

Logitech

Antenna Under Test (AUT)

Report

Model Name: A00187

Equipment Type: A50 X HDMI BASESTATION

Manufacturer: Logitech Europe S.A.

Test Location: 5th Floor, No. 83, Longtan Road, Longtan District, Taoyuan City

Tested by: Sam Wu

Report Date: 2023/02/02

Report Release History

Report version	Description	Date Issued
A00187 AUT Report	Original release	2023/02/02

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1. EUT Antenna Information

- 1) Antenna Material : PCB printed ANT
- 2) Antenna Type : PIFA
- 3) Antenna Dimension: 16.5*13.5 mm
- 4) Operating Frequency : 2.402 GHz - 2.480 GHz
- 5) Input Impedance : 50 Ω
- 6) Standing-Wave Ratio : 2<

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.

BT/BLE 1M/BLE 2M

Frequency(MHz)	2400	2405	2410	2415	2420	2425	2430	2435	2440	2445	2450	2455	2460	2465	2470	2475	2480	2485
Efficiency (%)	43.3	43.2	43.3	43.3	44.3	44.2	45.2	45.2	45.1	45.9	45.0	44.0	43.0	42.6	41.7	41.5	41.1	40.3
Peak Gain (dBi)	2.1	2.1	2.1	2.0	2.1	2.0	2.0	2.0	1.8	1.8	1.7	1.5	1.5	1.6	1.5	1.6	1.7	1.6

Test Date: 2023/02/02

3. 3D Radiation Pattern Measurement

3.1 Test Location

3D radiation pattern measurement in the anechoic chamber

3.2 Description of the anechoic chamber

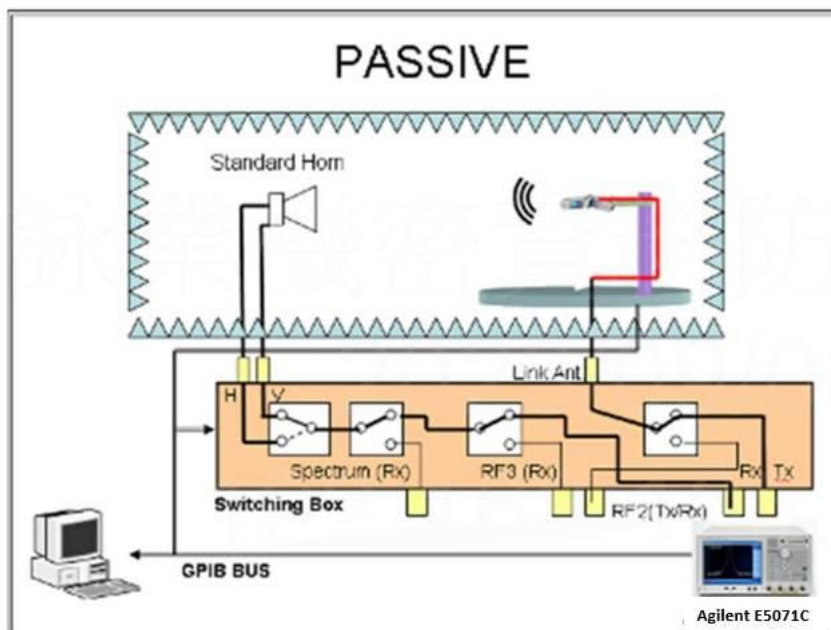
Please fill in our chamber specification

Length: 8M

Width: 4M

Height: 4M

Please post a Block diagram to show the chamber and test equipment like the picture



3.3 Test Instruments

Example(all instrument here should have calibration date, only turntable/controller/software could be exempted and software needs SW version):

Description	Model No.	Serial No.	Last Calibration
Spectrum Analyzer Keysight	E5071C	N/A	2022/07/22
Chamber	ETS-844	N/A	N/A
Software	OTA Maxwell 3.7.1	N/A	N/A

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

3.4 Test Procedure

- a. Connect the EUT to the network analyzer and record the EUT's power settings and measured conducted power.
- b. Securely mount the EUT at the center of the turntable, record the coordinates, and take photographs.
Configure the software to continuously transmit power from the EUT (100% duty cycle).
Ensure that the transmitted signal is stable and at the maximum radio frequency power level.
- c. Set the channel power function through the software.
- d. Read the data from the network analyzer and record it at the following locations. 6-1 Rotate the turntable along the horizontal plane in 15-degree increments between 0 and 360 degrees. 6-2 The software will record polarization data (theta and phi) for each position.
- e. Rotate the EUT by 90 degrees and repeat steps 6-1 and 6-2 until measurements are completed for all three planes (X-Y, X-Z, Y-Z)."

3.5 Test Setup photos

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3.6 3D Pattern Test Plot

3D Gain Pattern (Radiation Pattern @ **2442 MHz**) (unit: dBi)-Ant1

