

Datasheet

Amphenol Wi-Fi Antenna Test report

Document information

File Name	Amphenol_Wi-Fi_Antenna_Test_report
Manufacturer & Site	Shanghai Amphenol Airwave Communication Electronics Co.,Ltd
Address	No 689 Shen Nan Road, Xin Zhuang Industry Park,Shanghai
Model No.	PBWV-00M-NRA-A
Antenna Type	PCB on-board antenna
Test date	2023-03-15
Created date	2023-03-15
Total Page	6

Revision History

Version	Date	Note
1.0	2022-12-09	Created
2.0	2023-03-15	Updated

Aim of this Document

The aim of this document is to give a detailed test report of the module antenna.

Contents

Contents.....	2
1. Test equipment and environment	3
2. Test result - Return Loss	3
3. Test result – Efficiency & Peak Gain	4
4. Test result – 3D & 2D Radiation Patterns	4
Appendix.....	6

1. Test equipment and environment

Return loss is performed using a KEYSIGHT Network Analyzer and test fixture.

The efficiency of the antenna is measured in Shanghai Amphenol Airwave's 3D anechoic chamber, which is in Shanghai, China.

The chamber is a Satimo Stargate 64 multi-probe system capable of doing tests from 380MHz to 6GHz.

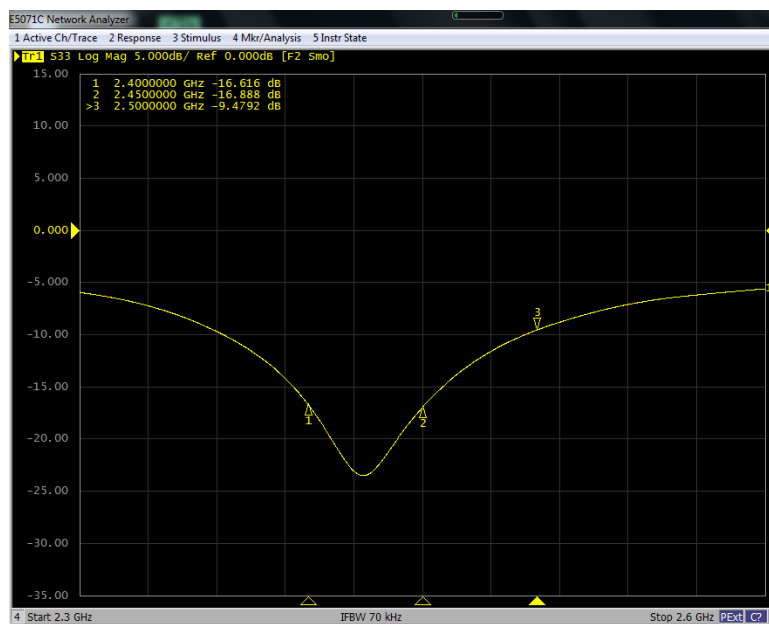
The measurement results are calibrated using dipole standards.

Test equipment:

	Equipment	Calibrate date	Test Soft
For Return loss	KEYSIGHT E5071C	2022-10-10	-
For Radiation Pattern	Satimo Stargate 64 multi-probe system	2023-03-01	Satimo

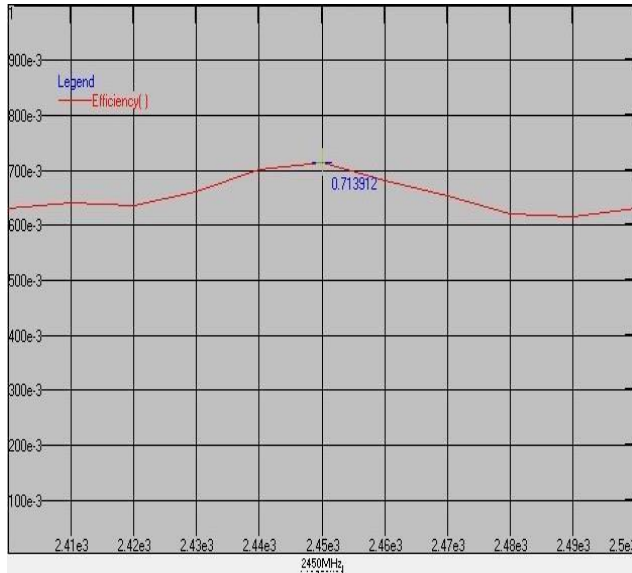
2. Test result - Return Loss

Return loss of the Wi-Fi Ant 1.

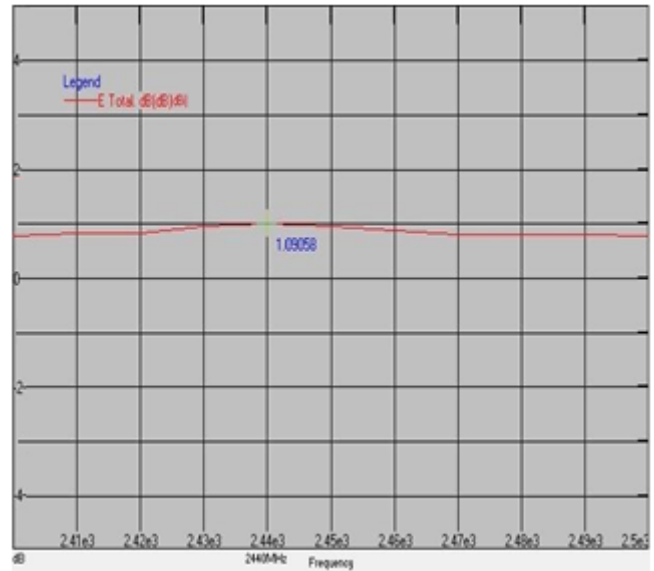


3. Test result – Efficiency & Peak Gain

Efficiency and Peak Gain of Wi-Fi Ant 1 @ 2.4G.



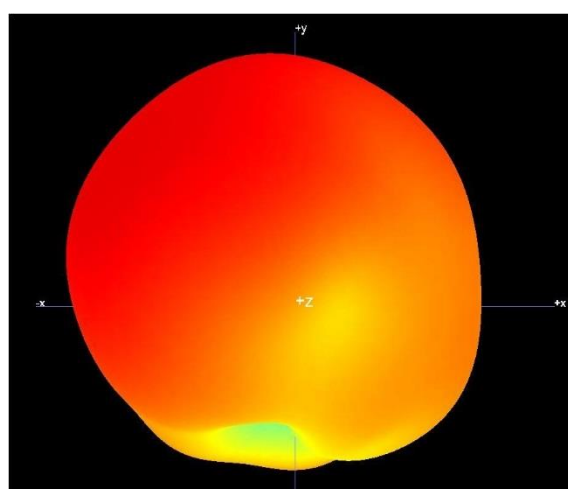
Maximum Efficiency at 2450 MHz 71.39%



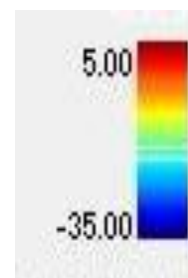
Maximum Peak Gain at 2440 MHz : 1.09 dBi

4. Test result – 3D & 2D Radiation Patterns

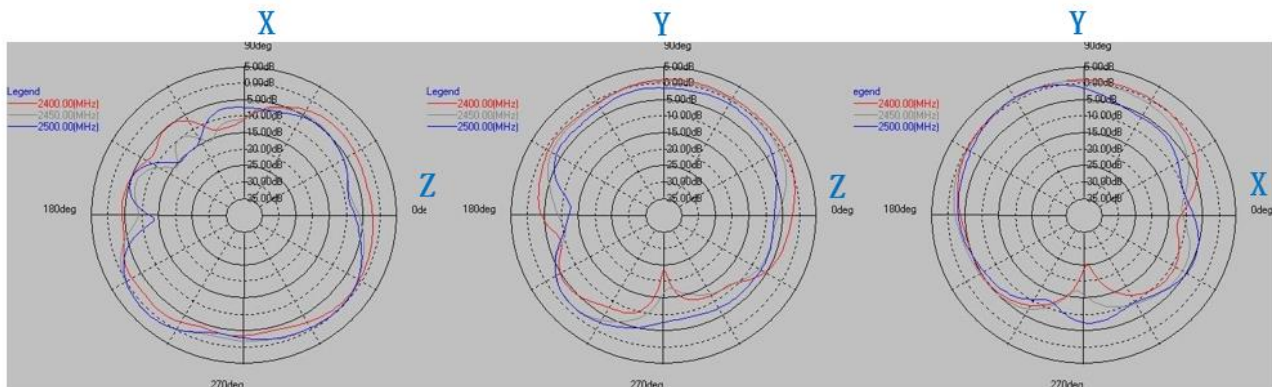
3D Patterns of Wi-Fi Ant 1 @ 2.4G.



@ 2450MHz



2D Patterns and test date of Wi-Fi Ant 1 @ 2.4G.



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]	Max Value [dBi]	Average [dBi]
2400	-0.70	-3.45	0.95	-2.40	-0.79	-2.98
2450	1.02	-3.50	-0.45	-3.18	0.83	-3.20
2500	1.09	-3.70	-1.32	-4.20	-0.85	-4.18