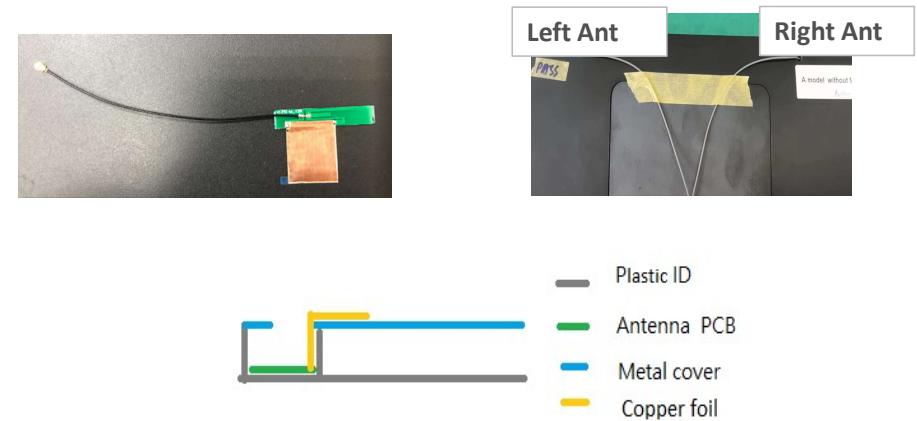


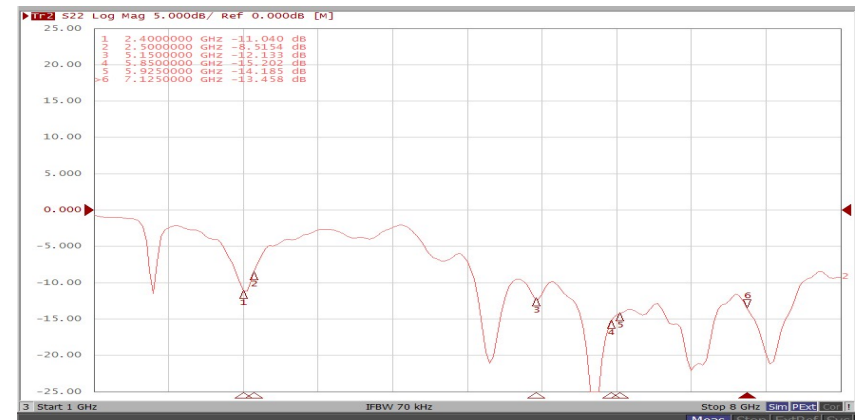
# Antenna Performance-Left Ant

Wi-Fi (PIFA+Loop)	Left Antenna	
	Eff.(%)	Gain(dBi)
2400 MHz	35	1.1
2450 MHz	35	0.8
2500 MHz	33	0.6
5150 MHz	27	-0.4
5550 MHz	29	-0.1
5850 MHz	27	0.7
6150 MHz	35	2.8
6550 MHz	31	1.5
7150 MHz	27	0.9

- Antenna Overview



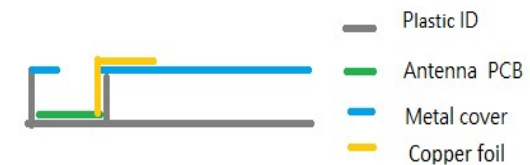
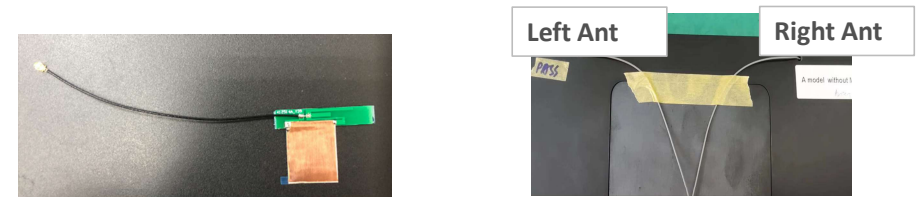
- Return Loss



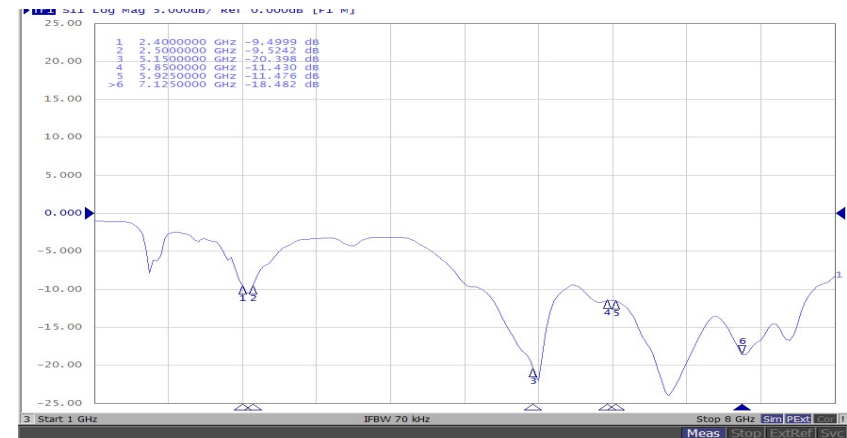
# Antenna Performance-Right Ant

Wi-Fi (PIFA+Loop)	Right Antenna	
	Eff.(%)	Gain(dBi)
2400 MHz	34	1.2
2450 MHz	33	1.2
2500 MHz	37	1.3
5150 MHz	25	0.4
5550 MHz	20	0.1
5850 MHz	22	-0.8
6150 MHz	34	0.8
6550 MHz	34	0.5
7150 MHz	21	0.2

- Antenna Overview

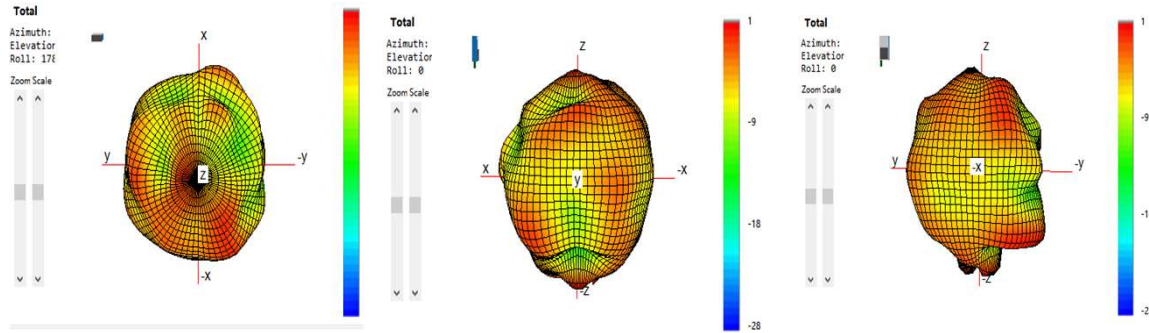


- Return Loss

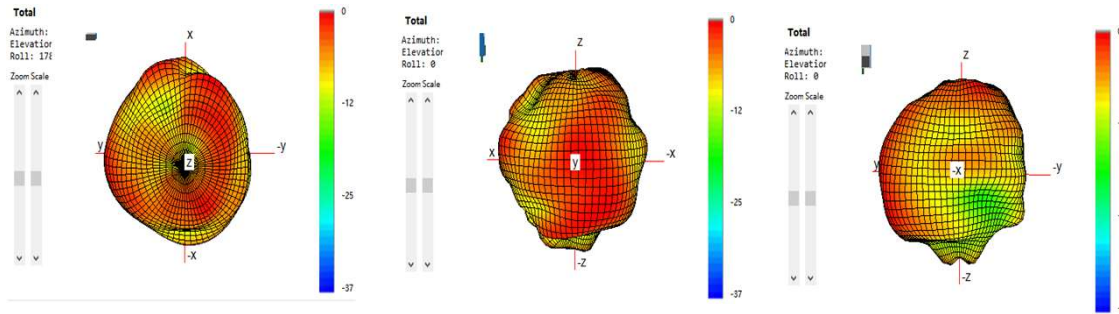


# Pattern

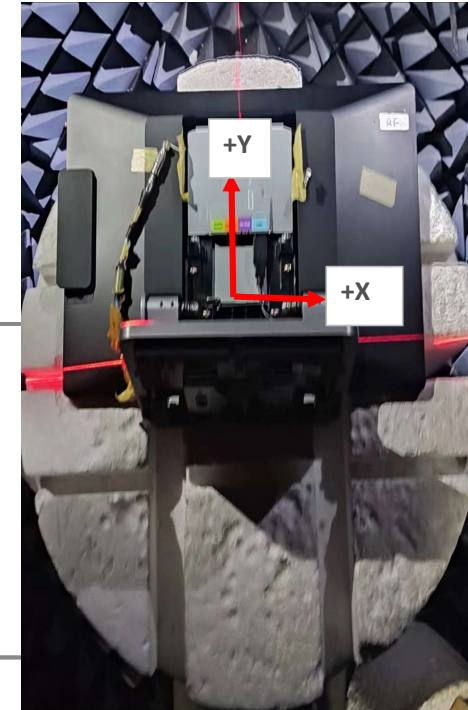
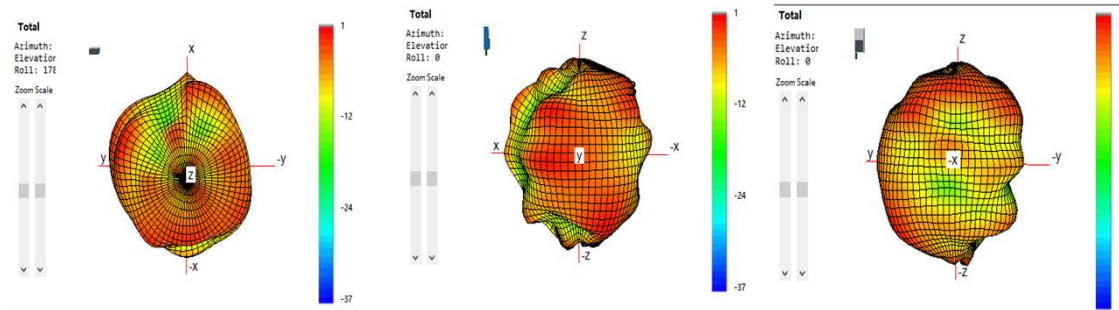
- 2.4G



- 5G



- 6G



# Applicable Test Method

ETS-Lindgren J1111 system is 3D fully anechoic chamber, it is applied to the “Conical Cut test method”, the detail description is described as below. The Conical Cut method requires the ability of the Measurement Antenna to be physically rotated in the theta plane (overhead) of the EUT for implementations using a single Measurement Antenna, Eleven conical cuts are required to capture data at every 15 degrees from the EUT, with the top (0 degrees) and bottom (180 degrees) cuts not being measured. Typically, the EUT will remain affixed to a turntable during the entire measurement process. The Measurement Antenna will be positioned at a starting theta angle. The EUT will then be rotated around the full 360 degrees of phi rotation. The Measurement Antenna will then be positioned at the next theta angle, and the process repeated. Test Date: DEC. 6, 2023 Test Personnel: TOM Test Software: ETS-Lindgren EMQuest

Test Date: Dec. 6, 2023

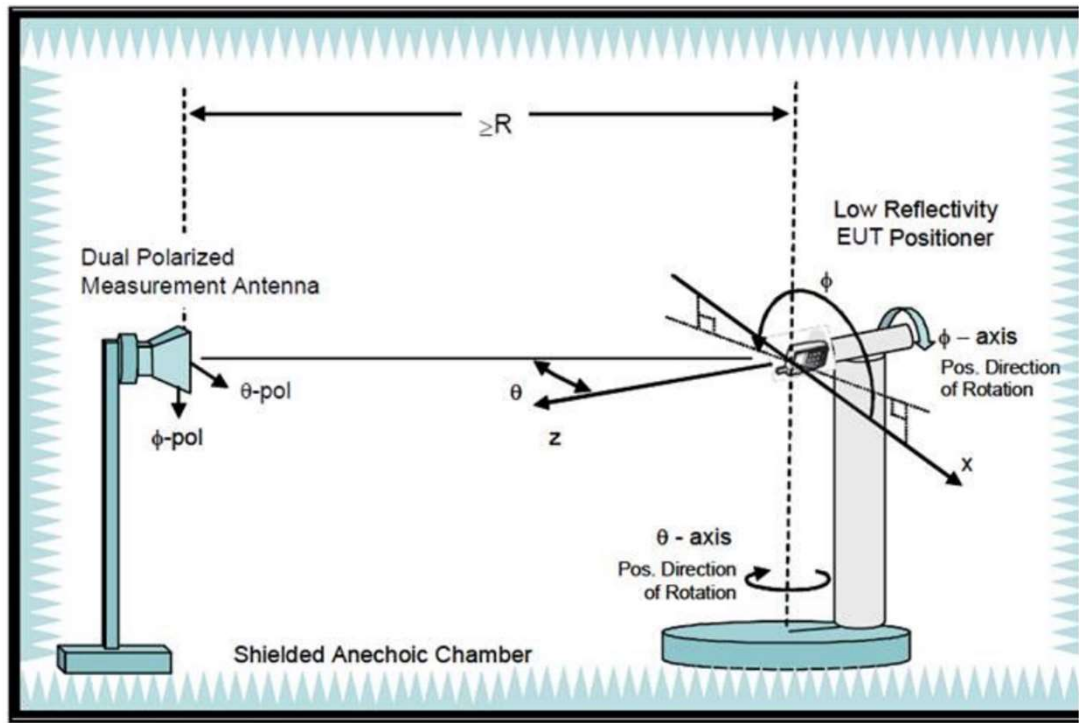
Test Personnel: Tom

Test Software: ETS-Lindgren EMQuest

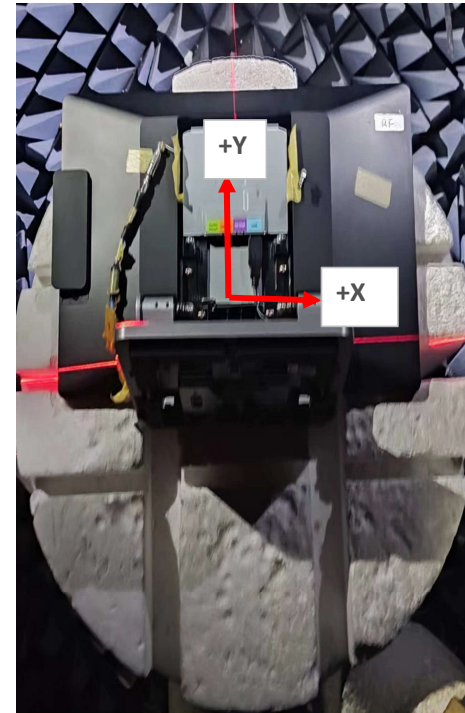
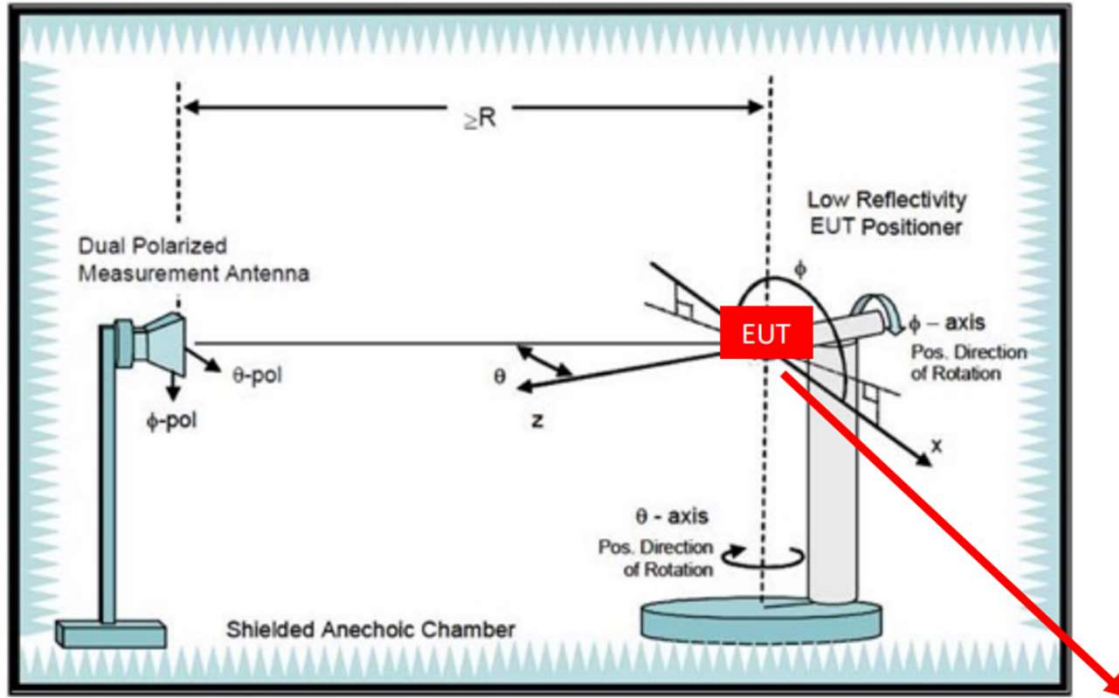
		$\theta$ -Axis	$\Phi$ -Axis
Passive	Step size	15°~165° step: 15°	0°~345° step: 15°
	N / M (Points)	12	24

# Test & System Description

a. Typical setup of ETS-Lindgren AMS-8500



# Test Setup



# Test & System Description

## a. Equipment List

Equipment Description	Manufacturer	Identification no.	Current calibration date	Next calibration date
Network analyzer	Agilent	E5071C	2023/6/13	2024/6/13
Measurement software	ETS-Lindgren	EMQuest	2023/10/15	2024/10/15
EMCenter	ETS-Lindgren	7000-001	2023/10/15	2024/10/15
Multi-device controller	ETS-Lindgren	Model 2090	2023/10/15	2024/10/15
Horn antenna	ETS-Lindgren	3164-08	2023/10/15	2024/10/15