

Logitech

Antenna Under Test (AUT)

Report

Model Name: F00014

Equipment Type: VR INK

Manufacturer: Walsin Technology

Test Location: INPAQ TECHNOLOGY CO., LTD. 81 ,Antai 1st Road, Wuxi, Jiangsu, China

Test Personnel: Sam song

Report Date: 05/30/2024

Report Release History

Report version	Description	Date Issued
F00014 Antenna	Original release	2024/05/30

1. EUT Antenna Information

- 1) Antenna Material: Stamped sheet metal
- 2) Antenna Type: Dipole
- 3) Antenna Dimension: 17.2 x 10mm
- 4) Operating Frequency: 2.4 GHz - 2.4835 GHz
- 5) Input Impedance: 50 Ω
- 6) Standing-Wave Ratio: < 2

2. Measured Values and Calculation of Antenna Gains & Efficiency

Frequency	Antenna Peak Gain (dBi)	Antenna Efficiency (%)
2400	1.24	32
2440	0.94	33
2480	1.06	33

Test Date: 05/30/2024

3. 3D Radiation Pattern Measurement

3.1 Test Location

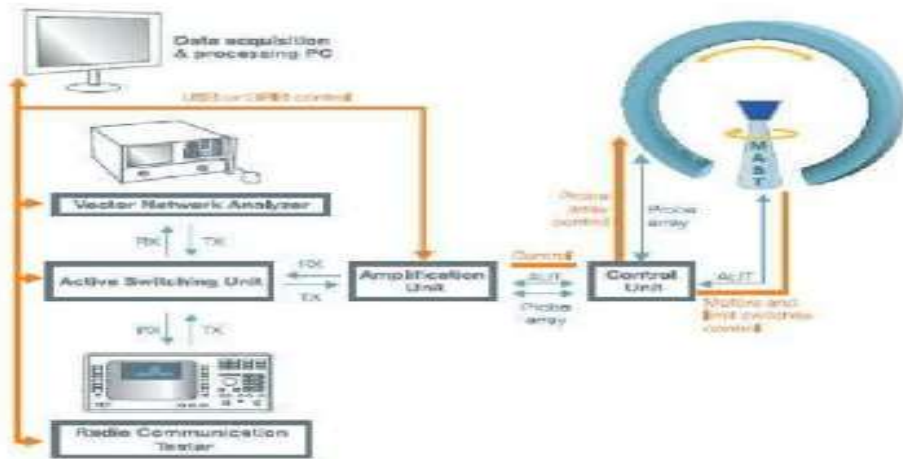
3D radiation pattern measurement in the anechoic chamber

3.2 Description of the anechoic chamber

Length: 2.2 m

Width: 2.2m

Height: 2.2 m



3.3 Test Instruments

Description	Model No.	Serial No.	Last Calibration
Network analyzer ROHDE&SCHWARZ	ZNB8	102858/YT245	26-Apr-2024
Horn Antenna	SH2000-123	00060394	12-Jun-2023
Software	SPM	1.9.3	12-Jun-2023
Antenna Tower MVG	Included in STARLAB_D	N/A	12-Jun-2023
Turntable MVG	Included in STARLAB_D	N/A	12-Jun-2023
Controller MVG	Included in STARLAB_D	N/A	12-Jun-2023

Chamber MVG	Included in STARLAB_D	N/A	12-Jun-2023
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Note: The calibration interval of the above test instruments is 12 months

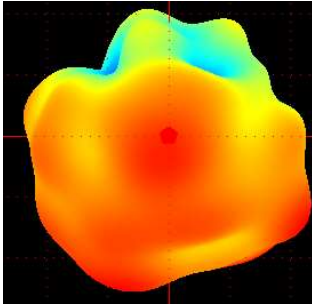
3.4 Test Procedure

- i. Connect the EUT to Spectrum Analyzer and record the power setting of EUT and the measured conducted power.
- ii. Mount the DUT on the mast of the chamber, record the coordinates and take pictures.
- iii. Configure the EUT continuously transmitting power (unmodulated CW mode).
- iv. Make sure the transmit signal is stable and at the maximum RF power level.
- v. Read the channel power level on the Network analyzer and record in the following positions.
 1. The mast is then stepped between 0 to 360 degrees along the horizontal plane in 15-degree increments.
 2. Data is recorded using the spectrum analyzer for both theta and phi polarizations at each position.
- vi. Antenna Peak Gain (dBi) = Max EIRP (dBm) - Conducted Power (dBm)

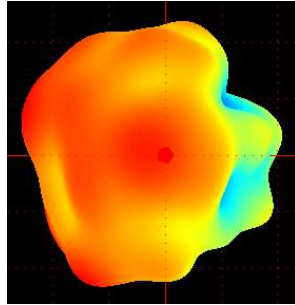
3.5 Test Setup photos

3.6 3D Pattern Test Plot

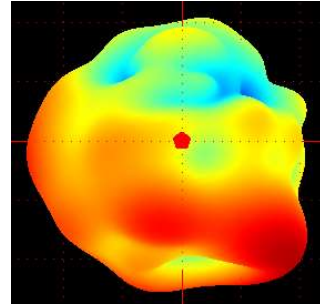
2400MHz:



$\phi = 0; \theta = 0$

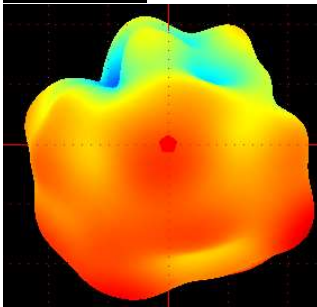


$\phi = 90; \theta = 0$

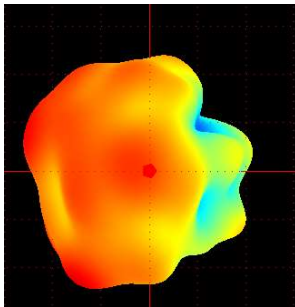


$\phi = 0; \theta = 90$

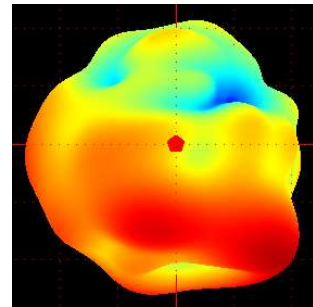
2440MHz:



$\phi = 0; \theta = 0$

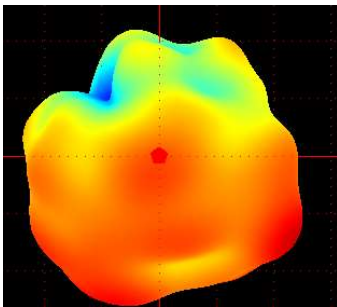


$\phi = 90; \theta = 0$

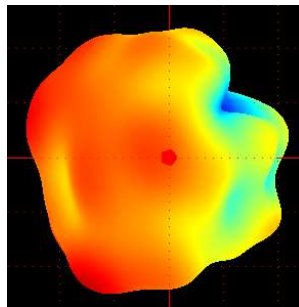


$\phi = 0; \theta = 90$

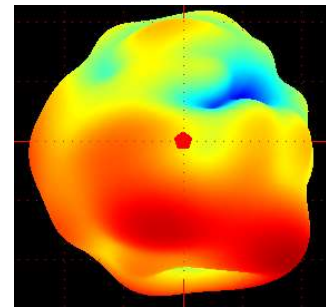
2480MHz:



$\phi = 0; \theta = 0$



$\phi = 90; \theta = 0$



$\phi = 0; \theta = 90$

