

# RFID UHF Antenna

## Datasheet

AUTHORIZED SIGNATURE	
<b>Data</b>	

<b>Customer name</b>	欣技資訊股份有限公司
<b>Customer Number</b>	KZFCUFC367101
<b>Customer Name</b>	RS36 UHFRFID Antenna FCC FAVEPC_GP_S
<b>Product Number</b>	FI-A0710-FCC-03
<b>Product Name</b>	70*70mm 3D Antenna FCC MMCX right angle 60mm cable
<b>Version</b>	1
<b>Date issued</b>	2025/7/3

## 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)	1.5 MAX
4	Return Loss @ Operating Frequency	-15dB 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	H-Plane HPBW (@3dB)	85°
9	E-Plane HPBW (@3dB)	90°
9	Impedance (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	Resistance (電阻)	0R (0603)
4	RF Cable (線材)	RG178
		L=60mm
5	RF Connector (接頭)	MMCX Right Angle

### 3. Environment Condition

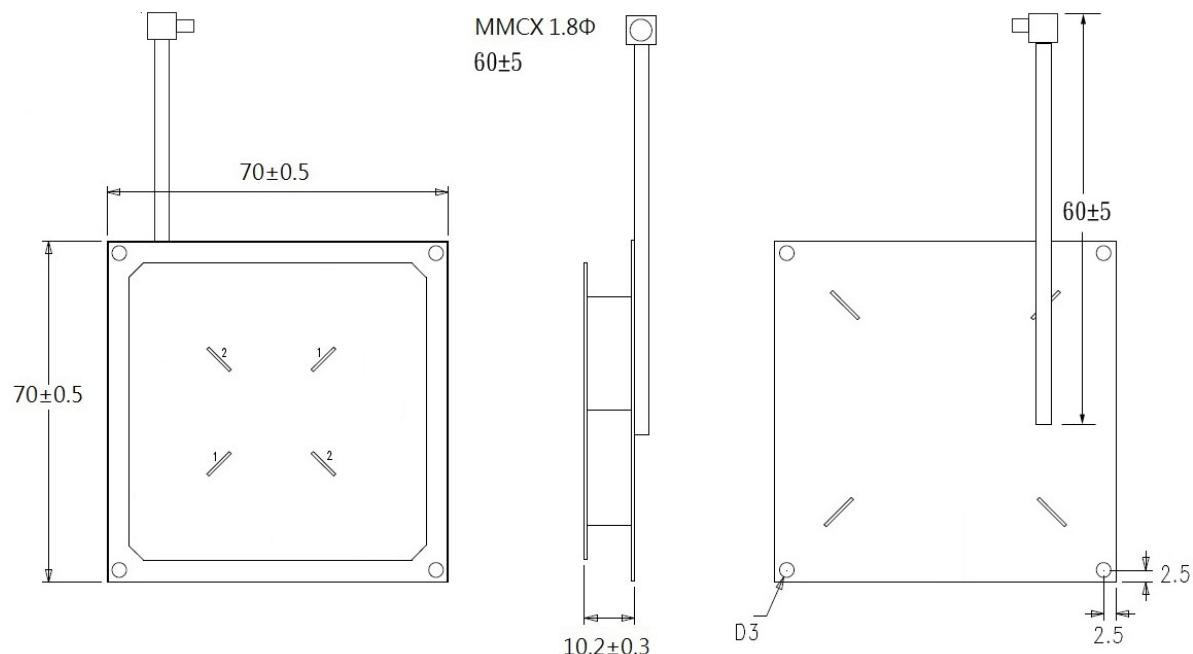
1	Working Temp (工作溫度)	-40°C ~ +85°C, 10% ~ 95% RH
2	Storage Temp (貯存溫度)	-55°C ~ +100°C, 10% ~ 95% RH

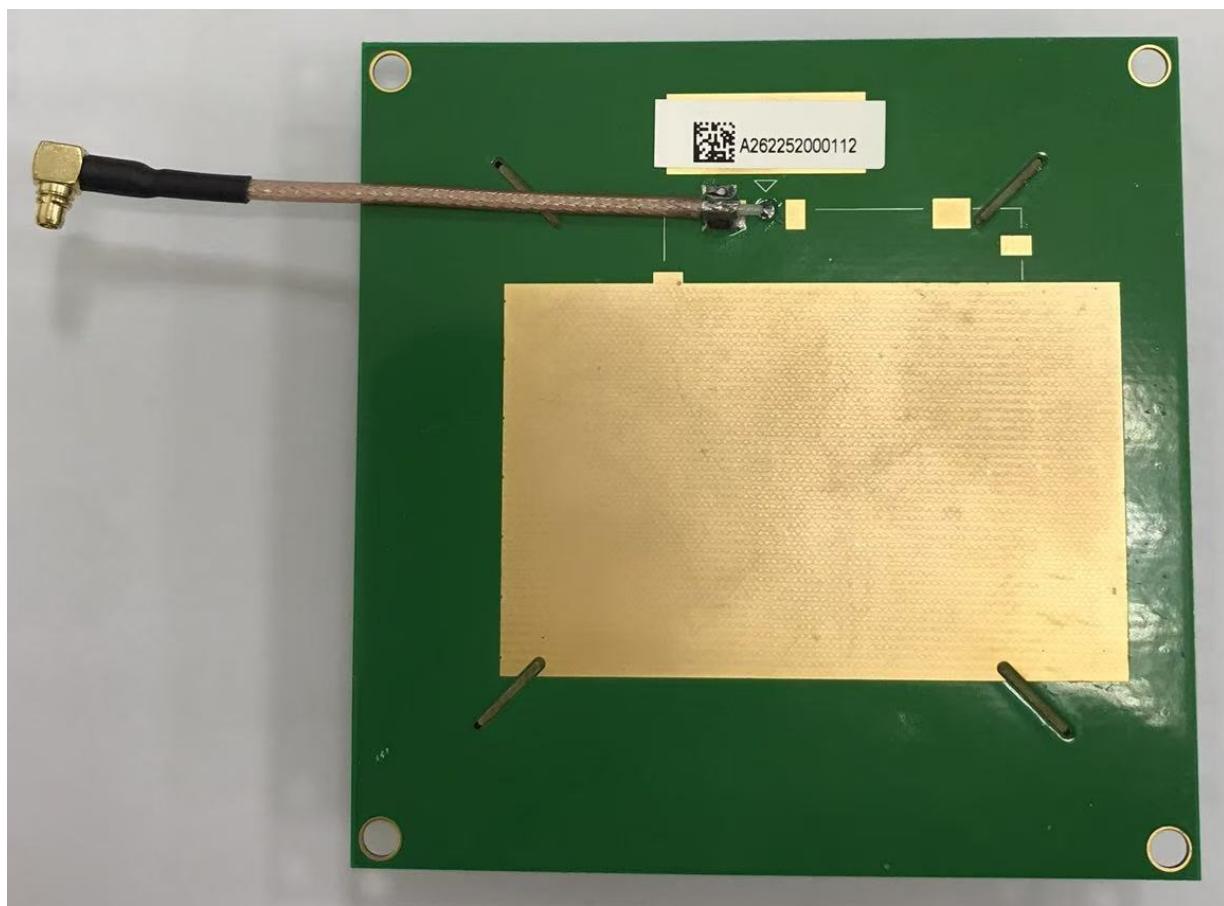
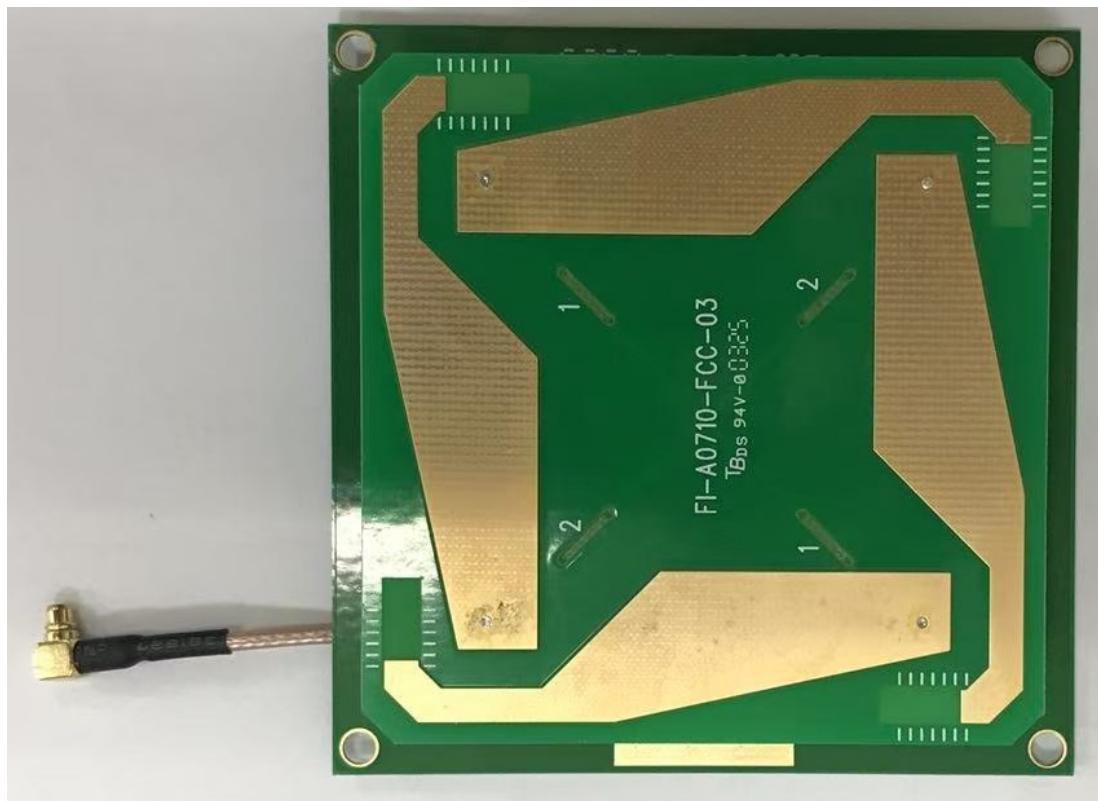
### 4. Dimensions (尺寸)

Tolerance Unless

Otherwise Specified:  $\pm 0.2$

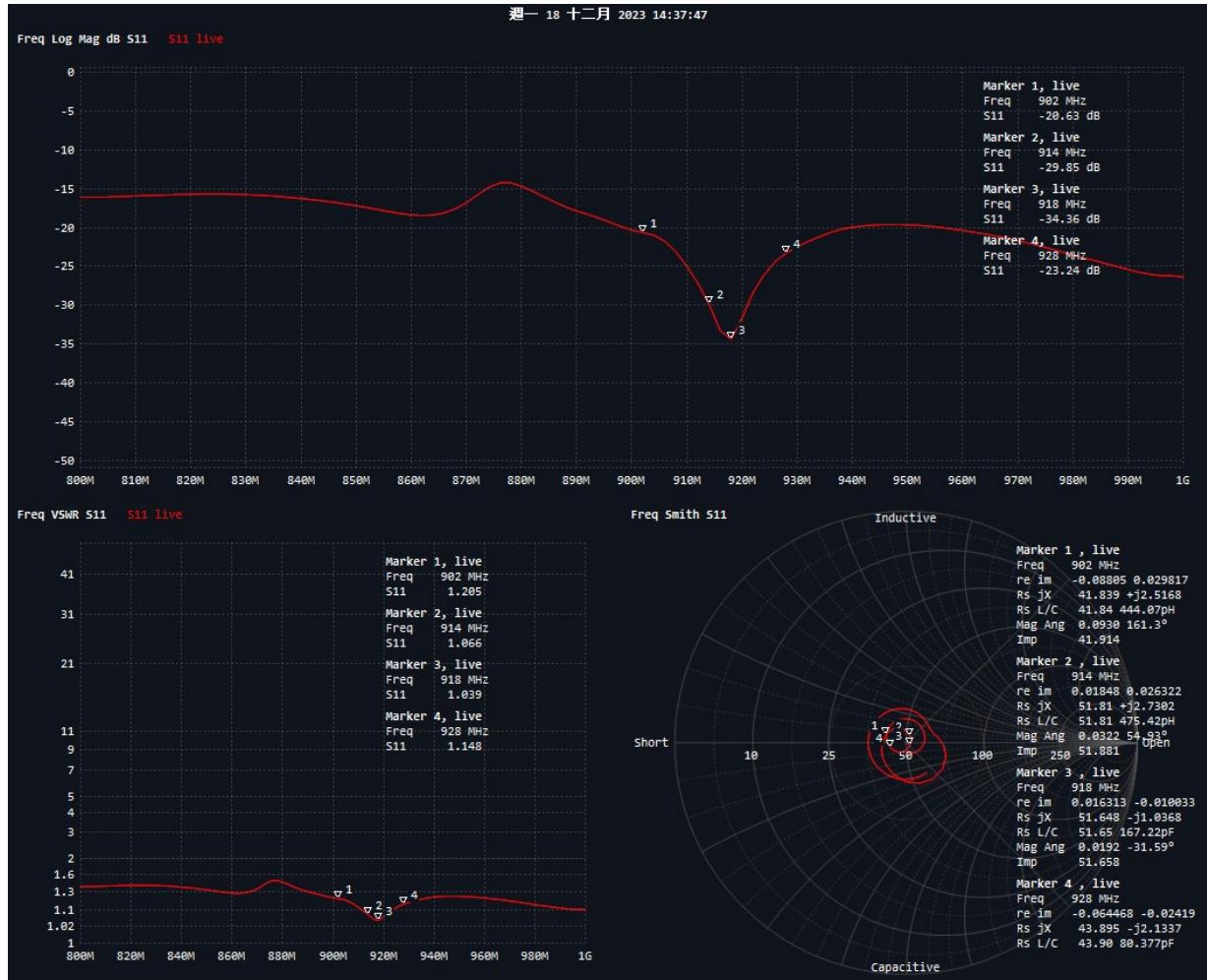
Unit: mm





## 5. S-parameter Data

### 5.1 in the housing



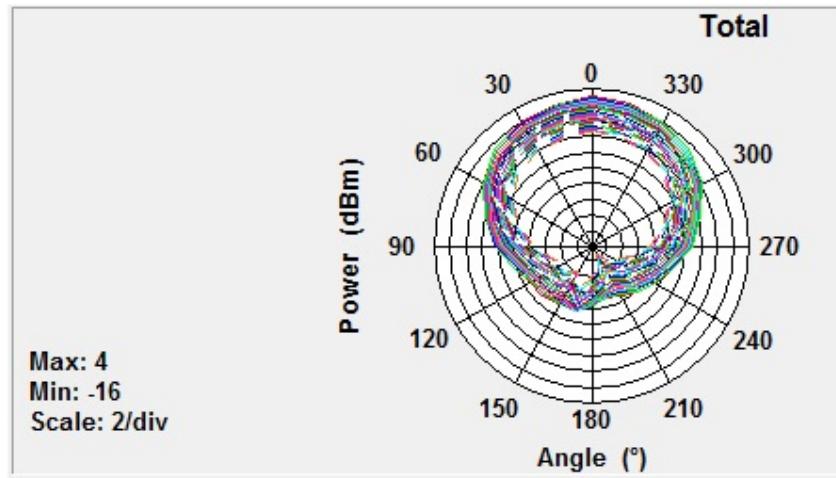
## 6. Antenna Chamber Data

Experimental Setup

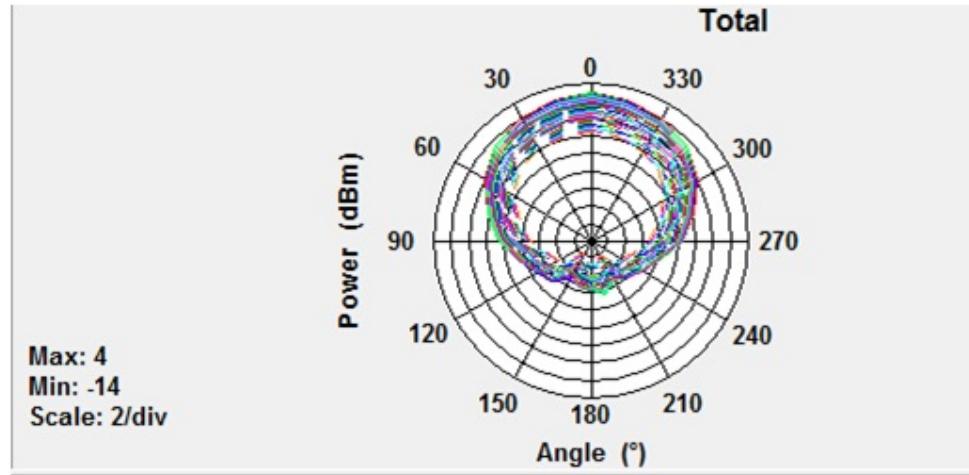
Operating instructions:

1. Place the DUT at the center of the turntable.
2. Connecting the test cable to the DUT, and use the ETS software for passive measurement.
3. During the measured process, ETS-Lindgren will conduct radiation testing with the DUT through 23 probes by a vertical 360-degree; then the turntable will rotate a horizontal 180-degree.
4. After a complete measurement of spherical 3D is completed.

### 6.1 E-Plane



### 6.2 H-Plane



Tester : Tina Lin

Site: Sporton

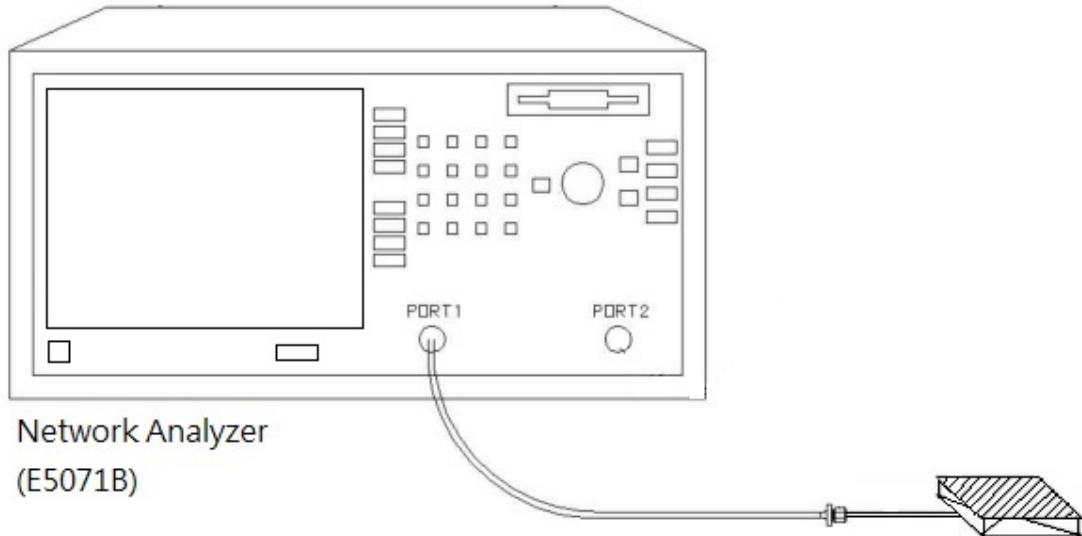
Date: 2025/4/22

Test equipment:

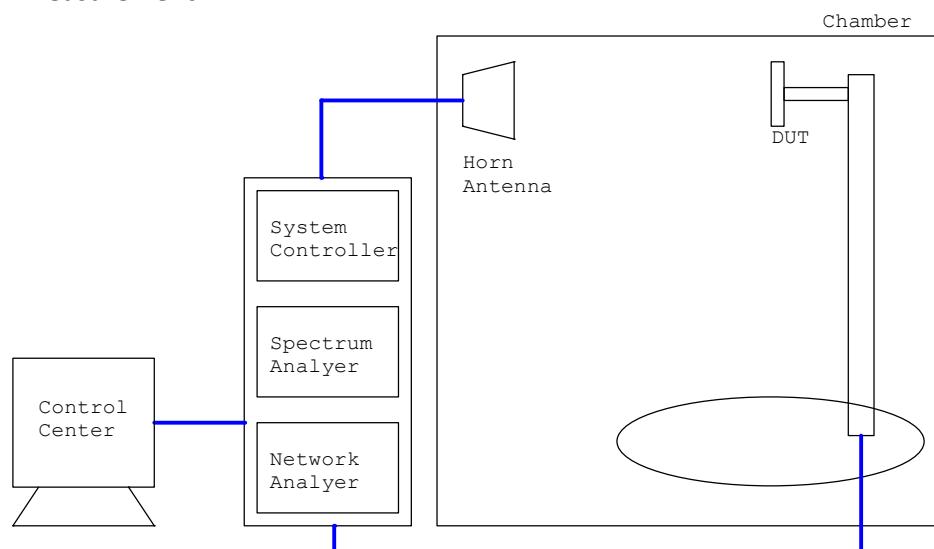
OTA05-HY						
Instrument	Brand Name	Type/Model	Serial Number	Last Cal.	Due Data	
Network Analyzer	Keysight	E5071C	MY46417800	2024.12.24	2025.12.23	
RF Switch	Agilent	3499A	N/A	NCR	NCR	
Multi-Axis Positioner Controller	ETS-Lindgren	2090	N/A	NCR	NCR	
Medium-Duty Positioner	ETS-Lindgren	2015	N/A	NCR	NCR	
Measurement Horn Antenna (400M-10G)	EMCO	3164-10	00239261	NCR	NCR	
ETS Test Software	ETS-Lindgren	ETS_EMQuest	SN:1797	NCR	NCR	
Sleeve Dipole (880MHz-980MHz)	ETS-Lindgren	3126-880	00062693	2023.11.08	2025.11.07	

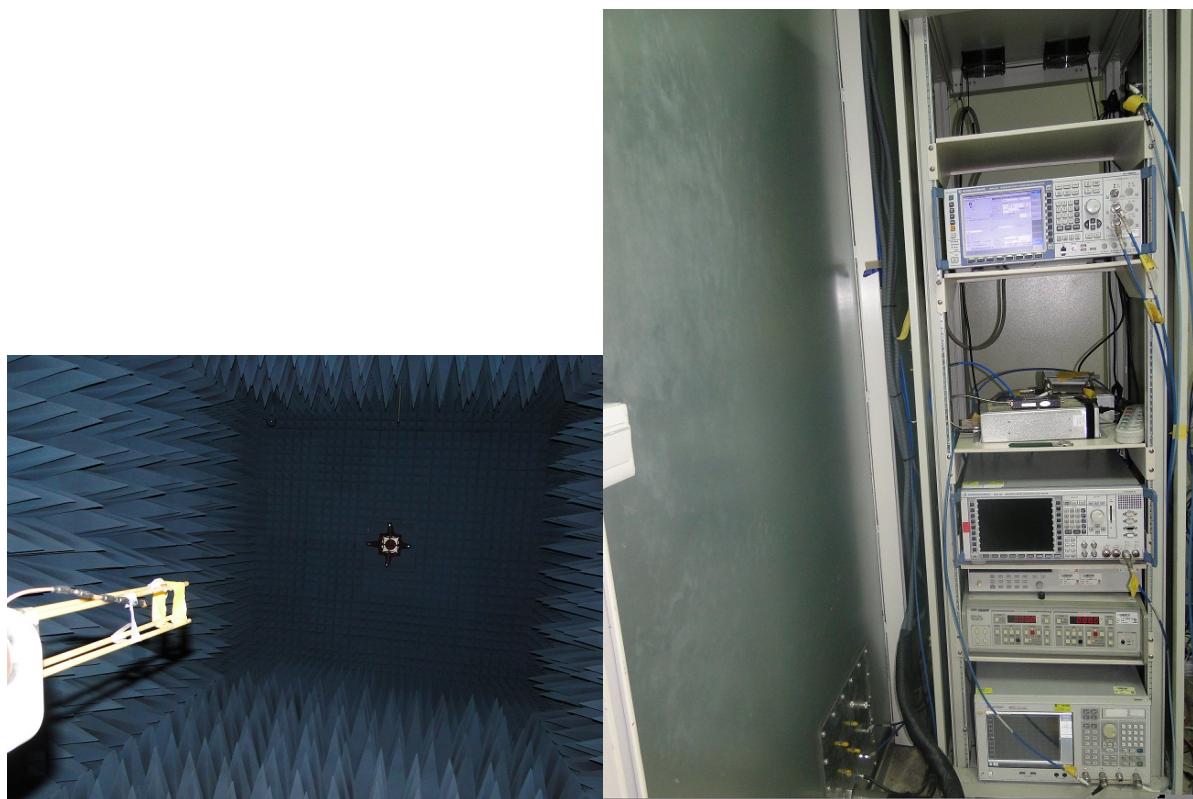
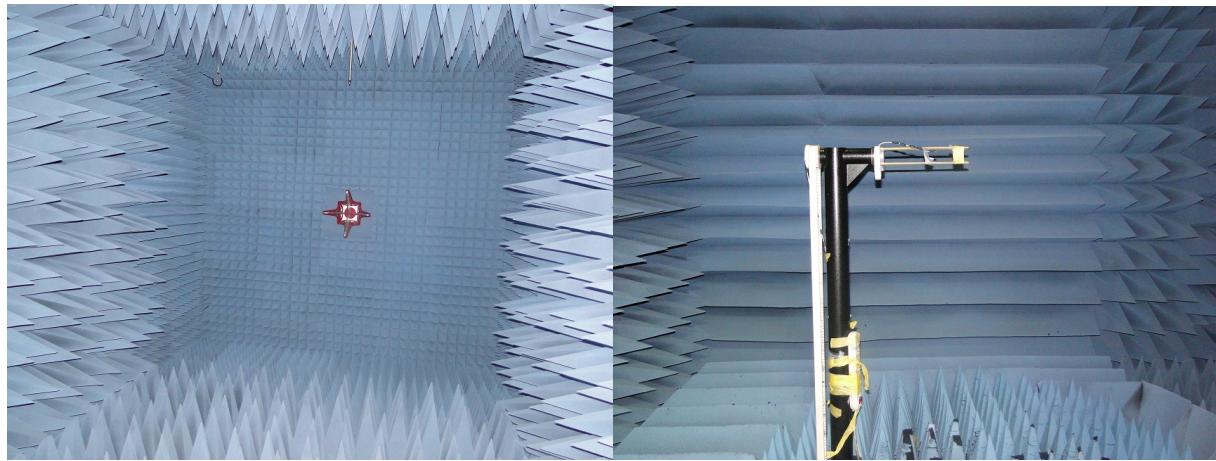
## 7. Measurement Condition

### 7.1 S-parameter Measurement



### 7.2 Gain Measurement





## **8. Acceptance Criteria(驗收標準)**

### **8.1 Return Loss in the housing**

**8.1.1 902MHz: > -15dB**

**8.1.2 915MHz: > -15dB**

**8.1.3 928MHz: > -15dB**

### **8.2 VSWR in the housing**

**8.2.1 902MHz: > -1.5**

**8.2.2 915MHz: > -1.5**

**8.2.3 928MHz: > -1.5**

### **8.3 Outward appearance**

**8.3.1 The 4 holes don't have residual adhesive**

**8.3.2 The RF Cable soldering method**

## **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.