

Antenna Gain Test Report

Test Date: 5/9/23 - 5/25/23

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1. General Information

The purpose of this report is to demonstrate compliance to the FCC Part 15 Antenna requirement.

2. Chamber information

Multi-probe fully anechoic OTA chamber, MVG system model: SG64.

Chamber pathloss calibration is per CTIA test plan v3.9.5 Section 4 Range Reference Requirements.

Chamber Location: Meta Lab at Fremont 6422

3. Commercial Test Software

Test software is from MVG, Wave Studio v2021.1.1.

4. Test Operator

S.B. Employee ID: 845

5. Test Equipment

Equipment	Calibration Due Date
MVG Multi-probe Fully anechoic OTA Chamber	September 23, 2023
Anritsu Wireless Connectivity Test Set (WLAN Tester) MT8862A	April 04, 2024

Note: OTA Chamber was audited routinely to ensure accurate results and a 2 year calibration cycle.

6. Antenna Test Method

Measurement parameters follow CTIA Certification/Wi-Fi Alliance Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices V2.2.1.

Active antenna measurement Steps:

- 1) DUT placed in free-space inside an anechoic chamber.
- 2) DUT establishes a connection with a communication call box.
- 3) EIRP are measured at 15 degree step size at each probe position 0 degree – 360 degree with respect to the turntable position from 0-180 degree for a full 3D pattern measurement.

- 4) Data and all pathloss will be processed by MVG Wave Studio.
- 5) Peak EIRP – Conducted power = Peak Antenna gain.
- 6) Repeat Step 2 to 5 for each testing channel/frequency.

7. Antenna Gain Results and Plots

Refer to Exhibit A for antenna gain results and plots.

8. Antenna Photo

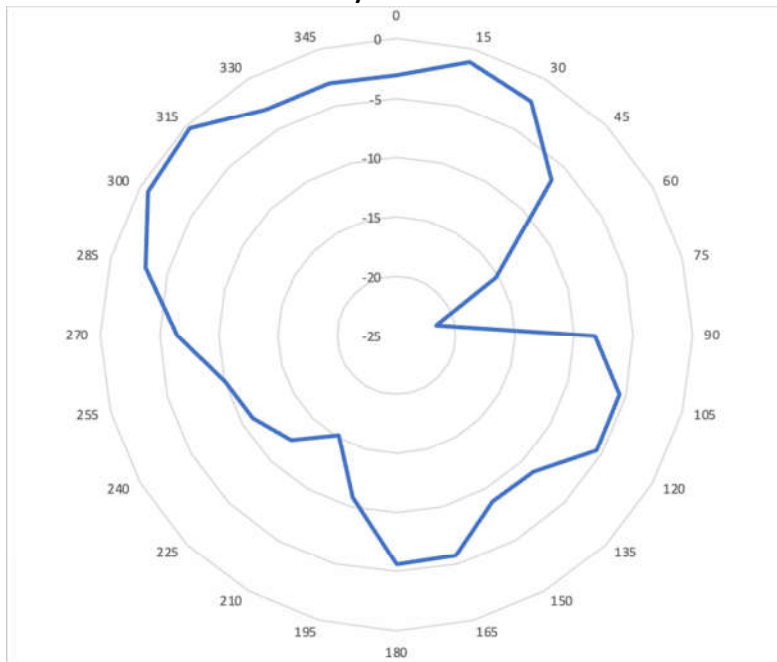
Refer to Exhibit B for Antenna information and photo.

Exhibit A - Gain Results and Plots

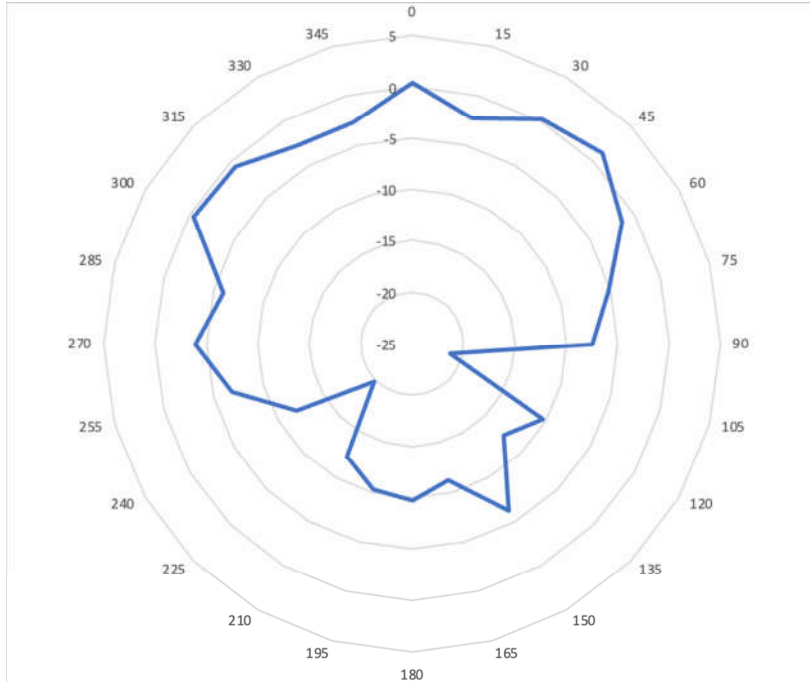
Technology	Frequency (MHz)	FreeSpace Tx Peak Max Gain of H & V
		ANT0 Gain (dBi)
Wifi/BT 2.4GHz	2400-2483.5	-0.4
Wifi UNII-1	5150-5250	1.2
Wifi UNII-2A	5250-5350	1.7
Wifi UNII-2C	5470-5725	3.9
Wifi UNII-3	5725-5850	2.4
Wifi UNII-5	5945-6425	1.9
Wifi UNII-6	6425-6525	1.7
Wifi UNII-7	6525-6875	3.5
Wifi UNII-8	6875-7125	2.5

Antenna 2D/3D Plots:

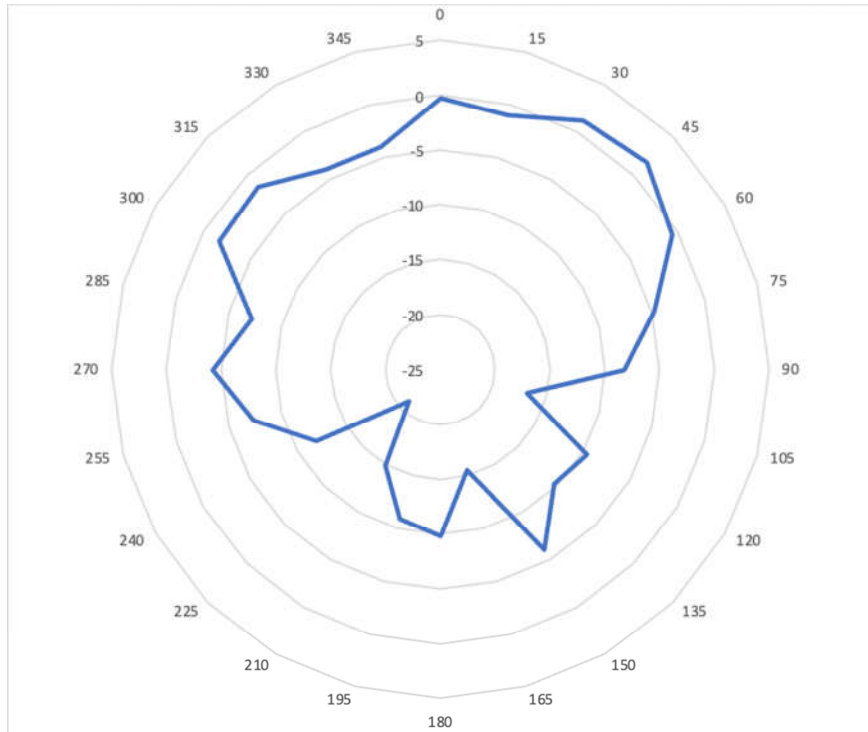
Wifi/BT 2.4GHz



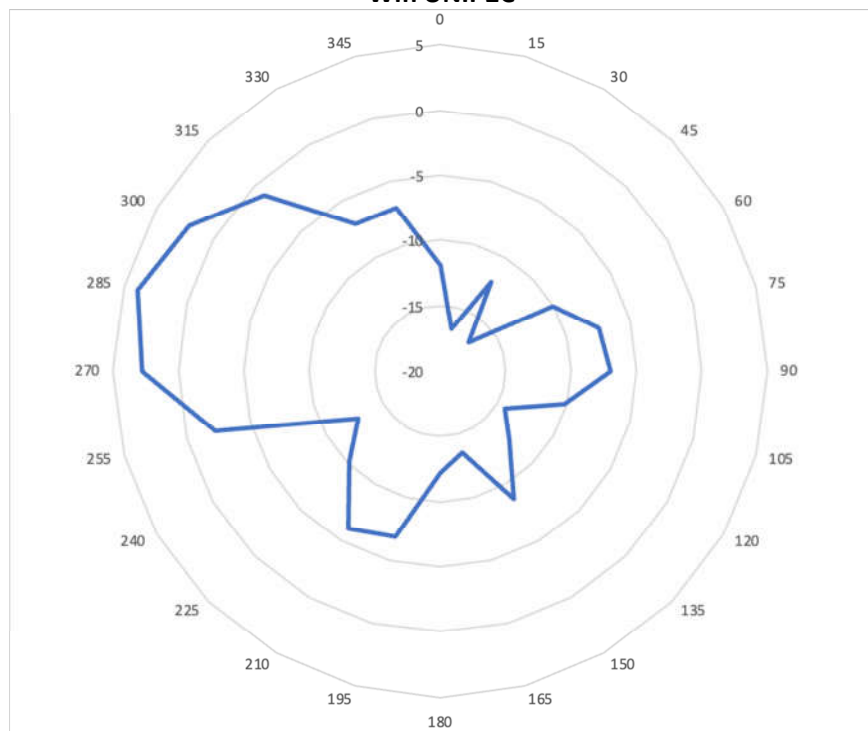
Wifi UNII-1



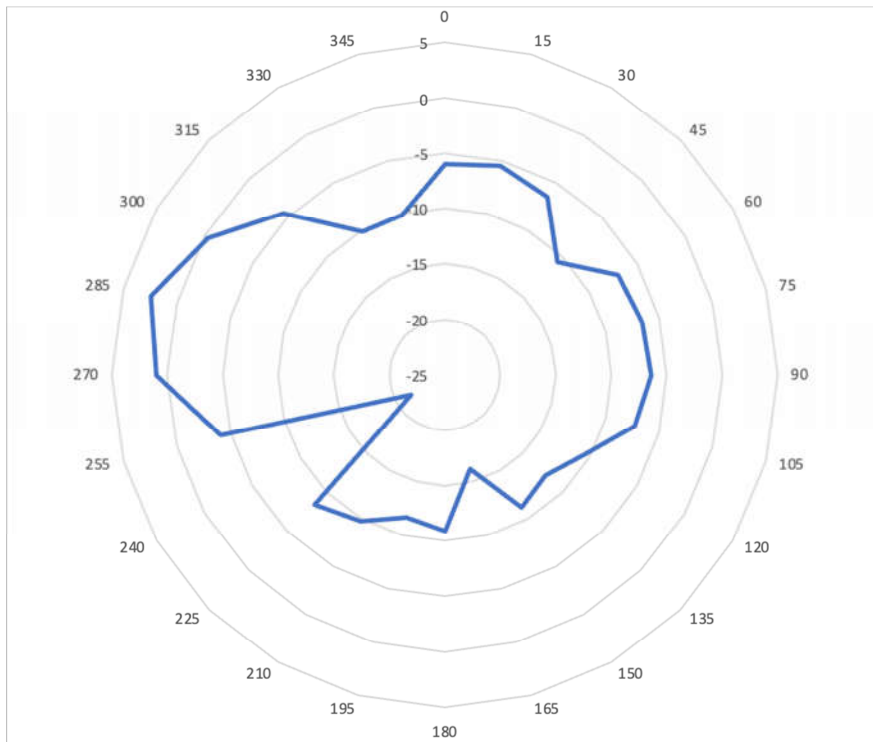
Wifi UNII-2A



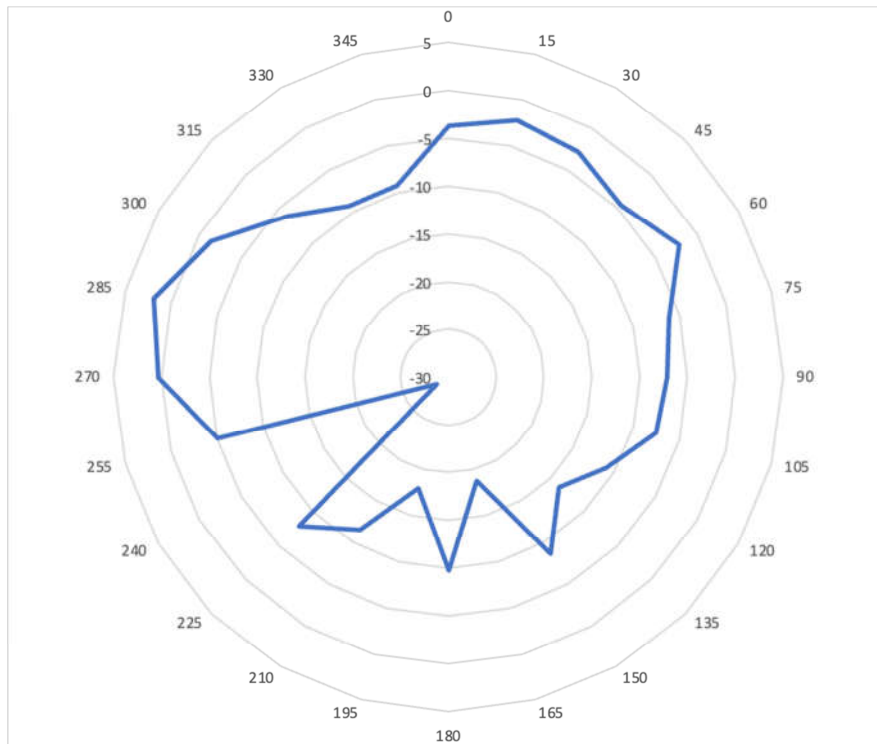
Wifi UNII-2C



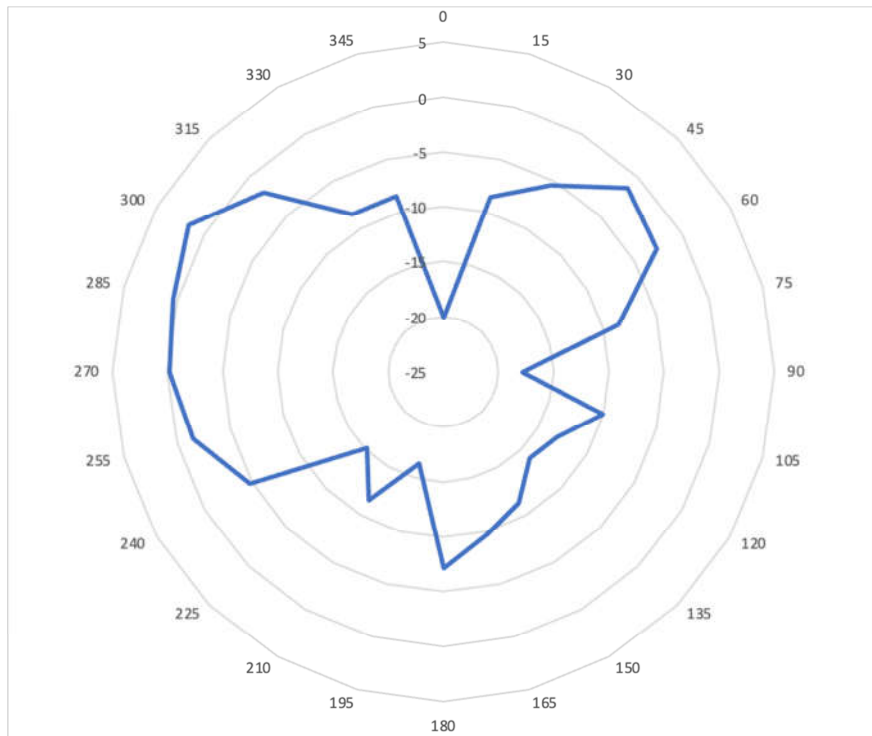
Wifi UNII-3



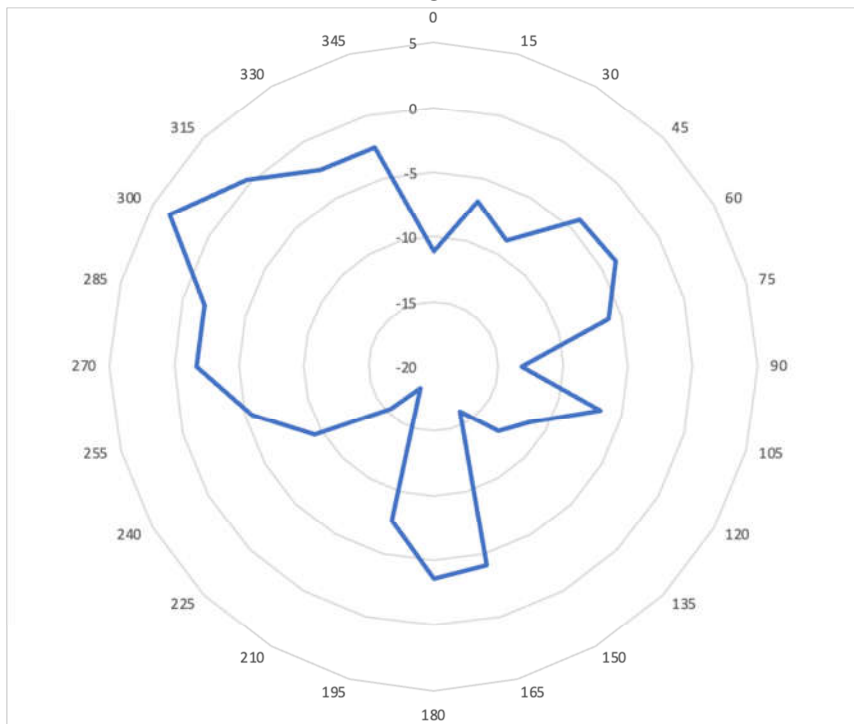
Wifi UNII-5



Wifi UNII-6



Wifi UNII-7



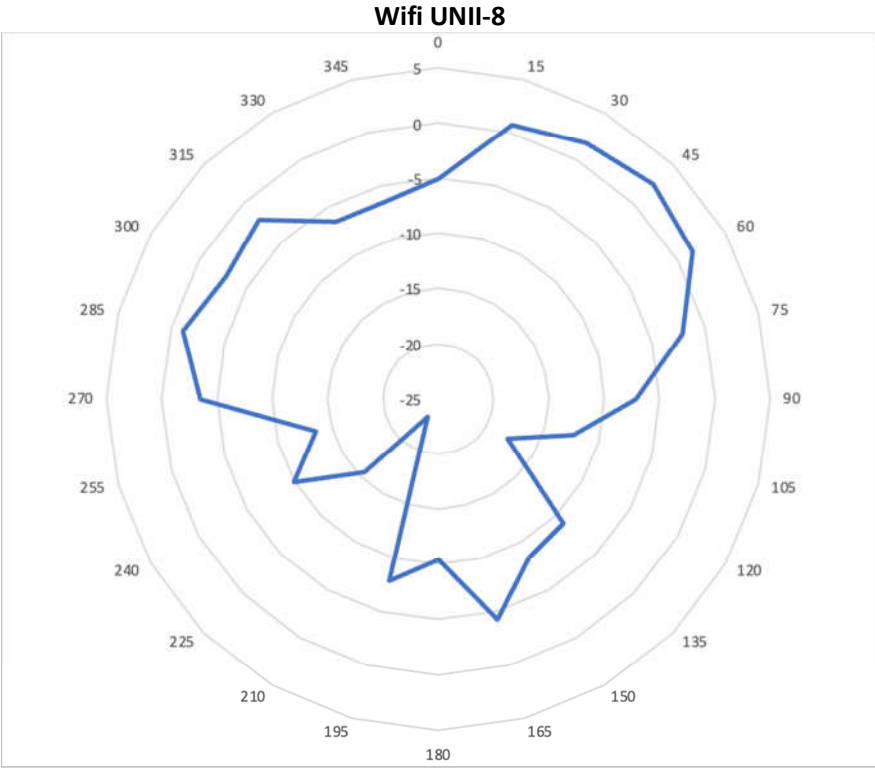


Exhibit B - Antenna Information and Photo

Antenna Manufacturer	Meta
Manufacturer Address	900 5th Ave, Sunnyvale, CA 94089
Antenna Part/Model Number	N/A
Antenna Type	Inverted-F and folded monopole