

Datasheet

Amphenol Antenna Test Report for Cisco Polaris1.5

Document information

File Name	Amphenol Antenna Test Report for Cisco Polaris1.5
Manufacturer & Site	Shanghai Amphenol Airwave Communication Electronics Co., Ltd Located at No. 689 Shennan Road, Minhang District, Shanghai, China
Antenna Type	PCB Antenna, Dipole Antenna
Test date	2024-08-28
Created date	2025-08-12
Total Page	9
Engineer's signature	

Revision History

Version	Date	Note	Engineer Confirmation
1.0	2025-08-12	Created	Jessica Li

Aim of this Document

The aim of this document is to give detail information of the antennas' measurement in Cisco Polaris1.5 device.

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1. Test equipment and environment

Return loss were performed using an **KEYSIGHT Network Analyzer** and test fixture.

The efficiency and gain of the antennas were measured in **Amphenol's 3D anechoic chamber** at No. 689 Shennan Road, Minhang District, Shanghai, China.

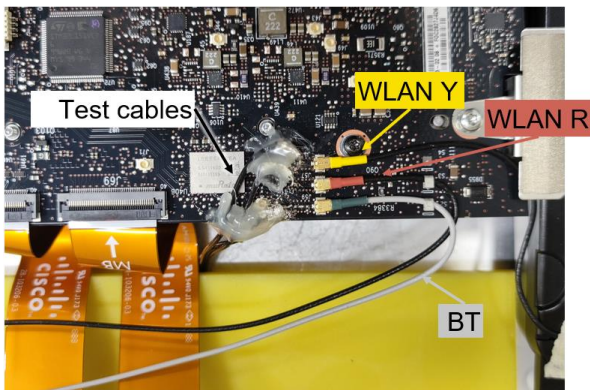
The chamber is a **GTS Rayzone 2800** capable of doing tests from 400MHz to 8.5GHz.

The measurement results are calibrated using dipole standards.

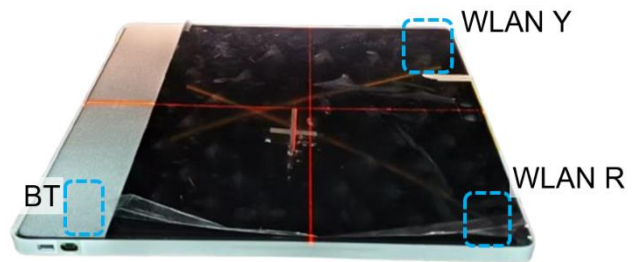
Test equipment:

	Equipment	Calibrate date	Due date	Test Soft
For Return loss	KEYSIGHT E5071C	2023-09-28	2024-09-27	E5071C Network Analyzer
For Radiation Pattern	GTS Rayzone 2800	2023-09-28	2024-09-27	Libra

Test environment:



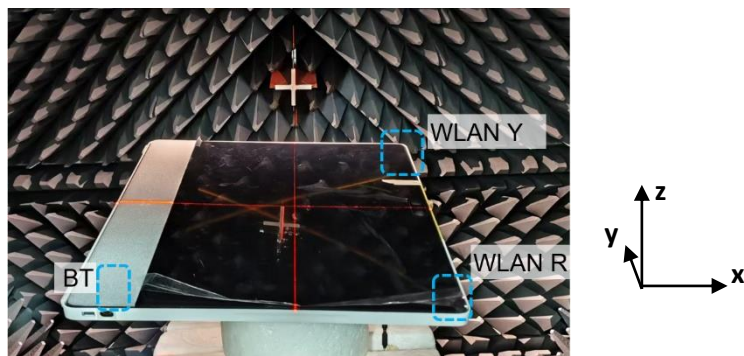
Internal view of the test setup



Antenna positions within the device

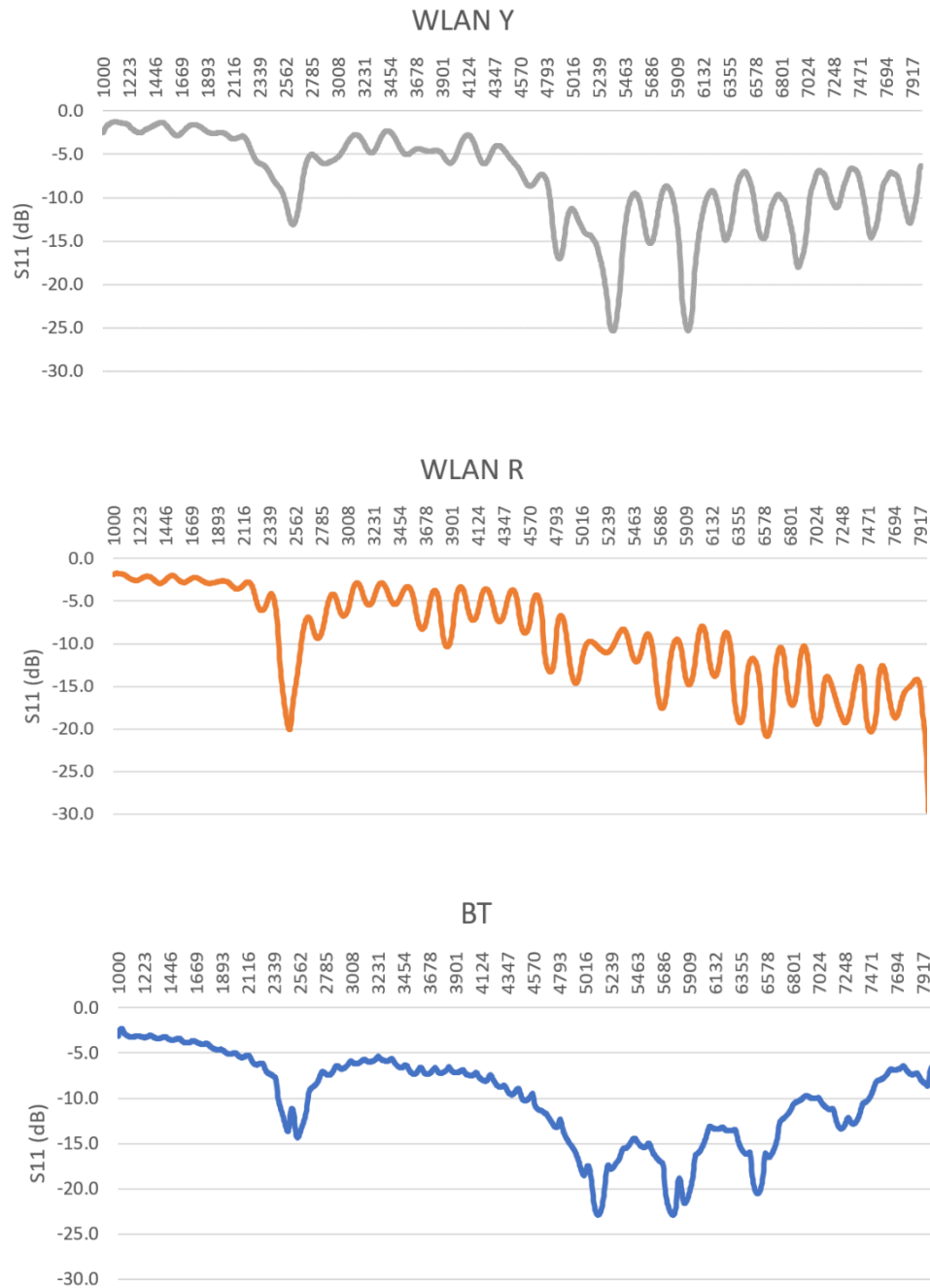
In this report, all data measurements were carried out with a standardized test arrangement: the WLAN Y (Part No. OCG495-15-000-R), WLAN R (Part No. OCG496-15-000-R), and BT (Part No. OCG497-15-000-R) antennas were connected to the device's PCBA, while extra short test cables were soldered adjacent to the antenna sockets on the PCBA. This setup ensures accuracy in the test environment for reliable antenna performance.

Radiation Pattern Test



Antennas in chamber with device

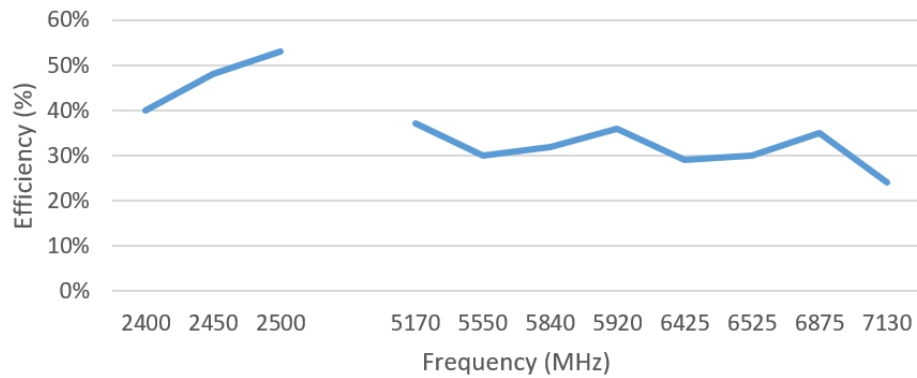
2. Test result - Return Loss



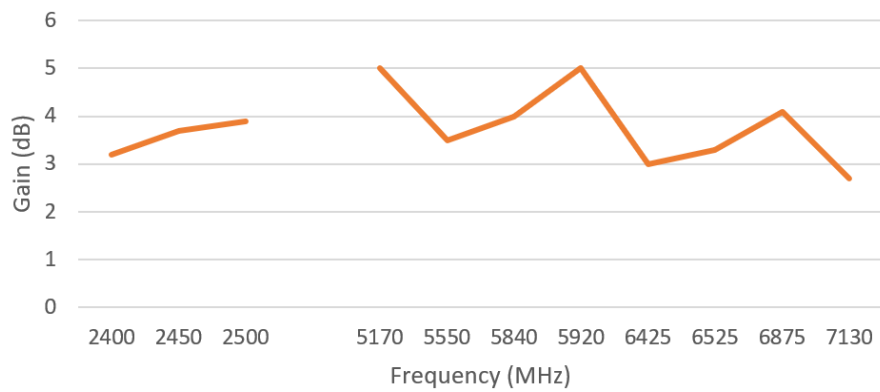
3. Test result – Efficiency & Peak Gain

WLAN Y

Efficiency

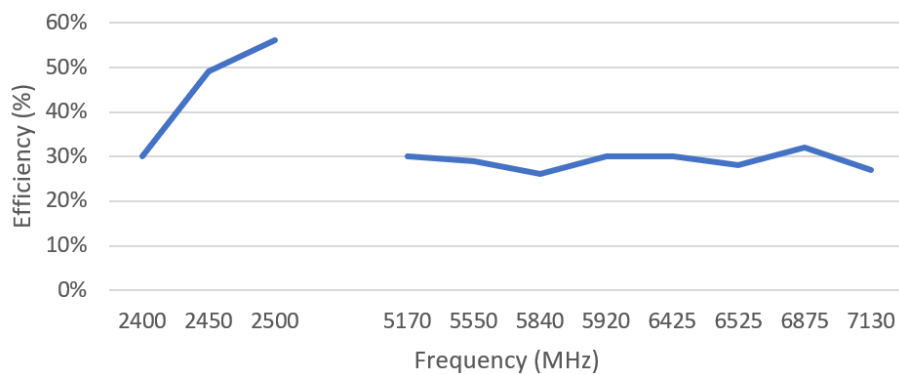


Peak Gain

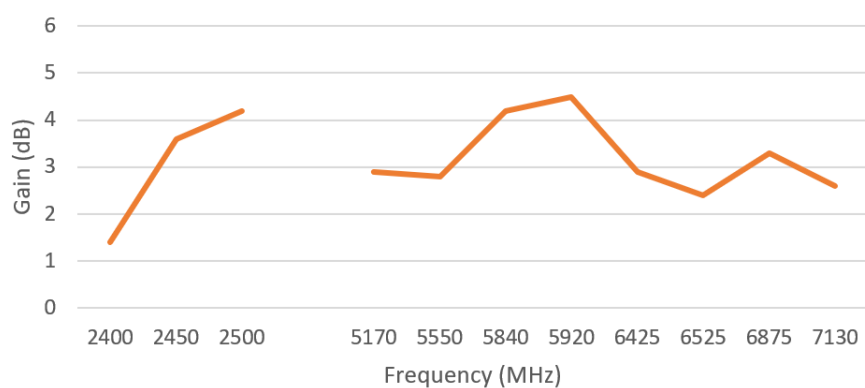


WLAN R

Efficiency

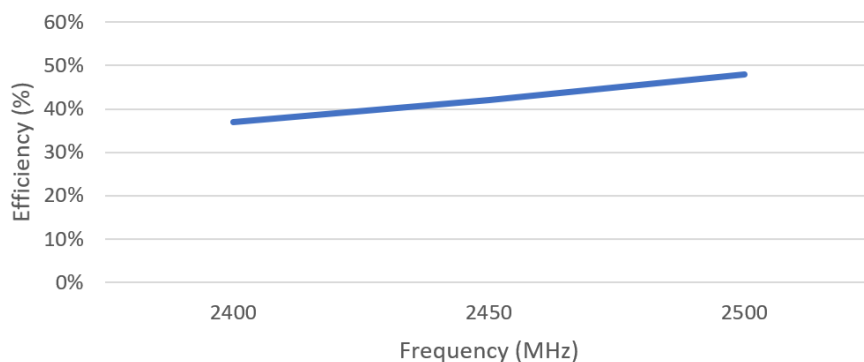


Peak Gain

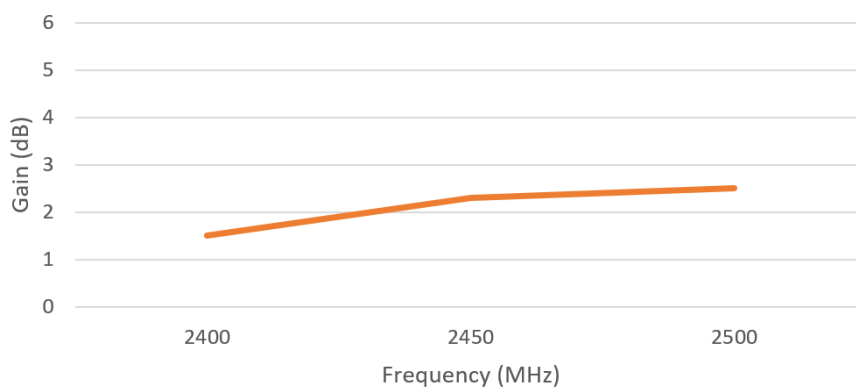


BT antenna

Efficiency



Peak Gain



4. Test result –Peak Gain Data & 2D Radiation Patterns

Peak Gain (dB)			
Frequency (MHz)	WLAN Y	WLAN R	BT
2400	3.2	1.4	1.5
2450	3.7	3.6	2.3
2500	3.9	4.2	2.5
5170	5.0	2.9	
5550	3.5	2.8	
5840	4.0	4.2	
5920	5.0	4.5	
6425	3.0	2.9	
6525	3.3	2.4	
6875	4.1	3.3	
7130	2.7	2.6	

2D Patterns and test date of the WLAN Y

