



規格承認書

Specification for Approval

客 戶： 威盛電子

Customer

天線型態： Dipole Antenna (產地：中國東莞)

Part name

型號： ARY196-3154-009-00

Part No.

客戶承認印 CUSTOMER APPROVED BY		
APPROVAL	CHIEF	SUPERVISOR
Approval No.		
Model		
Part No.		

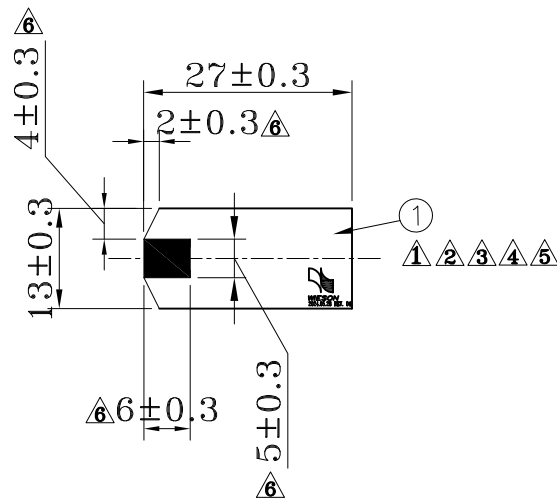
CHIEF	SALES	CHIEF	ENGINEER
ROX	TERI	FOUNTAIN	REASON
Date: 24/06/21		Date: 24/06/21	

聯 陸 科 技 股 份 有 限 公 司
WIESON TECHNOLOGIES CO., LTD.

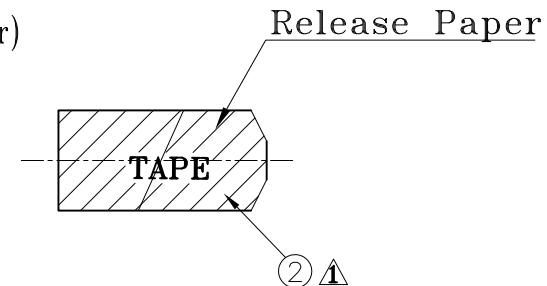
(SR-83-16)

RoHS Compliant

REV	DATE	DESCRIPTION	ECN NO.	NAME
A1	24.04.02	PROPOSAL		DAVID
A2	24.04.08	① MODIFY FPC SIZE		DAVID
A3	24.04.17	② MODIFY FPC LAYOUT		DAVID
A4	24.05.24	③ MODIFY FPC LAYOUT		DAVID
A5	24.05.28	④ MODIFY FPC LAYOUT		DAVID
A6	24.05.31	⑤ MODIFY FPC LAYOUT		DAVID
A7	24.06.21	⑥ MODIFY TOLERANCE		DAVID



(Without Release Paper)
 $t=0.2\text{REF}$



CUST NO.:

WIESON TECHNOLOGIES CO., LTD
WIESON

PART NO.:
ARY196-3154-009-00

TITLE:

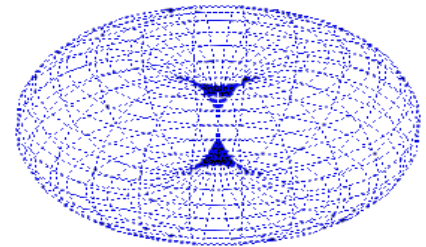
Antenna

NO.	ITEM	DESCRIPTION	QTY	SORTING NO.	WCS	PAGE	1 OF 1
②	Tape	3M9448HK , Size: 27 x 13 mm	1	CHECKED BY	DAVID(WST)	DRAWING NO.	ARY196-3154-009-00
①	FPC	Size: 27 x 13 mm	1	APPROVED BY		DRAWING SIZE	A4
						UNIT	mm

[ARTICLE: SR-83-41 V1]

Executive Summary

- **Revision History**
- **Antenna Specification**
- **Antenna Placement**
- **Antenna Measurement Vector Network Analyzer**
 - **Return Loss Result**
- **The Antenna Anechoic Chamber Measurement**
 - **Chamber Measurement Photo**
 - **Antenna Measurement**
 - **Peak Gain 、Efficiency Result**
 - **2D Antenna Pattern Result**
- **Conclusion & Recommendations**



Revision History

Revision	Date	Engineer	Description
01	2024/03/21	Betty	New Release
02	2024/03/27	Emily	Change of Organization, Antenna Redesign.
03	2024/04/08	Emily	Redesign the Antenna
04	2024/04/22	Betty	Antenna Design of Actual Environment
05	2024/05/23	Betty	Antenna Design With Metal Case
06	2024/05/27	Ting	Remove the components on the circuit.
07	2024/06/03	Ting	Confirm antenna performance.

Antenna Specification

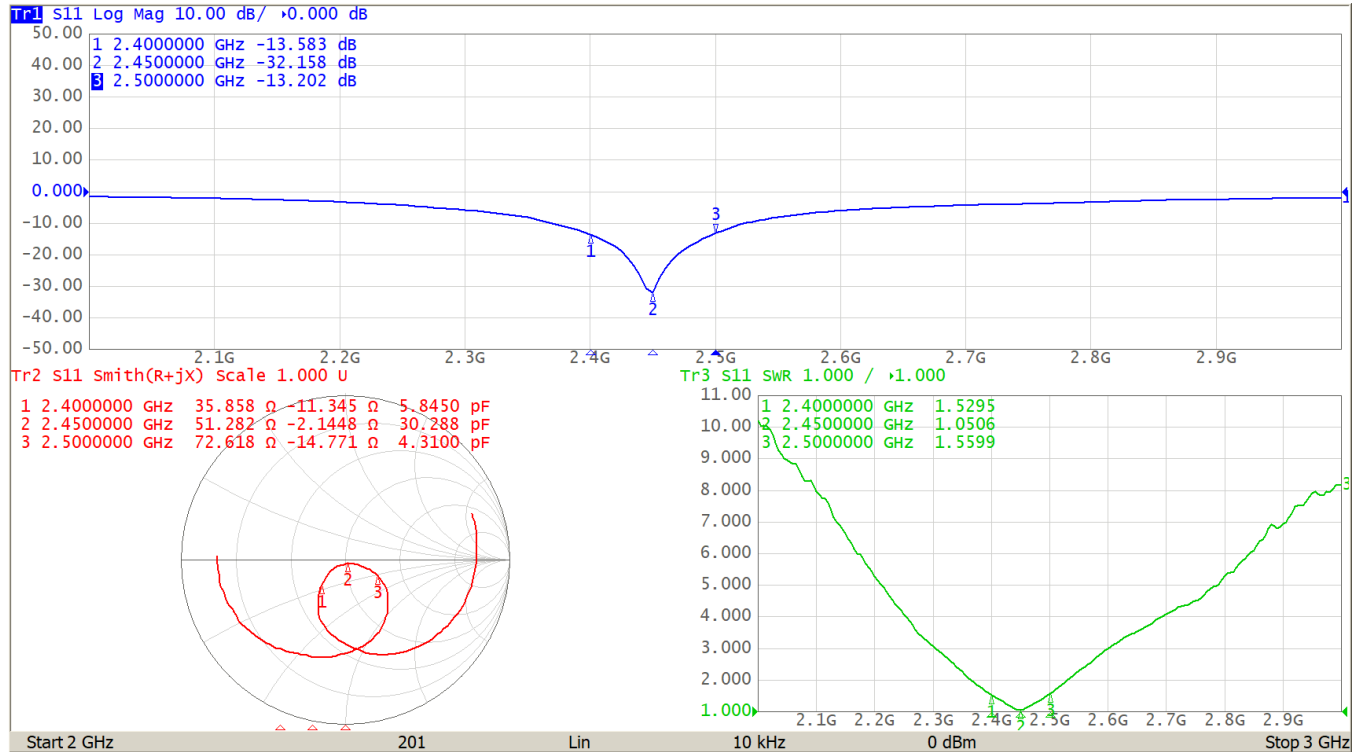
Item	Specification
Operating Frequency(MHz)	2400-2500
Bandwidth	100MHz (Min.)
Return Loss	10dB(Min.)
Polarization	Linear
Peak Gain	0.39 dBi (Max)
Impedance	50Ω
Material	FPC
V.S.W.R	2: 1
Radiation	Omni directional
Efficiency	35 %(Max)

Antenna Placement

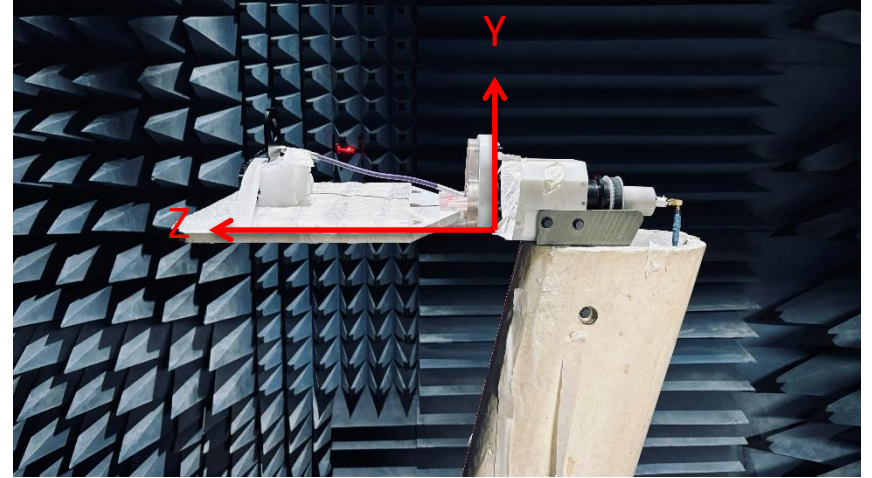
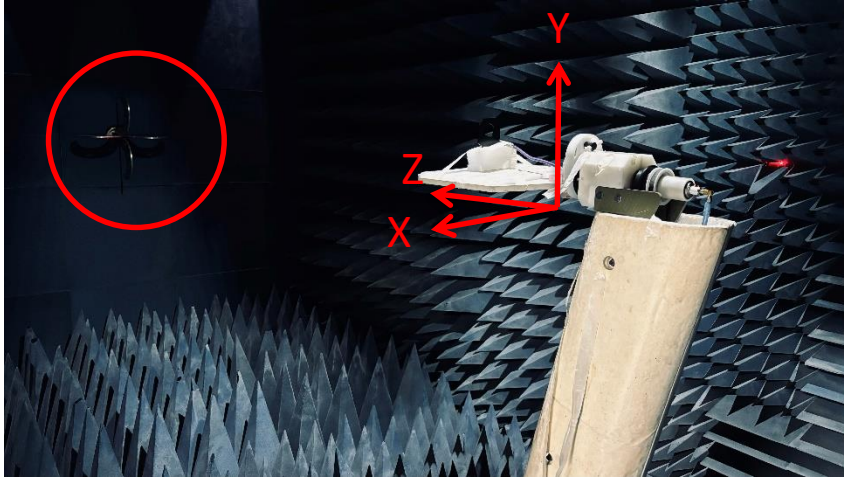


Antenna Measurement Vector Network Analyzer

Return Loss Result



Chamber Measurement Photo



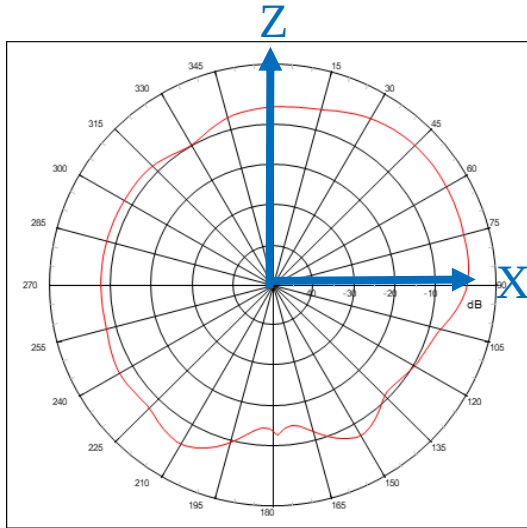
Peak Gain/Efficiency Result

Frequency (GHz)	Peak Gain (dBi)	3D Radiation Efficiency (%)
2.4	-0.09	30
2.41	0.23	33
2.42	0.39	35
2.43	0.17	33
2.44	0.37	35
2.45	0.29	35
2.46	0.14	34
2.47	0.29	35
2.48	-0.02	33
2.49	0.07	34
2.5	-0.34	32

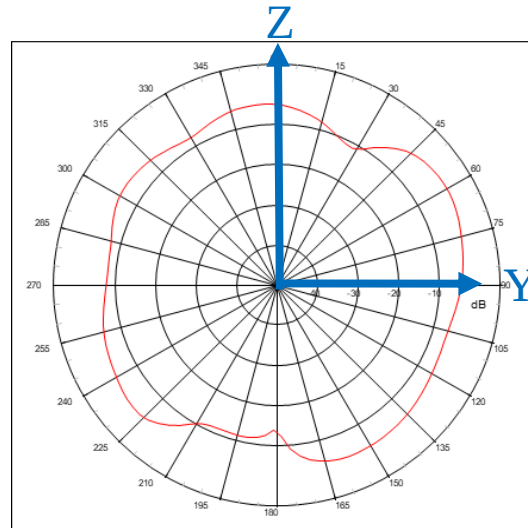
2D Antenna Pattern Result

Frequency : 2400MHz

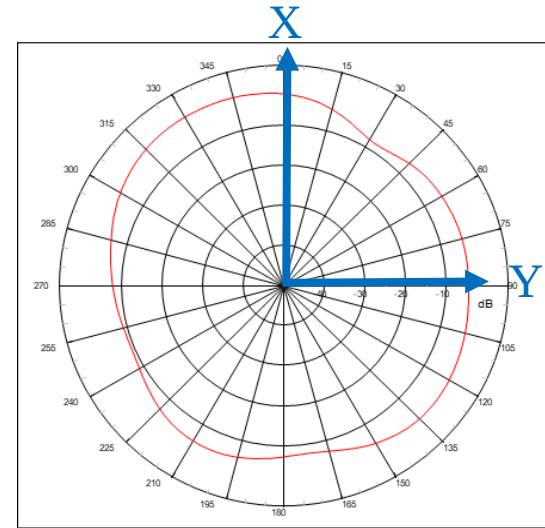
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

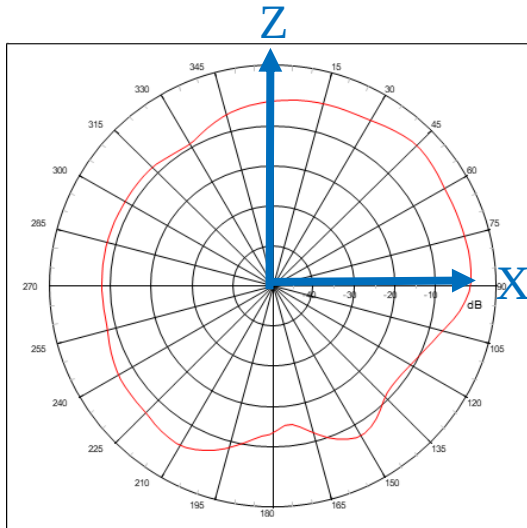
Max: 5 dB

min: -50 dB

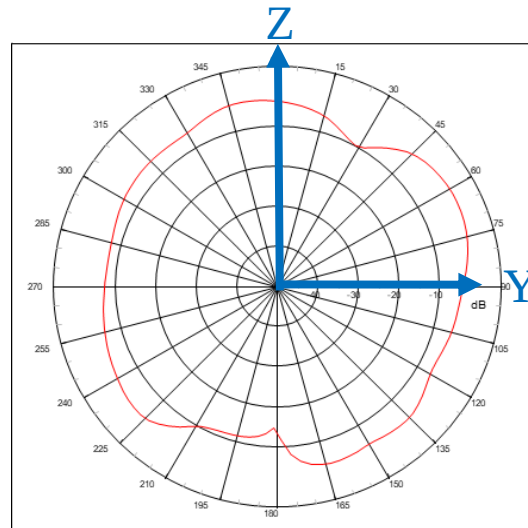
2D Antenna Pattern Result

Frequency : 2450MHz

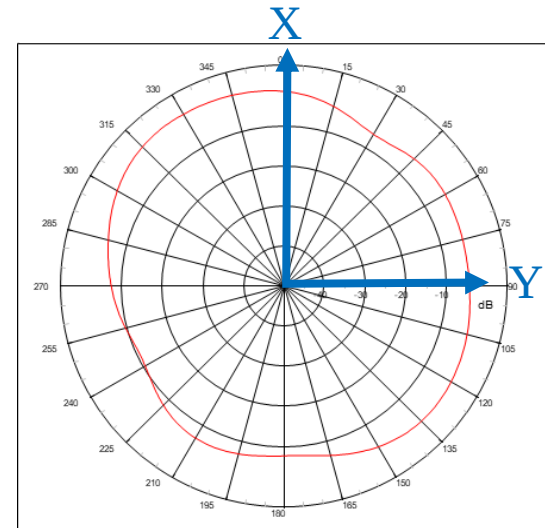
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

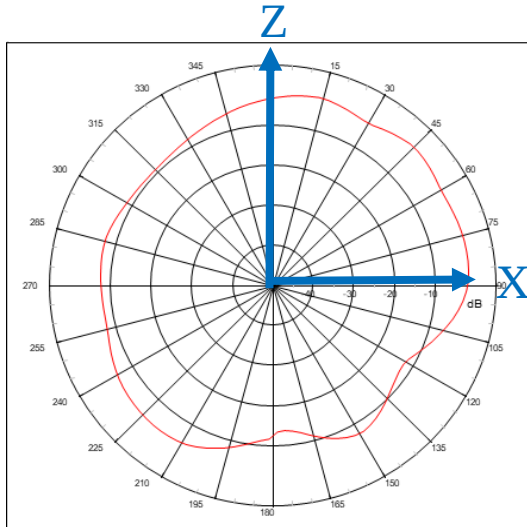
Max: 5 dB

min: -50 dB

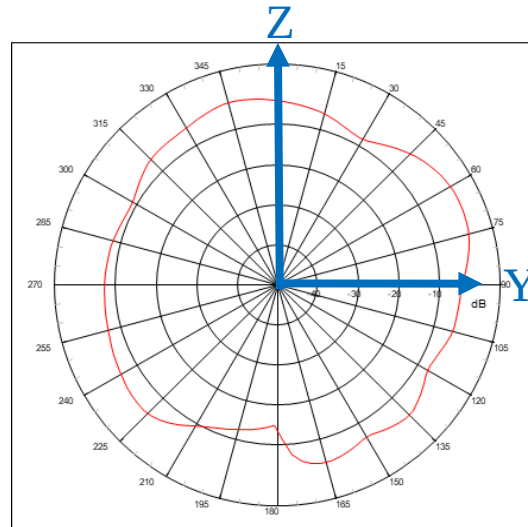
2D Antenna Pattern Result

Frequency : 2500MHz

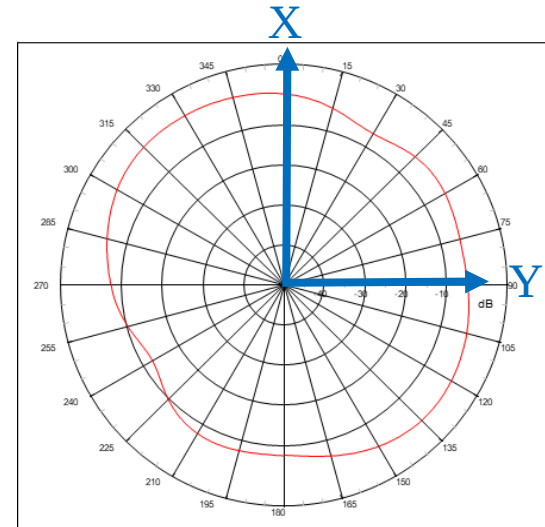
XZ-plane



YZ-plane



XY-plane



Far-field amplitude limits:

Max: 5 dB

min: -50 dB

Conclusion & Recommendations

- 此測報為天線放置實際環境中，包含金屬支架的調適所得結果。
- 此版本取下原有匹配電路中的元件，為0歐姆電路。
- 饋入點尺寸為5mm*6mm。
- 以下表格為目前被動量測結果：

Speed Sensor	
Operating Frequency	2400-2500 MHz
Return Loss	10 dB(Min.)
Peak Gain	0.39 dBi (Max.)
Efficiency	35 % (Max.)



創造完美連結

MAKING THE PERFECT CONNECTION

Wieson Technologies Co., LTD.

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