



EMC LABORATORY

↘ EMC TEST FACILITIES FOR QUALIFICATION DURING DESIGN DEVELOPMENT AND PRODUCTION PHASES

MAIN CUSTOMER (Original Equipment Manufacturer)

OEMs with LAB RECOGNITION	Standards
FORD	FMC1278 all edition (Incl. 5 th)
Stellantis	CS.00244 (2023) CS.00054 (2018)

OEMs	Standards
Stellantis PSA (Peugeot)	B21 7110 ind F
Renault / Nissan /Mitsubishi	RNDS-C-00517 (rev5.1 2023) Renault 36-00-808 ind N Nissan 28401NDS02 rev8
Volkswagen – Audi – Porsche	TL 81000 (2024-06) VW 80000 (Electrical 2021-7)
Mercedes Benz	MBN_10284
Volvo	STD 515-0003 issue 6 (May 2023)

RADIATED IMMUNITY (RI ALSE & HANDY TRANSMITTER)



➤ E FIELD / ALSE : ISO 11452-2



- Frequency range: 200MHz to 6GHz
- Electric field: 200V/m
- Radar bands: Electric field: 300V/m
- Pyramidal foam absorbers
- Size: 7.4m, 4.7m, 4m

➤ HANDY TRANSMITTER : ISO 11452-9

- Frequency range: 140MHz to 6GHz

REVERBERANT CHAMBER IMMUNITY (RI CRBM)



➤ E FIELD / CRBM : ISO 11452-11

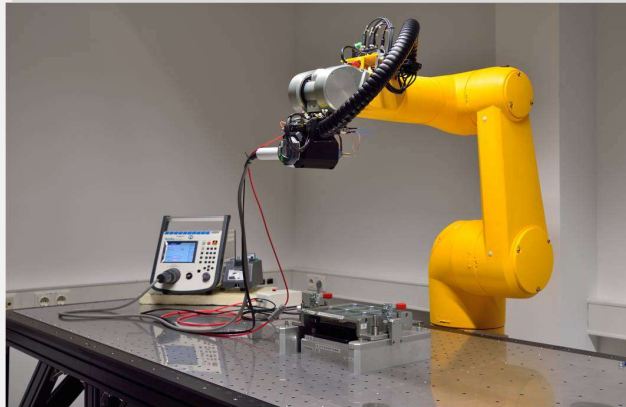


- Frequency range: 200MHz to 6GHz
- Tuned or Stirred modes
- Electric field: 150V/m
- Radar bands: Electric field: 300V/m
- Size: 4m, 3.5m, 3.5m

➤ E FIELD / CRBM : DO160

- Frequency range: 100MHz to 6GHz
- Tuned or Stirred modes
- Electric field:
 - 150V/m ($f < 600\text{MHz}$) – 300V/m ($f > 600\text{MHz}$)

ELECTROSTATIC DISCHARGES (ESD)



➤ ESD : ISO 10605



- Manual AND robotized test stands
- Contact, air discharges, HCP
- Voltage up to 30kV
- Humidity & temperature controlled

MAGNETIC FIELD IMMUNITY (H FIELD)



➤ H FIELD : ISO 11452-8



- Frequency range DC to 200kHz
- H field: 180dBμA/m at 1kHz
- Audio amplifier DC to 250kHz
- Helmholtz Bobbin & 12cm coil
- Size: 5m, 3.8m, 2.8m

CONDUCTED IMMUNITY (BCI)



➤ BCI : ISO 11452-4



- Frequency range 100kHz to 400MHz
- Current level: up to 300mA
- RF amplifier: 150W
- Ferrite tile absorber
- Size: 3.7m, 2.5m, 2.5m



EMISSIONS: CISPR 25 & DO160



➤ EMISSIONS: CISPR 25

- E field: 100kHz to 6GHz
- H field: 20Hz to 200kHz
- Voltage: 100kHz to 108MHz
- Current: 20Hz to 1GHz
- Receivers: ESW 8 (FFT / 5Hz – 8GHz)
- Hybrid absorbers (ferrite tiles + Pyramidal foam)
- Size: 7.5m, 4.7m, 4.1m



➤ EMISSIONS: DO160

- E field: 100MHz to 6GHz
- Current: 150kHz to 152MHz
- Receivers: ESW 8 (FFT / 5Hz – 8GHz)
- Hybrid absorbers (ferrite tiles + Pyramidal foam)
- Size: 7.5m, 4.7m, 4.1m

ELECTRICAL & TRANSIENTS



➤ TRANSIENTS: ISO 7637

- Transient on Power Supply
- Transient on Signal Lines
- ISO7637-2 & 3



➤ ELECTRICAL: ISO 16750

- Overvoltage
- Superimposed alternating voltage
- Slow decrease and increase supply voltage
- Discontinuity in supply voltage
- Reverse voltage
- Ground and supply offset
- Open circuit
- Insulation resistance