Logitech

Antenna Under Test (AUT)

Report

Model Name: Stradale RX

Equipment Type: Wireless Mic Receiver

Manufacturer: Logitech

Test Location: 4700 NW Camas Meadows Drive, Camas, WA, 98671, USA

Tested by: Nikhil Nilakantan

Report Date: 02/09/2023

Report Release History

Report version	Description	Date Issued
Regera AUT Report	Original release	2023/02/09

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1. EUT Antenna Information

1) Antenna Material：On board antenna
2) Antenna Type：IFA
3) Antenna Dimension: 11.96 x 4.27mm
4) Operating Frequency：2.4 GHz - 2.4835 GHz
5) Input Impedance：50 Ω
6) Standing-Wave Ratio：< 1.54

2. Measured Values and Calculation of Antenna Gains

Measure peak horizontal/vertical EIRP on each x-y, y-z, x-z plane. The highest measured values will be used to calculate the antenna peak gain.

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

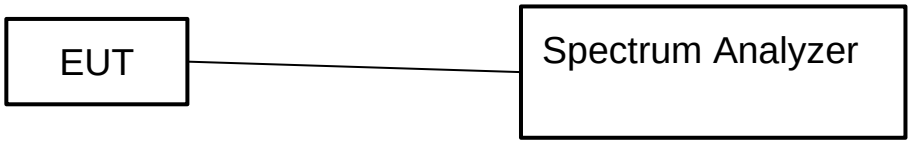
Antenna 1:

Frequency	3D Max Peak EIRP (dBm)	Conducted Power (dBm)	Antenna Peak Gain (dBi)
2400	17.88	16.30	1.58
2440	17.31	16.24	1.07
2480	14.86	16.04	-1.17

Test Date: 04/04/2022

3. Conducted Power Measurement

3.1 Test Setup



3.2 Test Instruments

Description	Model No.	Serial No.	Last Calibration
Spectrum Analyzer Keysight	E5071C	MY46102197	10-Nov-2021

Note: The calibration interval of the above test instruments is 12 months

3.3 Test Procedure

A spectrum analyzer was used to perform output power measurement, setting the detector to average and configuring EUT continuously transmitting power(unmodulated CW mode).

3.4 Test Result of RF conducted Power

Frequency	Conducted Power (dBm)
2402	16.30
2440	16.24
2480	16.04

Test Date: 04/04/2022

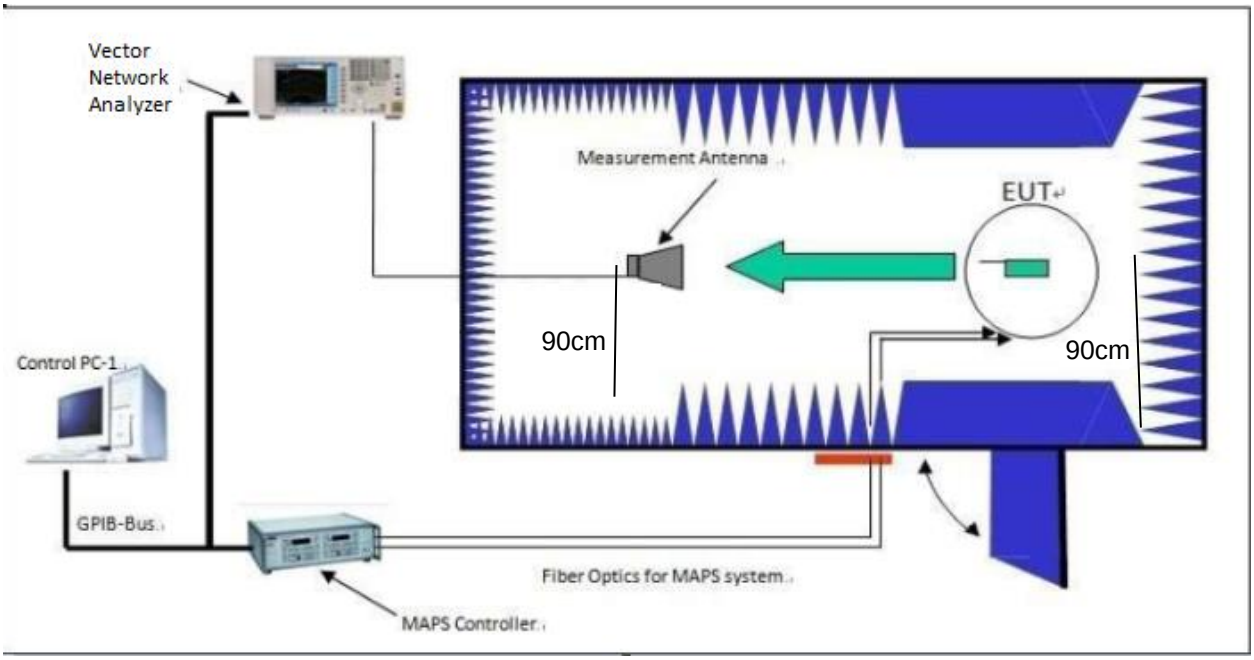
4. 3D Radiation Pattern Measurement

4.1 Test Location

3D radiation pattern measurement in the anechoic chamber

4.2 Description of the anechoic chamber

Length: 2.52 m
Width: 1.42 m
Height: 1.88 m



4.3 Test Instruments

Description	Model No.	Serial No.	Last Calibration
Vector Network Analyzer Keysight	E5071C	MY46102197	11-10-2021
Horn Antenna ETS-Lindgren	3164-04	00060394	11-15-2021

Software ETS-Lindgren	EMQ-100	1091	N/A
Antenna Tower ETS-Lindgren	Included in AMS-8050	N/A	11-15-2021
Turntable ETS-Lindgren	Included in AMS-8050	N/A	11-15-2021
Controller ETS-Lindgren	2090	N/A	11-15-2021
Chamber ETS-Lindgren	AMS-8050	00043943	11-15-2021

Note: The calibration interval of the above test instruments is 12 months

4.4 Test Procedure

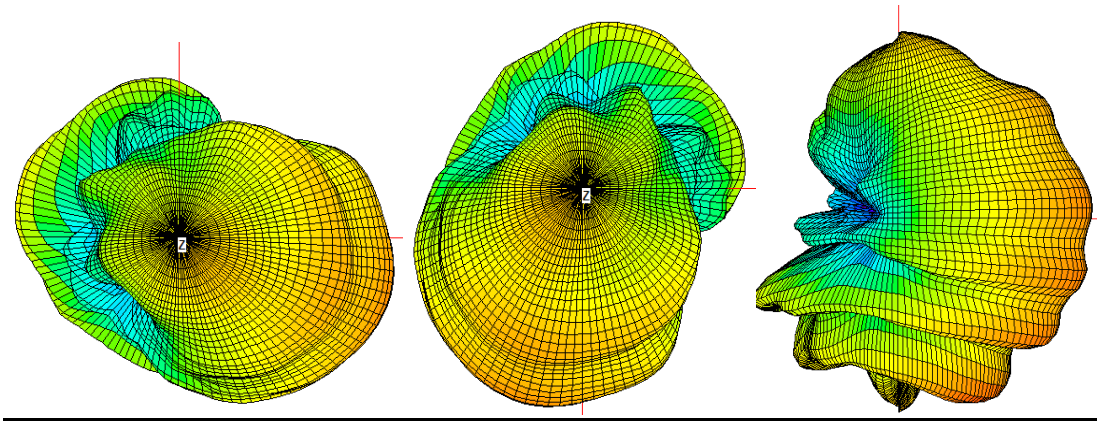
i. Connect the EUT to Spectrum Analyzer and record the power setting of EUT and the measured conducted power.
ii. Mount the DUT on the mast of the chamber, record the coordinates and take pictures.
iii. Configure the EUT continuously transmitting power(unmodulated CW mode).
iv. Make sure the transmit 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)

4.5 Test Setup photos

4.6 3D Pattern Test Plot

ANTENNA 1:

2400MHz:



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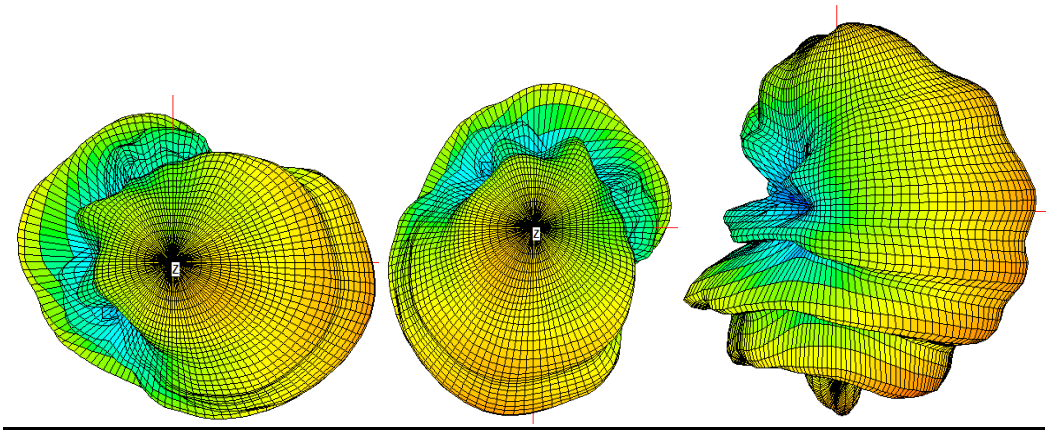
2440MHz:



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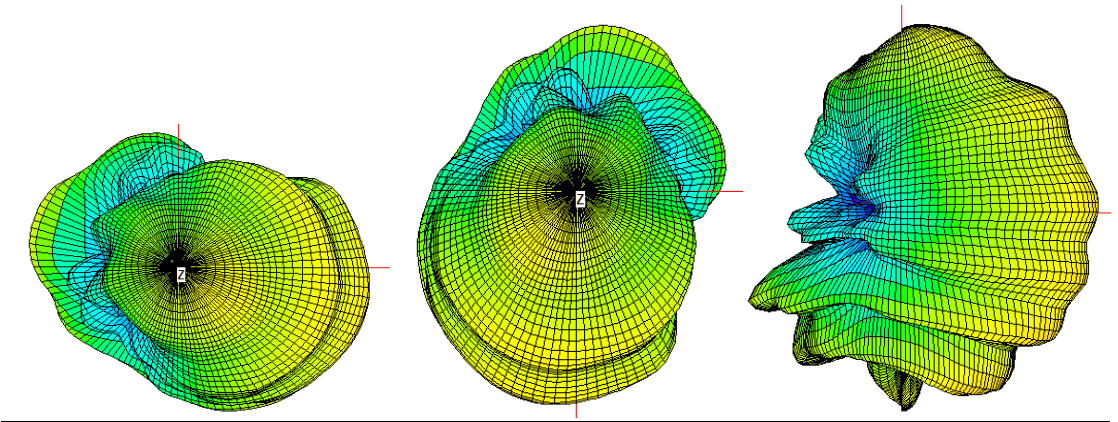
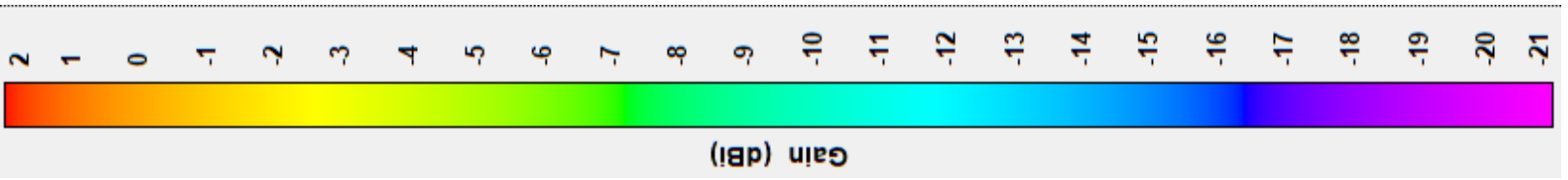
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