

Silent Room

Now walls won't have ears



ABOUT US:

ENVIRYA PROJECTS PVT. LTD. AND ITS KEY PARTNERS PROVIDE TURNKEY SOLUTIONS FOR VARIOUS INNOVATIVE TECHNOLOGIES IN HARDWARE AND SOFTWARE DOMAINS FOR APPLICATION IN “NEMP SHIELDING”, AIDING IN EMP DEFENCE AND “EMP/IEMI/TEMPEST/ ACOUSTIC SHIELDING”, TO CREATE “SILENT ROOMS” MEANT TO EFFECTIVELY CURTAIL/STOP ESPIONAGE AND PROTECT SYSTEMS AND DATA FROM THE ADVERSARY. IT ALSO HAS VAST EXPERIENCE IN ESTABLISHING CRITICAL INFRASTRUCTURE LIKE VIP BUNKERS, OPERATIONAL ROOMS, SILOS, COMMUNICATION SHELTERS, DATA CENTERS ETC.

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Representative Layout

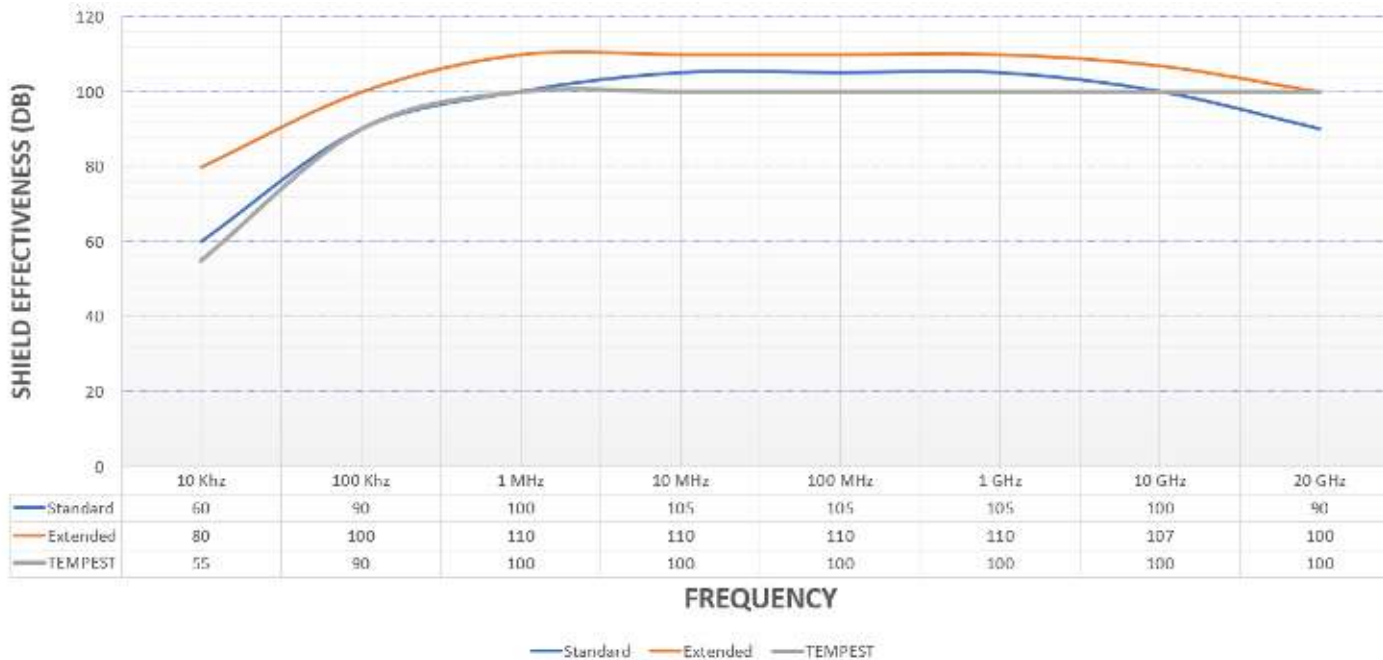
What is Silent Room: "Silent Room" is an Electromagnetic shielded enclosure constructed from composite metallic panels, integrated with proprietary materials and technology, to form a completely "sealed" six-sided space with an entry and an exit. The proprietary technology enables almost any size and shape of the room to be created. The enclosures can be sized to fit the host building and maximise the usable space. This room works on the principle of a Faraday's cage, providing a controlled environment, free from Electromagnetic Interference and ambient RF & Acoustic signals from entering or exiting the room.

Representative Layout

Key Features of Silent Room

- Ultra-high shielding performance as standard.
- RF protection - IEEE 299 (MIL STD 188-125-1 / IEC 61000 as required by client) (Certification).
- Acoustic isolation - ISO 11957 (Certification) / ISO 140-4 & Acoustic shielded doors EN ISO 717-1:2020.
- Shield performance of 60dB @ 10 MHz, 100dB @ 200 MHz, 100dB @ 1-18 GHz.(as required by client)
- Shield performance can be extended to 14 kHz – 40 GHz upon request by client.
- Designed and manufactured to the highest standards in India.
- Bespoke solution upon request. The enclosure can be configured to your exact requirements of client.
- Industry-leading low maintenance shielded door with copper-beryllium knife-edge seals.
- Designs created in Solidworks® and AutoCAD to ensure ideal configuration and coordination.
- All materials are shipped in component form and fit through a standard doorway for ease of installation.
- Mains & data distribution and LED lighting as required. HVAC & Interiors designed as per User requirement, including furniture.





SHIELDING EFFECTIVENESS

Shielding Effectiveness tested to IEEE 299 (MIL 188-125-1 / IEC 61000 as applicable to client). The measure of shielding performance is conventionally known as "shielding effectiveness". 80dB in plane and microwave frequencies is generally regarded by most standards as a very high level of shielding. RVR and its associates offer two levels of shielding Standard and Extended Performance. Standard performance is suitable for most shielding requirements and is typically seen in commercial testing situations. Extended Performance is usually used in high-performance Military applications along with certain high frequency needs.

EVERY SHIELDED ROOM IS PROVIDED WITH A FARADAY CAGE SHIELD. THE SHIELDED ENCLOSURE PROVIDES AN AREA FREE FROM EXTERNAL AMBIENT SIGNALS WHILE PREVENTING ANY DEVICES INSIDE THE ROOM FROM TRANSMITTING OUTSIDE THE SHIELDED ENCLOSURE.

Details:

Some of the salient details of design and execution capabilities involved in the fabrication of the "Silent Room" are as follows: -

- a. Overall structural, architectural, electrical, environmental and HVAC design including indoor air management of the complex.
- b. EMP/IEMI/TEMPEST/ Geo-magnetic storms / Lightning protection ranging from 100KHz to 18GHz design within the shell for protection from external elements.
- c. Shielded enclosures to counter espionage activities through Thermal, Acoustic, Radio, Optical and Electronic/ Electrical channels.
 - RF protection - IEEE 299 (MIL 188-125-1 / IEC 61000 as applicable to client) (Certification).
 - Optical isolation - Technical Counter Security Practice SOPs.
 - Acoustic isolation - ISO 11957 (Certification) / ISO 140-4 Measurement of sound insulation in buildings and of building elements.
 - Protection of communication lines - CERT-IN (Certification).
 - Isolation of smart controls (BMS) within the premises. (Certification of Compliance).
 - Cleanliness of all premise and electronic devices from bugs/malwares. Technical Counter Security Practice SOPs (Certification of Compliance).
 - Asymmetric cryptographic tools for encryption of data files.
- d. Integrated Conditional Access System using state of art sensor network, centrally controlled through Artificial Intelligence enabled Building Management System as required by the client.
- e. State of art simulation for EMP/IEMI/TEMPEST, and acoustic design for threat mitigation prior to physical execution of the project.
- f. USP in overall design and execution, which can be taken up as a Turnkey under one roof.