



**Brief on Mandatory Testing &  
Certification of Telecom Equipment (MTCTE)  
and modifications incorporated in Revised  
Procedure (Ver 2.1/Rel- May 2021) for  
MTCTE**

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at 2:30 PM**

# What is MTCTE

- In the absence of technical regulations, Technological advancements in telecommunications makes national security and user safety vulnerable.
- To ensure that any new telecom equipment does not degrade performance of existing network.

➔ **Solution** - Mandatory Testing and Certification of Telecom Equipment (MTCTE) notified by way of modification in Indian Telegraph Rules (ITR) in September 2017 –

- Every telegraph shall undergo mandatory testing and certification prior to sale, import or use in India.

# MTCTE - Objectives

- Any telecom equipment does not degrade performance of existing network to which it is connected.
- Security of Telecom Network.
- Safety of end-users.
- Protection of users and public from radio frequency emissions from equipment.
- Compliance with relevant technical regulations.

# Phase I of MTCTE– *The Notified Products*

S.N.	ERs Covered	No. of Variants	Variants
1.	2- Wire Telephone Equipment	10	<ul style="list-style-type: none"> <li>• Executive Telephone Systems</li> <li>• NSD/ISD Payphone</li> <li>• Electronic Telephone Instrument</li> <li>• Key Telephone Systems</li> <li>• 2-Line Feature Phone,</li> <li>• Coin Box Telephone</li> <li>• Coin Box Telephone - Table Top Interface</li> <li>• Terminals for connecting to PSTN</li> <li>• CLIP Phone</li> <li>• Key Telephone System with Proprietary Interface</li> </ul>
2.	G3 Fax Machine	2	<ul style="list-style-type: none"> <li>• FAX machine with handset</li> <li>• FAX machine without handset</li> </ul>
3.	Modem	1	<ul style="list-style-type: none"> <li>• V.90/ V.92/ V.21 to V.34 Modem</li> </ul>
4.	Cordless Telephone	1	<ul style="list-style-type: none"> <li>• Cordless Telephone</li> </ul>
5.	ISDN CPE	6	<ul style="list-style-type: none"> <li>• ISDN Terminal</li> <li>• PC card-based ISDN Terminal</li> <li>• ISDN NT-1 Network Termination</li> <li>• Multipoint Conferencing Server</li> <li>• ISDN Terminal Adapter</li> <li>• ISDN Gateway</li> </ul>
6.	PABX	1	<ul style="list-style-type: none"> <li>• PABX</li> </ul>
<b>Total</b>	<b>6 ERs</b>		<b>21 Product Variants.</b>

# Phases II of MTCTE– *The Notified Products*

S.No.	ERs Covered	No. of Variants	Variants
1.	Transmission Terminal Equipment	2	<ul style="list-style-type: none"> <li>• SDH Equipment</li> <li>• Multiplexing Equipment</li> </ul>
2.	PON family of Broadband Equipment	3	<ul style="list-style-type: none"> <li>• PON ONT</li> <li>• PON ONU</li> <li>• PON OLT</li> </ul>
3.	Feedback Device	1	<ul style="list-style-type: none"> <li>• Feedback Device</li> </ul>
<b>Total</b>	<b>3 ERs</b>		<b>6 Product Variants</b>

# Finalized Essential Requirements as on date

## List of 41 Essential Requirements (ERs) for MTCTE

S. N.	Category of Essential Requirements (ERs)	Status
1	2- Wire Telephone Equipment	Notification for mandatory implementation under Phase-I w.e.f. 01.10.2019 issued on 04.07.2019
2	G3 Fax Machine	
3	Modem	
4	Cordless Telephone	
5	ISDN Customer Premises Equipment	
6	Private Automatic Branch Exchange	
7	PON Family of Broadband Equipment	Notification for mandatory implementation under Phase-II w.e.f. 01.10.2020 issued on 23.06.2020
8	Transmission Terminal Equipment	
9	Feedback Device	
10	Base Station for Cellular Network	Yet to announce in future.
11	Repeater for Cellular Network	
12	Compact Cellular Network	
13	Mobile User Equipment	
14	Smart Camera	
15	Smart Watch	
16	Smart Electricity Meter	
17	Tracking Device (with embedded SIM)	
18	IoT Gateway	
19	End Point Device for Environmental Monitoring	
20	Equipment Operating in 2.4 GHz and 5 GHz Band	

# Finalized Essential Requirements as on date cont.

S. N.	Category of Essential Requirements (ERs)	Status
21	Conferencing Equipment	Yet to announce in future.
22	Precision Timing Protocol Grand Master Equipment	
23	IP Security Equipment	
24	Router	
25	Signalling Gateway	
26	DSL Equipment	
27	Media Gateway	
28	IP Terminal	
29	Point of Sale Devices	
30	Session Border Controller	
31	Satellite Communication Equipment	
32	Mobile Radio Trunking System	
33	HF Radio	
34	PTP PMP Microwave Fixed Radio Systems	
35	VHF UHF Radio System Equipment	
36	Softswitch	
37	LAN Switch	
38	Radio Broadcast Receiver	
39	Optical Fibers (Single Mode)	
40	Mobility Management Entity (MME)	
41	IP Multi Media Conferencing Equipment	

# Modifications incorporated in MTCTE Procedure ver 2.1(1/10)

Sl. No.	Existing clause in v2.0	Modified clause in v2.1	Remarks
1	<i>importer/dealer</i>	<b>Authorized Indian Representative (AIR)</b>	As per the certification process
2	<i>No Time limits to issue certificate</i>	SCS -15 days GCS- 4-8 weeks	Typically depend upon the other conditions i.e. submission of complete test results by OEM.
3	in a designated CAB, or recognized CAB of MRA partner country. The test results/ test reports <i>shall not be older than one year on the date of submission.</i>	in a designated CAB, or recognized CAB of MRA partner country. The test results/ test reports <b>shall not be older than five years on the date of submission.</b>	To bring uniformity among all test results.
4	<i>Hardware</i> only included in scope	<b>Hardware/software</b> both included in scope	Cloud based products also covered. Formulation of ERs for CoTS/Cloud based product under process.



# Modifications incorporated in MTCTE Procedure ver 2.1 (2/10)

Sl. No.	Existing clause in v2.0	Modified clause in v2.1	Remarks
5	In case, for any equipment, variant or interface, Essential Requirements are not listed on the MTCTE portal, then <i>provisional certificate will be issued for one year</i>	In case, for any equipment, variant or interface, Essential Requirements are not listed on the MTCTE portal, then <b>temporary certificate</b> will be issued for one year	Certificate type changed as <b>Temporary certificate</b> to avoid confusion in other context also
6	Certificate modification - Impacting ER conformance (i.e. addition/modification of interface or chassis) – <i>Incremental testing required</i>	Certificate modification - Impacting ER conformance (i.e. addition/modification of interface or chassis) – <b>Complete testing required</b>	Case is subjective in nature, may vary from case to case depending upon the hardware/software modification. Incremental or Complete Testing requirement depending on contest.
7	Products only in <i>telecom</i>	Applicable to all <b>telecom and related ICT products</b>	As per the current Technology in Telecom sector



# Modifications incorporated in MTCTE Procedure ver 2.1 (3/10)

- MTCTE Application Process added the following –
  - Additional registration information i.e. **Articles of Association, Memorandum of Association, Shareholding pattern and manufacturing locations added.**
  - Contents of BoM defined *as model no., detail of individual PCBs\* and exhaustive list of all power/signal/control/data/communication ports.*
  - **Test report summary to be appended with test report.**

*\*Note – Need to mention number/code of backplane of Chassis based and motherboard of Pizza based model to verify the usage of same base across all associate models.*



## **Modifications incorporated in MTCTE Procedure ver 2.1 (4/10)**

- Inclusion of generic relaxation w.r.t. ILAC test report submission and exemption of test parameters based on designated CAB availability in India.
- **Clarity on Appeals officer and Appeals committee for representation**
- **Clarity on Surveillance , summarized the policy on surveillance , DoT field units i.e., LSA wise will act as per the jurisdiction.**



## ANNEXURE-A List of Equipment Covered under MTCTE (5/10)

- Added all inclusive table with classification as GSC/SCS products. Deleted -
  - I. Table 2 – Items Not Covered by MTCTE*
  - II. Table 3 – Items Presently Not Covered by MTCTE*

As per MTCTE Gazette notification G.S.R. 1131(E) —*Any telegraph which is used or capable of being used with any telegraph established shall have to undergo prior mandatory testing and certification . And ‘Telegraph’ as per Indian Telegraph Act, 1885 include any appliance, instrument, material or apparatus used or capable of use for transmission or reception.*

**Therefore, passive telecom equipment and others items mentioned in Table 2 are brought under MTCTE.**

- *Only items not covered under the MTCTE - Spare cards or faulty cards after repair and Integrated systems and networks consisting of more than one Telecom / related ICT Equipment*



## ANNEXURE-C - Schedule of Fees in detail in addition to existing structure for administrative fee and evaluation fee addition (6/10)

S. No	Category of Certificate Modification / Renewal	Type of Modification	Fee applicable
1.	Administrative Modification	i. Change in address of Indian / Foreign OEM Name	Administrative fee of respective Group of Equipment (A / B / C / D)
		ii. AIR Name and Address Change	
		iii. Change in Authorization Validity / MoU Validity	
2.	Technical Modification (due to modification in product / addition of model)	i. Associated model addition	Administrative fee of respective Fee Group of Equipment (A / B / C / D)
		ii. Software version change (without affecting compliance to ER)	
		iii. Hardware version change (without affecting compliance to ER)	
		iv. Interface addition / deletion / modification	Administrative fee alongwith full evaluation fee for respective Group of Equipment (A / B / C / D)
		v. Addition of sub- unit model in family	
		vi. Certification against new ER	
3.	Temporary/Provisional to Regular conversion		Administrative fee of respective Group of Equipment (A / B / C / D)
4.	Certificate Renewal	i. New ER has come ineffect	Administrative fee alongwith full evaluation fee for respective Group of Equipment (A / B / C / D)
		ii. As per old ER	Administrative fee of respective Group of Equipment (A / B / C / D)



## ANNEXURE-D - Labelling Guidelines (7/10)

The TEC labelling requirements consists of:

- i. TEC certification label on body of the equipment.*
- ii.** Indication of equipment **conforming** to Essential Requirements in its technical document as shown in **Figure D.2**.
- iii.** **‘e-label’** of TEC Certification in case of Telecom / related ICT equipment with integrated displays **in lieu of physical labelling** also permitted.

TEC logo height –

- **1/4th of the size** of the brand name,
- minimum height of **6 mm**.

Text labelling other than logo-

- Arial font subject to minimum font **size of 6**.



## ANNEXURE-D - Labelling Guidelines (8/10)

- If device is smaller, mark product with-
  - **‘India’ and TEC logo**
  - other information in machine **readable QR code**
- *The durability of label shall be tested as per the ISO 28219:2017 in line with international standards\*.*

*\*As per ISO 28219:2017 – global industries widely use machine-readable markings on products for inventory control, quality control, and product life cycle management and different product labelling and marking standards exist, each designed to meet the requirements of the specific industry sector.*



## ANNEXURE-D - Labelling Guidelines (9/10)

- Devices utilizing 'e-label' shall have a physical label on the packaging of the product (printed) at the time of import / storage for sale or during distribution.
- Manufacturers may initiate advance action for labelling the equipment before issue of certificate by TEC, only after ascertaining at their own level that the equipment conforms to relevant ER, and the product would conform to relevant ER when tested in the designated CAB under MTCTE.
- *Labelling guidelines relaxation for six months from date of enforcement of each phase of MTCTE specific to products launched in respective phase.*

*Note - If device even smaller or labelling doesn't fit even after using QR code, then case may be referred to TC division.*





**The dispatch of consignment of Telecom equipment from foreign port shall be treated as date of import. ( 10/10)**

- The “*date of dispatch of consignment*” of telecom equipment **from foreign port shall be treated as date of import of respective consignment of telecom equipment for MTCTE purpose.**
- **Abbreviations added** for user convenience and as per the standard of the document.
- *MTCTE procedure flow diagram added.*



**Thanks !!**

**&**

**Queries ?**