



FG-120G

025.9028D.0001

Model: ARY196-0047-012-00

Engineer : Ting

Report date : 2023/05/19 REV.04

Wieson Address: 新北市汐止區大同路一段237號15樓

15F,No.237,Sec.1,Datong Rd., Xizhi Dist., New Taipei City 221006, Taiwan



Revision History

Revision	Date	Engineer	Description
01	2022/05/16	Ting	New Release
02	2022/06/08	Roy	update data
03	2022/06/17	Ting	update data
04	2023/05/19	Ting	Antenna design

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- ◆ **The antenna Vector network analyzer measurement**
 - **Antenna S Parameter measurement**
- ◆ **The antenna anechoic chamber measurement**
 - **Antenna Gain Value**

Antenna specification

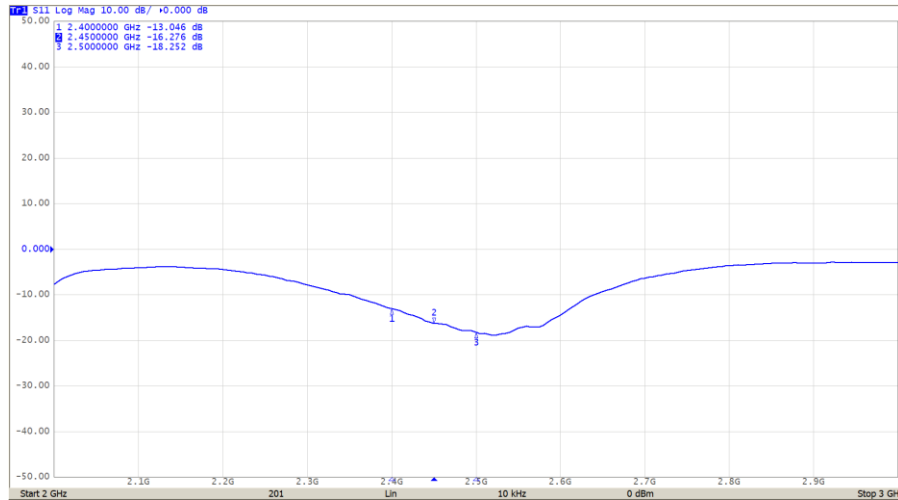
Item	Specification
Operating Frequency(MHz)	2400-2500
Bandwidth	100MHz (Min.)
Return Loss	9dB Typical
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Antenna Type	Dipole
Peak Gain	2.44dBi (Max)
Impedance	50Ω
Material	PCB
Maximum Power	1W
V.S.W.R	2.1 : 1
Radiation	Omni directional
Efficiency	39% (Max)
Connector	MHF I
Cable type	OD: 1.13
Operating Temperature	-55~125°C
Storage temp	5~40°C

Antenna photo



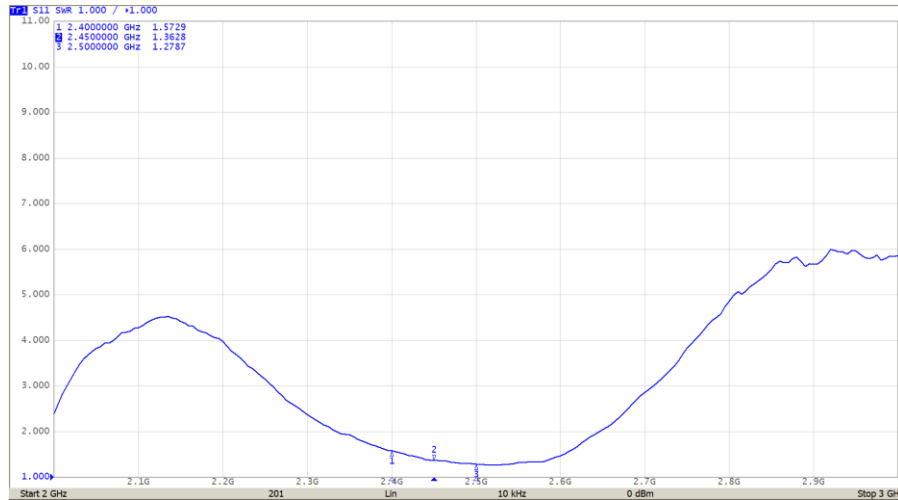
Antenna Measurement Vector Network Analyzer

S-Prameter



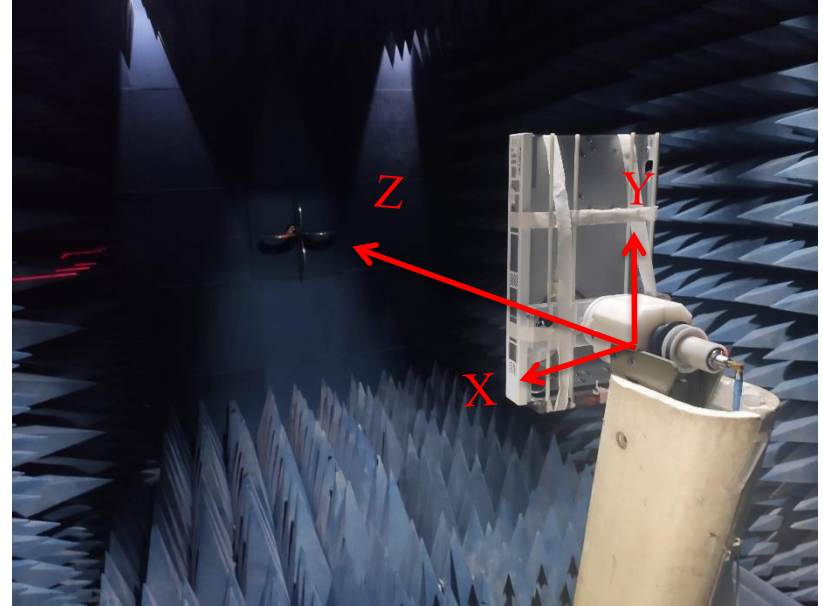
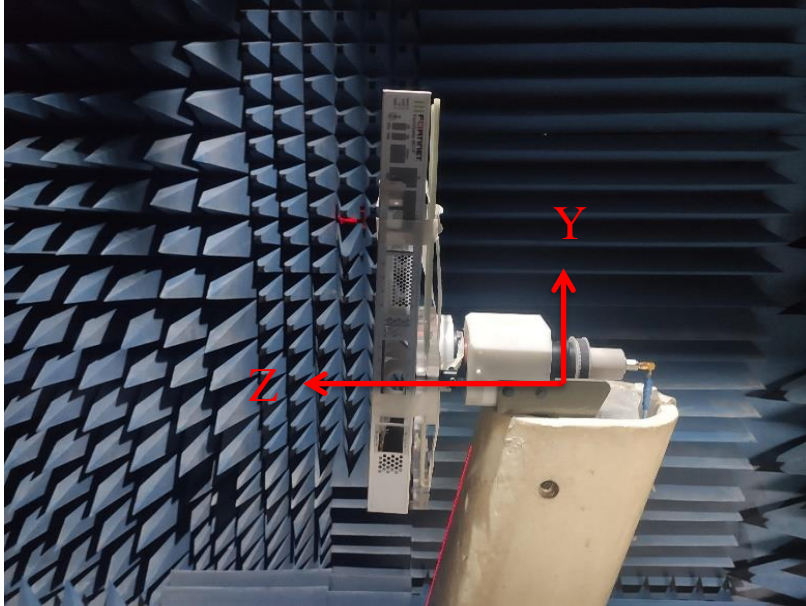
Frequency (MHz)	2400	2450	2500
S11(dB)	-13	-16.2	-18.2

VSWR



Frequency (MHz)	2400	2450	2500
	1.5	1.3	1.2

Chamber Measurement Photo



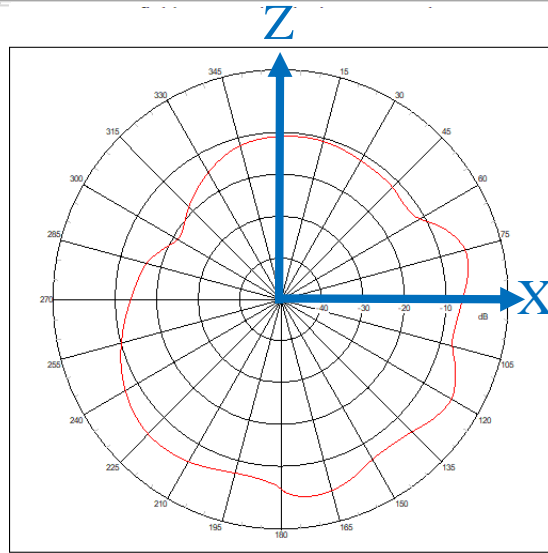
3D Gain Total

Frequency (GHz)	Peak Gain (dBi)	3D Gain (dBi)	3D Radiation Efficiency (%)
2.4	1.31	-5.01	32
2.41	1.34	-4.96	32
2.42	1.61	-4.69	34
2.43	1.99	-4.37	37
2.44	2.42	-4.08	39
2.45	2.44	-4.12	39
2.46	2.17	-4.41	36
2.47	2.34	-4.33	37
2.48	2.16	-4.63	34
2.49	1.97	-4.87	33
2.5	1.75	-5.03	31

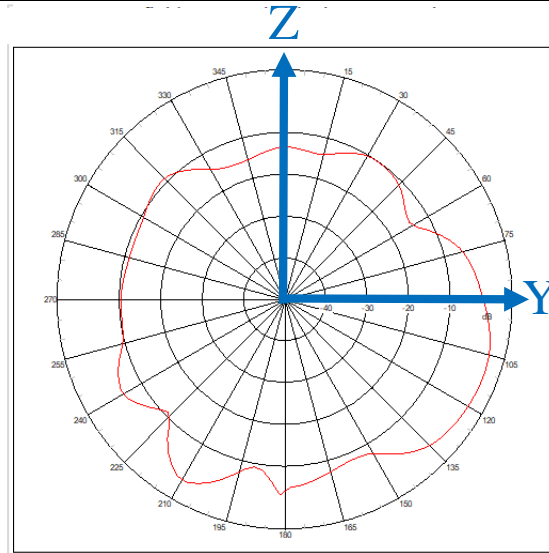
Antenna Pattern

2400MHz

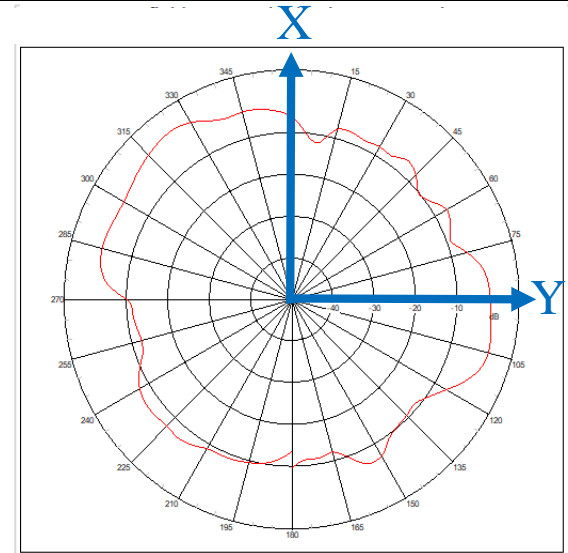
XZ-plane



YZ-plane



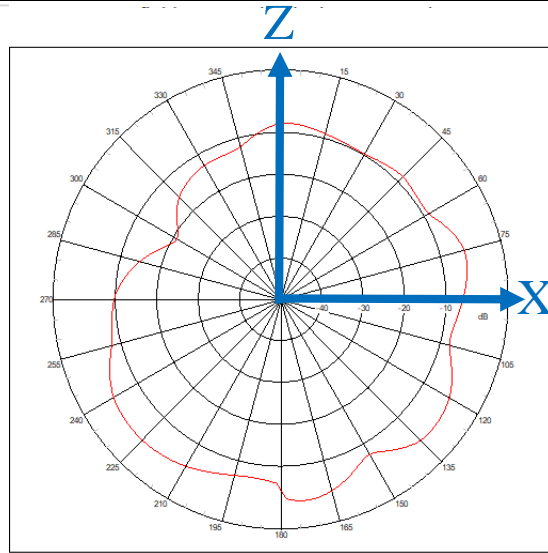
XY-plane



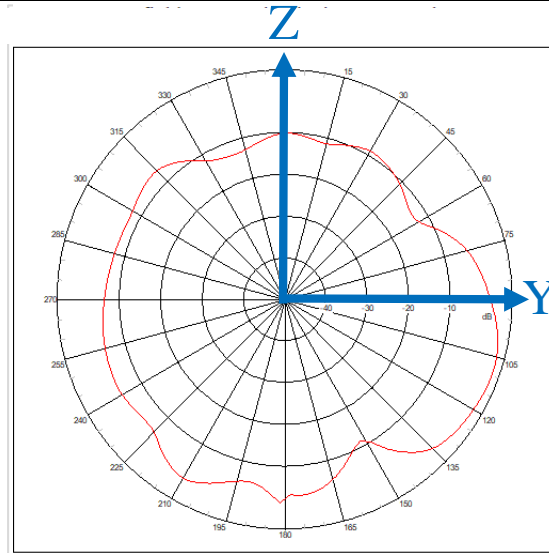
Antenna Pattern

2450MHz

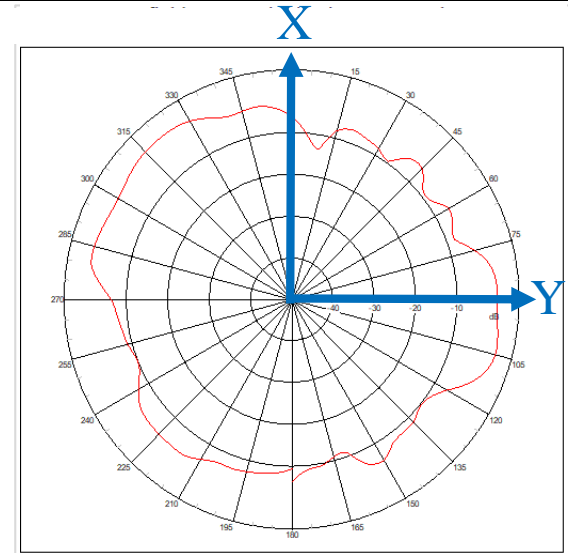
XZ-plane



YZ-plane



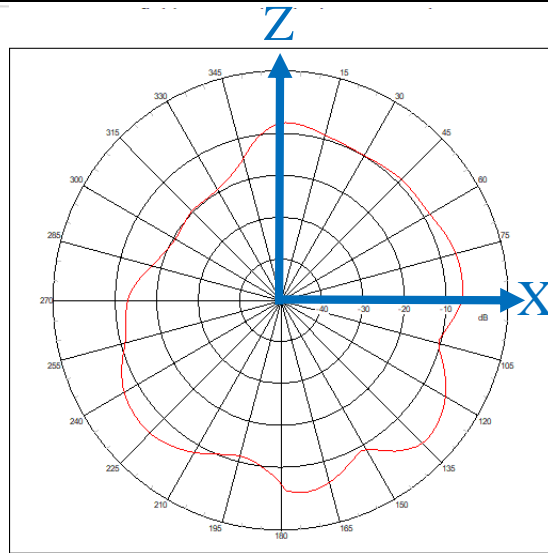
XY-plane



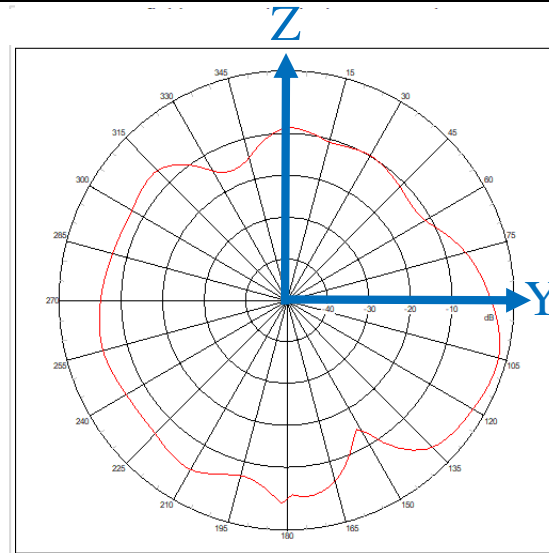
Antenna Pattern

2500MHz

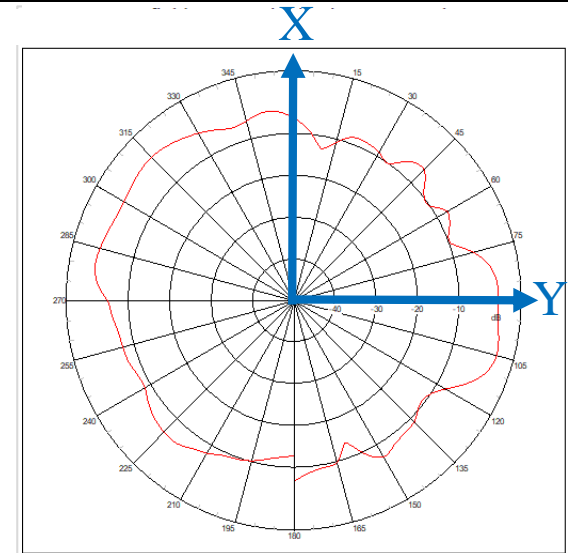
XZ-plane



YZ-plane



XY-plane





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