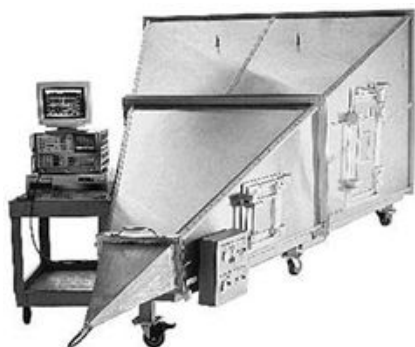


GTEM! TEST CELLS 5411 GTEM! Test Cell

ETS-Lindgren's Model 5411 GTEM!™ Test Cell enables users to perform radiated emissions and radiated immunity tests in less time than either an OATS or a chamber.



ETS-Lindgren's Model 5411 GTEM! Test Cell enables users to perform radiated emissions and radiated immunity tests in less time than either an OATS or a chamber. Beginning with design qualification testing and moving through to pre-compliance testing, full compliance testing, and production sampling, the 5411 GTEM! is a time saving device for your test lab. A typical radiated emissions test (10,000 point scan) can be completed in 15 minutes or less, while a typical radiated immunity test can usually be completed in half the normal time.

The GTEM! Test Cell is based on experience, not experimentation. Originally developed in the EMC Baden (Switzerland) labs of ABB, the cell has been accepted in the EMC community for more than 10 years and is field proven daily at more than 400 installations worldwide. Measurements made with a GTEM! are accepted for final compliance demonstration by the FCC for Part 15 & 18 radiated emissions testing, and comply with IEC 61000-4-3 Annex D for immunity testing. The GTEM!'s unique tapered shape, offset septum, resistive termination network, and absorber-lined back wall remove performance limitations of TEM cells and boxy enclosures. Electromagnetic wave and RF current termination are smooth and controlled. Field uniformity is ± 3 dB up to 1 GHz, and ± 4 dB above 1 GHz.

Key Features

- For all Phases of EMC Testing:
 - Design Qualification
 - Pre-Compliance
 - Full Compliance IEC 61000-4-3 ANSI C63.4
 - Post Production

Specifications

Electrical Specifications

Feed Connector Type: cw 7/16 DIN to N Adapter

Field Uniformity: f 1 GHz, 0 -6dB

Frequency: 9 kHz to 5 GHz (RE)¹; DC - 20 GHz (RI)²

Input Impedance: 50 Ω

Maximum CW Input: 1 kW

Shielding Effectiveness: 10 kHz to 1 GHz From Internal E-Fields 80 dB Minimum

VSWR Maximum: All Other Frequencies 1.50:1; Characteristic Frequencies 1.75:1

VSWR Typical: All Other Frequencies 1.30:1; Characteristic Frequencies³ 1.75:1

¹Measurement Range - where correlation to OATS is established:

3 Measurement - 3 input GTEM-OATS Correlation Algorithm, 30 MHz to 5 GHz

9 Measurement - 9 input GTEM -OATS Correlation Algorithm, 9 kHz to 5 GHz

²Low input VSWR to f \leq 20 GHz available

³Characteristic Frequency: The frequency at which cross-over between the two terminations (the resistor load boards and the RF absorber) occurs.

Physical Specifications

Door Dimension Primary Height: 685.0 mm (26.97 in)

Door Dimension Primary Width: 925.0 mm (36.42 in)

Maximum Septum Height:⁴ 1100.0 mm (43.31 in)

Highest Accuracy Transverse Test Surface in Center of Cell Height:⁵ 366.0 mm (14.41 in)

Highest Accuracy Transverse Test Surface in Center of Cell Width:⁵ 550.0 mm (21.65 in)

Maximum Recommended Transverse Test Surface in Center of Cell Height:⁶ 733.0 mm (28.86 in)

Maximum Recommended Transverse Test Surface in Center of Cell Width:⁶ 825.0 mm (32.48 in)

Outer Cell w/Base Dimension Height: 2.3 m (7.55 ft)

Outer Cell w/Base Dimension Length: 5.4 m (17.72 ft)

Outer Cell w/Base Dimension Width: 2.8 m (9.19 ft)

Approximately Cell Weight: 900.0 kg (1,984.14 lb)

Distributed Load Rating: 750 kg (1,653.45 lb)

⁴Measurement taken at rear of test volume.

⁵From quasi-static E-Field with H=1/3 septum height and W=1/3 septum width.

⁶From quasi-static E-Field with H=2/3 septum height and W=2/3 septum width.

Other Specifications

- Absorber-lined GTEM! Test Cell
- Mobile Base with Locking Casters
- Blank feed-thru Panel without Frame
- Removable Bolt-on Feed Section
- Primary Door 68.6 cm x 92.5 cm (27 in x 36.42 in) Clear Opening
- Two AC Receptacles
- Forced Air Ventilation
- One Fiber Optic Penetration
- One 20 AMP, 2 Line Filter
- Additional Maintenance Kit
- Three N-type Connectors
- 7/16" DIN to Type "N" Adapter
- Shipped Disassembled (Customer to Provide Manpower and Tools for Assembly)
- Working supervisor for installation is provided; outside North America, call factory,
- Air Compressor for Manipulator Brake System
- Manual Emissions Correlation Software (on Request)
- Individually Characterized with Results of TDR and VSWR Tests
- Manual

Product Charts

