

Antenna Measurement Chamber



GLOBAL EMC
ELECTROMAGNETIC SHIELDING & ANECHOICS EST. 1994

Antenna Measurement Rooms

Test your latest technologies. Global EMC's antenna measurement rooms are designed and built to meet the exacting performance of antenna measurement. Whether it's the latest 5G, telecommunications, radar or other wireless technologies each chamber is uniquely designed to meet the needs of the antennas under test

Adaptable and configurable for military, marine, aerospace and commercial applications each facility gives the user a reliable and repeatable testing environment for antenna testing and antenna specification characterization.

A faraday cage is provided to exclude unwanted ambient interference and signals from outside the room. This makes the internal space within the facility a controlled and noise-free environment. The shielding can be provided with high performance to 40 GHz.

The shielding is internally lined with anechoic material of pyramidal absorbers to all surfaces including the floor. This creates a fully anechoic chamber with specialist "walkway" absorbers on the floor. This enables access to the test positions and for maintenance purposes. The absorbers are specified to the exact frequency range required, reducing measurement uncertainties and increasing the performance of the facility.

Field probe positioners, turntables and antenna positioning systems are available to complete the turn-key installation.



For more information on Global EMC, visit our website by scanning the QR code



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CHOOSE THE TEST CHAMBER FOR

Research and development in commercial, educational, military and space technologies. The antenna measurement rooms provide a perfect development facility to test the latest 5G, radio wireless, future networks and communication systems.



Universities

Research and development facility for educational purposes or providing an outreach facility for external businesses.



WiFi

Testing the latest wireless technologies and communication systems including WiFi and telecommunication systems.



5G Technologies

Development of the next generation 5G technologies. With anechoic performance of up to 86 GHz and antenna positioner equipment available



Shielding

All facilities have a high-performance RF shielding to enable an inert environment free of unwanted ambient interference and signals.

HIGH-PERFORMANCE ANECHOIC LINING

Pyramidal Absorbers – Doped foam microwave absorber is installed to all walls, ceiling and floor area. The length of the absorber is selected to the frequency and performance required. Compliant to NRL8093 parts I, II and III for fire safety the GDS range absorber is perfect for high performance from 1 GHz +. Specialist “walkway” absorber is provided from each door opening to positions within the room. This provides access to the room without compromising the anechoic performance.

Frequency Test Range

Low

1GHz

High

40GHz

High

86GHz

Performance

Power Rating

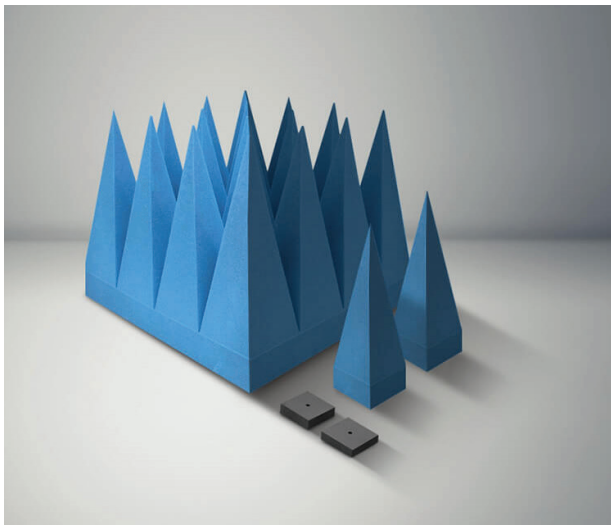
1.5kW/m²

Return Loss

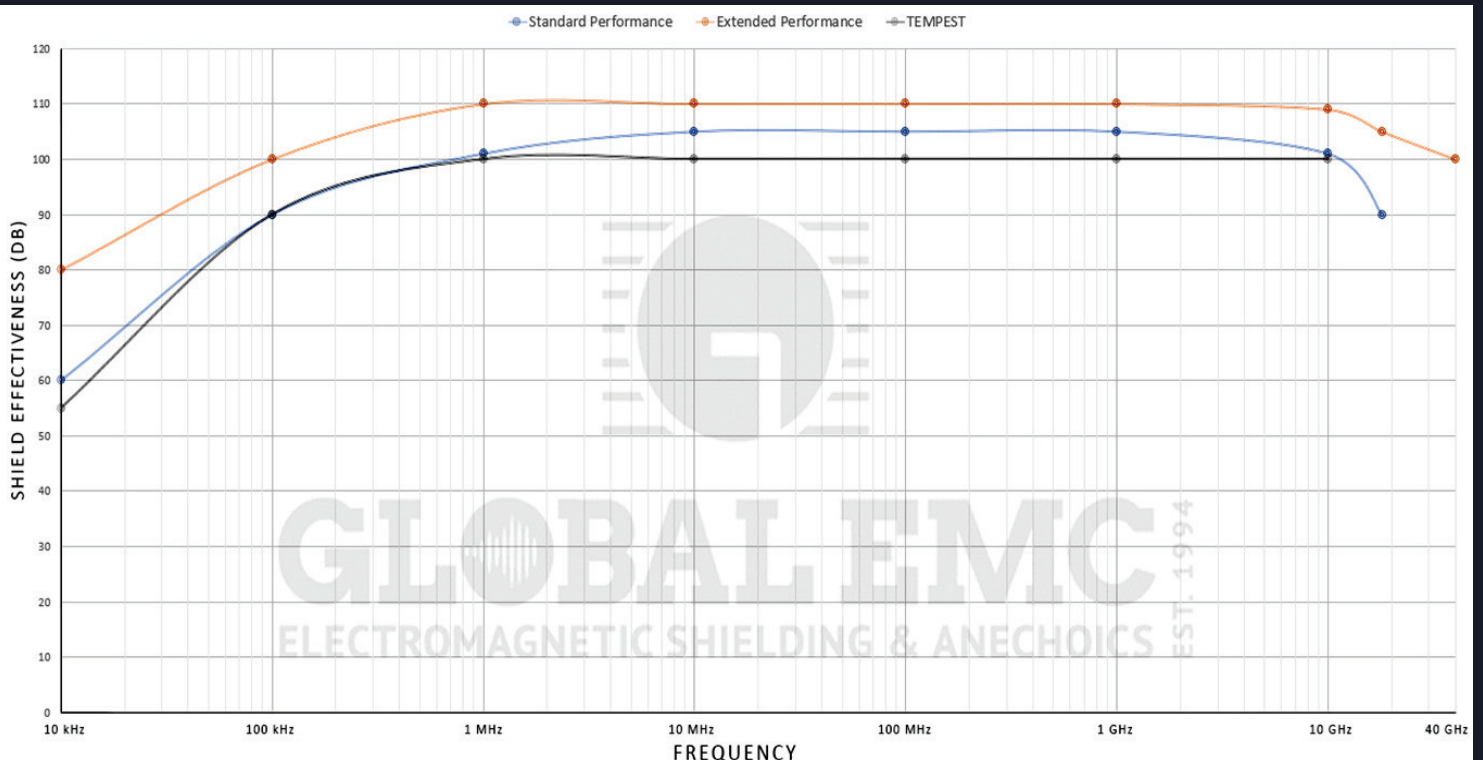
Up To -60dB

Halogen

Free



SHIELDING EFFECTIVENESS TESTED TO EN50147-1



ANTENNA MEASUREMENT ROOMS

Anechoic performance in accordance to required frequencies.

Near-field (NF), far-field (FF) and compact range (CATR) as required.

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

Independently tested and verified by a UKAS approved ISO 17025 test body.

High performance shielded enclosure to EN 50147-1 up to 40 GHz

Penetration and static ventilation panels all as standard.

Fully anechoic lining of absorbers to all walls, ceiling and floor.

External Dimensions:
To customers requirements*

2 Shielded Doors (Clear Opening):
1000mm (W) x 2000mm (H)*

Steel Structure:
Self-supporting structure to industry standards

Shield:
Modular 2mm Steel "pan"
shield.

Honeycomb Vents:
4 x 300mm(W) x 300 (H)
(static air)

Penetration Panel Connectors:
2x Precision N type & 2 x Fibre.

Additional Options Include:

Fire detection, Air conditioning (HVAC), Cameras, DC/PoE Sockets, Filters & Audio communication.

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

