

Logitech

Antenna Under Test (AUT)

Report

Model Name: AR0203

Equipment Type: Headset

Manufacturer: Logitech Far East LTD.

Test Location: No 19, Hwa Ya 2nd Road, Wen Hwa Tsuen, Kwei Shan
Hsiang, Taoyuan 333, Taiwan, R.O.C

Tested by: _____ YuMing Tian _____

Report Date: _____ 2026.04.07 _____

Report Release History

Report version	Description	Date Issued
Mario AUT Report	Original release	2026/04/07

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1. EUT Antenna Information

- 1) Antenna Material : Printed
- 2) Antenna Type : Monopole
- 3) Antenna Dimension: 15.5 x 7.5 mm
- 4) Operating Frequency: 2.4 GHz - 2.4835 GHz
- 5) Input Impedance : 50 Ω
- 6) Standing-Wave Ratio: 2:1

2. Measured Values and Calculation of Antenna Gains

Measure peak horizontal/vertical EIRP on 3D plane. The highest measured values will be used to calculate the antenna peak gain.

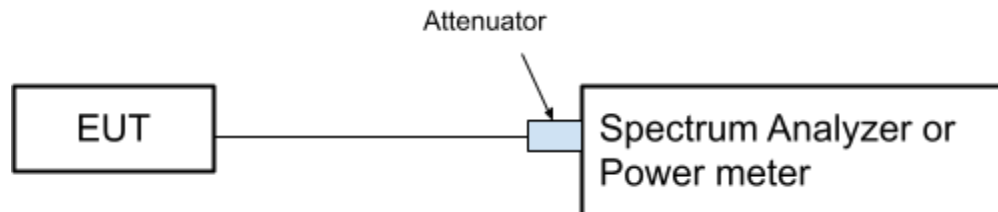
Antenna Peak Gain (dBi) = Max EIRP(dBm) - Conducted Power (dBm)

Frequency	Max Peak EIRP (dBm)	Conducted Power (dBm)	Antenna Peak Gain (dBi)
2400	8.3 $\varphi=315^{\circ}$ $\theta=30^{\circ}$	6.5	1.8 $\varphi=315^{\circ}$ $\theta=30^{\circ}$
2440	9.1 $\varphi=315^{\circ}$ $\theta=30^{\circ}$	6.7	2.4 $\varphi=315^{\circ}$ $\theta=30^{\circ}$
2460	9.23 $\varphi=315^{\circ}$ $\theta=30^{\circ}$	6.7	2.53 $\varphi=315^{\circ}$ $\theta=30^{\circ}$
2480	9.3 $\varphi=300^{\circ}$ $\theta=30^{\circ}$	6.9	2.4 $\varphi=300^{\circ}$ $\theta=30^{\circ}$

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3. Conducted Power Measurement

3.1 Test Setup



3.2 Test Instruments

Instrument	Manufacturer	Model	Serial No.	Spec	Calibration Date	Calibration Until	Remark
Signal Analyzer	R&S	FSV3044	101438	10Hz~44GHz	14/Oct/2025	13/Oct/2026	TH01-HY
SMB100A Signal Generator	R&S	SMB100A	181147	100kHz~40GHz	29/Oct/2025	28/Oct/2026	TH01-HY
Power Meter	Anritsu	ML2495A	0949003	300MHz~40GHz	4/Feb/2026	03/Feb/2027	TH01-HY
Pulse Sensor	Anritsu	MA2411B	0917017	300MHz~40GHz	4/Feb/2026	03/Feb/2027	TH01-HY
Instrument	Manufacturer	Model	Serial No.	Spec	Calibration Date	Calibration Until	Remark

Note: The calibration interval of the above test instruments is _12_ months

3.3 Test Procedure

A spectrum analyzer or Power meter was used to perform output power measurement, setting the detector to average and configuring EUT continuously transmitting power(100% duty cycle).

3.4 Test Result of RF conducted Power

Frequency	Conducted Power (dBm)
2400	6.5
2440	6.7
2480	6.9

Test Date: _____**2026/03/04**_____

4. 3D Radiation Pattern Measurement

4.1 Test Location

3D radiation pattern measurement in the anechoic chamber

4.2 Description of the anechoic chamber

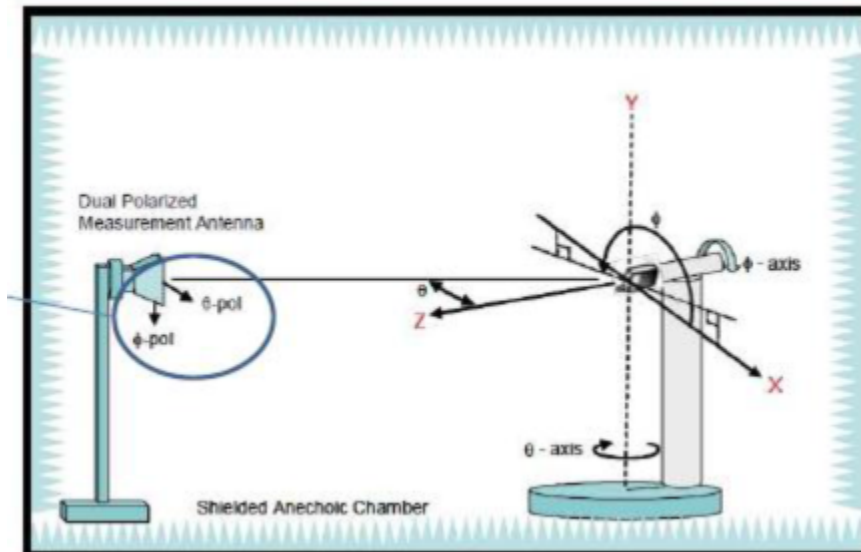
The anechoic chamber is a standard AMS-8500 rectangular anechoic chamber designed and built by ETS-Lindgren with the following nominal dimensions

Length: 7.3m (24 ft)

Width: 3.7m (12 ft)

Height: 3.7m (12 ft)

Path Length: 4.9m(16.1ft)



4.3 Test Instruments

Description	Model No.	Serial No.	Last Calibration	Due Calibration
ENA Series Network Analyzer	Keysight-E5071C	MY46101588	2025/11/13	2026/11/12
SAM Head Phantom	SPEAG-SAM HEAD V4.5BS	3773	NCR	NCR
RF Switch	ETS -EMCENTER™	N/A	NCR	NCR
Multi-Axis Positioner Controller	ETS-Lindgren-2090	N/A	NCR	NCR
Measurement Horn Antenna	EMCO-3164-08	102092	NCR	NCR

4.4 Test Procedure

- i. Connect the EUT to power meter and record the power setting of EUT and the measured conducted power.
- ii. Fasten the EUT in the center of the jig on Multi-Axis Positioning System, record the coordinates and take pictures.
- iii. Configuring EUT continuously transmitting power (100% duty cycle).
- iv. Make sure the transmit signal is stable and at the maximum RF power level.
- v. Read the channel power level on the signal analyzer and record in the following positions.
 1. The EUT is then stepped between 0 to 360 degrees along the horizontal plane in 15-degree increments.
 2. Data is recorded using the signal analyzer for both theta and phi polarizations at each position.
 3. Rotate the EUT with 90 degree and repeat step f.1 and step f.2 until all 3 planes were measured.
- vi. Change EUT setup to transmit the RF power on 2402MHz, 2441MHz and 2480MHz respectively.
- vii. Find the highest peak EIRP recorded from measurement data for all 3 planes.
- viii. Antenna Peak Gain (dBi) = Max EIRP(dBm) - Conducted Power (dBm)

4.6 3D Pattern Test Plot

