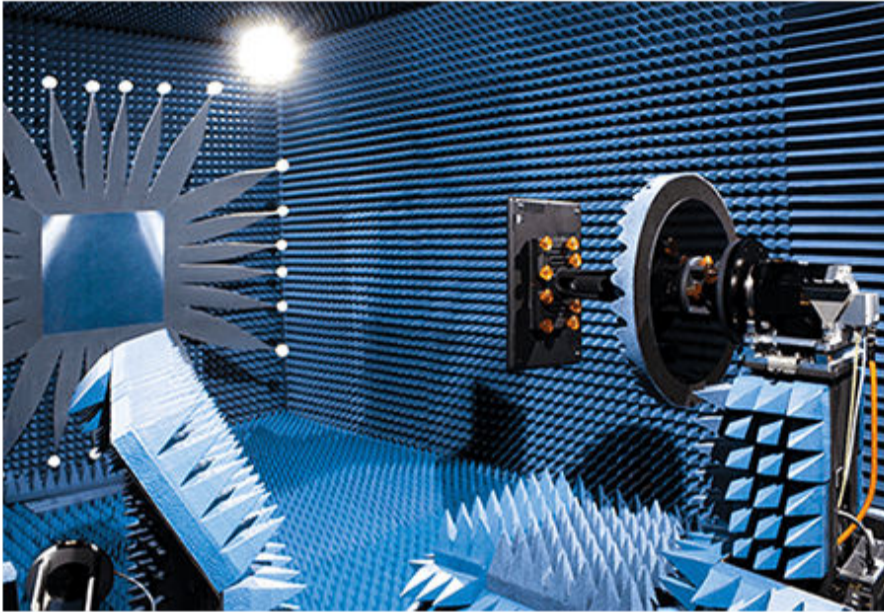


AMS-5703 5G CATR Antenna Measurement System



Key Features

- Indirect Far-Field (IFF) system utilizing Compact Range Reflector system
- Maximum Array support up to 60 cm diameter
- Link budget optimization
- Supports Passive Testing in CW Mode
- Tests Fully-Modulated Signals
- Ideal for 3rd party test labs and large device testing e.g gNodeB testing
- Dual polarized feed antenna

Specifications

Physical Specifications

Test Volume at 24 GHz: 60 cm diameter
Test Volume at 50 GHz: 60 cm diameter
Quiet Zone Performance Amplitude: taper less than 1dB, ripple maximum +/- 0.5 dB
Quiet Zone Performance Phase: taper less than 5 degrees, ripple maximum +/- 5.0 degrees
Overall Dimensions (Nominal LxWxH): 15 ft x 9 ft x 8 ft (4.6 m x 2.7 m x 2.4 m)
Shielded Door Dimensions (Nominal): 4 ft x 7 ft (1.2 m x 2.1 m)

Max DUT Weight: 50 kg (110 lbs.)

Electrical Specifications

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

Product Options

Passive antenna measurements from 18 GHz to 67 GHz

ETS-Lindgren's AMS-5703 compact antenna test range (CATR) is a 3-dimensional measurement system for 5G FR2 mmWave wireless devices over the frequency range of 24 to 43.5 GHz. This indirect far field system is recommended for 3GPP and 5G conformance and performance testing (EIRP, TRP, EIS, TIS) and radio interoperability. AMS-5703 is our most flexible system for millimeter wave antenna measurements, with or without antenna feed ports.

The AMS-5703 is the ideal choice for 3rd party labs that need flexibility to adjust between small mobile arrays and large arrays found on gNodeB base-stations.

The AMS-5703 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 for all 5G technology variants from mmWave radios to Massive MIMO base stations is the true forte of EMQ-100. Whether you are designing antennas for stand-alone applications or testing an embedded antenna system and radio module against any of the industry standard Over-the-Air (OTA) radiated performance test requirements, EMQuest EMQ-100 provides the flexibility to meet your testing needs.

Product Configuration

Target Frequency Range: 5G FR2 24 GHz - 43.5 GHz

Charts

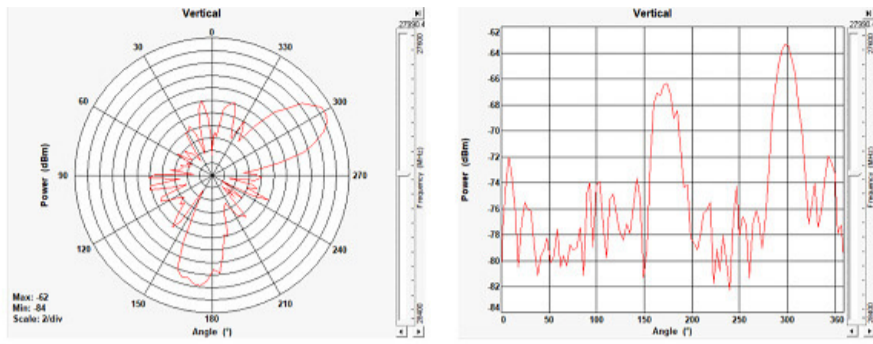


Figure 1. Typical 2-dimensional antenna performance pattern

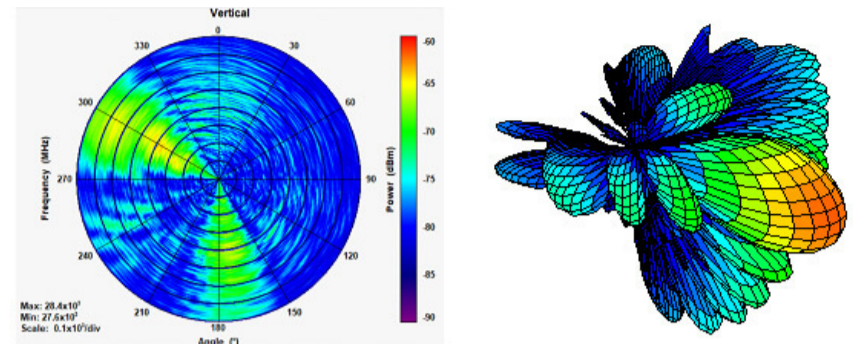


Figure 2. Typical analysis graphs for wide bandwidth signals through 3-dimensional measurements.