

TEST ENCLOSURES 5247 Shielded Test Cell Enclosure

ETS-Lindgren's Model 5247 Shielded RF Test Enclosure is a self-contained portable enclosure for making wireless device over-the-air performance measurements.



ETS-Lindgren's Model 5247 Shielded RF Test Enclosure is a self-contained portable enclosure for making wireless device over-the-air performance measurements. The 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.

Key Features

- Roll-About Casters Portable RF Shielded Enclosure for OTA measurements
 - >80 dB Typical RF Isolation
 - RF Absorber Lined
 - Dual Polarized Horn Antenna
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Features

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 which contributes to more accurate and 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 Model 5247 is equipped with an ETS-Lindgren dual polarized horn antenna. The standard included antenna can make both linear and circular measurements over the frequency range of 700 MHz to 6 GHz. Optional hybrid required for circular measurements.

Typical frequency response is flat from 2 GHz through 6 GHz. 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, etc., 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 quick-change antenna mounting panel (with a pre-mounted antenna) is included.

A USB fiber optic media converter with a two-port hub (requires 110/220 VAC/5A supplied) is optional.

Applications

Typical applications for the Model 5247 include radiated power (TX) and sensitivity (RX) measurements made during design verification, pre-certification, and in-line testing functions.

Specifications

Electrical Specifications

Antenna Connections: SMA Female (2)
Cross Polarization Isolation: >20 dB
Frequency Range: 700 MHz to 10 GHz
Nominal Impedance: 50 Ω

Physical Specifications

Nominal Width (External): 74.9 cm (29.5 in)
Nominal Depth (External): 86.3 cm (34.0 in)
Nominal Height (External): 203.7 cm (80.2 in)
Nominal Width (Internal): 33.8 cm (13.3 in)
Nominal Depth (Internal): 33.8 cm (13.3 in)
Nominal Height (Internal): 112.0 cm (44.2 in)
Nominal Weight: 231.3 kg (509.9 lb)

Other Specifications

- Enclosure with RF Anechoic Lining, RF Shielded Door, Connector Panel with Connectors/Filters, DUT Access Panel, Antenna Panel and Casters
 - One Dual Polarized Measurement Antenna
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