



EMC Testing and Certification

Why EMC testing is crucial early in your product design's stage ?

For decades, technology has played a vital role in revolutionizing human race. With the development in the technology in modern era there are more emphasis on electrical/ electronic tools to be handier and higher powered than ever. Hence, there is growing need to have your product compliant for [EMI/EMC](#). Designing a product that meets EMC testing requirements takes planning and forethought. In that way, you can identify EMC-related issues early on and design your device to address those issues.

What is EMC testing?

All electronic devices have the potential to emit electromagnetic fields. Electromagnetic compatibility (EMC) testing measures the ability of equipment or systems to function satisfactorily in their electromagnetic environment without introducing intolerable electromagnetic disturbance to any other equipment in that environment.

EMC is the interaction of electrical and electronic equipment with its electromagnetic environment, and with other equipment. It is usually discussed in two aspects: Emissions (EMI) and Immunity (EMS). Electromagnetic compatibility (EMC) is used to analyze the ability of the devices to operate as predicted when in proximity to other electronic devices.

Why is EMC testing necessary?

EMC testing helps minimize the possibility that radiated or conducted emission produced by your device will interfere with other electronics products in its vicinity. EMC testing helps to ensure that any emission from the device is below the relevant limits defined for that type of device.

A third-party [EMC test lab](#) can conduct conformity assessments and help to strengthen your competitive position in the market. EMC testing simulates the interaction between electrical and electronic equipment. The testing permits the observation of any adverse interaction. Nemko India provides comprehensive global EMC testing and certification services within

regulatory requirements for a wide range of product categories (Automotive, Telecom, Medical, Component, IT, Railway, Lighting, Household, etc).

Our customers benefit from fast and efficient test and compliance services. You may select from any of our laboratories world-wide. Experience modern and flexible testing facilities with large capacity and qualified EMC engineers.

Why you should test EMC early?

There are many reasons why EMC testing is left to the end in a project. One of the perceived difficulty of carrying out this type of testing is shortage of specialist labs with all the required equipment and staff to carry out EMC testing.

Additionally, there is the cost element. Making changes to your design as you near production is very much expensive than doing so earlier in the process and the cost of early screening tests is significantly lower than that of complete EMC certification testing. The earlier you find problems, the cheaper they are to fix.

Seven tips for successful EMC testing

1. Define the intended use & use environment of your device
2. Identify your target markets
3. Integrate testing early in the development process
4. Clarify the modes of operation & performance criteria
5. Be present when formal testing begins
6. Prepare for testing failures
7. Promptly address non compliance & other issues

Tests which we do in our facility includes the following (but not limited to):

- Voltage Fluctuation & Flicker
- Current Harmonic emission
- Electrostatic Discharge
- Radiated Susceptibility
- Electric Fast Transient
- Surge
- Conducted Susceptibility
- Power Frequency Magnetic Field
- Pulse Frequency Magnetic Field
- AC Voltage Dips & Interruption
- DC Voltage Dips & Interruption

- Ring wave
- Conducted emission
- Radiated emission

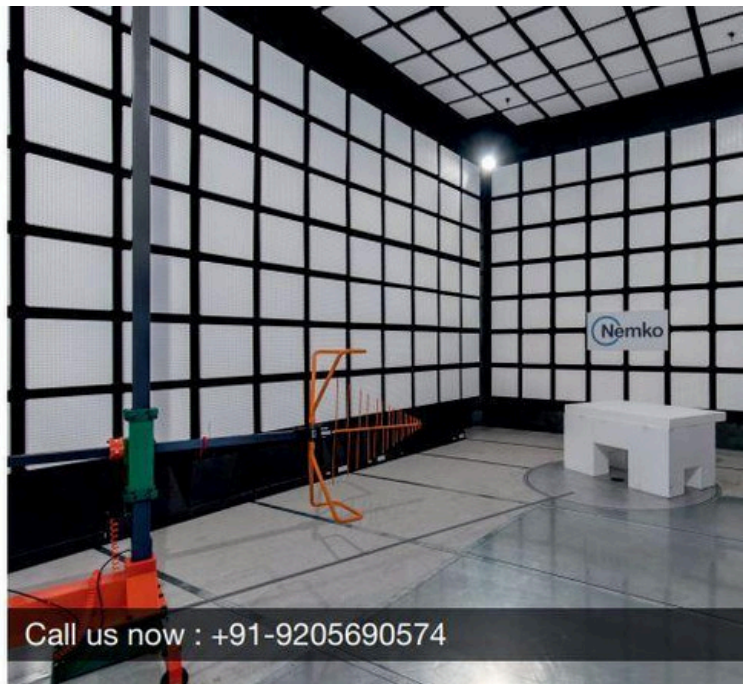
The Benefits of working with Nemko

1. By choosing Nemko as your market access partner , you will be working with experienced professionals focused on delivery via the optimal route to product compliance and testing as well as can guide you towards the right path for certification.
2. Nemko provides a fast turnaround time, helping to get your products to market in as little time as possible.
3. Nemko test reports provides well-known readability & easy access to any market place.

For more information about how Nemko India can help with the EMC testing of your product, please contact us or write to us at India@nemko.com



Electromagnetic
Compatibility
(EMC) Testing and
Certification



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