

WIRELESS SOLUTIONS AMS-5700 Compact 5G Antenna Measurement System

The AMS-5700 Compact 5G Antenna Measurement System for 2-dimensional array measurements between 5 and 50 GHz.



ETS-Lindgren's AMS-5700 is a compact 2-dimensional antenna performance measurement system optimized for 5G mmWave wireless devices. The AMS-5700 covers the full FR2 operating frequency range of 24 to 50 GHz, but can also test antennas that operate from 5 to 50 GHz. It is a far-field environment recommended for design validation, pre-certification testing, performance measurement, and production sample testing needs. The AMS-5700 system supports passive antenna testing of a wide range of portable wireless devices. Optionally, active antenna measurements can be supported with component and instrument upgrades. This system excels at single axis antenna performance measurements for all antennas, with or without antenna feed ports.

The AMS-5700 is ideal for the following use cases:

- Manufacturing and quality assurance
- Receiver and transmitter calibration
- Fixed beam 2D measurements
- Chipset or system design validation
- General FR2 research and development
- Parameterized performance measurement
- Production sample testing

The AMS-5700 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.

The AMS-5700 is a desktop unit that can be placed on a large cart and moved as needed to support multiple applications and groups. It is one of the few systems that fits through standard door openings and in most elevators. AMS-5700 supports antenna array sizes up to 7.8 cm at 24 GHz and 5.8 cm at 44 GHz.

Key Features

- RF-Shielded Test Environment
- Dual Polarized Antenna
- 1m (39.4 in) Range Length
- Laser Alignment
- Single Axis Positioner
- 0.03° Accuracy
- 0.01 Resolution
- Power, RF, and USB Slip Ring
- Supports Passive Testing in CW Mode
- Tests Fully-Modulated Signals

Specifications

Electrical Specifications

Voltage (VAC): Drive System 208/240; IEC 320 C14

Equipment/AUT: 208/240; IEC 320 C14

Hertz (Hz): 50/60 Hz

Current (A): Drive System 15 A, Equipment/DUT 5 A

Physical Specifications

Test Volume (L x W x H), 24 GHz: 7.9 cm x 7.9 cm x 7.9 cm (3.1 in x 3.1 in x 3.1 in)

Test Volume (L x W x H), 50 GHz: 5.5 cm x 5.5 cm x 5.5 cm (2.1 in x 2.1 in x 2.1 in)

Overall Dimensions (Nominal): 44.8 cm x 62.2 cm x 86.4 cm (57.0 in x 24.5 in x 34.0 in)

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

Weight (Nominal): 82 kg (180 lb)

Max DUT Weight: 1.0 kg (2.2 lb)