

# AMS-5705 5G CATR Antenna Measurement System



## Key Features

- Indirect far field CATR
- Mobile platform on wheels
- 0.03° Accuracy
- 0.01 Resolution
- Laser Alignment
- AUT Single Axis Positioner
- Power, RF, USB Slip Ring
- Tests passive and modulated signals
- Watch the [video of a testing demonstration](#)

## Specifications

### Physical Specifications

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Quiet Zone Volume at 24 GHz: 30 cm (11.8 in)

Quiet Zone Volume at 50 GHz: 30 cm (11.8 in)

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): 2.7 m x 1.5 m x 2.0 m (8.8 ft x 5.0 ft x 6.5 ft)

Shielded Door Dimensions (Nominal) 49.5 cm x 49.5 cm (19.5 in x 19.5 in)

Max DUT Weight: 10 kg (22.0 lb)

### Electrical Specifications

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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 Configuration

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ETS-Lindgren's AMS-5705 Compact Antenna Test Range (CATR) is a three-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-5705 is optimized to handle millimeter wave antenna arrays up to 30 cm in diameter, with or without antenna feed ports.

This RF-shielded anechoic enclosure is mobile (on wheels) and its small size makes it ideal when space is limited. The portable chassis makes it an excellent choice for multiple groups to share, as it can be moved among benches and rooms.

The AMS-5705 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.

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### Charts

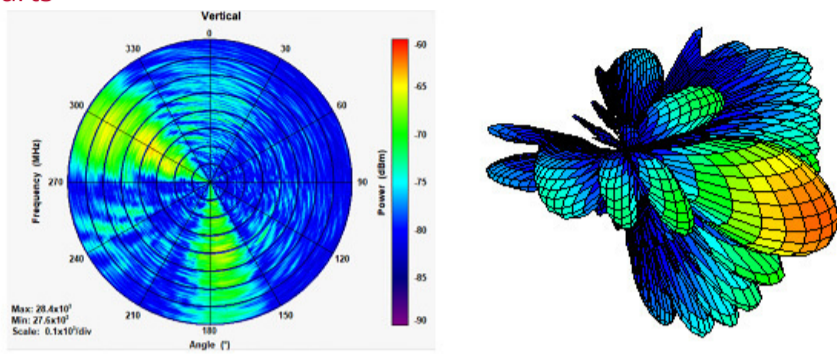


Figure 2. Typical analysis graphs for wide bandwidth signals through 3-dimensional measurements.

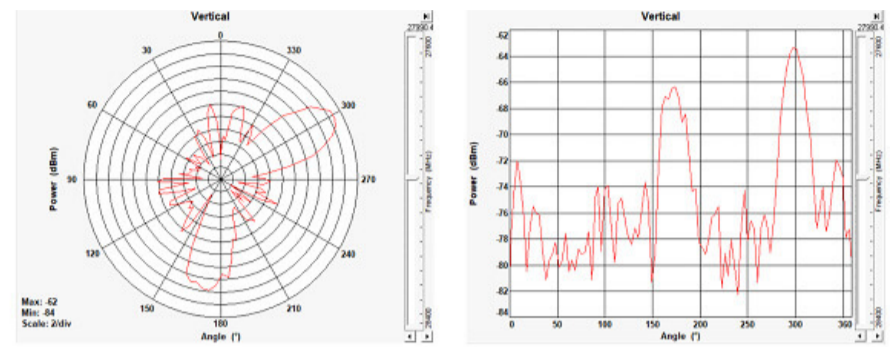


Figure 1. Typical 2-dimensional antenna performance pattern