

測試報告

TEST REPORT

CUSTOMER: 緯創資通股份有限公司

CUSTOMER MODEL NO.:

JOYMAX MODEL NO.: IHF-2120MPX9-W018

DESCRIPTION: #2120 Stubby Helical Antenna, Straight type

REV.: A

DATE: 2022/8/11



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1. Specification & Dimension

ITEM		PART NO.		PART NAME		RAW MTL COLOR		ARTWORK		MATERIAL		FINISH PROCESS		FINISH COLOR	
1		025.9024J.M001		FGR-70F BT ANTENNA BY JOYMAX		NONE		NONE		NONE		NONE		NONE	

Electrical Properties Frequency Range 2.4~2.4835GHz Impedance 50Ω V.S.W.R. ≤3.0 Radiation Omni Gain Unity Polarization Vertical Test Ground Size N/A		Mechanical Properties Radome Material Plastic Connector Type I-PEX MHF1 Dimension L=13.5mm Weight 3 g (est.) Operating Temp. -40°C~+75°C Storage Temp. -40°C~+75°C	
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UNLESS OTHERWISE SPECIFIED TOLERANCES ON:	DRN	NAME
X ± 0.5	KYLIU	BT ANTENNA BY JOYMAX
X.X ± 0.25	NICK	IHF-2120MPX9-W018
X.XX ± 0.1	SARA	
ANG. ± 1.5°	MATT	

MODEL	NAME	REV	DESCRIPTION	SIGN/DA
FGR-70F	BT ANTENNA BY JOYMAX			
DRN	MATERIAL			
DSN	FINISH			
CKD				
APPD				

DRAWING NO.	SHEET	OF
IHF-2120MPX9-W018	1	1

Technical drawing showing dimensions and components:

- Antenna diameter: $\phi 7.8 \pm 0.5$
- Antenna length: 14
- Hexagonal top diameter: 9Hex.
- Hexagonal bottom diameter: $\phi 5.35$
- Threaded section length: 10 ± 0.2
- Thread specification: 1/4" - 36NUS-2A
- Component: Heat Shrink Tube
- Cable diameter: $\phi 1.13$ (Gray)
- Length of cable section: 180 ± 10
- Terminal: I-PEX MHF1
- Assembly includes: Nut x1 (8Hex., length 1.8) and Washer x1 ($\phi 10.5$)

2. Test Procedure

V.S.W.R

- Test without ground
- Test with ground

2D Radiation Pattern Test

- Test with ground

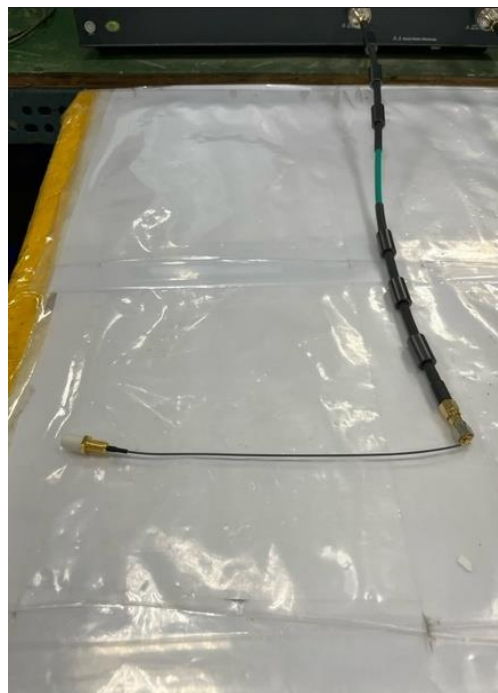
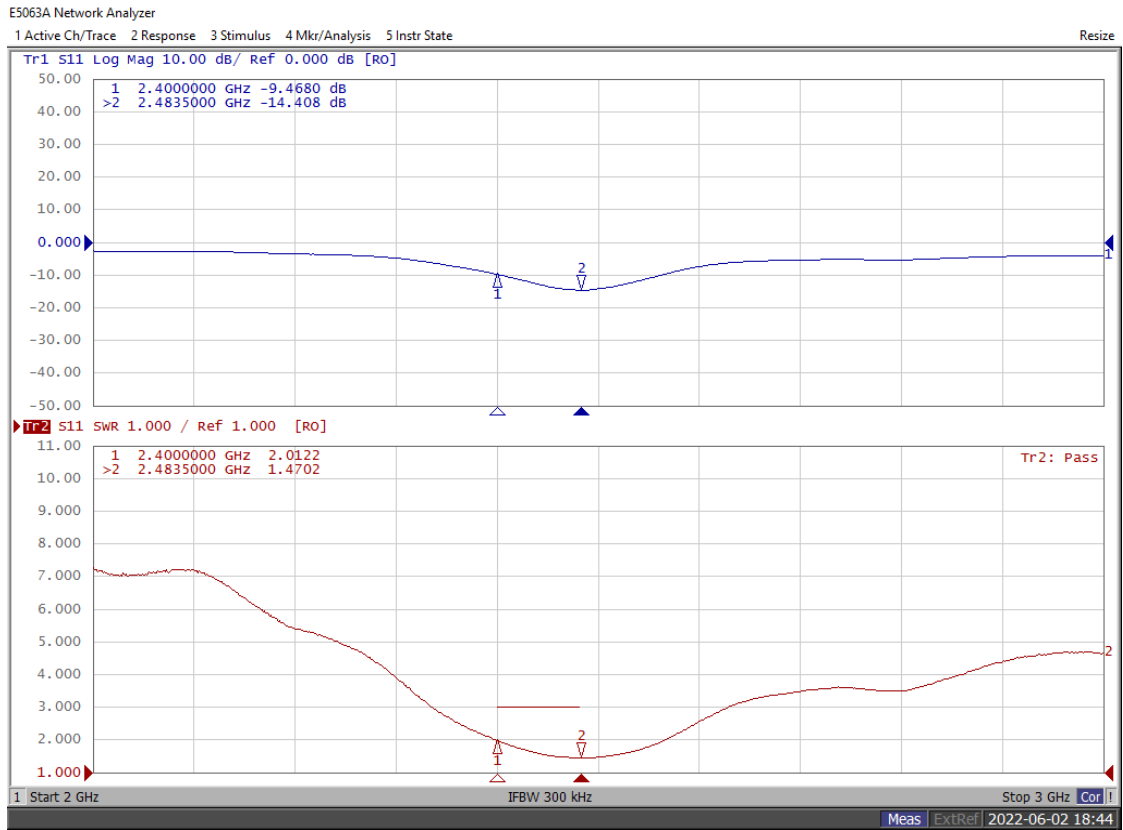
3D Radiation Pattern Test

- Test with ground

2. Test Condition & Report

2.1 V.S.W.R

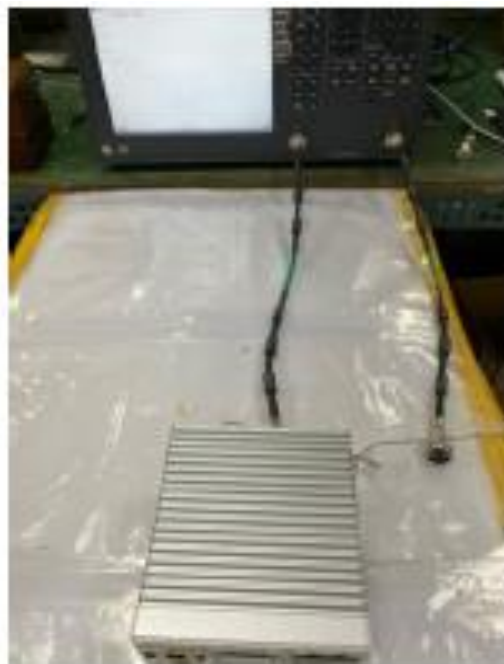
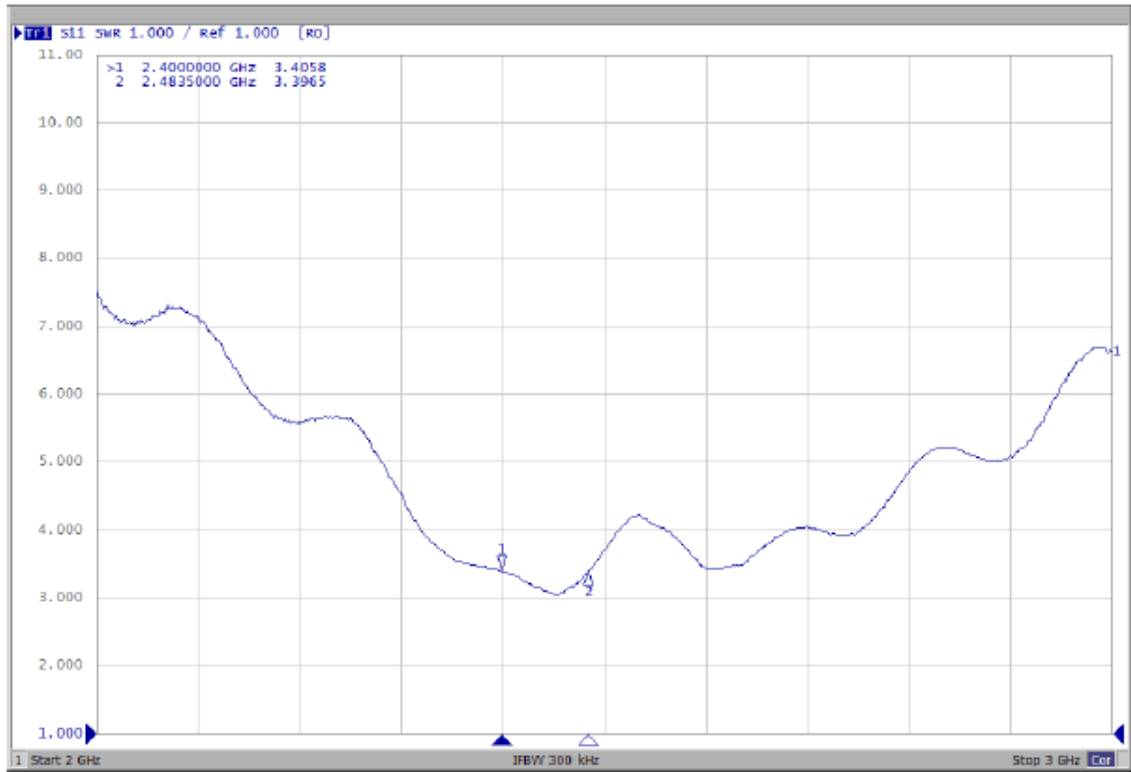
V.S.W.R.



2. Test Condition & Report

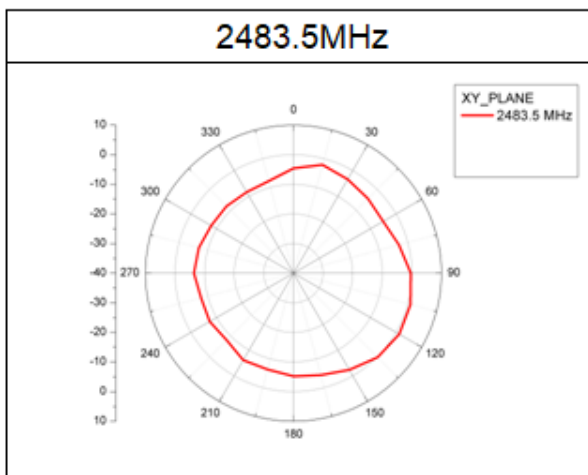
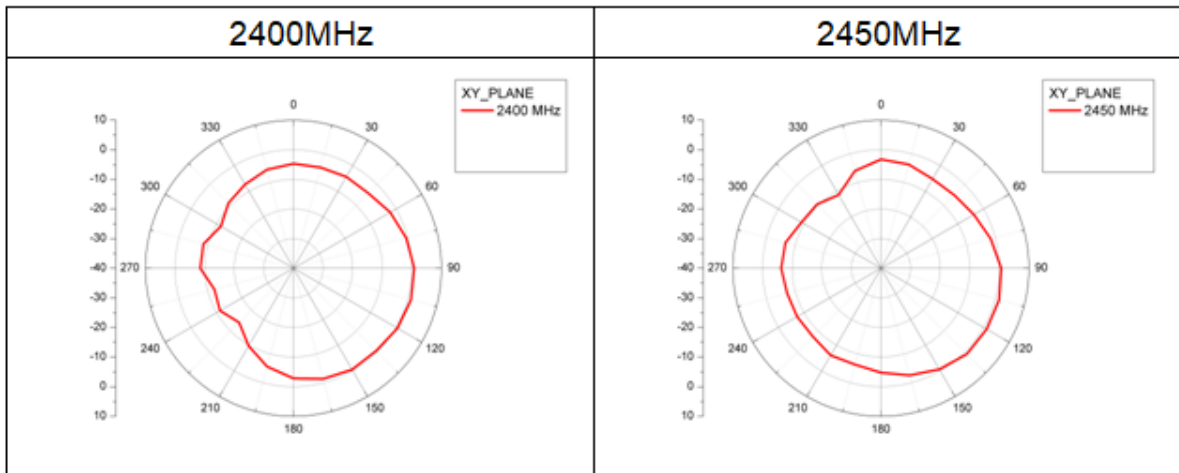
2.1 V.S.W.R

V.S.W.R.



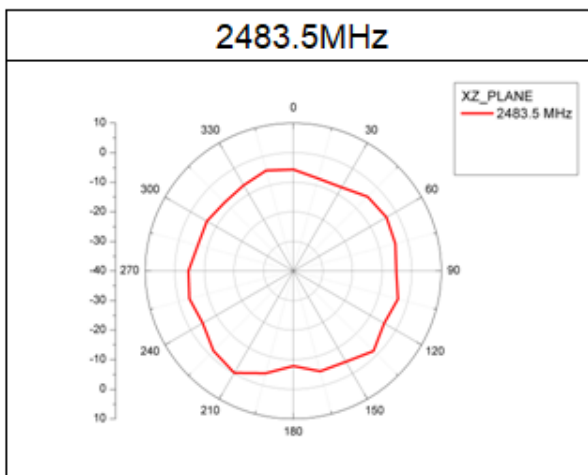
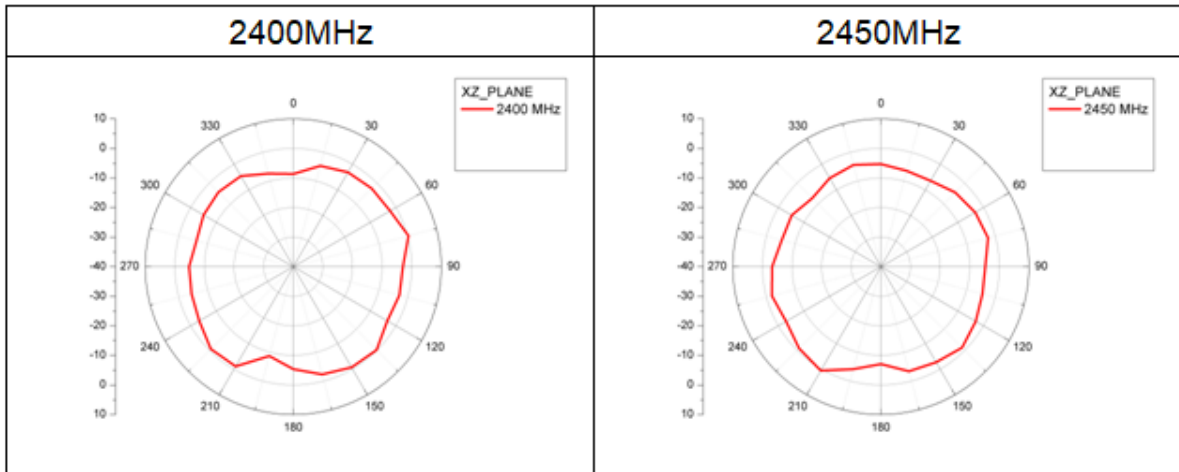
2.2 2D Radiation Pattern(With ground)

X-Y PLANE



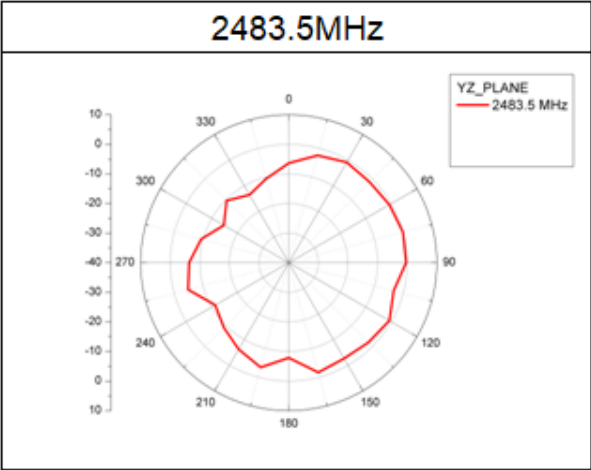
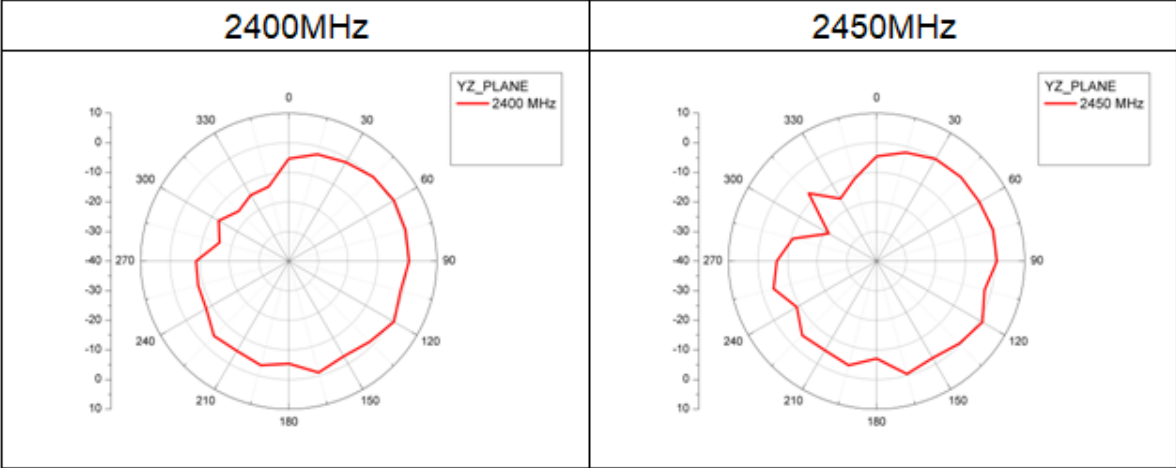
2.2 2D Radiation Pattern(With ground)

X-Z PLANE

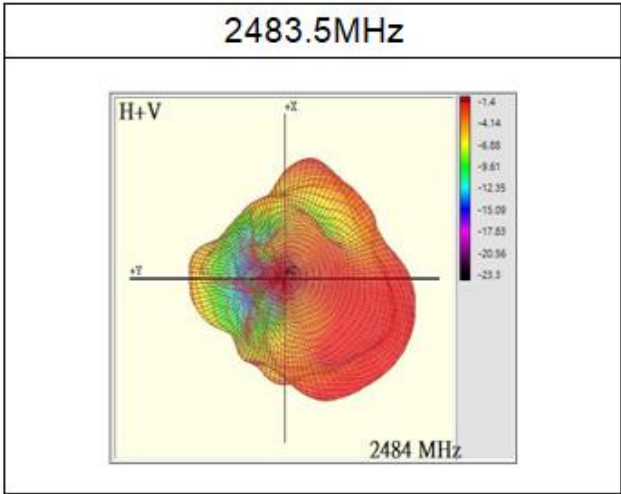
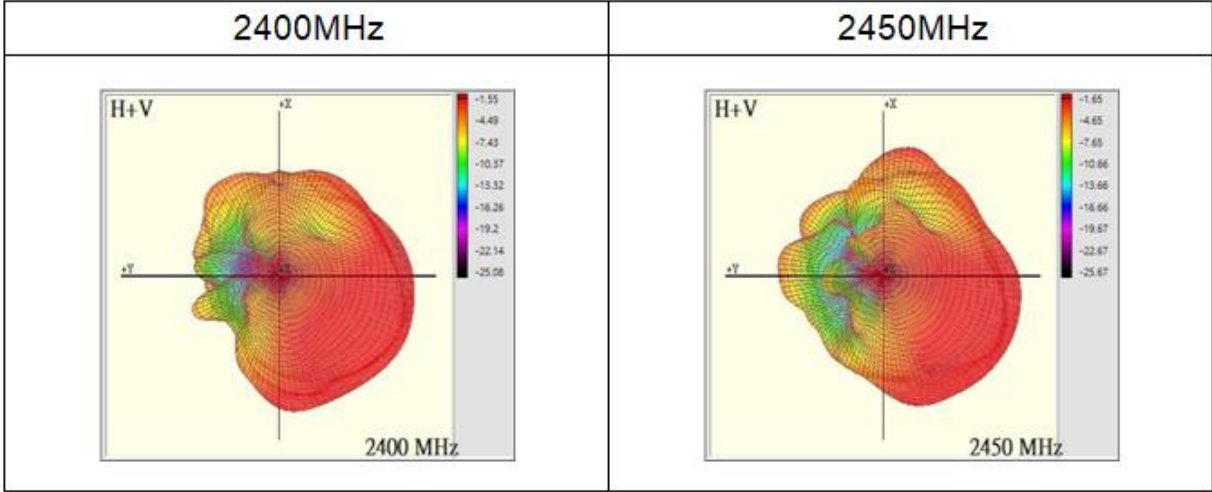


2.2 2D Radiation Pattern(With ground)

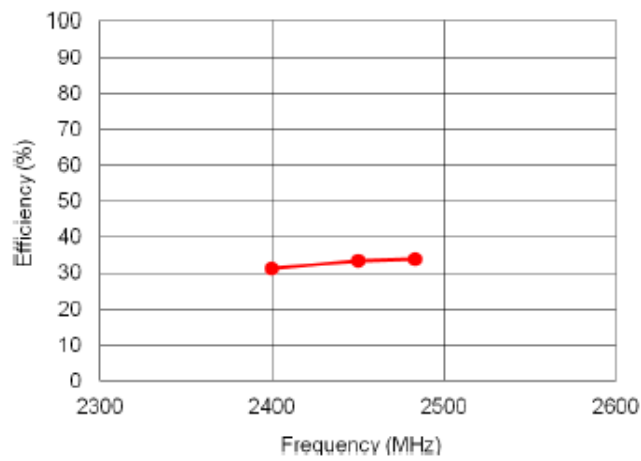
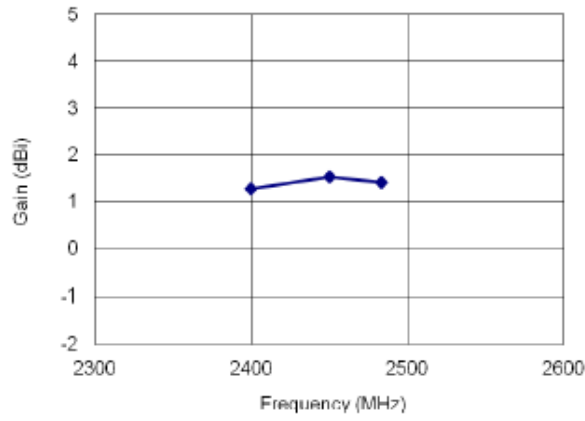
Y-Z PLANE



2.2 3D Radiation Pattern(With ground)



2.3 Gain and Efficiency



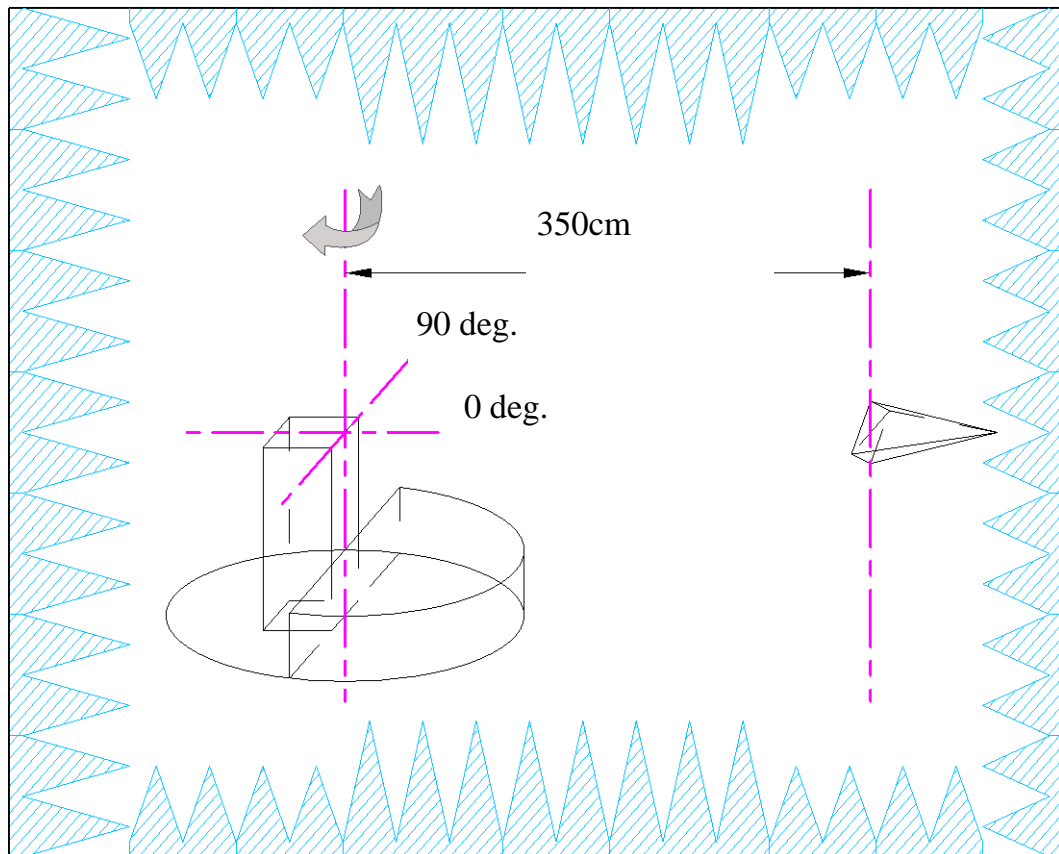
Frequency (MHz)	2400	2450	2483.5
Gain (dBi)-	1.28	1.53	1.42
Efficiency (%)	31.26	33.42	33.89

Pattern Test Equipment

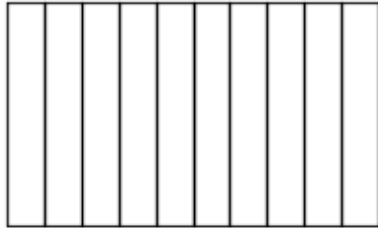
Anechoic chamber: 100MHz~6GHz 8*6*6m (※ 1m Quiet zone at 800MHz)

Source Antenna: ETS-3164 Dual Polarized Horn

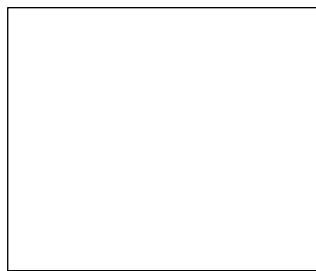
Network Analyzer: Agilent E5071B 100kHz~8.5GHz



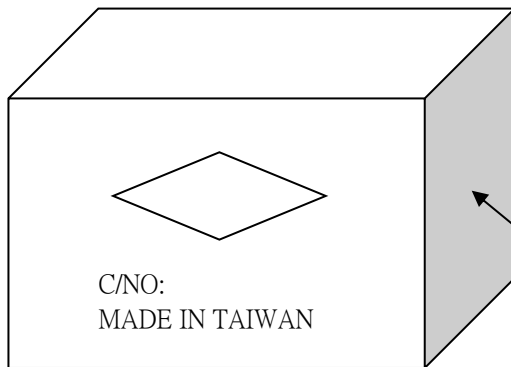
3. Package



① 20pcs antenna / 1 PE bag



② 100pcs antenna / 1 PE bag



③ 1000pcs antenna / 1 Carton

MODEL No.:	
Q'ty:	PCS
N.W:	PCS
G.W:	PCS

Packing q'ty is for reference only, adjust it based on production packing.