

10m Compliant Semi-Anechoic EMC Test Chamber



GLOBAL EMC
ELECTROMAGNETIC SHIELDING & ANECHOICS EST. 1994



Choose This Test Chamber For

Electrical and electronic devices must comply with Electromagnetic Compatibility (EMC) standards for both radiated emissions and immunity in most countries. This test chamber ensures compliant emission and immunity tests can be performed from measurements distances of 1, 3 and 10 meters.



RTCA DO160

RTCA DO-160 test procedures; a standard for the environmental testing of avionics hardware.



Fully Compliant

Fully compliant emissions testing to CISPR 16-1-4 and compliant immunity testing to EN6100-4-3.



Vehicle Testing

Compliant with: CISPR11/EN 55012, CISPR25/EN 55025 and CISPR32/EN 55032.



Military Testing

Compliant for military testing to MIL-STD-461 and DEF STAN 59-411 standards.

Limitless Possibilities

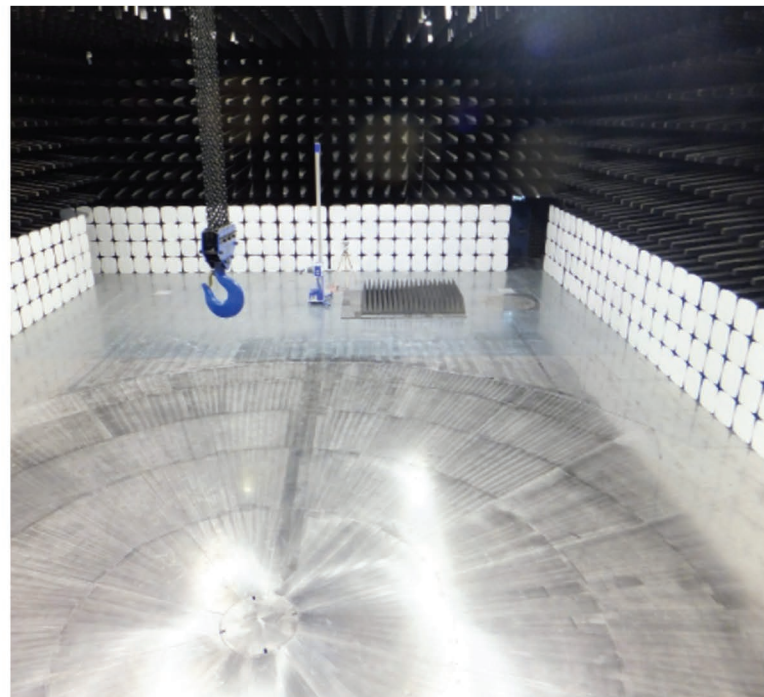
With the 10m-SAC-LP and 10m-SAC-FH an almost limitless number of possibilities are available. With a large and diverse selection of components and accessories, Global EMC can configure the test chamber to your exact needs.

Vehicle access to the test chamber is simplified with automated sliding doors and pneumatic ramps. Up to 16-meter diameter, turntables provide positioning systems for even the largest of vehicles.

Honeycomb vents work in conjunction with Air Conditioning (HVAC) or vehicle extract systems to quietly dissipate heat and fumes and control the internal temperatures of the test chamber.

A wide range of EMI filters are available, providing power and data into the room whilst maintaining >100 dBs of Insertion Loss.

Ultra-low emission LED lighting is provided to illuminate the test chamber whilst staying below the noise floor of even Military testing parameters. Shielded Control rooms and Amplifier rooms are configured to exact specification. Including options of air conditioning, fire detection, furniture and dimmable lighting makes the environment a comfortable and safe place to work.



10m

A 10-meter test distance is required between your antenna and equipment under test.

This separation distance gives the chamber its distinctive rectangular shape.

Semi-Anechoic

The walls and ceiling are lined with anechoic material to absorb reflections of electromagnetic waves inside the chamber.

This creates a stable and repeatable environment to perform testing, mimicking and open area test site (OATS).

EMC

A SAC 10m-C is a semi-anechoic chamber predominantly for EMC testing but can be used for other standards as well.

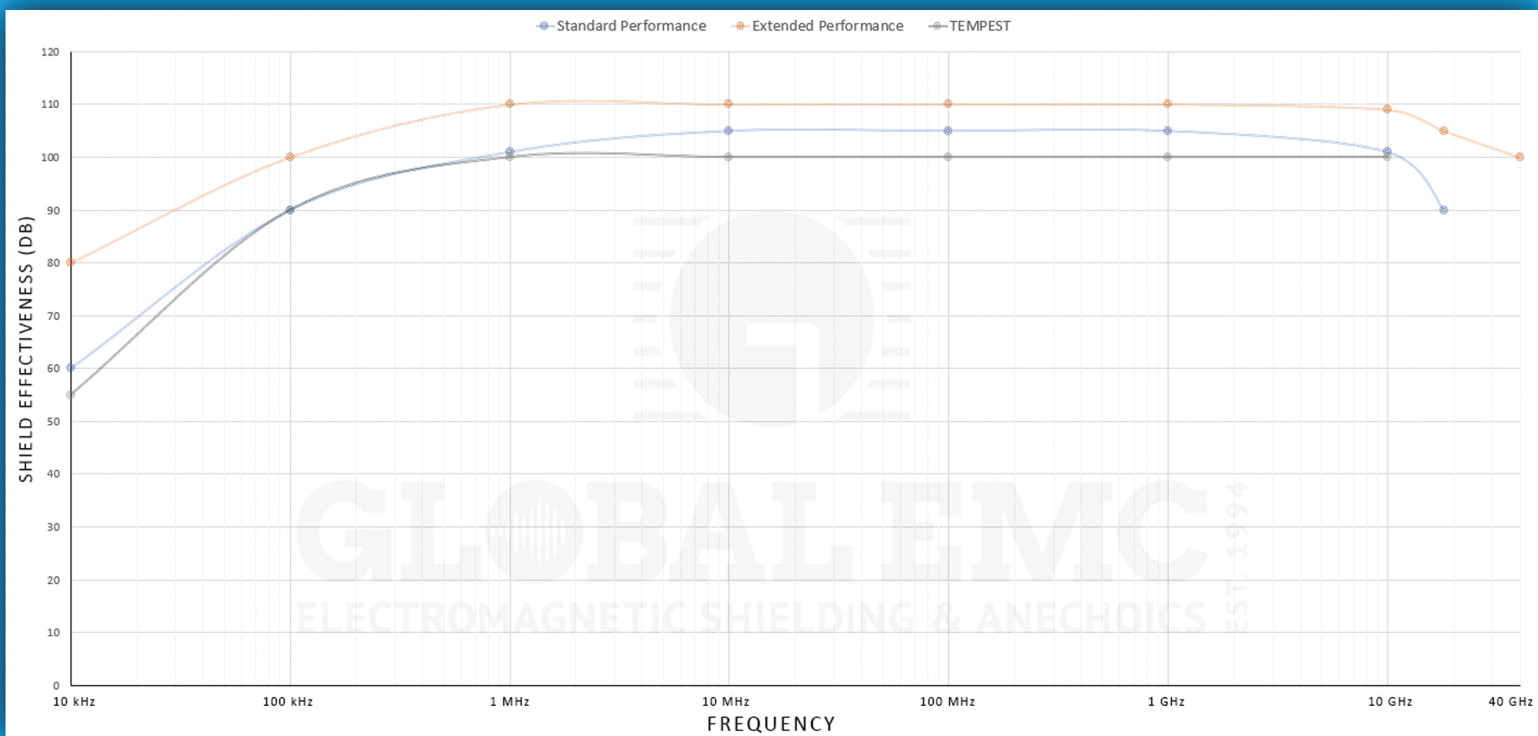
Test Facility

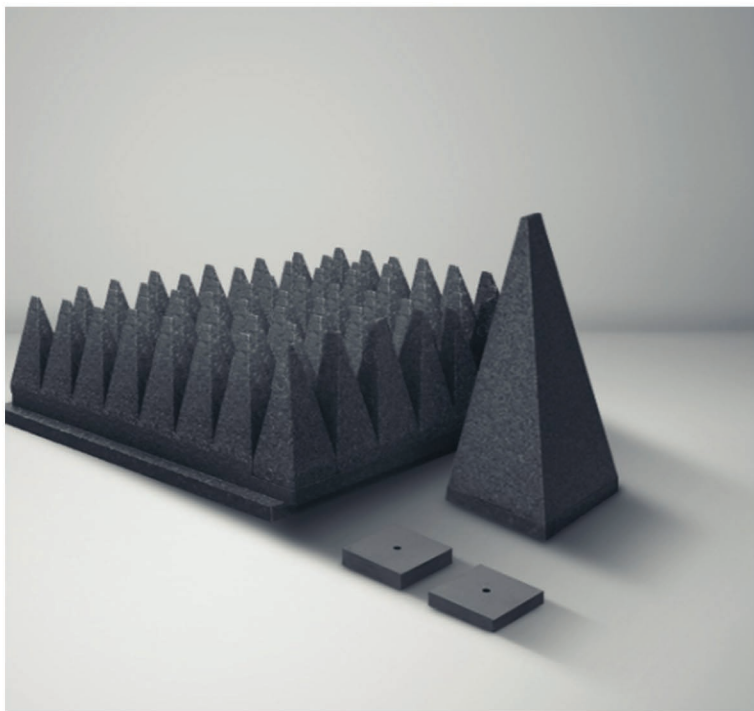
The external construction is a shielded room, using a Faraday cage principle.

This is to stop unwanted signals from the external environment entering the chamber and causing interference whilst tests are being performed.



Shielding Effectiveness tested to EN50147-1





High-Performance Anechoic Lining

Ferrite Tiles & Absorbers – The latest generation Hybrid Pyramid Absorbers are installed to compliment ferrite tiles. This provides a broadband anechoic performance, whilst using as little of the internal space as possible.

Frequency Test Range

Low	High	Optional
30 _{MHz}	18 _{GHz}	40 _{GHz}

Minimum Dimensions (FH)

Length	Width	Height
18.00 _m	13.00 _m	8.50 _m

Minimum Dimensions (LP)

Length	Width	Height
12.00 _m	16.00 _m	10.00 _m

Key Features

Radiated immunity - Compliant to IEC/EN 61000-4-3 80 MHz – 6,000 MHz (18 GHz optional).

Shield effectiveness to EN 50147-1.

Bespoke solution upon request. Test facility can be configured to your exact requirements.

Industry-leading low maintenance shielded door with copper-beryllium knife-edge seals.

Latest technology high-performance GF 102 ferrite tiles to all walls, ceiling and partial floor covering.

Radiated emissions - Compliant to CISPR 16-1-4 frequency range of 30 MHz to 6 GHz (18 GHz optional).

Designed and manufactured to the highest standards in Great Britain.

3m, 5m and 10m measuring distance.

Lighting, power filter, penetration and static ventilation panels all as standard.

Moulded polystyrene pyramidal Hybrid Absorbers to all walls, ceiling and partial floor covering. (Absorber coverage as far as physically possible).

Full Specification

External Dimensions

SAC-10m-FH: 18m (L) x 13m (W) x 8.5m (H)* SAC-10m-LP: 22m (L) x 16m (W) x 10m (H)*.

Shield

Modular 2mm steel "pan" shield.

Honeycomb Vents

To customer requirements.

Filters

To customer requirements.

Additional Options Include:

Dynamometer, mast, controller, Air conditioning/HVAC, Anti chamber (control room), Fume extraction, Fire detection, CCTV, AC/DC/Data filters, Audio communication, High bay (dropdown) lighting & white end caps to absorbers.

*All dimensions and quantities can be altered upon request (subject to compatibility).

Shielded Pedestrian Door (Clear Opening)

1000mm (W) x 2000mm (H)*.

Frequency Test Range

30 MHz to 18 GHz (40 GHz optional).

Access Ramp

This feature is optional.

Penetration Panel Connectors

2 x Precision N type, & 2 x Fibre.

Steel Structure

Self-supporting structure to industry standards.

Floor Loading (Standard)

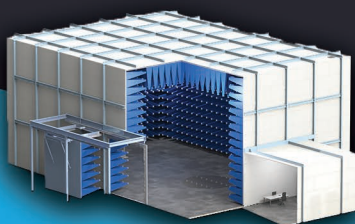
Ton/m² standard up to 50 Ton/ m² upon request.

Lighting

To customer requirements.

Double Door / Sliding Door

To customer requirements*.



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