Bureau Veritas Services

BUREAU VERITAS

Move Forward with Confidence

EMC TESTING

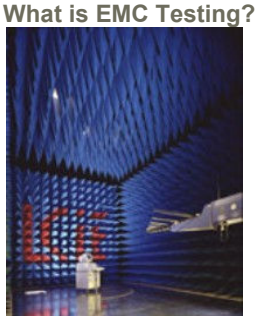
Your Local Partner for Access to Global Markets

BUSINESS CHALLENGE

The pressure to bring new products to market faster, within a reduced budget and with higher quality has never been greater. And keeping R&D projects on schedule, within budget, all with less support staff available is a constant battle. Electromagnetic Compatibility (EMC) is a phenomena that must first be understood, and secondly complied with and is a requirement for most Electrical and Electronic products and most markets worldwide. Non-compliant products risk being recalled or stopped at customs, negatively impacting upon brand image. Ensuring EMC Compliance for your products, systems and/or workplace is critical in order to meet your sales targets.

SOLUTION

What is EMC Testing?



EMC is the study of the unintentional generation and reception of electromagnetic energy with a goal being the correct operation, in the same environment, of different electrical and electronic equipment which involve electromagnetic phenomena in their operation. EMC Emissions is related to the reduction in the unintentional generation of electromagnetic energy, EMC Susceptibility or Immunity refers to the correct operation of electrical and electronic equipment in the presence of electromagnetic disturbances.

There are various terminoligies within the field of EMC it is worth understanding:

- **EMC Emissions** Testing - A test to measure the electromagnetic interference (EMI) caused by an electrical device
- **EMC Immunity** Testing - A test to measure the susceptibility of a product to electromagnetic interference from other sources
- **Electrostatic Discharge** (ESD) - the release of static electricity when two objects come into contact. Examples of ESD includes the static electricity you sometimes feel after drying clothes in a clothes dryer or a lightening bolt.
- **Conducted Immunity** Testing - the injecting of current into the input and output cables of a system under test
- **Conducted Emissions** Testing - the radio frequency energy that is transmitted from an electrical device through the power cord and back into the electrical system
- **Intentional Radiator** - A product that intentionally generates and emits radio frequency energy such as a radio device like a cell phone
- **Non-intentional Radiator** - A device that is not intended to emit radio frequency energy, but generates radio frequency energy for use within itself or that sends radio frequency signals to equipment via connecting wires such as a personal computer or television
- **Radio Frequency** - A frequency at which electromagnetic radiation of energy is useful for communications.
- **Radio Frequency Compatibility** - the ability of antenna-connected RF receiver / transmitter subsystems, operating within a system, to function properly without performance degradation caused by antenna-to-antenna coupling

What are the key benefits?

- Demonstrate by way of an independent test report to your clients and authorities that your product is compliant with EMC regulations
- EMC consultants can advise on designing compliance into your future products
- Save on investing heavily in EMC test equipment, calibration, accreditations and staffing by outsourcing to a global leader in compliance solutions

MARKET ACCESS COMPLIANCE SERVICES

Testing
- EMC
- Electrical Safety
- Radio & Telecoms
- Environmental Simulation
- ATEX
- NEBS/FOC
- IT Interoperability
- Performance
- RoHS

Product Certification
- RoHS, IECQ, IECEX and IECEE CB Scheme for International Markets
- CE marking Notified Body
- NRTL/SCC/TCB for North America
- NF/GS for Europe
- CCC/BSMI/GOST-R for Asia
- Access to 150+ countries via International Approvals service

Technical Consultancy / Compliance Assistance
- Product Design
- Regulations Translation
- Technical File Compilation and Assessment
- International Approvals Management / Homologation (150+ countries)

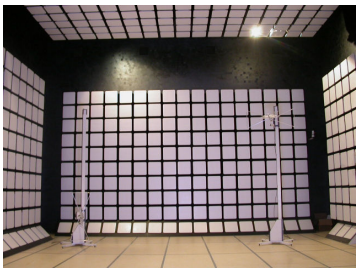
Training
- Technical
- Compliance

Inspection, Audit & Assessment
- Social Accountability (SA8000) Audits
- Production & Shipment Inspections
- Factory Assessment
- Management System Certification

Move Forward with Confidence

WHY CHOOSE BUREAU VERITAS?

Reputation - For over 100 years, we have worked successfully with leading electrical and electronic product manufacturers, importers, retailers and operators around the world to help them better manage risk and assure regulatory compliance. Our EMC test reports also act as the basis of market entry worldwide.



Worldwide Locations - With EMC test centers close to sourcing areas in countries worldwide, we offer you the convenience of global coverage with local service where you need it. We can also offer

Technical Knowledge & Leadership - Our staff participate in the development of international, industry and regulatory standards worldwide, keeping you and us at the forefront of changes in EMC requirements and testing methods. Our flexible team of consultants and engineers are also experienced in offering design and debug advice for your product, should you encounter any EMC issues or failures, ensuring your project and release date stays on track. Our vast range of the chambers and open area test sites also helps ensure that no matter where you are, you can rely on Bureau Veritas. Our expert engineers can also perform EMC testing and assessments at your premises, particularly useful for large and fixed installations and for factory assessments under the EU Physical Agents Directive (EMF) for example.

Personalized Service - At Bureau Veritas, we are committed to meeting your evolving needs and helping you anticipate new market trends. We offer you customized and specialized services to meet your EMC needs throughout your supply chain. Providing you with the highest levels of service is a priority for us.

OUR APPROACH

Complying with EMC regulations is a critical issue when looking to launch your product on the global marketplace. Understanding the myriad of regulations that affect your product in your target market is key to this success. Our testing process begins with understanding the product from your point-of-view; where will the product be marketed, who will use the product, what are your quality expectations?

The answers help us to identify the regulatory barriers and to develop a rationalized EMC Test plan for your product in your target markets, saving you from retesting for each market you will be selling into. Consequently, the appropriate testing is performed so you can sell, manufacture, or distribute your product anywhere in the world (in your target countries) with confidence. Our engineers will also help fix any EMC issues we may encounter during testing, ensuring your market release date is met.

FREQUENTLY ASKED QUESTIONS

Do I need to perform EMC testing on my product?

There may or may not be a regulatory requirement for testing dependent upon your target market, however, carrying out EMC testing provides you with evidence that your product complies with the relevant EMC regulations and directive(s). After a successful test program, you can be confident that your product reliability will be increased, reducing warranty issues and servicing costs. Testing also highlights potential issues or problems with the product, and can be fixed before production. Testing is a long term investment. Field reliability encourages customers to stay loyal to your product when considering replacement or expansion, and can reduce warranty issues which in turn can increase profits

In Europe, does CE + CE = CE?

Combining CE marked sub-assemblies and components into a final product does not guarantee EMC compliance of the finished product as there could be some interference when the components or sub-assemblies operate together.

CONTACT

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