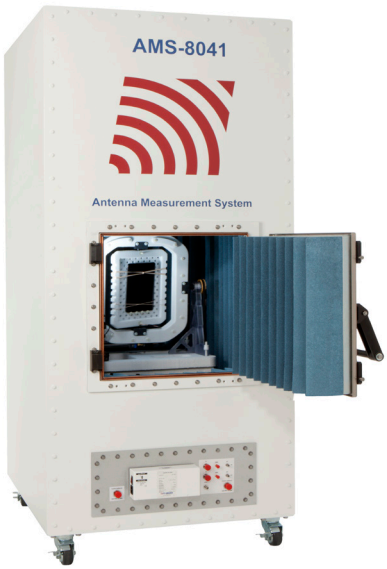
CHAMBER AMS-8041 ANTENNA MEASUREMENT SYSTEM



MODEL AMS-8041

- **Efficient Over-the-Air (OTA) Active and Passive Antenna Pattern Measurement**
- **Full WiFi 7 test solution available (Note: requires WiFi 6E measurement package)**
- **Ideal as a Shared Resource for Pre-compliance Testing**
- **Compact Anechoic Absorber-line RF Enclosure**

ETS-Lindgren's AMS-8041 is a self-contained enclosure for making wireless device over-the-air performance and passive antenna pattern measurements. The unit is ideal for design verification, pre-certification, production sample, desense, and regression testing.

The system is an ideal solution when space is a limitation as it is a self-contained, freestanding test chamber. Its portable chassis makes it an excellent choice for multiple research and development groups since it is designed to fit through a typical 0.9 m x 2.1 m (3 ft x 7 ft) personnel door and can be easily moved from one test group to another.

It can also be used to measure approximate EIRP, EIS, or RSSI in a given direction and polarization. These results can be used to compare the behavior of multiple identical devices or the same device under different conditions such as external interference or desensitization due to other platform components or radios.

5G FR1 Over-The-Air (OTA) test solutions are now available! ETS-Lindgren offers a turnkey package which will enable support for 5GNR SISO non-standalone [NSA] and/or standalone [SA] testing in the FR1 band.

Product Features:

Antennas

The AMS-8041 is equipped with a Model 3165-02 dual polarized Vivaldi antenna capable of measuring both linear and circular measurements over the frequency range of 400 MHz to 6 GHz. The antenna is mounted on a removable access panel at the top of the enclosure. The antenna can be interchanged with another antenna of a different frequency if needed. Two antennas are used for communication with the DUT.

Two-Axis Positioner

3D antenna measurements can be made for both active and passive antennas using the AMS-8041's two-axis positioner. The positioner is constructed of low-dielectric materials and is designed for hand-held devices weighing up to 1 kg (2.2 lb). The positioner is controlled by EMQuest Software.

Anechoic Absorber

FlexSorb, a flexible RF absorber that bends and returns to its original form, is used in AMS-8041 to eliminate breakage from extended lab use. The absorber is performance optimized and limits reflections and moding for more accurate, repeatable measurements. Tapered wedges line the walls, pyramidal absorber is used on the floor, and lossy foam lines the antenna.

EMQuest Data Acquisition and Analysis Software

The AMS-8041 System includes our versatile EMQ-100 Antenna Pattern Measurement Software. The software makes fully-automated pattern and frequency response measurements for active and passive antennas. Post processing capabilities include calculations for directivity, gain, radiation efficiency, total radiated power, and total isotropic sensitivity. EMQ-100 also calculates industry specific quantities such as Near-Horizon Partial Isotropic Sensitivity required by the CTIA Test Plan for Mobile Station Over-the-Air Performance. Advanced graphing capabilities allow data to be shown in a variety of 2D and 3D formats, exported to Microsoft Excel, PDF files, or saved in RTF format.

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Technical Specifications

Electrical	
Frequency Range	400 MHz to 6 GHz
Test Methodology	Direct Far-Field (DFF)
Compliance Standard and Technology	Pre-Compliance
Rotation Axis	Combined-Axis
Physical	
Path Length	80 cm (31.5 in)
Overall Dimensions	201.4 cm x 87.4 cm x 101.1 cm (79.3 in x 34.4 in x 38.9 in)
Maximum Load Capacity	1.0 kg (2.2 lb)

Standard Configuration

- Two-axis DUT Positioner
- >80 dB RF Isolation
- Two Communication Antennas
- No Special Installation or Construction Required
- Onsite Setup and Training
- Self-contained with Roll-about Casters for Mobility
- Frequency Range 400 MHz to 6 GHz
- Path Length: 80 cm

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