

## Electromagnetic Compatibility (EMC) Testing

**Electromagnetic compatibility testing** ensures the proper functioning of electronic and electromechanical devices, excluding the presence of harmful electromagnetic interference. **INTEK provides comprehensive support** for regulatory compliance, test planning (Qualification Test Plan), and laboratory testing for a wide range of equipment, in full compliance with Directive 2014/30/EU (formerly known as 2004/108/EC), as well as with generic and basic EMC product standards.

- [Electromagnetic Compatibility: A Necessary Balance](#)
- [Electromagnetic Compatibility Testing](#)
- [EMC Testing: Sectors and Involved Standards](#)
- [INTEK Electromagnetic Compatibility Testing](#)
- [INTEK EMC Tests for the Automotive Sector](#)
- [Request information for Electromagnetic Compatibility \(EMC\) Testing](#)



## Electromagnetic Compatibility: A Necessary Balance

**Electromagnetic compatibility** (also known by the acronym EMC) is the ability of electronic devices to operate without generating unfavorable interference for other devices and to withstand external interference. Essentially, it is the **ability to coexist** and maintain the performance of electronic equipment in the presence of both internally and externally generated electromagnetic fields. This aspect is essential to ensure the safety, reliability, and proper functioning of products in a wide range of contexts and applications.

The **INTEK laboratory** is equipped to perform most of the **electromagnetic compatibility tests** required by **EMC regulations** for electronic components.

## Electromagnetic Compatibility Testing

**Electromagnetic compatibility tests** involve exposing products to simulated electromagnetic fields to evaluate their resistance and immunity to interference. During **electromagnetic compatibility tests**, various characteristics are measured and evaluated to ensure that products meet the requirements set by industry standards.





## EMC Testing: Sectors and Involved Standards

**EMC testing** is fundamental in sectors such as automotive, consumer electronics, aerospace, and medical industries. These tests are necessary to obtain **compliance certification** according to the electromagnetic compatibility standards required by regulations. **EMC tests** are internationally regulated by directives, such as **EMC 2014/30/EU** in the European Union and the **IEC 61000** series standards, which establish test requirements, procedures, and evaluation criteria to ensure product safety.

## INTEK Electromagnetic Compatibility Testing

In the field of **electromagnetic compatibility testing**, **INTEK** stands out thanks to a highly qualified team that actively participates in CEI technical committees in the EMC sector. This allows INTEK to provide timely updates and offer precise support to customers in **regulatory compliance**.



INTEK's advanced instrumentation allows for precise **testing of safety components (SIL)**. The laboratory is equipped with a fully equipped SIDT FAR **anechoic chamber** for 3-meter measurements, ensuring maximum accuracy in evaluations. Additionally, INTEK has a Siemens + Matsushita shielded room to conduct measurements of conducted radiated emissions and disturbance power. The anechoic chamber is designed with a fume and exhaust gas extraction system, ideal for testing small

equipment with internal combustion engines. Meanwhile, the **shielded room** is equipped with a sophisticated internal temperature control system, perfect for testing air conditioners.

The **INTEK laboratory** is also specialized in metrological evaluation tests of electric energy meters.

## INTEK EMC Tests for the Automotive Sector

**INTEK** can assess the immunity of electrical/electronic components to **radiofrequency electromagnetic fields**, in accordance with ISO 11452 standards, using methods such as strip-line, antennas, and bulk current injection (BCI). Additionally, the laboratory performs the "**Load Dump**" test according to international standards ISO 16750-2 to evaluate the reaction of components to transient overvoltages in the vehicle's onboard system. INTEK is also recognized by various ministries of transport for **UN/ECE R10** type approvals.

## Request information for Electromagnetic Compatibility (EMC) Testing

INTEK is an independent test and measurement laboratory, an Italian excellence in test and measurement services.  
**Request information online about the Electromagnetic Compatibility (EMC) Testing services:**

<https://www.intek.it/en/electromagnetic-compatibility-testing-emc/>