

Wireless Test Cells Shielded Test Cell Enclosure

Model 5247

FEATURES:

- Portable RF Shielded Enclosure for OTA measurements
- > 80 dB Typical RF Isolation
- RF Absorber Lined
- Dual Polarized Horn Antenna
- 700 MHz – 10 GHz
- Linear & Circular Polarization
- Connector Panel
 - 1 SMA Connector
 - 3 Type N Connectors
 - Filtered D-sub 25 Pin Connector
 - Six-Line, Fiber Optic Feed-Through
- Dual Latching RF Gasketed Door
- Roll-About Casters
- Integrated System Configurations Available



ETS-Lindgren's Model 5247 Test Cell

The ETS-Lindgren Model 5247 is a self-contained portable enclosure for making wireless device over-the-air performance measurements. The unit can be used for design verification, pre-certification, and production line measurement applications. Rolling casters allow the unit to be readily moved between locations

FEATURES RF Shielding

The ETS-Lindgren Model 5247 is constructed with the same RF shielding and shielded door technology used in the construction of

our larger, full certification wireless test chambers. The RF shielded door uses compressible finger stock in a “knife edge” configuration. Two latch points with a single point handle provide secure sealing and one-hand operation. Typical RF isolation of both the shielding and door is greater than 80 dB.

Anechoic Absorber

The RF anechoic absorber used in the Model 5247 is performance optimized for the frequencies of interest. The absorber limits reflections and moding, contributing to more accurate, repeatable measurements. Tapered wedges line the

walls, pyramidal absorber is used on the floor, and lossy foam lines the antenna.

Dual Polarized Horn Antenna

The ETS-Lindgren Model 5247 is equipped with an EMCO brand, dual polarized horn antenna. The standard included antenna can make both linear and circular measurements over the frequency range of 700 MHz to 10 GHz. (Optional hybrid required for circular measurements.) Typical frequency response is flat from 1 GHz through 5 GHz, with less than 2 dB variation of gain. The antenna is mounted on quick-change removable access panel at

the top or “ceiling” of the enclosure. The antenna can be quickly interchanged with another antenna of a different frequency as needed.

Connector, Antenna and Access Panels

A populated connector panel (bulkhead feed through) is included with the Model 5247. The panel includes; one SMA connector, three Type N connectors, one filtered D-sub 25-pin connector, a six-line fiber optic feed-through, and one ground stud. A USB fiber optic media converter with a two-port hub (requires 110/220 VAC/5A supplied) is optional.

A quick-change antenna mounting panel (with a pre-mounted antenna) is included.

APPLICATIONS

The Model 5247 is designed to provide an environment for relative radiation performance of wireless devices. It can be used to measure approximate EIRP, EIS or RSSI in a given direction and polarization (DUTs must be manually positioned). 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.

STANDARD CONFIGURATION

- Shielded enclosure with RF anechoic lining, RF shielded door, connector panel with connectors/filters, DUT access panel, antenna panel with antenna.

OPTIONS

- Additional antennas can be purchased to increase/decrease frequency range
- Additional feed through connector & filter options
- USB fiber optic media converter
- Instrumentation and EMQuest™ test automation software
- Training



NOTE:
For 3D antenna pattern measurement, please see model AMS-8050 product information.

Electrical Specifications (Model 5247)

MODEL	FREQUENCY RANGE	CROSS-POLARIZATION ISOLATION	IMPEDANCE (NOMINAL)	CONNECTORS
Horn Antenna	700 MHz - 10 GHz	> 20 dB	50 Ω	SMA Female (2)

Physical Specifications

MODEL	WIDTH	DEPTH	HEIGHT	NOMINAL WEIGHT
5247 (external)	74.9 cm 29.5 in	86.3 cm 34.0 in	203.7 cm 80.2 in	231.3 kg 510.0 lbs
5247 (internal, absorber to absorber)	33.8 cm 13.3 in	33.8 cm 13.3 in	112.0 cm (Between Antenna and EUT table) 44.1 in	
EUT Table	30.0 cm 11.8 in	38.0 cm 15.0 in		
Door Opening	50.0 cm 19.7 in		50.0 cm 19.7 in	

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