

# EMC - 10

## 10 Meter Anechoic EMC Test Chamber



- Hybrid anechoic material using UH-series polypropylene absorber
- High performance - minimum space
- Flexible, modular construction system

### SOLUTION FOR

Full-compliance EMC testing at a 10 m distance; suitable for large EUTs

### Main features

- SmartShield compact modular design & construction
- SmartShield doors
- HyPyr-Loss™ hybrid anechoic material
- Frequency range: 30 MHz - 18 GHz (easily extended to 40 GHz)
- Full-compliance radiated emissions testing up to 10 m distance
- Full-compliance radiated immunity testing
- Shielding effectiveness as per MIL-STD-295/IEEE 299 up to 100 dB attenuation
- Turnkey anechoic chamber solution
- Quiet zone: > 3 m diameter

The 10 meter test range is the Gold Standard EMC testing. It enables full-compliance emissions testing (up to 10 m distance) and immunity testing. It is ideal for large EUTs (> 3 m diameter) and offers the highest performance.

When conducting EMC testing and certifying products to be sold into the marketplace, for larger products and for many international markets, one needs to use a chamber that fully complies with the applicable EMC test standards for testing at a 10 m distance. The EMC-10 allows full-compliance to these standards for testing of radiated emissions at 10 m (as well as 5 m, and 3 m distances) and radiated immunity at a 3 m test distance. It is considered the benchmark for accuracy and repeatability and is necessary for larger EUTs. The EMC-10 described herein offers a standard configuration, but the MVG 10-m chambers can be customized to meet the most demanding of customer requirements, from extremely large EUT dimensions and loads, to unique requirements for doors, entries, and other accessories.

The advanced technology in our HyPyr-Loss™ hybrid materials, a unique combination of ferrite tiles & polypropylene pyramid absorbers, optimizes EMC measurement performance. These closed-cell absorbers increase repeatability, reduce the volumetric space, and resist age-related deterioration.

The advantages of our unique SmartShield High Performance shielding system are significant with performance in excess of 100 dB for most frequencies. The construction features of modular panels with RF connecting joints enable an easily demountable chamber. This is a major benefit for our customers where future relocations are necessary.

MVG brings unparalleled expertise in the field of electromagnetics, and in chamber design & construction. We use specialized design tools such as SolidWorks 3D, which allows us to offer our customers customized, turnkey capabilities. We are able to modify and develop our existing designs to meet any requirement you may have. With customer satisfaction as priority, our advanced development, and production facilities, accredited to ISO 9001 & ISO 14001, ensure all products achieve low maintenance and long life.


### Product configurations

Dimensions (shielding)	19.0 m (L) x 12.0 m (W) x 8.3 m (H)
Performance range	26 MHz - 40 GHz
Emission performance	CISPR-16 full compliance 10 m testing
Immunity performance	EN 61000-4-3 full compliance testing
Standard equipment	<ul style="list-style-type: none"> <li>• SmartShield RF shielding</li> <li>• HyPyr-Loss hybrid anechoic treatment</li> <li>• 2.4 m x 2.4 m double-leaf, semi-automatic door</li> <li>• Attenuvent waveguide vents (26.5 GHz, 300 mm x 300 mm)</li> <li>• Penetration panel (300 mm x 300 mm)</li> <li>• Raised floor access box (300 mm x 300 mm)</li> <li>• Feed-through connectors</li> <li>• Powerline filters</li> <li>• LED spot lights</li> <li>• Conduit, wiring, switches</li> <li>• Antenna mast</li> <li>• 3 m turntable</li> </ul>
Optional accessories	<ul style="list-style-type: none"> <li>• Customized doors: sizes, semi-auto, fully auto</li> <li>• Customized ramps &amp; zero-threshold entry</li> <li>• Customized turntables &amp; dynamometers</li> <li>• HVAC &amp; exhaust extraction</li> <li>• CCTV &amp; audio options</li> <li>• Third party testing (NSA, Svswr, FU)</li> <li>• Fire detection/suppression</li> <li>• Ante rooms</li> <li>• Turnkey EMC systems</li> </ul>

### Technical data

Full compliance testing for radiated emissions	<ul style="list-style-type: none"> <li>• CISPR 16-1-4</li> <li>• ANSI-C63.4</li> <li>• FCC parts 15 &amp; 18</li> <li>• CISPR commercial product standards (13, 14, 15, 22, 24, 32, 35 and more)</li> <li>• Customized options available</li> </ul>
Full compliance testing for radiated immunity	<ul style="list-style-type: none"> <li>• IEC 61000-4-3/EN 61000-4-3</li> <li>• Commercial product standards</li> </ul>
Quality standards	<ul style="list-style-type: none"> <li>• ISO 17025 ; ISO 9001</li> <li>• Environmental standard ISO 14001</li> </ul>



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