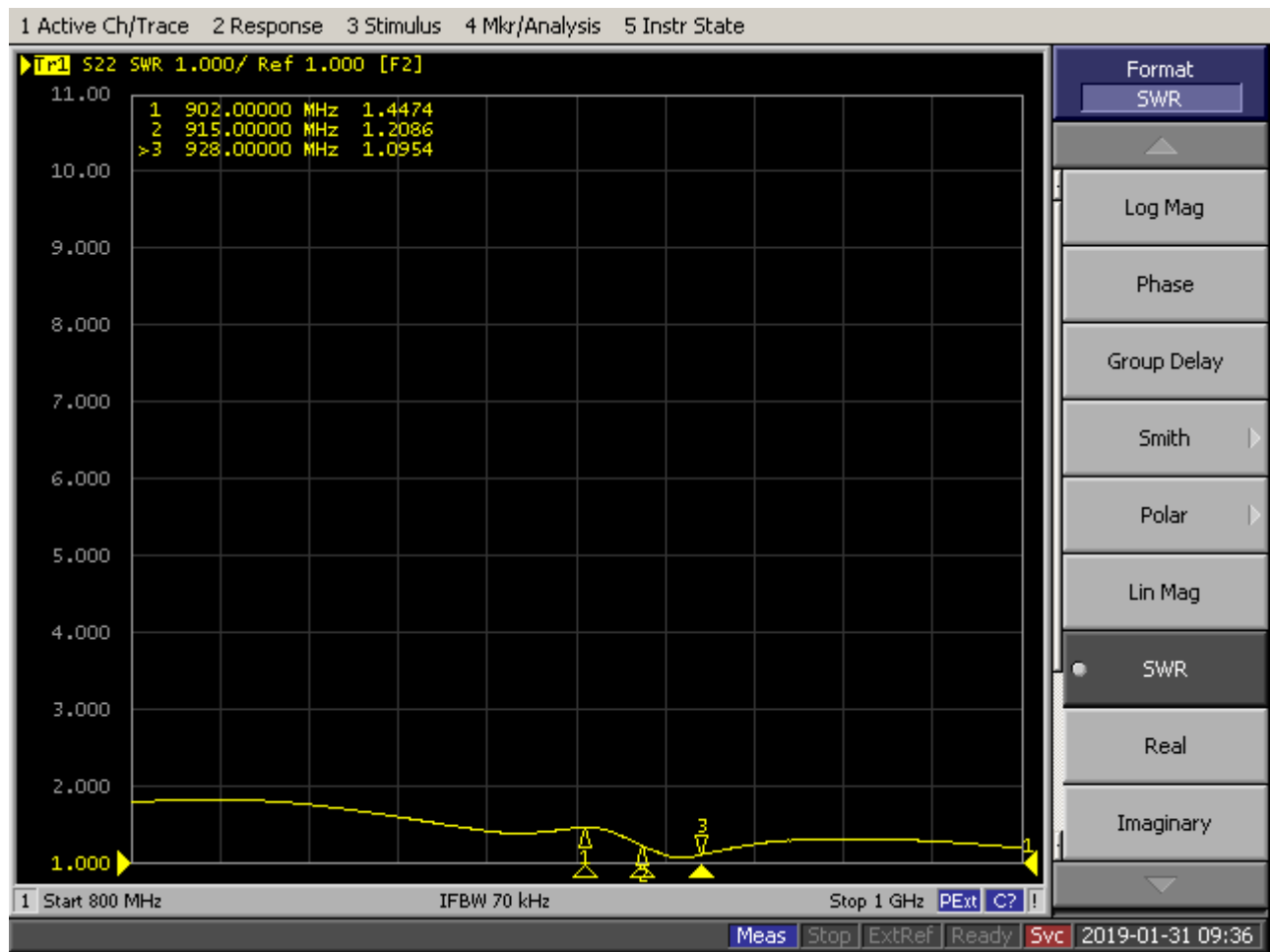
### 5.1 Return Loss (S11) in the housing



### 5.2 Smith Chart (S11) in the housing

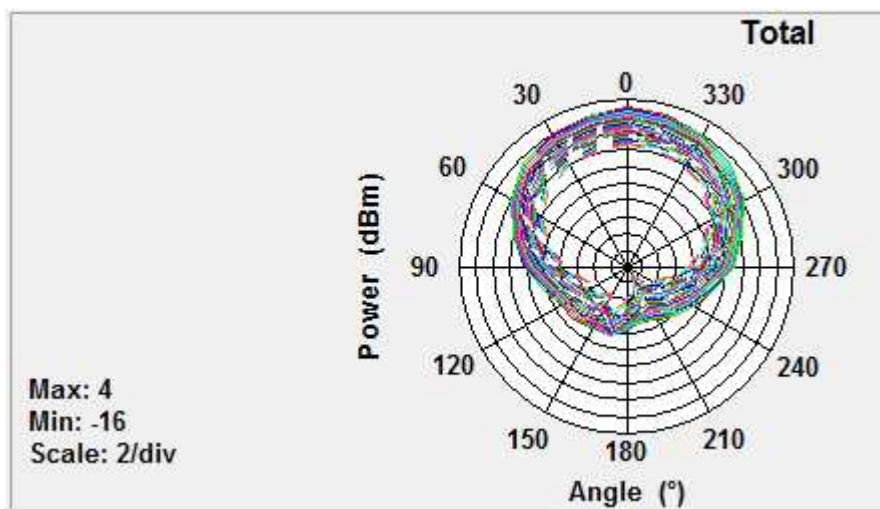


### 5.3 VSWR(S11) in the housing

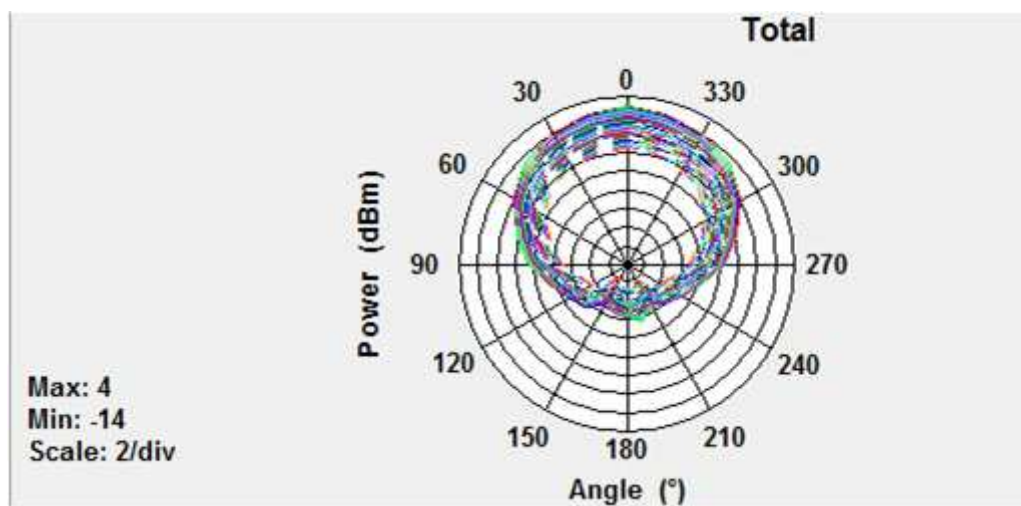


## 6. Antenna Chamber Data

### 6.1 E-Plane

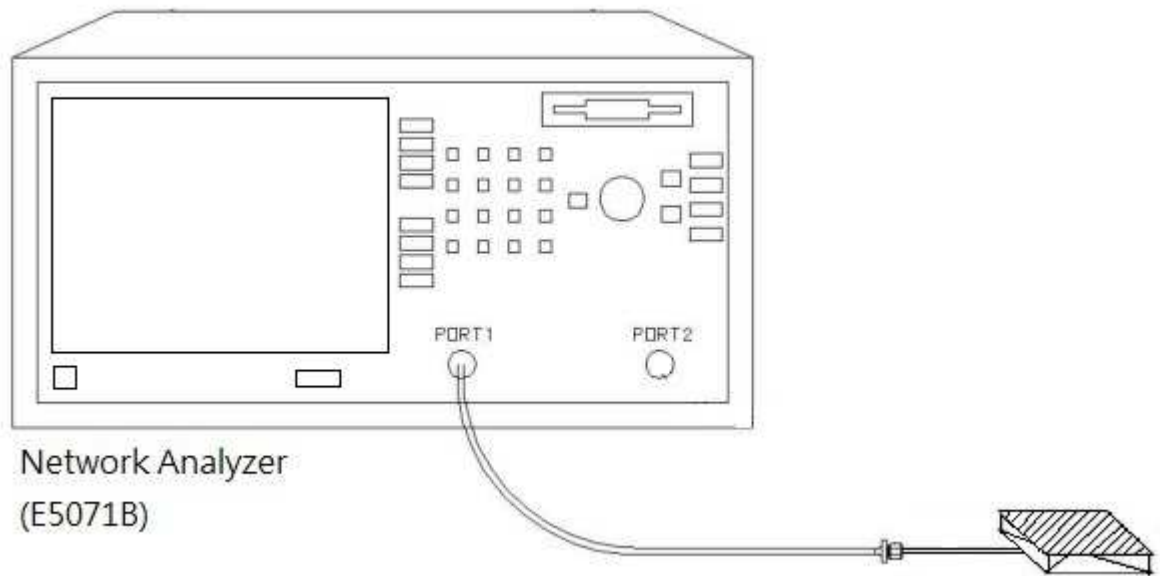


### 6.2 H-Plane

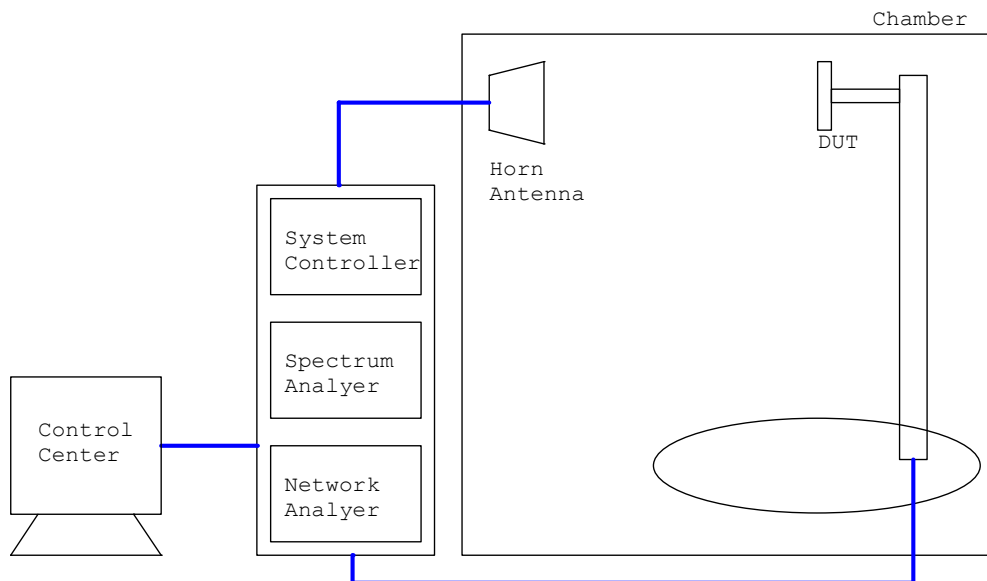


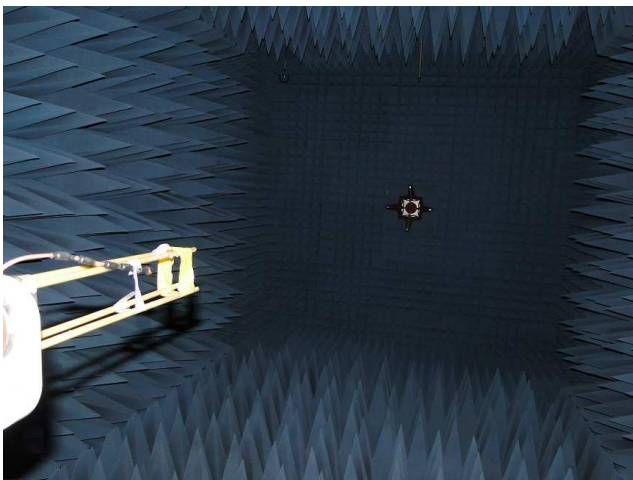
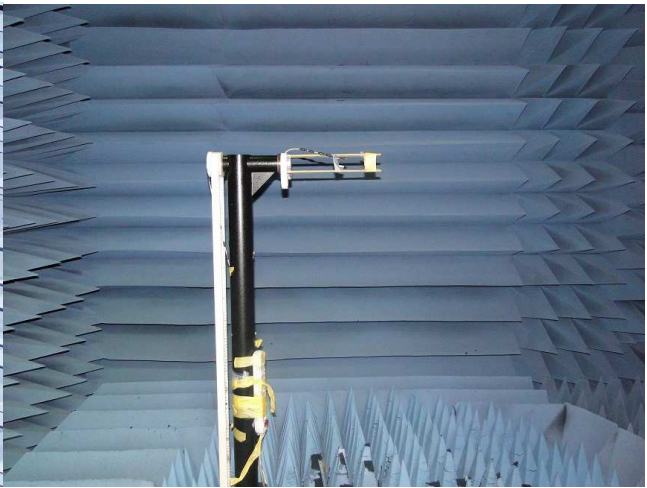
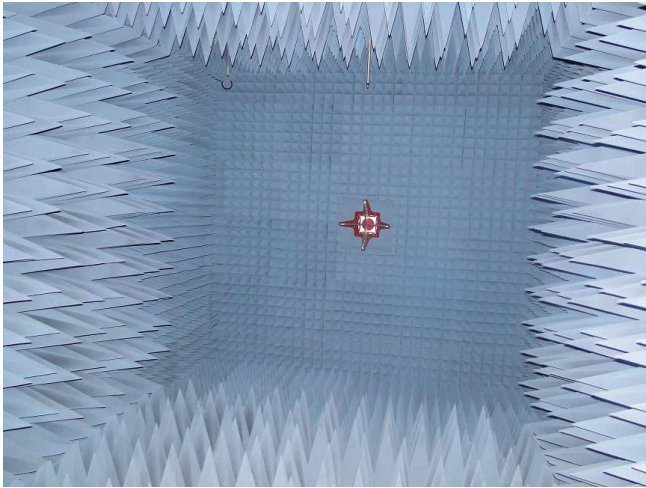
## 7. Measurement Condition

### 7.1 S-parameter Measurement



### 7.2 Gain Measurement







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## 8. Acceptance Criteria(驗收標準)

### 8.1 Return Loss in the housing

8.1.1 902MHz:  $-14\text{dB} \pm 2\text{dB}$

8.1.2 915MHz:  $-20\text{dB} \pm 2\text{dB}$

8.1.3 928MHz:  $-26\text{dB} \pm 2\text{dB}$

### 8.2 VSWR in the housing

8.2.1 902MHz:  $-1.4 \pm 0.2\text{dB}$

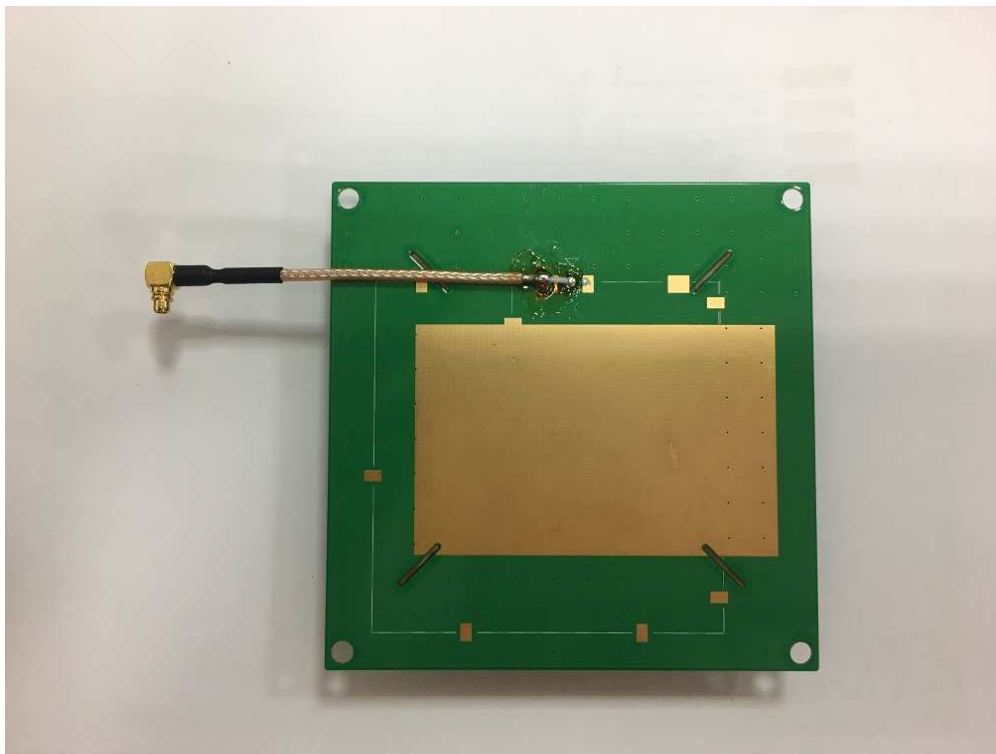
8.2.2 915MHz:  $-1.2 \pm 0.2\text{dB}$

8.2.3 928MHz:  $-1.1 \pm 0.2\text{dB}$

### 8.3 Outward appearance

8.3.1 The 4 holes don't have residual adhesive

8.3.2 The RF Cable soldering method



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## 9. Note (注意事項)

1、 This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.

2、 The product will get free warranty for three months since the date of purchase users operate in the correct way; Users will have to pay cost of the materials and maintaining fee out of the condition.

3、 Electrostatic sensitive device. Observe precautions for handling.

The information in this data sheet is believed to be accurate and reliable. We reserve the right to make changes without prior notice to any specifications of this product. This device is not intended to be used for systems that support or sustain life or for systems where failure may cause personal injury. The customers use this product at their own risk.