

5407 GTEM! TEST CELL

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ETS-Lindgren's Model 5407 GTEM! Test Cell enables users to perform radiated emissions and radiated immunity tests in less time than either an OATS or a chamber. Tests can be performed quickly and accurately throughout the product life cycle. Beginning with design qualification testing, and moving through to pre-compliance testing, full-compliance testing and production sampling, the model 5407 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! Test Cell 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

Specifications

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ETS-LINDGREN
 An ESCO Technologies Company

Electrical Specifications

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

Field Uniformity: $f \leq 1$ GHz, 0 -6dB

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

Input Impedance 50 Ω

Maximum CW Input³ 200/500W

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

VSWR Maximum: All Other Frequencies $\leq 1.50:1$; Characteristic Frequencies $\leq 1.75:1$

VSWR Typical All Other Frequencies 1.30:1; Characteristic Freq⁴ 1.75:1

¹ Measurement 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 $f < 20$ GHz Available

³500W with Optional Blower

⁴Characteristic 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 (H): 747 mm (29.41 in)

Door Dimension Primary (W): 686 mm (27.01 in)

Door Dimension Secondary (H): 385 mm (15.16 in)

Door Dimension Secondary (W): 460 mm (18.11 in)

Highest Accuracy Transverse Test Surface in Center of Cell (H)⁵: 250 mm (9.84 in)

Highest Accuracy Transverse Test Surface in Center of Cell (W)⁵: 350.0 mm (13.78 in)

Maximum Recommended Transverse Test Surface in Center of Cell (H)⁶: 500.0 mm (19.69 in)

Maximum Recommended Transverse Test Surface in Center of Cell (W)⁶: 560 mm (22.05 in)

Maximum Septum Height⁷: 897 mm (35.32 in)

Septum Height At Door center : 700mm (27.55 in)

Outer Cell w/Base Dimension(H)⁸: 2.1 m (6.89 ft)

Outer Cell w/Base Dimension(L): 4.0 m (13.12 ft)

Outer Cell w/Base Dimension(W): 2.2 m (7.22 ft)

Approximate Cell Weight: 500.0 kg (1,102.30 lb)

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

⁷Measurement Taken at Rear of Test Volume

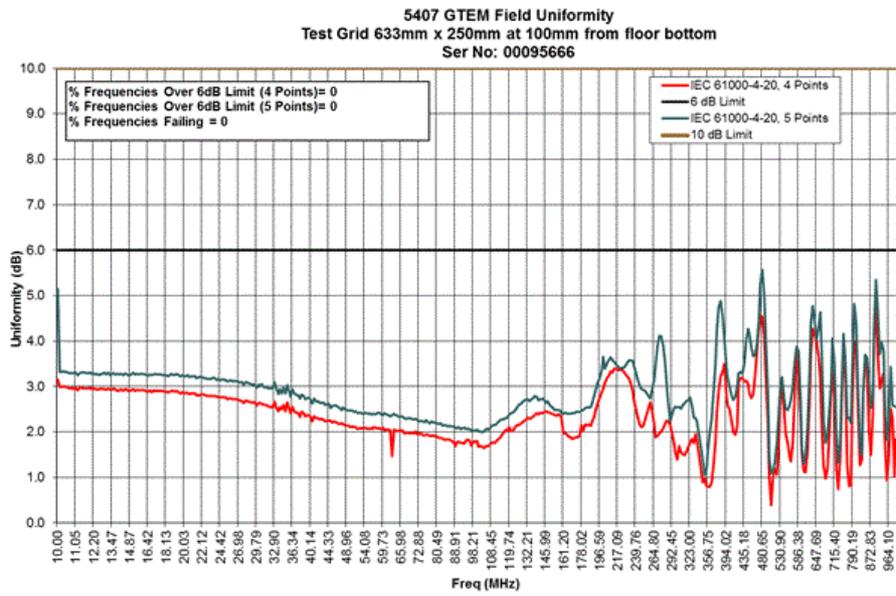
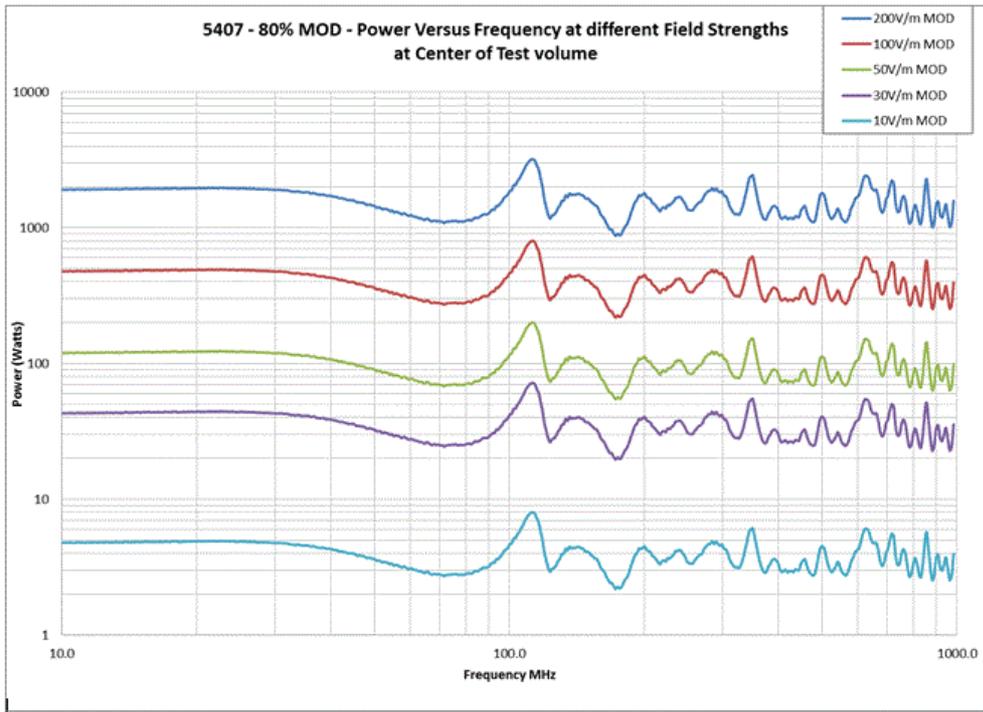
⁸Contact you ETS-Lindgren Representative for Dimensions without Base

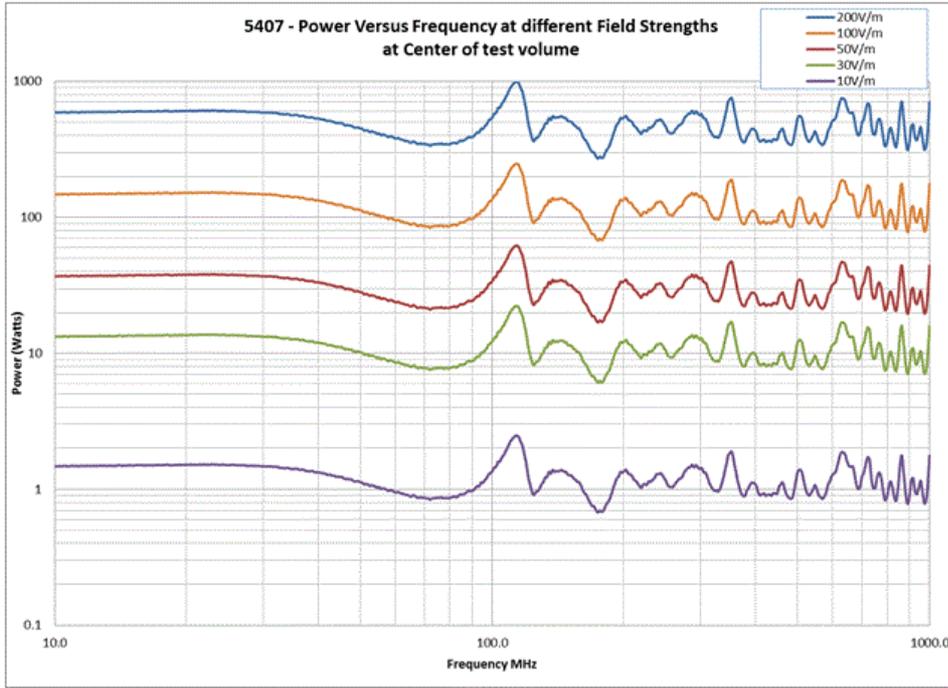
Additional Specifications

- Two AC Receptacles
- Absorber Material
- Three N-type Connectors
- One Fiber Optic Penetration
- Individually Characterized with Results of TDR and VSWR Tests
- Manual Emissions Correlation Software Available Upon Request
- Ships Disassembled (Customer will need to provide manpower and specific tools for installation. Working supervisor for installation is provided; outside North America, call factory.)
- 7/16" DIN to Type "N" Adapter
- Primary Door 68.6 cm x 74.7 cm (27 in x 29.1 in) Clear Opening
- Mobile Base with Locking Casters
- One 20 AMP, 2 Line Filter
- Manual

Product Options

Product Charts





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