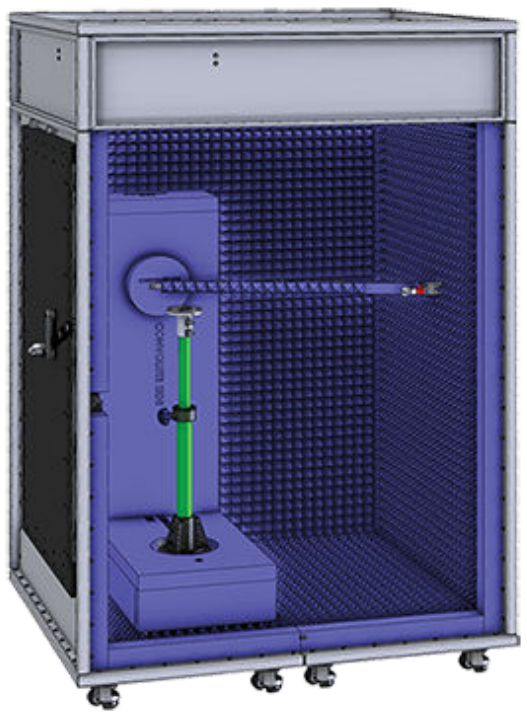
AMS-5704 WiGig Antenna Measurement System



ETS-Lindgren's AMS-5704 WiGig Antenna Measurement System is a distributed-axis far field system that provides 3-dimensional radiated performance measurements over the frequency range of 50 to 75 GHz. Specially designed components enable this theta arm (theta axis) and turntable (phi axis) system to meet the challenges of measurements at this frequency and data rate. The AMS-5704 supports antenna array performance and conformance testing as well as radio interoperability, de-sense and benchmarking tests. Array diameters up to 4.7 cm at 50 GHz and 3.8 cm at 75 GHz can be fully characterized. The AMS-5704 also supports antennas with or without antenna feed ports.

The RF-shielded anechoic enclosure is mobile (on wheels) and ideal when space is limited or one system is to be shared across groups and applications. Total RF isolation is 80 dB throughout the frequency range.

The AMS-5704 utilizes ETS-Lindgren's EMQuest EMQ-100 Antenna Measurement Software as its data acquisition and analysis package. EMQuest EMQ-100 Antenna Measurement Software efficiently pulls together each piece of hardware to create a powerful test solution. EMQuest EMQ-100 offers a wide range of fully parameterized test methods for measuring passive antenna performance. However, active radiated performance is the true forte of EMQ-100 as it interfaces with most available test equipment and data control tools necessary for WiGig devices. AMS-5704 and EMQuest EMQ-100 provide the flexibility and reliability to meet your testing needs for 50-75 GHz antenna systems.

Key Features

- Far Field Test System
- Dual Polarized Antenna on Theta Arm Positioner
  - 0.03^{o} Accuracy
  - 0.01 Resolution
  - Integrated Amplifiers for Measurement Antenna
- 75 cm (29.5 in) Range Length
- Laser Alignment
- AUT Single Axis Positioner
  - 0.03^{o} Accuracy
  - 0.01 Resolution
  - Power, RF, USB Slip Ring in the Phi Positioner
- Supports Passive Testing in CW Mode
- Tests Fully-Modulated Signals

Specifications

Physical Specifications

Max array size 50 GHz: 4.7 cm^2 (1.85 in^2)
Max array size 60 GHz: 4.3 cm^2 (1.69 in^2)
Max array size 70 GHz: 4.0 cm (1.57 in)
Max array size 75 GHz: 3.8 cm (1.5 in)
Overall Dimensions (Nominal): 2.1 m x 1.40 m x 2.2 m (6.9 ft x 4.6 ft x 7.2 ft)
Max DUT Weight: 5.0 kg (11.0 lb)

Electrical Specifications

Voltage (VAC), Theta Arm Drive System: 208/240; IEC 320 C14
Voltage (VAC), AUT Positioner Drive System: 208/240; IEC 320 C14
Equipment/AUT: 115/230; IEC 320 C14

Hertz (Hz): 50/60 Hz

Current (A) Drive System: 20 A

Current (A) Equipment/DUT: 5 A