

CHAMBERS FACT™ 3 EMC ANECHOIC CHAMBERS



FACT 3

- 9 kHz to 40 GHz Frequency Range
- Full Compliance Testing for Radiated Emissions:
 - ANSI C63.25
 - FCC Parts 15 and 18
 - EN 50147-2
 - CISPR 11 / EN55011
 - CISPR 16 / EN55016
 - CISPR 22 / EN55022
 - VCCI V-3 / 2003.04
 - SAE J551
 - SAE J1113(Requires Chamber Modification to Accommodate Full Vehicle)
- Full Compliance Testing for Radiated Immunity:
 - IEC 61000-4-3 / EN61000-4-3
 - SAE J551
 - SAE J1113
- Eligible for FCC 3m Class B Facility Filing
- Available Performance Options (May Require Chamber Modification):
 - 4.0 dB per ANSI C63.4
 - Plus 3.5 dB per ANSI C63.4
 - Premium 3.0 dB per ANSI C63.4
- Available as a Turnkey System

ETS-Lindgren's FACT 3 EMC Anechoic Chambers small overall size results from the use of hybrid absorber and ferrite tile, which require less volumetric space than traditional absorbers. ETS-Lindgren FACT 3 chambers will fit in many existing structures, yet are large enough to perform 4 meter antenna scans above the ground plane. When installed with ETS-Lindgren's LoPro™ or EuroPro™ turntables, pit excavations for motor assemblies are eliminated.

ETS-Lindgren FACT 3 chambers achieve their broadband performance using a unique arrangement of hybrid and ferrite tile absorber. The design was modeled using the proprietary numerical electromagnetic software responsible for creating chambers that set new standards for anechoic performance.

Radiated Emissions Testing

FACT Chambers are designed to provide customers with more standardized solutions for different quiet zone diameters and performance options. This provides users more flexibility to choose which solution works best for their individual needs. Quiet zone sizes are available up to 2.0 meters in diameter. FACT 3 chambers can be used to perform full compliance testing for ANSI C63.25, FCC parts 15 & 18, EN 50147-2, CISPR 11/EN55011, CISPR 16/EN55016, CISPR 22/EN55022, VCCI V-3/2003.04, SAE J551 and SAE J1113.

Radiated Immunity Testing

ETS-Lindgren's FACT 3 chambers can also be used to perform full compliance testing for IEC 61000-4-3/EN61000-4-3 and SAE J-1113 requirements.

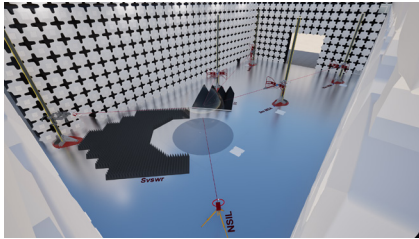
At FACT 3 range lengths, field uniformity of 0 - 6 dB is achieved in the test aperture over the frequency range of 80 MHz to 18 GHz. The test aperture is a vertical plane 1.5 meter x 1.5 meter at an elevation of 0.8m to 2.3m above the ground plane, following the field uniformity test procedure of IEC 61000-4-3.

Additionally, DuraSorb™ can safely withstand continuous field intensity of up to 200 V/m and intermittent field intensity of up to 500 V/m. This safely exceeds the field intensity requirements of most commercial RI tests.

Turnkey Systems

ETS-Lindgren is an integrated manufacturer providing shielded chambers and doors, anechoic absorber, antennas, probes, positioners, turntables, and test and measurement software. All of our products are designed to work together for maximum efficiency and performance.

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- FACT MultiAx available. Please see Options for details.

Standard Configuration

- Shielded Chamber
- Anechoic Absorber

Options

- Turnkey Package Including Turntable, Positioners, Instrumentation and Test and Measurement Software
- Chamber Acceptance Testing Options: Normalized Site Insertion Loss (NSIL) | CISPR 16-1-4 | 9 kHz to 30 MHz
- Chamber Acceptance Testing Options: Normalized Site Attenuation (NSA) | ANSI C63.25.2, CISPR 16-1-4 | 30 MHz to 1GHz
- Chamber Acceptance Testing Options: Site Voltage Standing Wave Ratio (sVSWR) | ANSI C63.25.1 | CISPR 16-1-4 | 1 GHz to 18 GHz
- Chamber Acceptance Testing Options: Field Uniformity (FU) | IEC 61000 4-3 | 80 MHz to 18 GHz

FACT 3 MultiAx Option

The optional FACT 3-1.5-MultiAx configuration is designed for laboratories requiring multiple measurement orientations and flexible EMC validation workflows within a single chamber installation. ETS-Lindgren's proven FACT MultiAx option reduces chamber reconfiguration requirements between measurement types while still supporting:

- Radiated emissions measurements from 30MHz to 1 GHz, at 3.0m test distance, for a 1.5m diameter, 2.0m high quiet zone, with up to 2 independent measurement axis (e.g. one for H polarization and one for V polarization).
- Radiated emissions measurements from 1GHz to 18GHz, at 3.0m test distance, for a 1.5m diameter, 2.0m high quiet zone, with permanent or semi-permanent absorber floor patch installations.
- Radiated immunity measurements from 80MHz to 18GHz, at 3.0m test distance, for a 1.5m wide, 1.5m high test area, with permanent or semi-permanent absorber floor patch installations.

These configurations are intended to help maintain consistent measurement setups across validation and compliance activities while improving overall laboratory efficiency. Available FACT MultiAx capabilities vary based on chamber geometry, absorber layout, quiet zone dimensions, floor construction, and specific measurement requirements. For more information, contact our local ETS-Lindgren representative.

Technical Specifications

Electrical	
Frequency Range	9 KHz to 40 GHz
Path Length	3 Meter
ANSI C63.25.2 Normalized Site Attenuation	30 MHz to 40 GHz
Physical	
Overall Dimensions ¹	29.6 m L x 21.10 m W x 20.10 m H (8.99 ft x 6.65 ft x 6.35 ft)
Shielded Room Internal Dimensions ¹	8.53 m L x 6.10 m W x 5.64 m H (28.0 ft x 20.0 ft x 18.6 ft)

¹: Chamber dimensions may vary depending on the MultiAx option selected. Contact your local ETS-Lindgren representative for more information.

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Individual Model Specifications

Electrical	Quiet Zone	Normalized Site Attenuation
FACT 3-1.2	1.2 m	4.0 dB
FACT 3-1.5	1.5 m	4.0 dB
FACT 3-1.5 Plus	1.5 m	3.5 dB
FACT 3-2.0 Plus	2.0 m	3.5 dB
FACT 3-2.0 Premium	2.0 m	3.0 dB