

## TEST ENCLOSURE MODEL 5247



### MODEL 5247

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

**ETS-Lindgren's Model 5247 Shielded RF Test Enclosure** is a portable, self-contained solution designed for over-the-air performance measurements of wireless devices. Built with the same advanced RF shielding technology and shielded door mechanisms found in ETS-Lindgren's full-scale, certified wireless test chambers, the Model 5247 delivers high-performance RF isolation in a compact format.

The enclosure's RF-shielded door features a knife-edge design with compressible finger stock for a secure seal, ensuring reliable isolation. The door is equipped with two latch points and a single-point handle for easy, one-handed operation, providing a tight and efficient closure. The typical RF isolation of both the shielding and the door exceeds 80 dB, ensuring accurate testing conditions free from external interference.

Designed for versatility, the Model 5247 is ideal for applications such as wireless device R&D, production testing, and performance validation in environments where portability and high shielding performance are required. The enclosure also includes customizable features such as RF waveguide vents for ventilation, removable feedthrough panels for power and signal connections, and options for interior lighting or additional testing fixtures, making it suitable for a wide range of testing needs.

#### **Product Features** **Anechoic Absorber**

The Model 5247 features an RF anechoic absorber optimized for targeted frequency ranges, ensuring accurate and repeatable measurements by minimizing reflections and moding. Tapered wedges line the walls, pyramidal absorbers are used on the floor, and lossy foam surrounds the antenna, all contributing to improved testing precision.

#### **Dual Polarized Horn Antenna**

Equipped with an ETS-Lindgren dual polarized horn antenna, the Model 5247 supports both linear and circular measurements across a frequency range of 700 MHz to 6 GHz. The standard antenna provides a flat frequency response from 2 GHz to 6 GHz, with an optional hybrid configuration available for circular measurements. The antenna is mounted on a quick-change removable access panel located at the top or ceiling of the enclosure, allowing for rapid swapping with antennas of different frequencies as needed.

#### **Connector, Antenna, and Access Panels**

The Model 5247 includes a fully populated connector panel with a bulkhead feedthrough. It features one SMA connector, three Type N connectors, one filtered D-sub 25-pin connector, a six-line fiber optic feedthrough, and one ground stud. Additionally, a quick-change antenna mounting panel comes pre-installed with the antenna, simplifying setup and configuration. An optional USB fiber optic media converter with a two-port hub (requiring 110/220 VAC/5A) is also available for enhanced connectivity.

#### **Applications**

The Model 5247 is ideal for a variety of testing functions, including radiated power (TX) and sensitivity (RX) measurements during design verification, pre-certification, and in-line testing processes. Its versatility and portability make it suitable for R&D, production, and pre-compliance testing of wireless devices.

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## Standard Configuration

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

## Options

- USB Fiber Optic Media Converter
- Additional Antennas Can Be Purchased to Increase/Decrease Frequency Range
- Additional Feedthrough Connector & Filter Options
- Instrumentation and EMQuest Test Automation Software
- Training

## Technical Specifications

### Electrical

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

### Mechanical

Remote Interface	GPIO
RF Connectors	Type N

### Physical

Nominal OD:	749 mm x 863 mm x 2037 mm (29.5 in x 34.0 in x 80.2 in)
Nominal ID:	338 mm x 338 mm x 1120 mm (13.3 in x 13.3 in x 44.2 in)
Nominal Weight	231.3 kg (509.9 lbs)