

FEATURES:

- Efficient Over-the-Air Performance Measurement
 - 2-D / 3-D Antenna Patterns
 - TRP, EIRP
 - TIS, EIS
 - NHPRP, NHPIS
- Ideal for Pre-Compliance Testing
- Compact, Anechoic RF Enclosure
- Self-contained, Moveable Cart System
- No Special Installation or Construction Required
- EMQuest[™] Data Acquisition and Analysis Software included



ETS-Lindgren's Model AMS-8050 shown with optional instrumentation

ETS-LINDGREN'S MODEL AMS-8050 is a compact, fully anechoic RF enclosure for making over-the-air (OTA) performance measurements. The AMS-8050 is freestanding and built on a moveable cart configuration; it fits into parent buildings without special installation or construction. This over-the-air test system for wireless device measurement may be used for rapid prototyping, design validation, pre-certification testing, performance measurement, and production sampling.

FEATURES

Pre-Compliance Testing

If you're using an external test house for certification testing, our system can help you go fully pre-

pared. OTA performance measurements made in the AMS-8050 have shown good correlation to measurements made in larger, fully compliant chambers.

Compact Anechoic RF Enclosure

The AMS-8050 is an ideal solution when space is a limitation. It can be used as a self-contained test lab for making fast, OTA performance measurements of small wireless devices and mobile handsets.

Self Contained, Moveable System

The AMS-8050 is incorporated into a moveable chassis: the entire system may be transported between different test stations. Integrated equipment bays allow components required for testing to remain

with the system. The ability to transport the system and store all components within the cart makes it an ideal solution for use by multiple research and development groups.

Easy Installation

The AMS-8050 System is easily installed into new or existing construction. Additionally, the moveable cart assembly allows for the system to be easily relocated within a testing facility.

EMQuest Data Acquisition and Analysis Software

The AMS-8050 System includes our versatile EMQ-100 Antenna Pattern Measurement Software. The software makes fully-automated pattern and frequency response

measurements for both active and passive antennas, for either vector or scalar qualities, in either transmit or receive mode.

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 2-D and 3-D formats, exported to Microsoft Excel™, PDF files or saved in RTF format.

APPLICATIONS

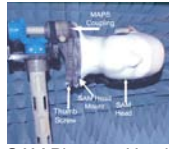
The AMS-8050 System allows for efficient Over-the-Air performance measurement of:


- Fully automated 2-D (polar) and 3-D (spherical) antenna pattern measurements
- Total radiated power (TRP)
- Effective isotropic radiated power (EIRP)
- Total isotropic sensitivity (TIS),
- Effective isotropic sensitivity (EIS)
- Near-horizontal partial radiated power (NHPRP)
- Near-horizon partial isotropic sensitivity (NHPIS)

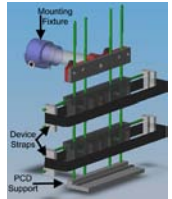
STANDARD CONFIGURATION

- Fully anechoic test chamber with RF shielded door, opening dimensions 76.2 cm x 76.2 cm (30 in. x 30 in.)
- Outer dimensions 2.52 m x 1.42 m x 1.88 m (8.25 ft x 4.6 ft x 6.2 ft)
- Approximate weight of AMS-8050 is 816.5 kg (1,800 lb)
- Electrical power filter for drive system motors (installed in drive cart)
- Electrical power filter for equipment and DUT outlets (installed in the system cart with one IEC outlet strip)
- One (1) Type N feedthrough connector
- SMA rotary joint on the axis of the Theta positioner
- Ferrite beaded cable kit with second rotary joint for full 3-D passive testing
- RF connecting cables (up to RF Switch)
- Dual Polarized Antenna (700 MHz - 10 GHz)*
- Communication antenna installed in the enclosure ceiling
- EMQuest EMQ-100 Antenna Pattern Measurement Software
- Multi-Axis Positioner (MAPS)
- ETS-Lindgren Model 2090-OPT 1 Positioner Controller
- Vertical and horizontal path loss fixture for calibration
- Free space antenna mount
- Operational training video
- Basic setup and calibration

OPTIONAL EQUIPMENT

- CTIA compliant Sam Phantom Head with Mount that corresponds to IEEE/CENELEC specified dimensions.
 

SAM Phantom Head
- Infrared (IR) Camera System including monitor, power filter and required cables.
 

Infrared Camera
- Portable Computing Device (PCD) Mount for center point rotation of small to medium sized notebooks, laptops, or tablet devices. The weight limit is 6.8 kg (15 lb) and accommodates a device up to 11.4 cm x 35.5 cm x 39.3 cm (4.5 in x 14 in x 15.5 in).
 

PCD Mount
- Optional 3126 Series Dipoles for path loss calibration.
- Optional custom frequency ranges available. Contact ETS-Lindgren's Sales Department for information.

Electrical Specifications

MODEL	VOLTAGE	Hz/A	PLUG TYPE
8050- Drive System	208/240	50/60 Hz, 10 A	NEMA 6-15
8050-Equipment/DUT	115/230	50/60 Hz, 5 A	NEMA 5-15

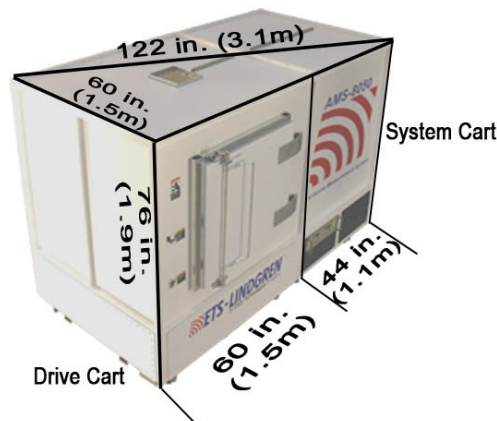
Physical Specifications

MODEL	CLEARANCE DIMENSIONS (L X W X H)	OUTSIDE DIMENSIONS (L X W X H)	WEIGHT
8050	2.52 m x 1.42 m x 1.88 m (8.25 ft x 4.6 ft x 6.2 ft)	2.6 m x 1.5 m x 1.9 m (10.16 ft x 5.0 ft x 6.33 ft)	816.5 kg (1800.0 lb)

Technical Specifications

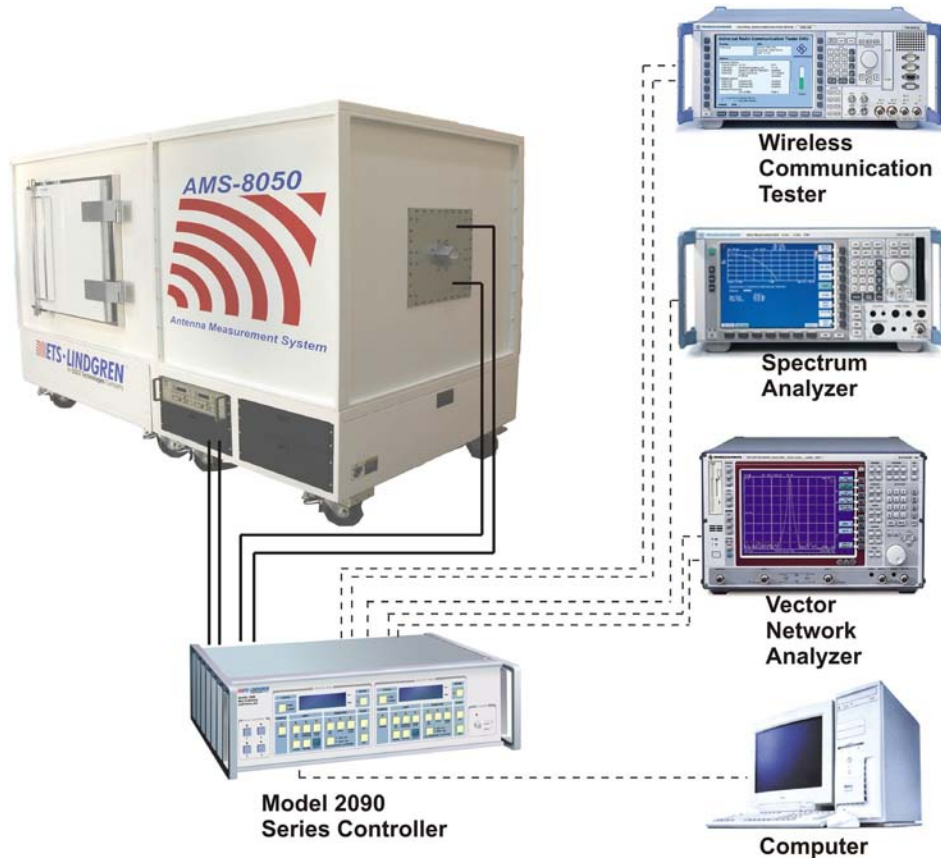
MODEL	ANTENNA MODEL	ANTENNA FREQUENCY RANGE	PATH LENGTH	MULTI-AXIS POSITIONER	SHIELD PERFORMANCE
8050	Dual Polarized Antenna	700 MHz - 10 GHz*	1.5 m (nominal)	Accuracy 0.2 deg Resolution 0.1 deg	> 90 dB

* Optional custom frequency ranges available. Contact ETS-Lindgren's Sales Department for information.



Special Note: The dimensions illustrated are the minimum clearances required. If these dimensions are not available, the AMS-8050 may be split in two sections for installation (System Cart, Drive Cart). Contact ETS-Lindgren Sales at the time of order if you determine there is a need to split the system for installation. Additionally, the hatch can be easily removed when locating the system.

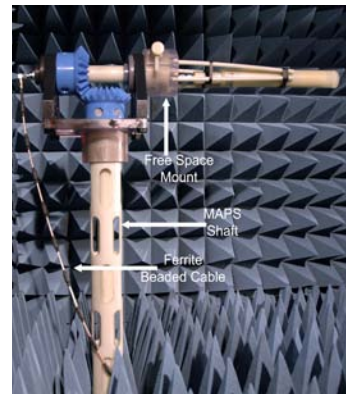
CAUTION: If using an elevator to locate the system, verify the elevator will accommodate the size and weight (816.5 kg/1800 lb) of the system and accompanying personnel before attempting the movement.



ETS-Lindgren's AMS-8050 to Instrumentation Diagram



*Optional SAM Phantom Head
Installed in AMS-8050*



*Multi-Axis Positioner Installed in
AMS-8050*