承　認　書

APPROVAL SHEET

JOYMAX MODEL NO.: IHF-2120MPX9-W018

DESCRIPTION: #2120 Stubby Antenna, Straight type

Antenna type: Monopole

REV.: B

DATE: 2022/10/28

Customer Approval	Joymax Approval
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E-mail: info@joymax.com.tw

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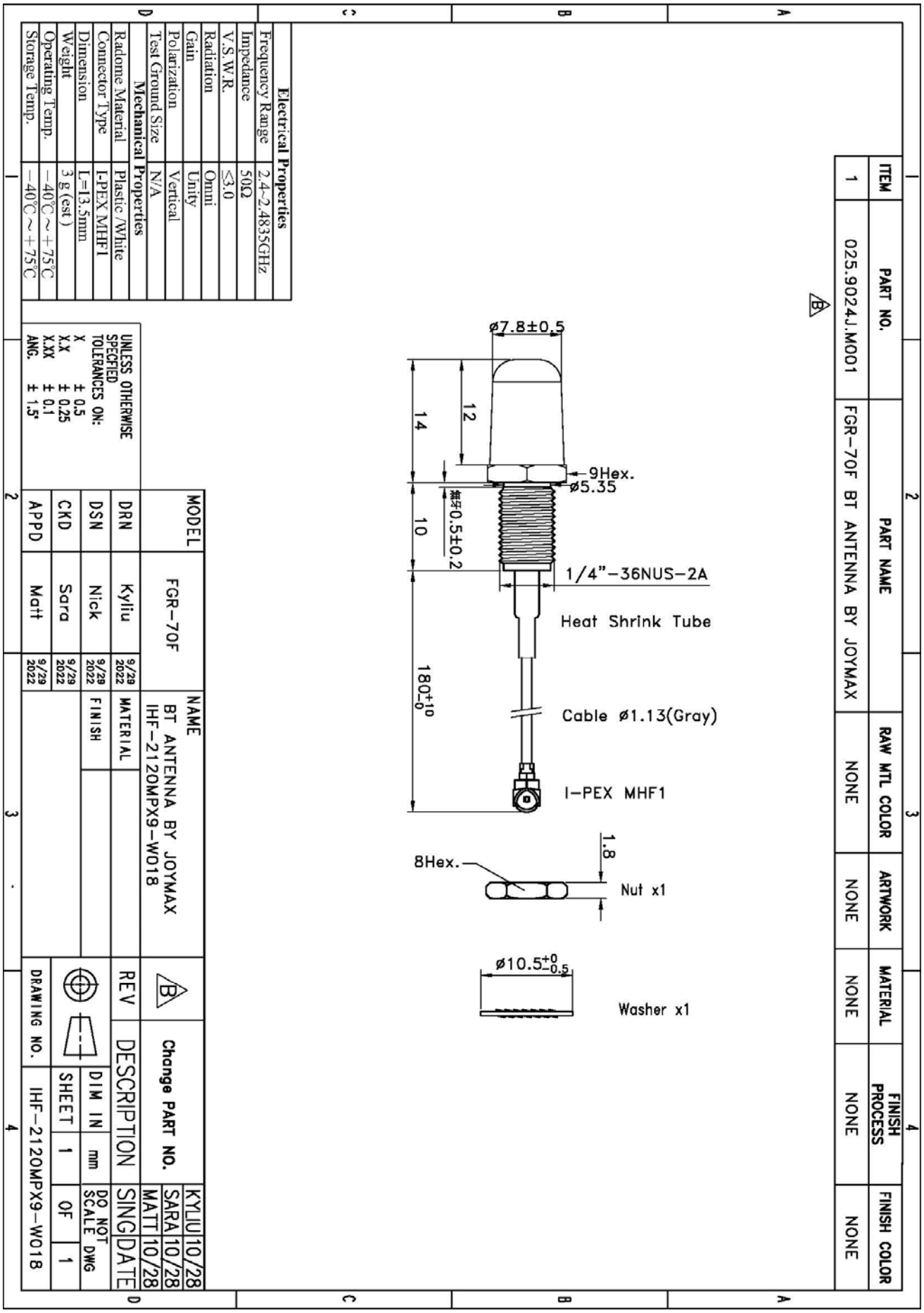
http://www.joymax.com.tw

Index

Modification History:

Rev.	Date	Content
A	**2022/10/12**	
B	**2022/10/28**	**Change PART NO.**

1. Specification & Dimension



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 /White
Connector Type	I-PEX MHF1
Dimension	L=13.5mm
Weight	3 g (est.)
Operating Temp.	-40℃ ~ +75℃
Storage Temp.	-40℃ ~ +75℃

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

UNLESS OTHERWISE SPECFIED TOLERANCES ON:
X ± 0.5
X.X ± 0.25
X.XX ± 0.1
ANG. ± 1.5°

MODEL	FGR-70F	NAME	BT ANTENNA BY JOYMAX IHF-2120MPX9-W018
DRN	Kyliu	9/29 2022	MATERIAL
DSN	Nick	9/28 2022	FINISH
CKD	Sara	9/29 2022	
APPD	Matt	9/29 2022	

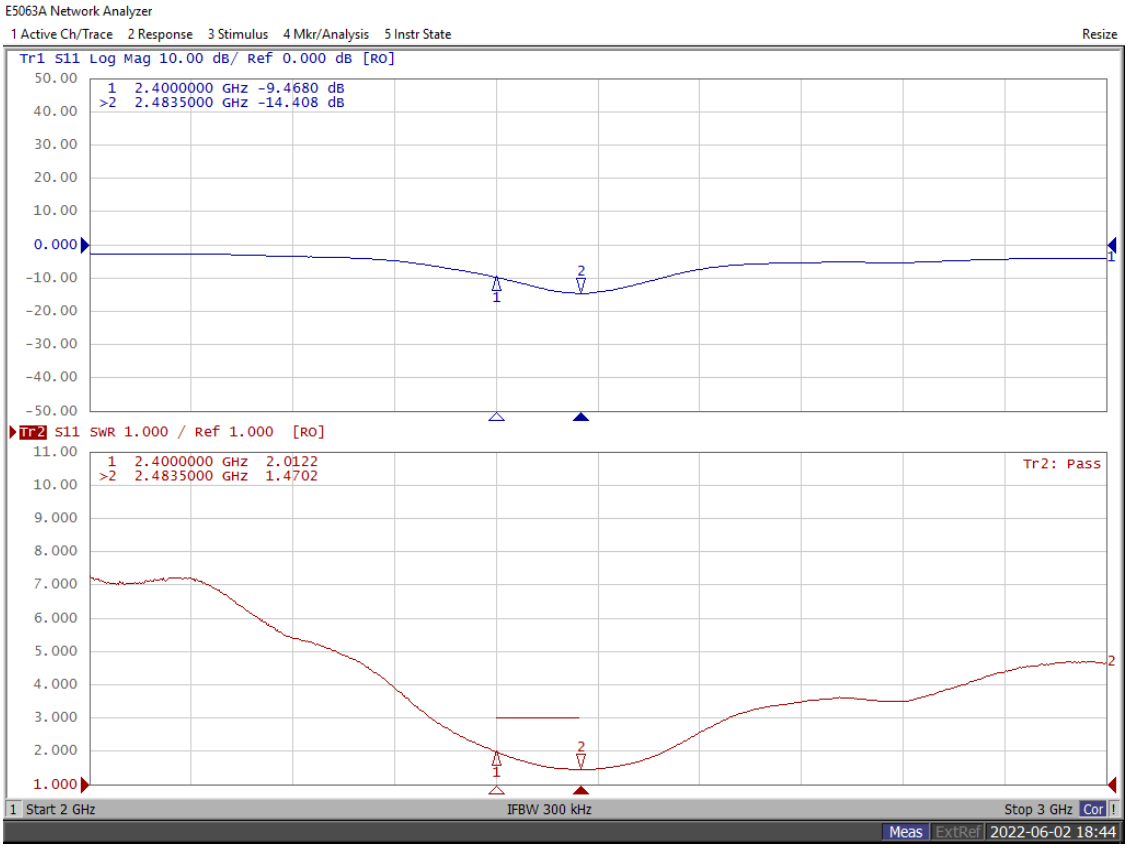
REV	DESCRIPTION	Change PART NO.	
	SING	KYLIU	10/28
	SARA	10/28	
	MATT	10/28	

DRAWING NO. IHF-2120MPX9-W018

DIM IN mm | SHEET 1 OF 1 | DO NOT SCALE DWG

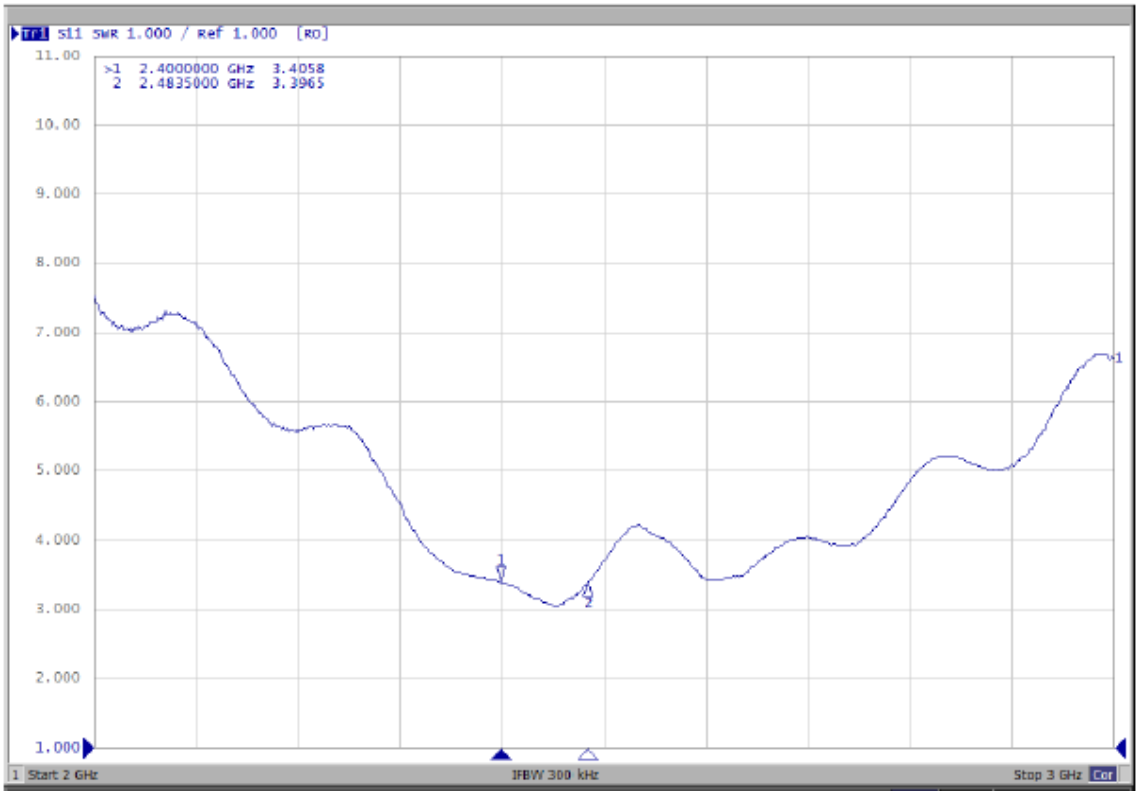
2.Test Condition & Report
2.1 V.S.W.R

V.S.W.R.



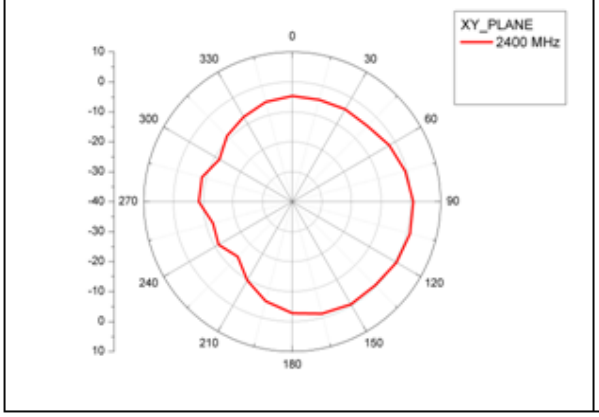
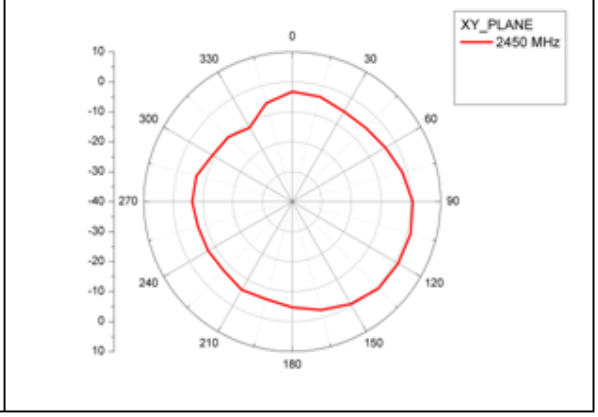
2.Test Condition & Report
2.1 V.S.W.R

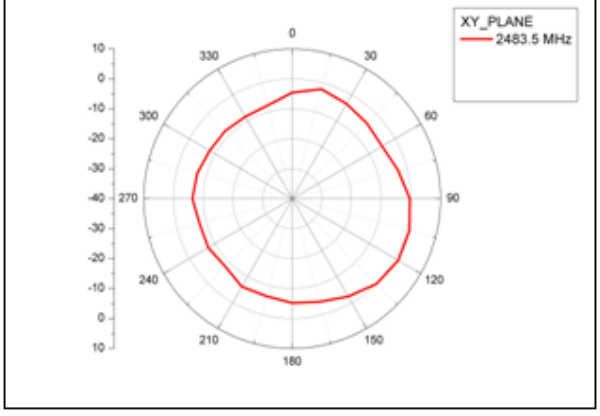
V.S.W.R.



2.2 2D Radiation Pattern(With ground)

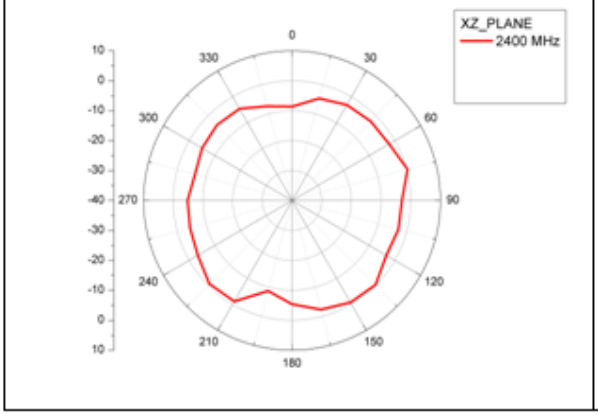
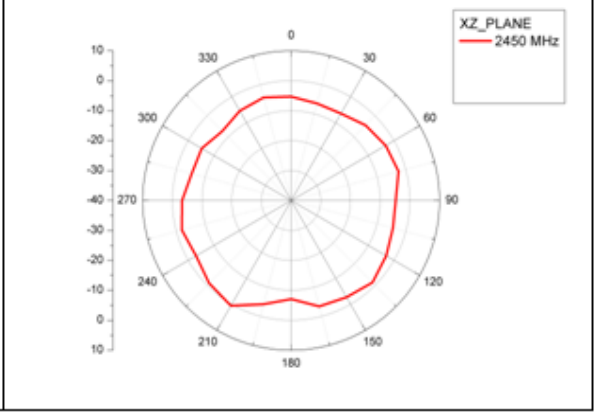
X-Y PLANE

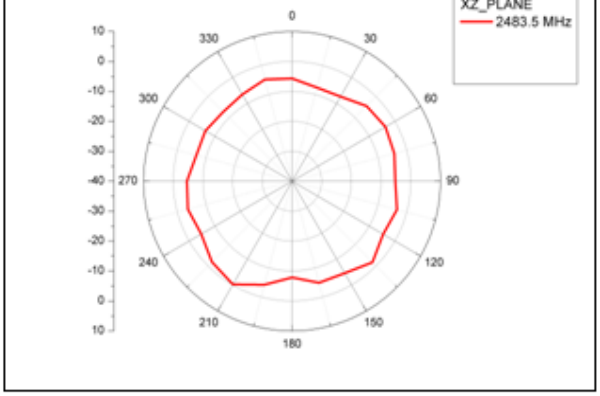
2400MHz	2450MHz
	

2483.5MHz


2.2 2D Radiation Pattern(With ground)

X-Z PLANE

2400MHz	2450MHz
	

2483.5MHz


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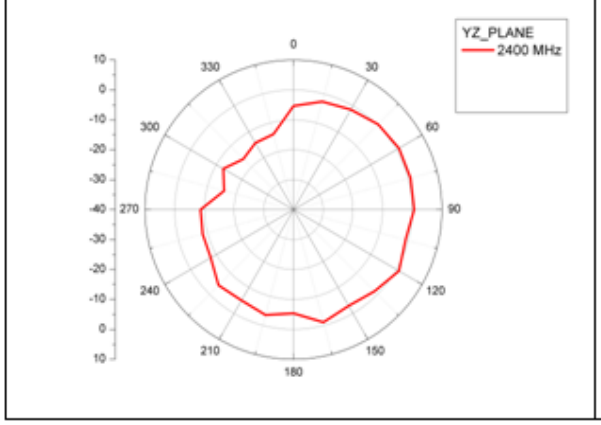
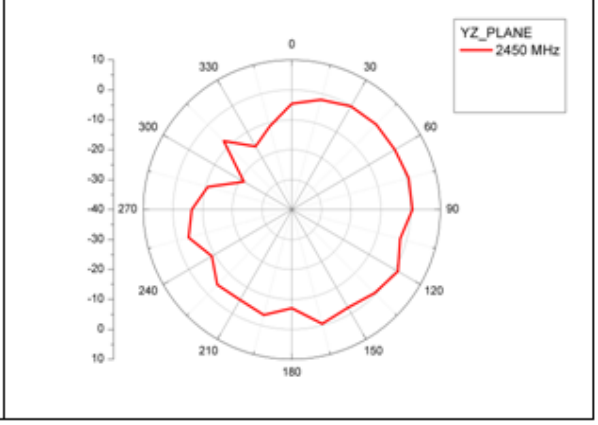
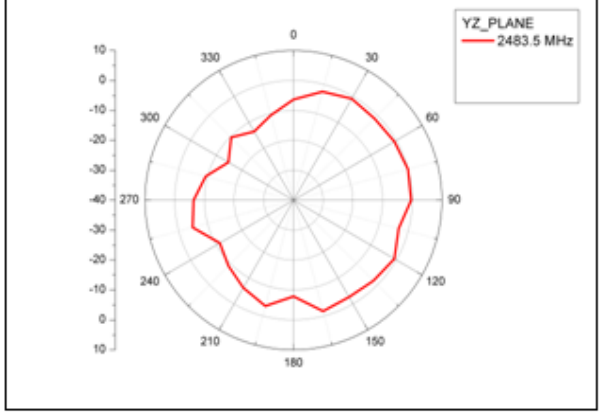
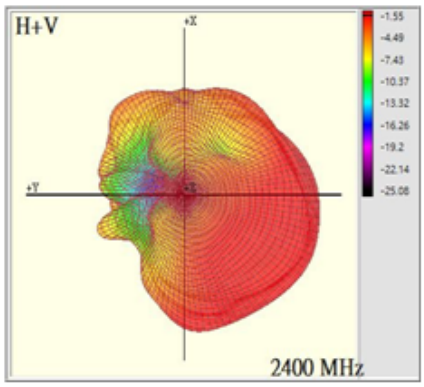
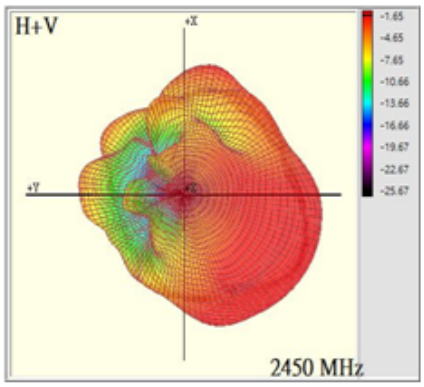
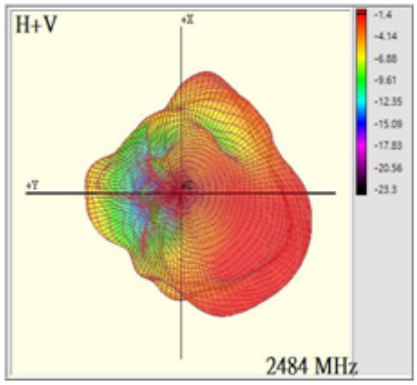
Y-Z PLANE

2400MHz	2450MHz
	

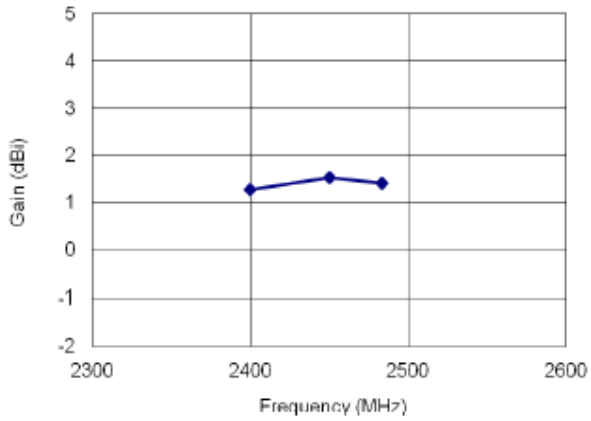
2483.5MHz


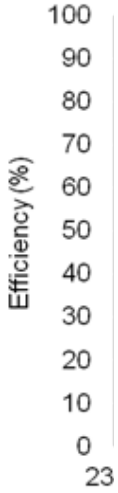
2.2 3D Radiation Pattern(With ground)

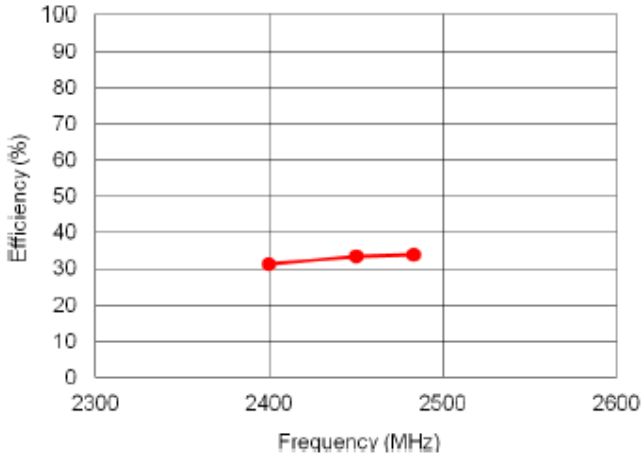
2400MHz	2450MHz
	

2483.5MHz


2.3 Gain and Efficiency



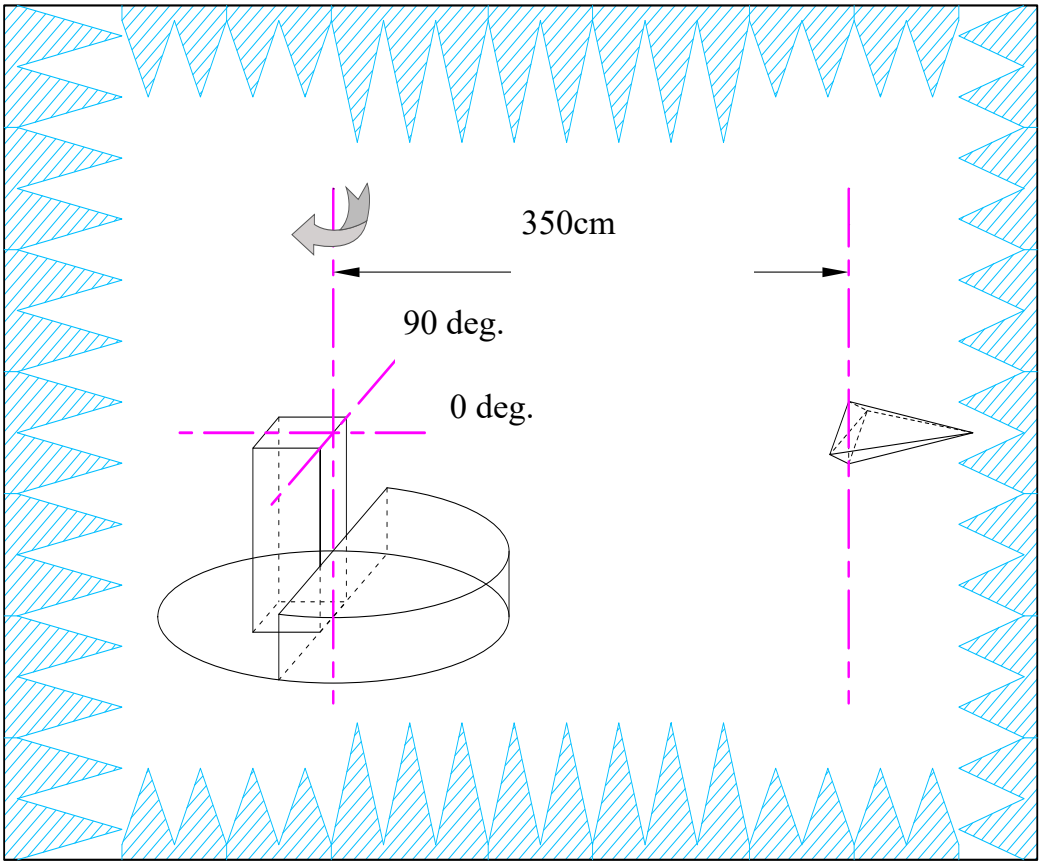




Frequency (MHz)	2400	2450	2483.5
Gain (dBi)-	1.28	1.53	1.42
Efficiency (%)	31.26	33.42	33.89

Pattern Test Equipment

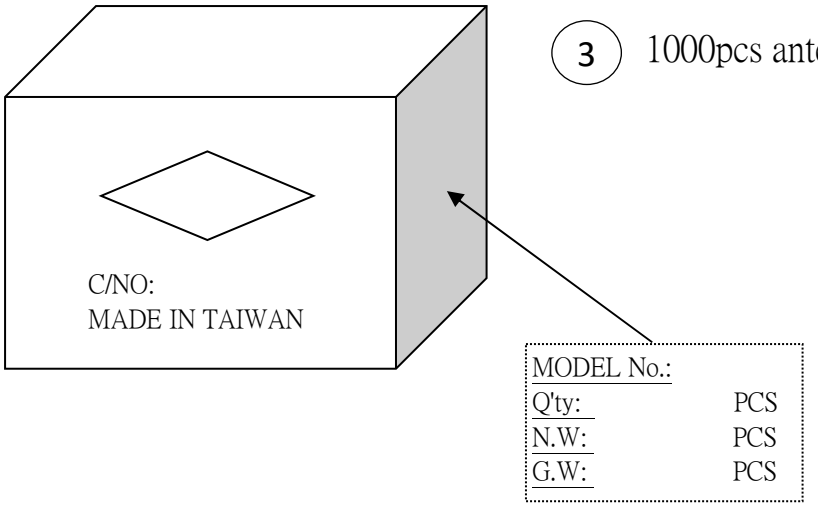
Anechoic chamber: 100MHz~6GHz 8*6*6m (※ 1m Quiet zone at 800MHz)
Source Antenna: ETS-3164 Dual Polarized Horn
Network Analyzer: Agilent E5071B 100kHz~8.5GHz



3. Package

1 10pcs antenna / 1 bubble bag

2 50pcs antenna / 1 PE bag



3 1000pcs antenna / 1 Carton

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