

連騰科技

股份有限公司

Advanced Wireless & Antenna Inc.

XAC

Chase Card Reader test report

No.888, Hua-Yuan Road, Zhang-Pu Town,
Kun-Shan City, Jiang-Su Prov., P.R.C.

TEL: 86-512-5744-6616

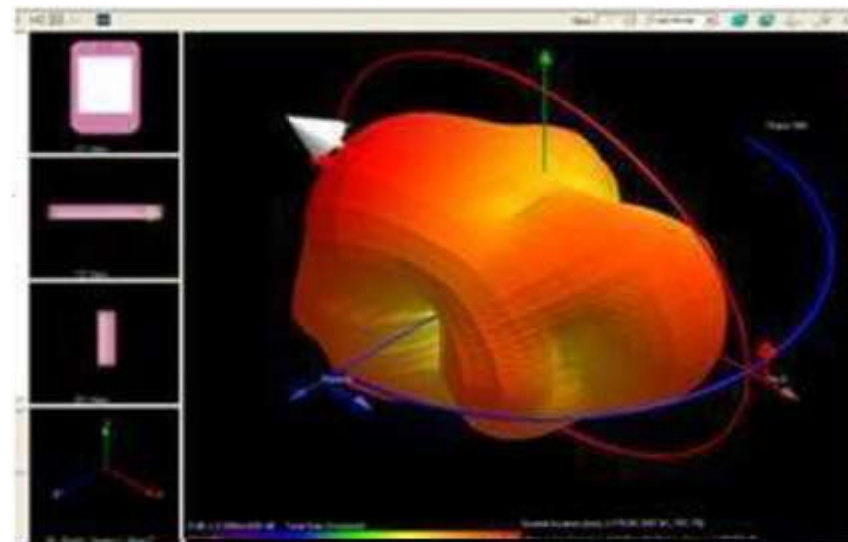
FAX: 86-512-5744-9168

<http://www.awan-ant.com>

www.awan-ant.com

Date : 2022/7/22

Tester	William.Lee
Measured Date	2022/07/15



Antenna Test System

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

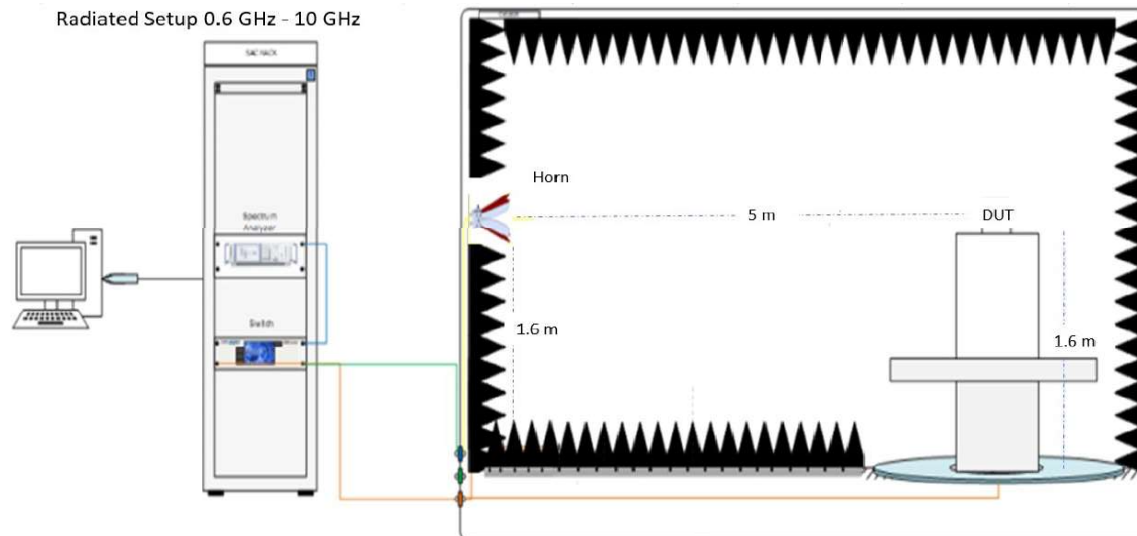
Advanced Wireless & Antenna Inc.

Applicable test methods

This test report is prepared for host antenna testing under a Full Anechoic Chamber.

Test & System Description

a. Test setup block diagram



c. Equipment list

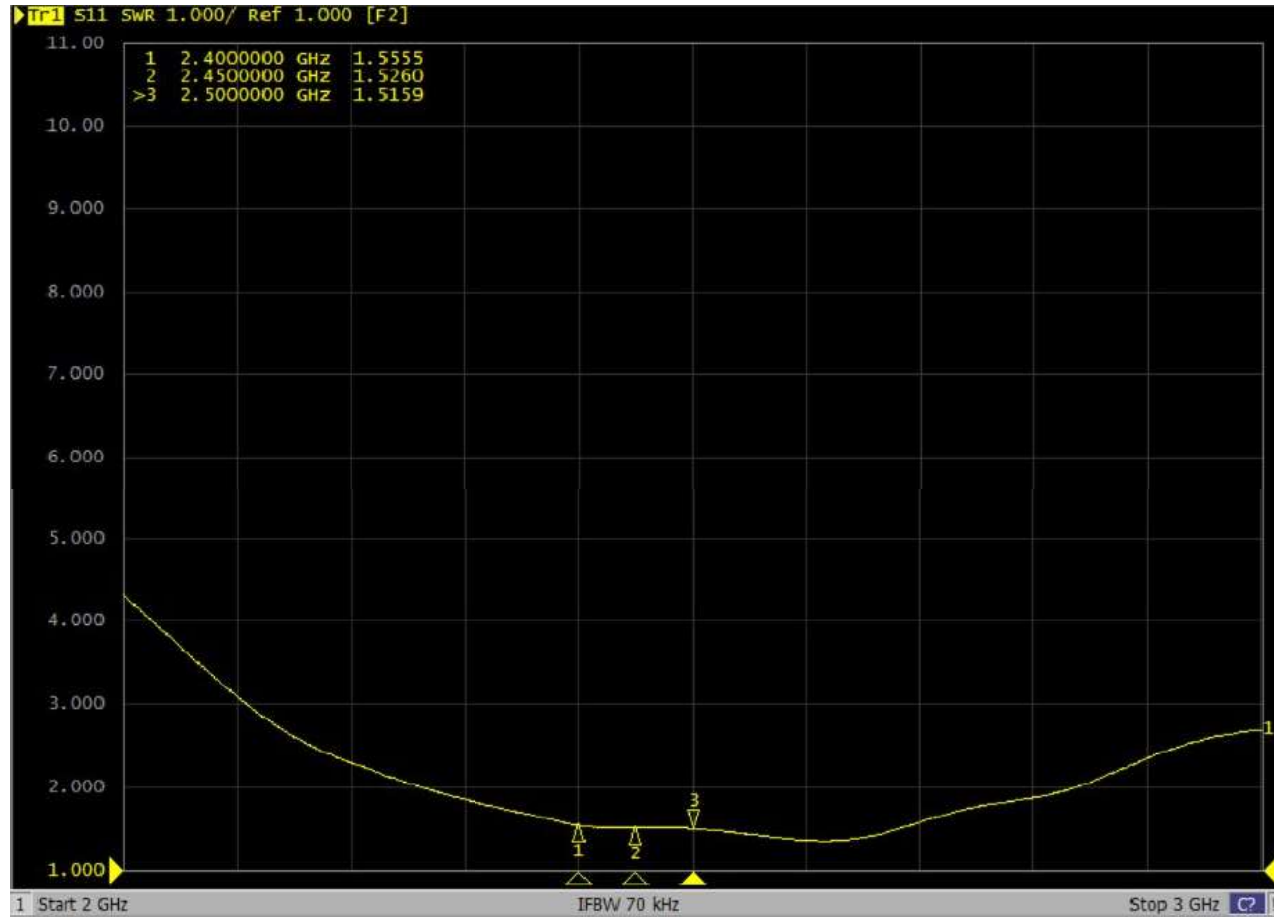
Device	Type/Module	Serial#	Manufacturer	Cal. Date	Cal. Due Date
Anechoic Chamber	AMS-8500	1047	ETS-Lindgren	2022/1/21	2023/7/22
Turn Table	ETS	-	ETS-Lindgren	N/A	N/A
Rotate controller	2090	SN 00035073	ETS-Lindgren	N/A	N/A
Horn Antenna	HAD-0710	111025-02	Ewant	2021/5/16	2023/5/16
Vector Network Analyzer	E5071C	MY46733781	Keysight	2022/1/21	2023/1/21
Cable 40cm 18 GHz	201EH012010400	201EH012010400#1	Jmtt	2022/3/27	2023/3/27
Cable 6m 18 GHz	201EH012016000	201EH012016000#3	Jmtt	2022/3/27	2023/3/27
Cable 6m 18 GHz	201EH012016000	201EH012016000#5	Jmtt	2022/3/27	2023/3/27
Cable 3.5m 18 GHz	201EH012013500	201EH012013500#3	Jmtt	2022/3/27	2023/3/27
Cable 1.5m 18 GHz	201EH012011500	201EH012011500#2	Jmtt	2022/3/27	2023/3/27

Test result : VSWR

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



Frequency	2.4GHz	2.45GHz	2.5GHz
V.S.W.R	1.55	1.52	1.51

Antenna Gain and Efficiency

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

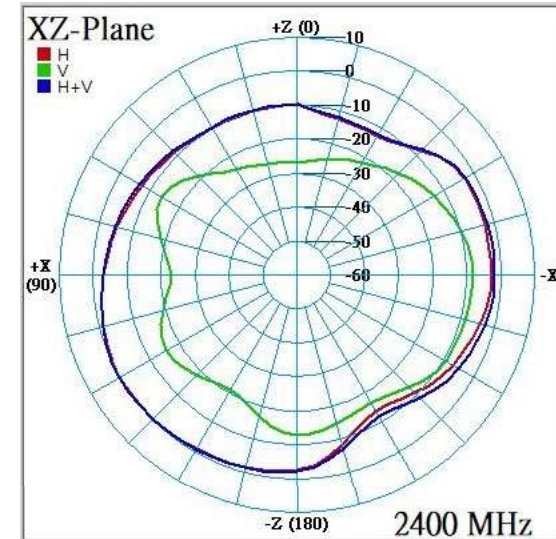
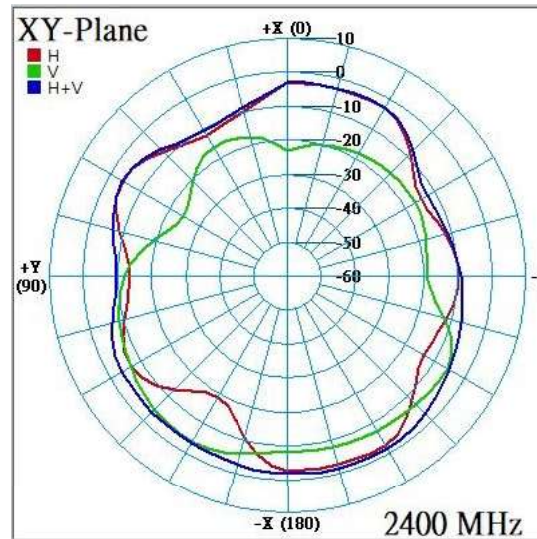
Configuration: Chase Card Reader			
Frequency(MHz)	3D Avg. Gain(dBi)	3D Peak Gain(dBi)	Efficiency(%)
2400	-5.37	0.336	29.04
2450	-4.97	0.466	31.84
2500	-5.02	-0.228	31.48

Radiation Patterns 2400MHz

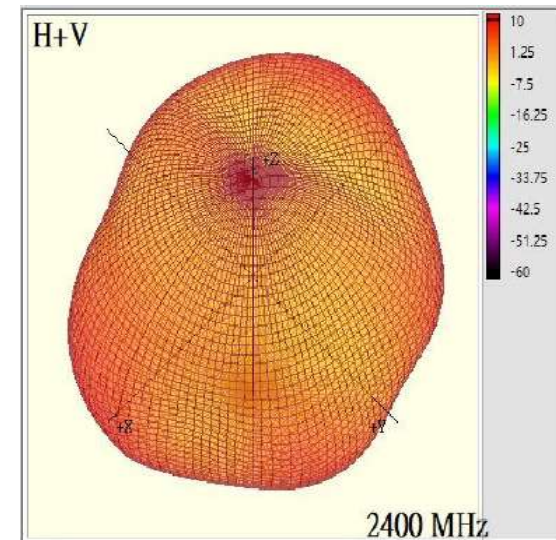
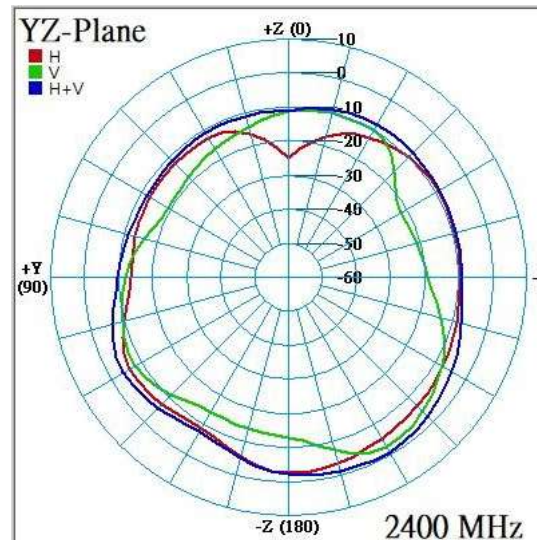
Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



dBm	XY Plane	XZ Plane	YZ Plane
H+V. (Max.)	-1.281	0.336	-0.581
H-Pol. (Max.)	-2.45	0.224	-2.402
V-Pol. (Max.)	-3.535	-8.204	-2.425

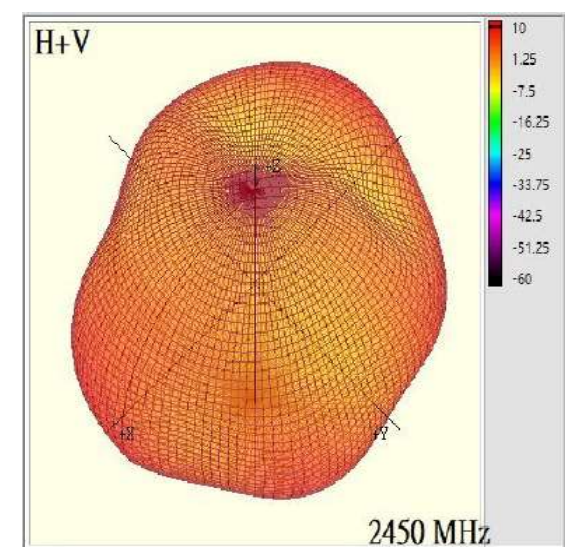
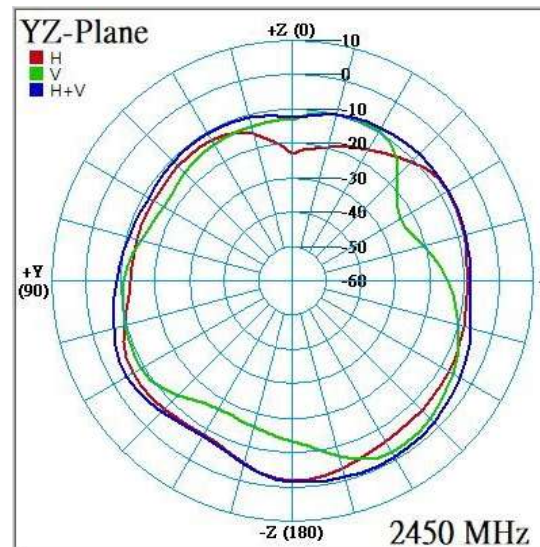
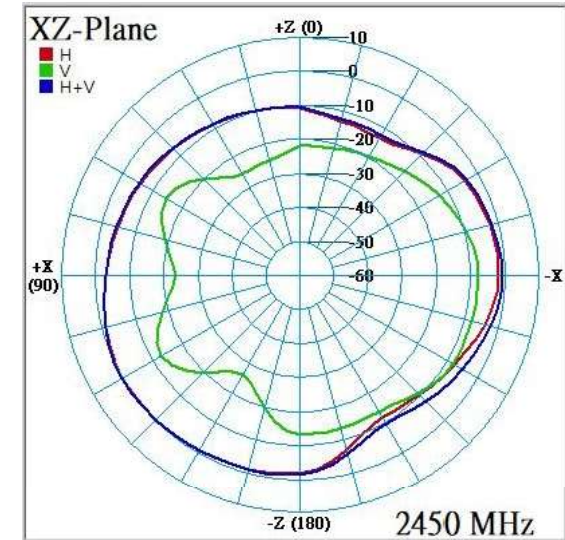
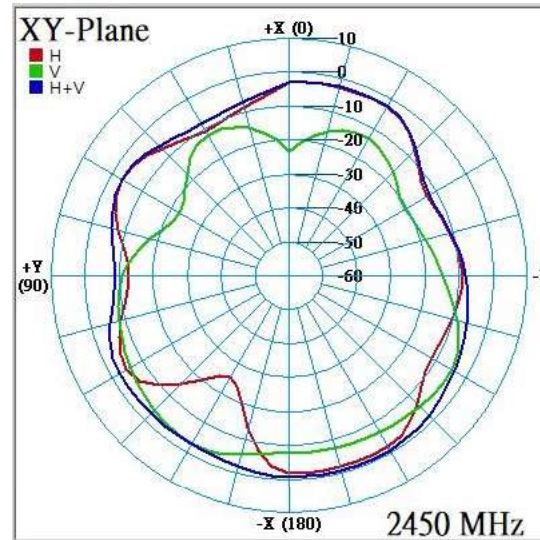


Radiation Patterns 2450MHz

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



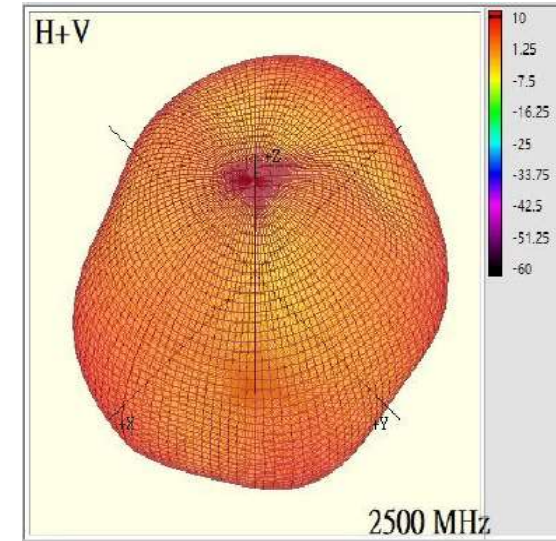
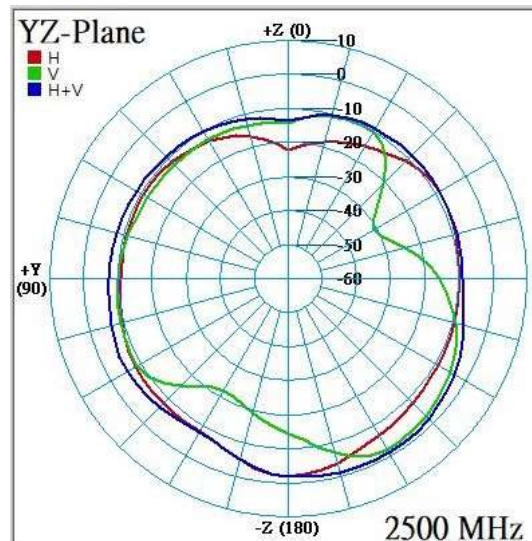
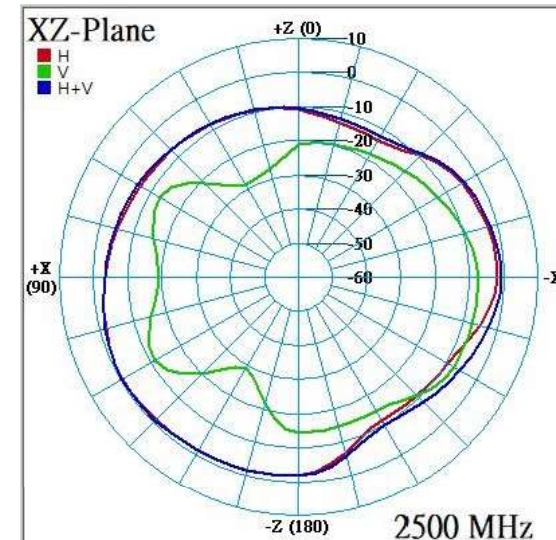
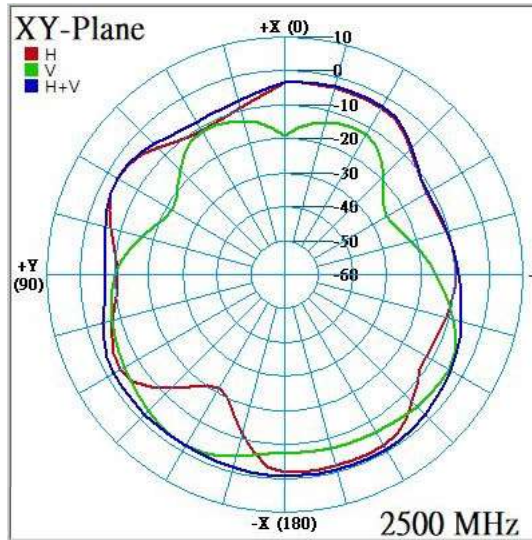
dBm	XY Plane	XZ Plane	YZ Plane
H+V. (Max.)	-0.571	0.466	-0.638
H-Pol. (Max.)	-1.632	0.264	-1.722
V-Pol. (Max.)	-2.76	-7.733	-2.148

Radiation Patterns 2500MHz

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



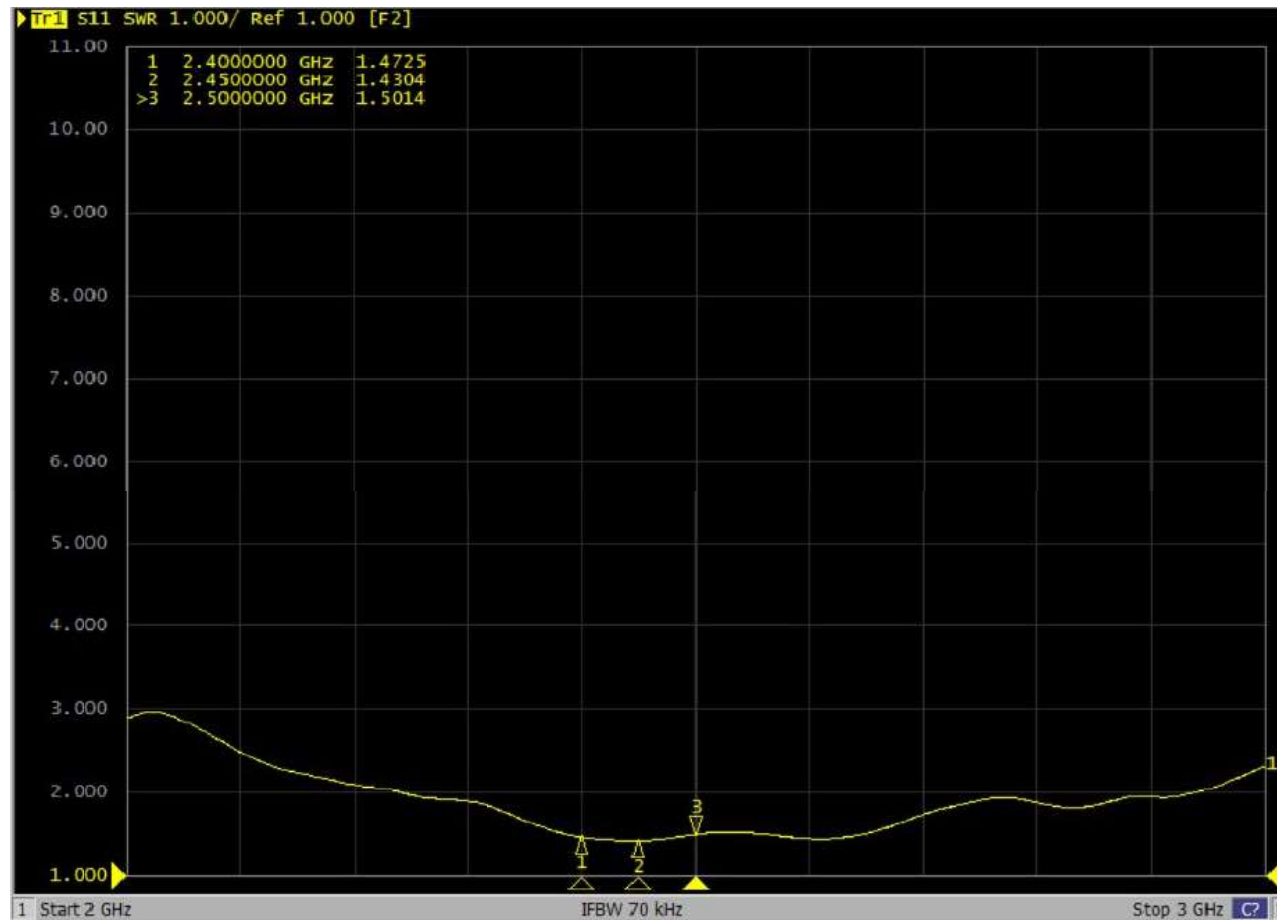
dBm	XY Plane	XZ Plane	YZ Plane
H+V. (Max.)	-0.574	-0.228	-0.741
H-Pol. (Max.)	-1.77	-0.57	-1.885
V-Pol. (Max.)	-1.792	-7.435	-1.996

Test result : VSWR

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



Frequency	2.4GHz	2.45GHz	2.5GHz
V.S.W.R	1.47	1.43	1.5

Antenna Gain and Efficiency

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Configuration: Chase Card Reader and Chase Card Reader Charging Base

Frequency(MHz)	3D Avg. Gain(dBi)	3D Peak Gain(dBi)	Efficiency(%)
2400	-5.47	-0.771	28.38
2450	-5.41	-0.565	28.77
2500	-6.23	-1.319	23.82

Description	Tester	Measured Date
Measured	William.Lee	2022/07/15

Antenna Model	ALM00-000000	
Antenna Type	PIFA Antenna for WiFi application	
Connector Material	Welding method	
Cable Type	N/A	
Impedance	50Ω	
Polarization	Linear	
Radiation pattern	Omni-directional	
Frequency	WiFi 802.11b/g/n	2.40 ~ 2.50 GHz
VSWR	WiFi 802.11b/g/n	2.0 Max.
Peak gain(dBi)	WiFi 802.11b/g/n	0.466
Antenna dimension	WiFi (ALM00-000000)	Figure-1, Silver

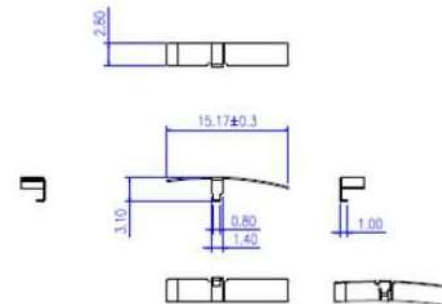


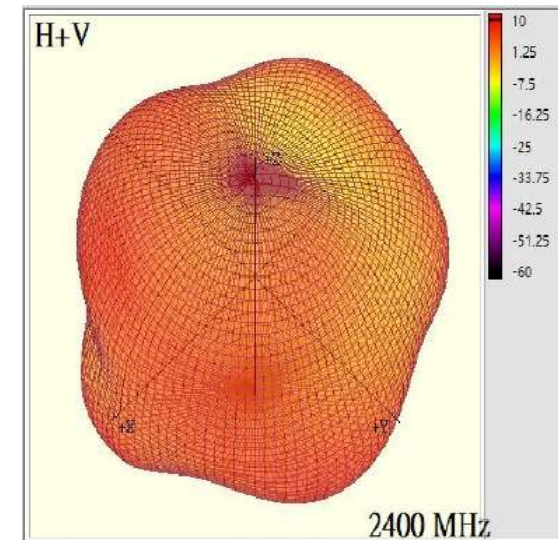
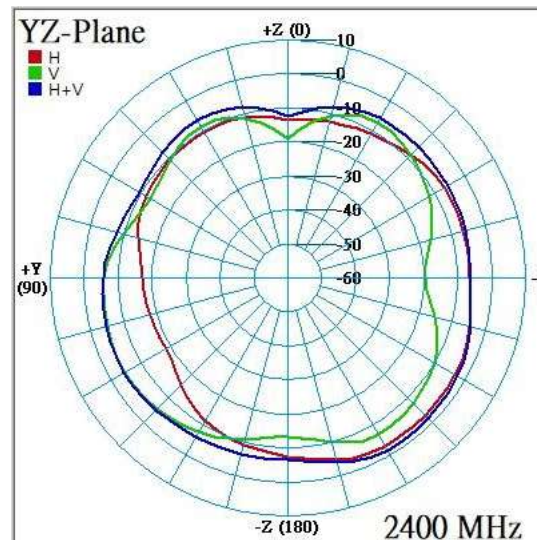
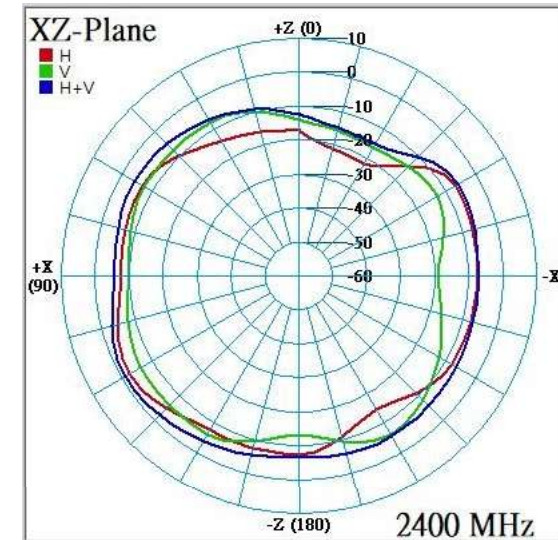
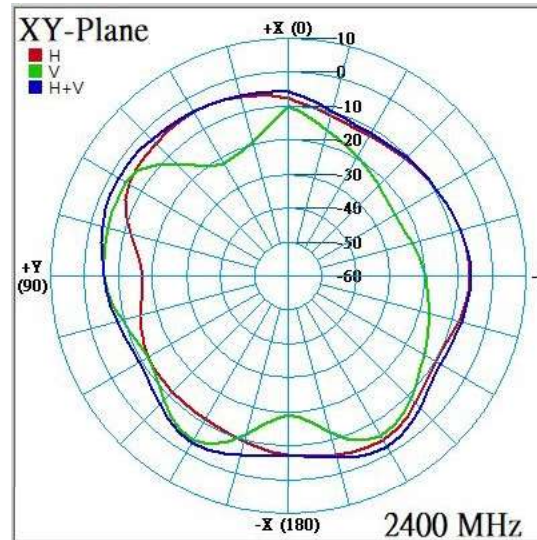
Figure-1 ALM00-000000

Radiation Patterns 2400MHz

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



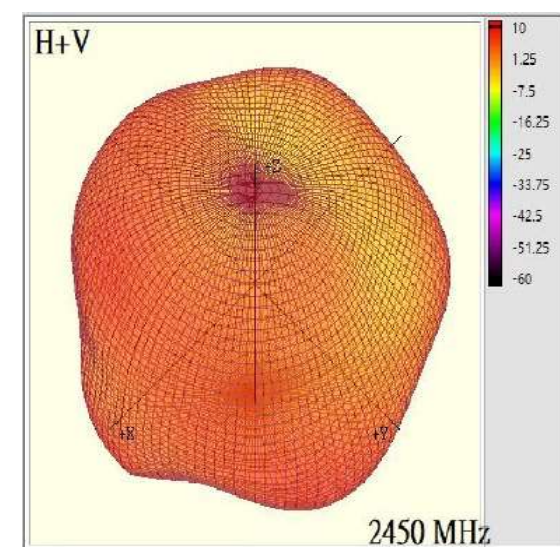
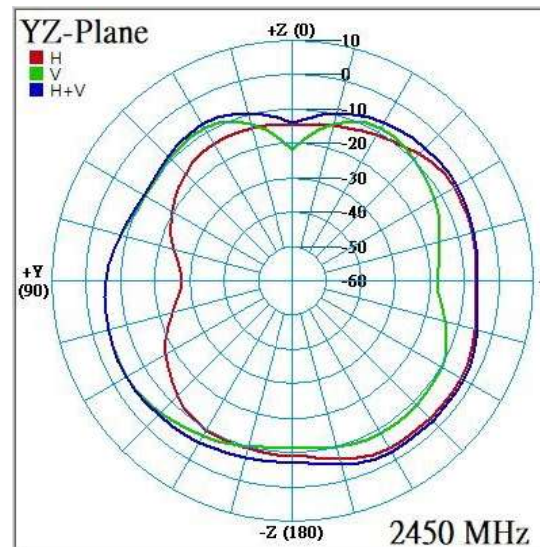
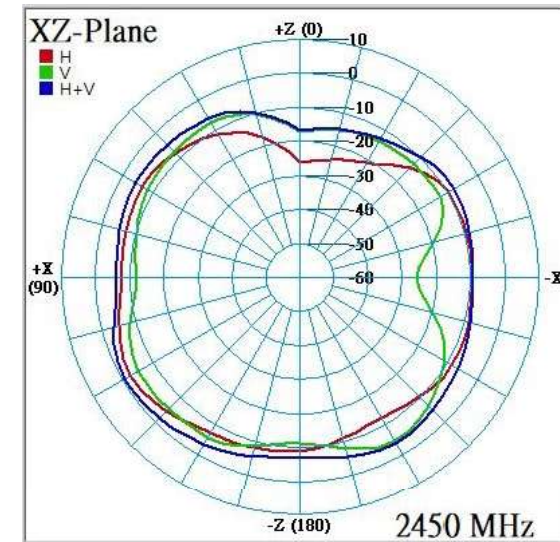
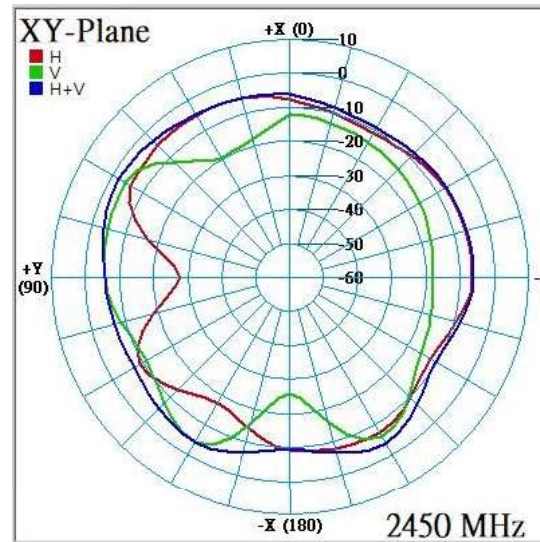
dBm	XY Plane	XZ Plane	YZ Plane
H+V. (Max.)	-1.928	-0.771	-1.304
H-Pol. (Max.)	-4.326	-2.258	-2.749
V-Pol. (Max.)	-4.173	-6.037	-4.514

Radiation Patterns 2450MHz

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



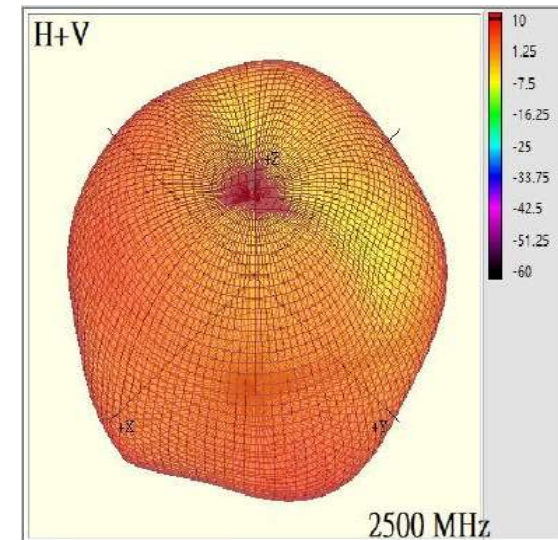
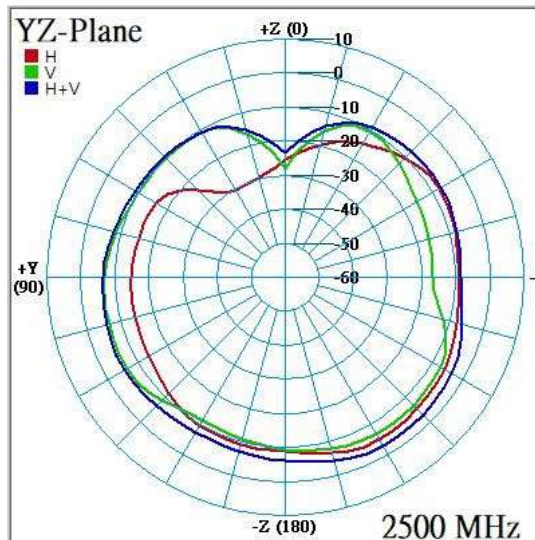
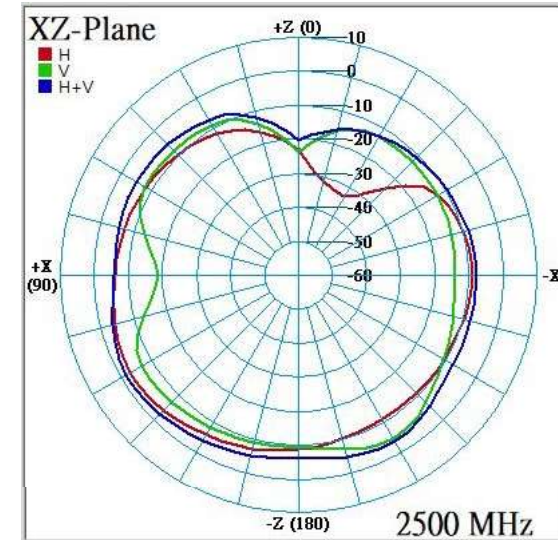
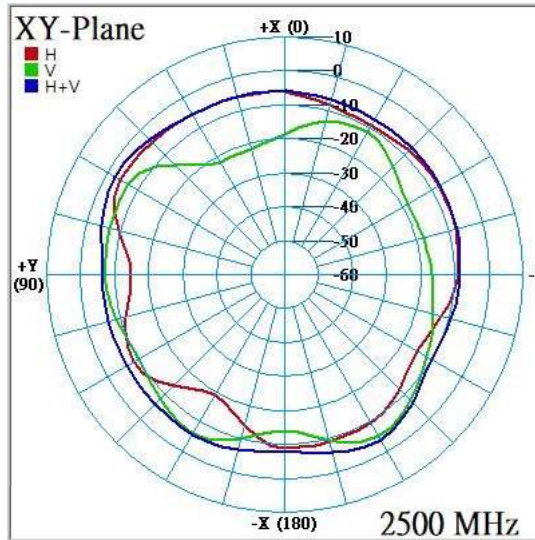
dBm	XY Plane	XZ Plane	YZ Plane
H+V. (Max.)	-2.05	-0.565	-2.408
H-Pol. (Max.)	-4.878	-2.458	-3.374
V-Pol. (Max.)	-4.271	-4.535	-4.2

Radiation Patterns 2500MHz

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.

Advanced Wireless & Antenna Inc.



dBm	XY Plane	XZ Plane	YZ Plane
H+V. (Max.)	-2.287	-1.139	-2.673
H-Pol. (Max.)	-4.199	-2.804	-4.852
V-Pol. (Max.)	-5.055	-4.44	-6.203



Thanks for Your Time

To Grow and Succeed with AWAN !

