

# India - Mandatory Testing and Certification of Telecommunications Equipment (MTCTE)

India's Telecommunication Engineering Centre (TEC) has recently published the final procedure for the Mandatory Testing and Certification of Telecommunication Equipment (MTCTE). This document defines the process that TEC will apply for all telecom equipment in India. Some categories of product will require certification from 1st January 2019, others from 1st April 2019.

With the approaching deadlines for mandatory compliance in India, NuZeal can help with gaining TEC certification for new and existing products. There are important opportunities to execute a compliance strategy to reduce cost and complexity for existing products and those that are part of larger families:

- Developing a test campaign to efficiently cover product families and similar models.
- Leveraging existing test reports, to avoid costly retesting in Indian labs, while initial opportunity is available (prior to 31 March 2019 deadline).

TEC has defined the following product categories for the MTCTE and the table below also identifies the mandatory starting date for certified equipment in each category:

PRODUCT	CERT. SCHEME	EFFECTIVE DATE
Executive Telephone System	SCS	01-Jan-2019
NSD/ISD Payphone	SCS	01-Jan-2019
Electronic Telephone Instrument	SCS	01-Jan-2019
Key Telephone Systems	SCS	01-Jan-2019
2-Line Feature Phone	SCS	01-Jan-2019
Coin Box Telephone	SCS	01-Jan-2019
Terminals for connecting to PSTN	SCS	01-Apr-2019
CLIP Phone	SCS	01-Jan-2019
Audio Conferencing Facility Device	SCS	01-Jan-2019
Multi Line Telephone System	SCS	01-Jan-2019
Group 3 FAX Machine	SCS	01-Jan-2019
Modem	SCS	01-Jan-2019
Cordless Phone	SCS	01-Jan-2019
Point of Sales (POS) Terminal	GCS	01-Apr-2019
GPON Equipment	GCS	01-Apr-2019
DSL Equipment	GCS	01-Apr-2019
IoT Gateway	GCS	01-Apr-2019
Tracking Devices	GCS	01-Apr-2019
Smart Electricity meter	GCS	01-Apr-2019
Smart Watch	GCS	01-Apr-2019
Smart Security Camera	GCS	01-Apr-2019
Router	GCS	01-Apr-2019
LAN Switch	GCS	01-Apr-2019
Mobile Handsets and Dongles	GCS	01-Apr-2019
Mobile BTS	GCS	01-Apr-2019
Compact Cellular Network	GCS	01-Apr-2019

PRODUCT	CERT. SCHEME	EFFECTIVE DATE
Mobile Repeater	GCS	01-Apr-2019
Microwave Communication Equipment	GCS	01-Jan-2019
UHF/ VHF Communication Equipment	GCS	01-Jan-2019
Mobile Radio Trunking System Equipment	GCS	01-Jan-2019
Equipment Operating in 2.4 GHz and 5 GHz	GCS	01-Jan-2019
Satellite System equipment	GCS	01-Jan-2019
IP Terminal	GCS	01-Apr-2019
Media Gateway	GCS	01-Apr-2019
Signalling Gateway	GCS	01-Apr-2019
Session Border Controller	GCS	01-Apr-2019
Soft Switch	GCS	01-Apr-2019
ISDN CPE	SCS	01-Jan-2019
PABX	GCS	01-Apr-2019
Telephony Application Server	GCS	01-Apr-2019
Telephony Media Server	GCS	01-Apr-2019
Multiplexing Equipment	GCS	01-Apr-2019
SDH Equipment	GCS	01-Apr-2019
DWDM Equipment	GCS	01-Apr-2019
Digital cross Connect	GCS	01-Apr-2019



## Certification Process

Each category of product has a document defining the Essential Requirements (ERs) that need to be met to achieve certification. ERs are expected to cover:

- EMI/EMC
- Safety
- Technical requirements specified by TEC (relevant to the product category)
- Other requirements from any other Indian government agency – none identified so far
- Security requirements as defined by Indian Department of Telecommunications (DoT) – none identified so far.

Two certification schemes are defined:

- General Certification Scheme (GCS) – application must be supported by test reports demonstrating the ER
- Simplified Certification Scheme (SCS) – application indicates test results where necessary and includes a Supplier Declaration of Conformity (SDoC).

Products in the GCS category must be supported by test reports, these reports must come from a designated CAB and be less than one year old on the date of application. However, in the initial phase of the introduction of the MTCTE, TEC will accept foreign test reports (from any accredited lab) that are less than 5 years old, until 31 March 2019.

Existing TEC type or interface approvals based upon previous Interface Regulations (IR) or General Regulations (GR) can be converted to the new scheme with incremental testing to the new ER and TEC certificate will be valid for the remaining period of the original approval certificate.

Certification applications must be handled by an Indian entity or company. Non-Indian manufacturers will need to provide a local applicant with documentation to demonstrate that they are authorized for sale and support of the product(s) in India and are authorized for MTCTE related responsibilities.

## Labeling Requirements

Certified products must be labeled with the TEC logo, the certificate number and the model number. The product documentation must also indicate that the product conforms to the Essential Requirements mandated by TEC. In the case of mobile handsets and tablets it is possible to use e-labeling instead of a physical label.

**INDIA**  
**CERTIFICATE NO:**  
**MODEL NO:**



## Complex, Modular and Product Families

The MTCTE procedure does not apply to individual modules (neither telecom or radio modules) and is intended for final products only. Each model should be tested and certified under MTCTE. However, TEC have defined processes to deal with product families and telecom products that use modular interface cards:

- Pizza box models – where a single PCB or motherboard is used for creating several different models with different configurations of network access ports. The high-end model can be used to certify itself and associated models on a single certificate (up to 10 associated models allowed).
- Chassis based models – where a backplane and common processing/logic/power supply cards are used to host a range of different functional cards. In this case once chassis populated with the largest variety of interface cards can cover lower models built around the same chassis (up to 10 associate models).
- Family based models – covers the scenarios of multiple chassis and a potentially large number of functional cards which could be inserted in any of the family chassis depending on individual customer requirements. This situation can be covered by the same certificate when all chassis and all functional cards are tested at least once. Any combination that is selected from the pool of tested chassis and pool of tested functional cards is covered by the same certificate.

## Exclusions from MTCTE

The following are not covered by the MTCTE and do not require certification:

NO.	EQUIPMENT NAME	EXAMPLES
1.	Modules/ Spares/ Components/ SKD/ CKD	Spare cards, return repair, WiFi modules
2.	Test Instruments	RF Tester, Power Meter
3.	Hobby Assembling	Self-assembled Amateur Radio
4.	Passive Telecom Components	Tower, Antenna, Waveguide, smart cards
5.	Integrated systems and networks consisting of more than one telecom equipment, each of which are individually covered by MTCTE.	GPON is not certified. OLT, ONT and ONU are independent components of GPON and each are certified independently.
6.	Power supply/ UPS/ Solar equipment/ Batteries	
7.	Equipment that are manufactured/imported in India but exclusively meant for export	

A further list has been specified of “items presently not covered by MTCTE”:

NO.	EQUIPMENT NAME	EXAMPLES
1.	IoT sensors and inter-sectoral devices with propriety communication interfaces only.	Temperature sensor, Agricultural Sensor
2.	Primarily non-telecom electrical and electronic products with Wi-Fi/ NFC/ BT etc.	AC or Fridge with WiFi, Lights with BLE remote control
3.	Multi-functional devices with Wi-Fi/ Ethernet ports primarily meant for trans-receiving images.	Multi-functional Printer/ Scanner/ Fax
4.	Equipment with communication module specifically covered by mandatory scheme of any other Government agency.	Laptop with WiFi.
5.	Set Top Box (presently under CRS)	ERS/ certification procedure for these products shall be notified later.
6.	Enterprise Digital Assistant	
7.	Laptops with Cellular connectivity	

