

Electromagnetic Compatibility Laboratory (EMC)

The new Electromagnetic Compatibility Laboratory (EMC) at DigiProces allows to perform pre-certification essays in an almost immediate way and speeding up the verification and validation time for the commercialization of electric and electronic products.

Ensuring electromagnetic compatibility of a product is essential to avoid interferences affecting its proper functioning and taking EMC into account from early stages of design is the best way to avert delays when bringing the product to the market.

Advanced technology

The DigiProces EMC laboratory integrates a semi-anechoic chamber covered with ferrites in this first phase, which allows to carry out essays with radiated emissions and radiated immunity up to 1GHz.

■ Capacity to develop essays with precise measurements:



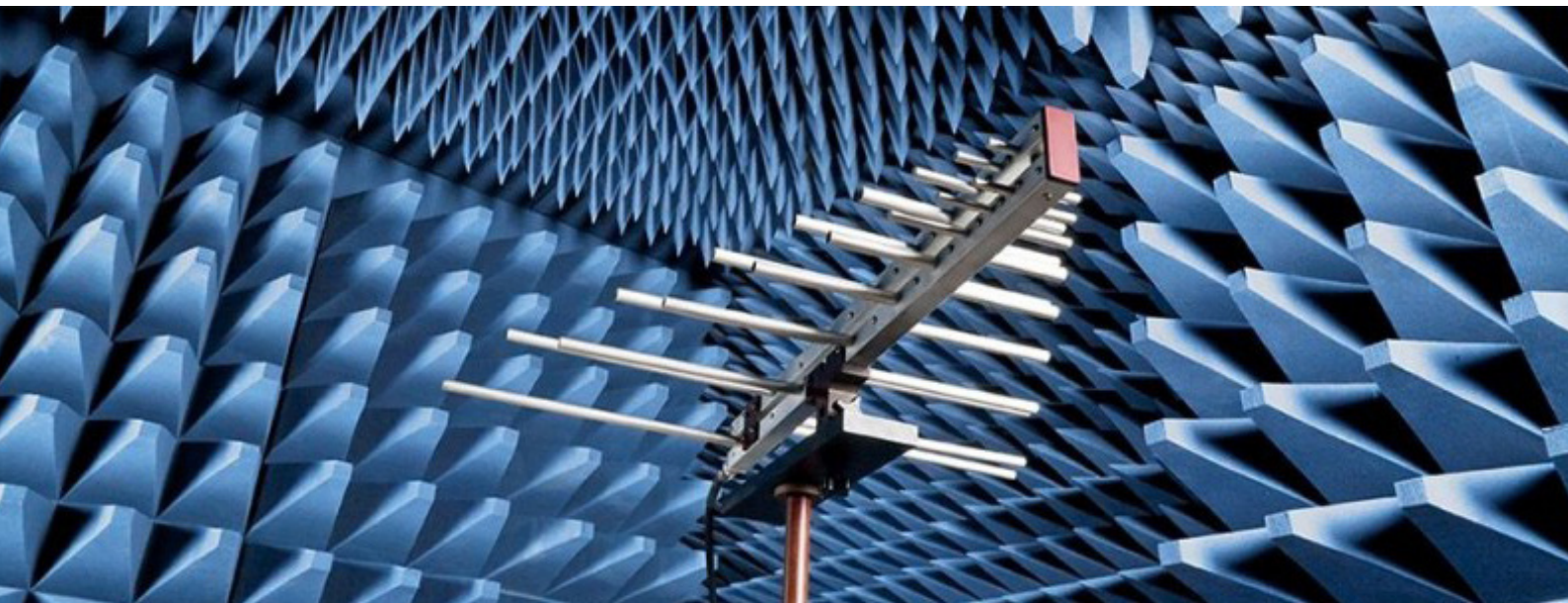
Conducted emissions

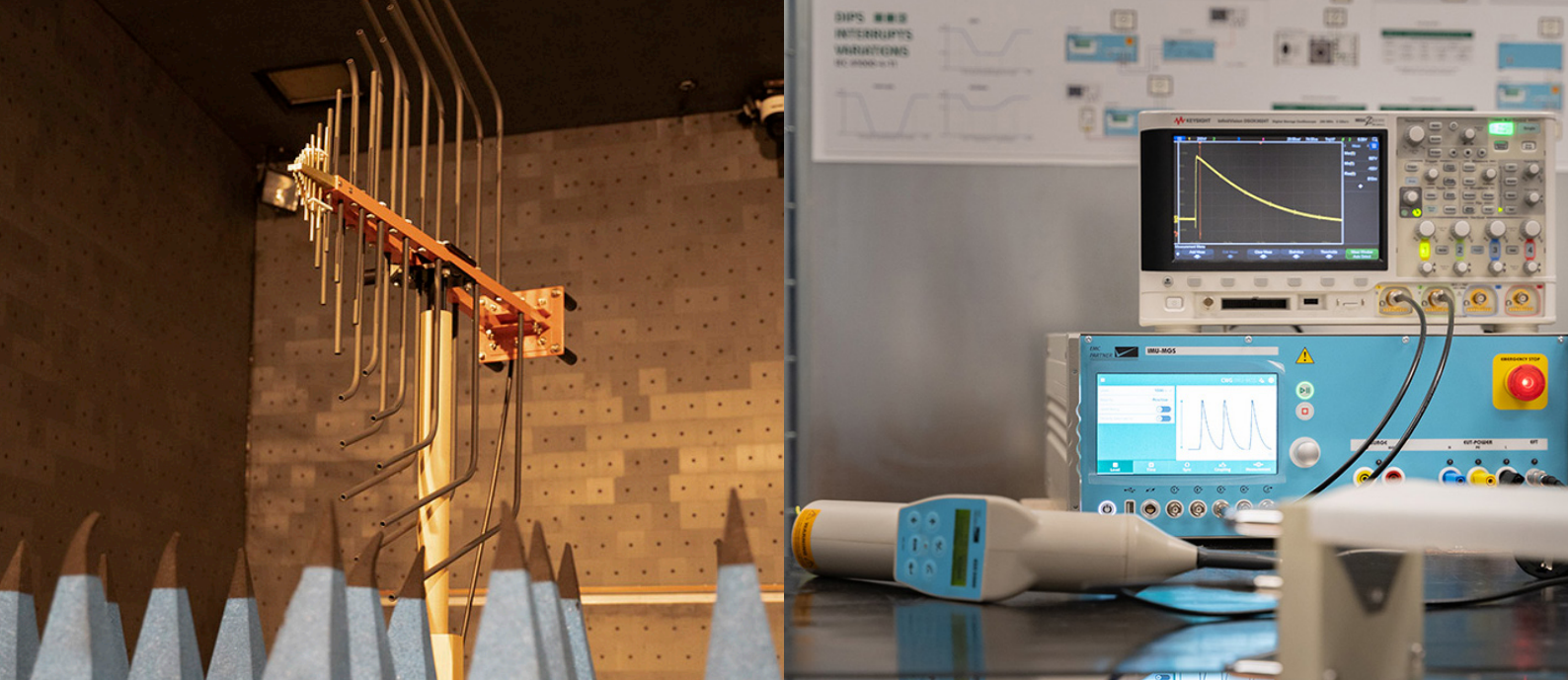


Conducted immunity



ESD (electrostatic discharges)





Optimize resources and reduce costs

Having an internal laboratory for these tests is a great competitive advantage for DigiProces.

Final essays in a certified laboratory get reduced to a mere formality allowing to:

- Avoid redesign works in final stages because of a last minute default
- Minimize reengineering costs

At DigiProces we can develop investigative essays to guarantee the efficacy of the electronic design and optimize the solutions required: **maximum performance at the lowest cost.**

Experience and reliability

The innovative facilities of the DigiProces EMC laboratory are handled by an experienced team that assures the most demanding results in every project.

The initial objective is covering essays in the industrial sector, but our plan is flexible enough to expand in later phases to other environments like the automotive field.

At the service of the industry

DigiProces also makes its EMC lab available to the industry, offering other companies the possibility of using it so that they can assess the status of their projects, improve them or solve problems before their launch onto the market in a quick, efficient and cost-effective way.

CAPACITIES OF THE LABORATORY

General description	Pre-certification essays for electronic equipment in a semi- anechoic chamber sized 6 x 3 x 2.7m measuring up to 1GHz according to standards UNE-EN 61000-6-1 Immunity for residential environments, UNE-EN 61000-6-2 Immunity for industrial environments, UNE-EN 61000-6-3 Emission for residential environments and UNE-EN 61000-6-4 Emission for industrial environments, except UNE-EN 61000-3-2 (harmonics) and UNE-EN 61000-2-3 (flicker).
Norms	
Conducted emissions essays	According to CISPR16-1-2 (CISPR11-CISPR15-CISPR22-CISPR32), VDE 0876, MIL-STD 461F for single-phase or 3-phase equipment up to 32 A, DC at 60 Hz, 230Vac/325Vdc L/N-L/PE-N/PE or 400Vac/565Vdc (L/L). Implementing CISPR14.
Radiated emissions	In semi-anechoic chamber at 3 m distance and QZ Ø 0.8 x 1,8 m up to 6 GHz according to CISPR16-1-2 (CISPR11-CISPR15-CISPR22-CISPR32).
Immunity to radiated fields	According to EN 61000-4-3, 1 x 1 m uniformity plane 20 V/m @ 80 MHz a 250 MHz, 10 V/m @ 250 MHz a 1 GHz. Implementing 20 V/m @ 800 – 1000 MHz, 10V/m @ 1.4 a 2 GHz, 5 V/m @ 2 a 2.7 GHz according to EN 50121-4.
UNE-EN 61000-4-2 ESD	Up to 10 kV in contact and 16 kV in air.
UNE-EN 61000-4-4 EFT	Single-phase supply and 4kV signal.
UNE-EN 61000-4-5 SURGE	Single-phase supply. 4kV
UNE-EN 61000-4-6	RF immunity induced in cables. 10 V rms. Single-phase equipment 16 A.
UNE-EN 61000-4-8	Magnetic field immunity at network frequency. 10 A/m.
UNE-EN 61000-4-11 DIPS	Single-phase supply.