## **TELECOMMUNICATION ENGINEERING CENTRE (TEC)**

TEC: Since the early 2000s, the telecom industry has been swept up in fast liberalization and innovation. Companies in the telecommunications business send data around the globe in the form of words, voice, audio, or video. The three basic sub-sectors of telecommunications are telecom equipment, telecom services, and wireless communication.

In the 1830s, the first mechanical gadget Telegraph was invented with its invention telecommunication industry began. With the advancement of the technology, telecommunication sector has progressed. In order to maintain the progress of the telecom sector, the government of India in 1991 started a new department TELECOMMUNICATION ENGINEERING CENTRE under which standards are developed for the telecommunication sector and ensure the world-class network and the seamless connectivity of individual networks.

A TEC certificate is required for telecom equipment dealers to import, manufacture, and sell such equipment. The Telecommunication Engineering Centre issues this TEC certificate after the telecom equipment undergoes testing under the MTCTE (Mandatory Testing and Certification of Telecom Equipment) scheme.

You'll receive a unique registration number once you complete the TEC Registration process. This number serves as your equipment's unique identifier. You can prominently display this certification on your product to assure customers of its authenticity and compliance.

## WHAT IS TEC APPROVAL | TEC CERTIFICATE FULL FORM?

TEC stands for Telecommunication Engineering Centre. TEC assists the Government of India's Department of Telecommunications (DoT) in the development and implementation of different standards and policies for the safe and secure use of emerging technologies in telecommunications. TEC India has published specifications for telecom equipment quality measures. Generic Requirements (GRs), Interface Requirements (IRs), and Service Requirements are the three types of specifications (SR).

## TYPES OF VOLUNTARY TESTING CERTIFICATION

TEC India is responsible to issue various approvals such as Interface Approvals, Certificate of Approvals, Service Approvals and Type Approvals. This certification scheme is totally based on the type of products and interface technical related standards. Certification is totally based on the testing parameters and as per the conditions mentioned in the Technical standards.

**Type Approval** - Type Approval is the process of testing and certifying a telecom product in accordance with TEC's Test Schedule & Test Procedure (TSTP) for compliance to the Standard for Products/Equipment (erroneously known as the product's Generic Requirement (GR)). Testing is on-site at the OEMs premises or in a lab environment. EMC, Safety, Environmental Testing etc. from ILAC signatory accredited labs test reports are also accepted.

Interface Approval - Interface Approval is the process of testing and certifying a telecom product in accordance with TEC's Test Schedule & Test Procedure (TSTP) for compliance with the Standard for Products/Equipment (erroneously known as the product's Interface Requirement (IR)). Testing is on-site at the OEMs premises or in a lab environment. EMC, Safety, Environmental Testing etc. from ILAC signatory accredited labs test reports are also accepted. License requirements, Government agencies, or service providers may require Interface Approval as mandatory certification.

**Certificate of Approval** - The process of testing and certifying a telecom product according to the manufacturer's criteria is known as Certificate of Approval (CoA). Only when TEC does not have a Generic or Interface Requirement for the product is this certificate issued. Testing is on-site at the OEMs premises or in lab environment. EMC, Safety, Environmental Testing etc. from ILAC signatory accredited labs test reports are also accepted.

**Technology Approval** - The process of testing and certification of a prototype of a telecom product developed by C-DoT or other R&D organizations is known as technology approval. Technology Approval is granted in accordance with the product's associated standard, formerly known as the Generic Requirement (GR) provided by TEC. Testing is on-site at the OEMs premises or in a lab environment. EMC, Safety, Environmental Testing etc. from ILAC signatory accredited labs test reports are also accepted.