

EMI / EMC Test Laboratory

CAPABILITY SHEET · ≥ 100 dB SHIELDED · CISPR & MIL-STD-461 · ENGINEERED TO ORDER

THE LABORATORY

WHAT	The room that answers both questions asked of every electronic product: does it pollute the spectrum (emissions), and can it survive the pollution of others (immunity). Shielded anechoic chambers from bench scale to complete vehicles.
THE CORE IDEA	The chamber must be quiet twice. A Faraday cage at ≥ 100 dB - a factor of ten billion in power - blocks the world; an absorber lining of ferrite tile and hybrid pyramids kills the echoes until the room measures like open country, NSA within ± 4 dB.
STATUS	Engineered to order. Reference configuration, not yet built - engineered against India's current test-infrastructure build-out; no order followed, so no delivered laboratory is claimed.

ENVELOPE

SHIELDING	H-field ≥ 80 dB at 1 MHz; E-field ≥ 100 dB 200 kHz-50 MHz; plane wave ≥ 100 dB from 50 MHz, extended to 18/40 GHz by design - verified to EN 50147-1 / IEEE 299. Every crossing engineered: knife-edge finger-stock doors, honeycomb waveguide vents, filtered feedthroughs.
SITE PERFORMANCE	NSA within ± 4 dB (30 MHz-1 GHz at 3 m/10 m, ANSI C63.4 / CISPR 16-1-4); site VSWR < 6 dB (1-18 GHz); radiated-immunity field uniformity 0/+6 dB (80 MHz-6 GHz, ≥ 75 % of 16 points, IEC 61000-4-3); RF quiet zones ~ 1 m ³ to 5 GHz in antenna chambers.
FIVE FACILITY TYPES	3 m / 10 m semi-anechoic chambers; MIL-STD-461 shielded test rooms; automotive & EV EMC halls with turntable and in-floor chassis dynamometer; fully anechoic RF chambers to 40 GHz; upgradation of existing shielded facilities.

TEST SUITES EXECUTED

DEFENCE	MIL-STD-461 E/F/G: CE101, CE102, CS101, CS114 bulk cable injection 10 kHz-400 MHz, CS115, CS116 damped sinusoid, RE101, RE102 to 18 GHz, RS101 - and RS103 radiated susceptibility to 60 V/m, 2 MHz-18 GHz, higher by amplifier fit.
COMMERCIAL & MEDICAL	CISPR 11/14/15/32, CISPR 16-1-1/-1-4, IEC 61000-4-3/-4-6, ANSI C63.4, FCC Part 15/18, IEC 60601-1-2 medical EMC.
AUTOMOTIVE & EV	CISPR 12 whole vehicle, CISPR 25 components, ECE R10 e-marking, BCI per ISO 11452-4 - with high-voltage artificial networks to the 1,600 A class for EV high-voltage buses, and the vehicle driven at speed on an in-floor chassis dynamometer.

VALIDATION, SOURCING & ENGAGEMENT

THE ROOM IS THE FIRST TEST ARTICLE When a product is measured, the chamber is: SE to EN 50147-1/IEEE 299, NSA to ANSI C63.4, SVSWR to CISPR 16-1-4, field uniformity to IEC 61000-4-3 - with ISO/IEC 17025-traceable calibration and support for NABL accreditation carried in the scope of supply.

SOURCING

ENGAGEMENT Send the products under test, the standards they answer to, and whether the duty is a new laboratory or an upgradation, to sales@neometrixgroup.com - compliance matrix within two working days.

PROJECTS DESK

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