Antenna Gain Information: AB3113

Equipment Description:

This report contains the antenna gain information for both the WiFi and ANT/BLE antennas for Garmin Model AB3113. The operational frequency of these technologies is approximately 2400-2480 MHz, and the maximum gain within the frequency band is reported.

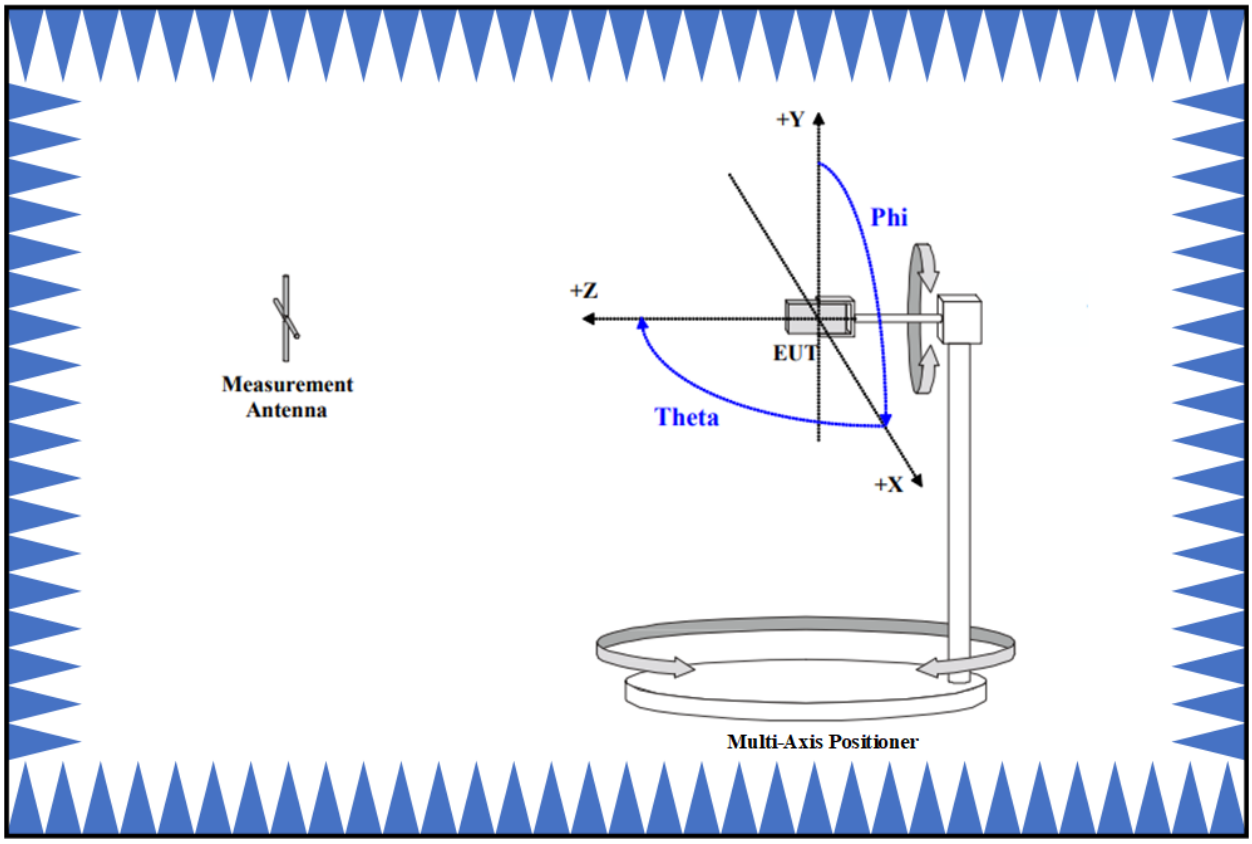
Reported Data:

Maximum Gain for Wi-Fi (Antenna 1): **-1.08 dBi @ 2480MHz**
Maximum Gain for ANT/BLE (Antenna 2): **-1.19 dBi @ 2480MHz**

Procedure:

Garmin uses an ETS-Lindgren AMS-8500 3D Fully Anechoic Automated Antenna Measurement System. The measurement chamber is fully anechoic and contains both the Equipment Under Test (EUT) and the measurement antenna. The EUT is mounted on a Multi-Axis Positioner, which can orient the antenna in all orientations relative to the measurement antenna. The measurement antenna is dual-polarized and measures both horizontal and vertical polarization simultaneously. The other equipment includes a Vector Signal Generator, a multi-channel Vector Network Analyzer, and a control PC. Data is taken and analyzed using EMQuest Data Acquisition and Analysis Software. The output includes the maximum 3D antenna gain within the frequency band.

Setup:



Equipment List:

3D Chamber PC interfaced to Test Equipment
EMQuest Software w/ Required Drivers for Equipment Installed
AMS-8500 Anechoic Wireless Test Chamber
Dual Polarization Measurement Antenna (ETS 3164)
Multi-Axis Positioning System (MAPS)
Multi-Axis Positioning Controller (ETS EMCO Model 2090)
Network Analyzer (Agilent E5017C)
Automated RF Switch Controller (Agilent)

Additional Information:

- Photos of the antenna are provided in a separate exhibit: AB3113 Internal Photos
- The Photos include a scale for dimensions

Signature:

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