



**GOVERNMENT OF INDIA  
MINISTRY OF COMMUNICATIONS  
DEPARTMENT OF TELECOMMUNICATIONS  
TELECOMMUNICATION ENGINEERING CENTRE  
Gate No. 5, Khurshid Lal Bhawan, Janpath, New Delhi-110001**

## **CERTIFICATE OF DESIGNATION**

**M/s Compliance International Telecom Laboratories  
(A unit of Compliance International Pvt. Ltd.)**

has been assessed and designated as Conformity Assessment Body (CAB)  
for its facilities at

**X-35, 3rd Floor, Okhla Phase-II, New Delhi-110 002**

**In the field of Testing**

**Certificate No. TEC/MRA/CAB/IND-D/71**

**Issue Date: 23/02/2024**

**Validity: 23/02/2024 to 22/02/2027**

**This Certificate remains valid for the Scope of Designation as specified in the Annexure subject to the continued validity of NABL Accreditation and satisfied compliance to the Standards/specifications against which lab has been designated and strict compliance to the relevant terms and conditions of TEC CAB Designation Scheme.**

**(To see the scope of designation of this laboratory, you may also visit TEC website [www.tec.gov.in](http://www.tec.gov.in))**

**Signed for and on behalf of TEC**

**Vijay Dixit  
Director (CA)  
For Designating Authority  
TEC**

**Certificate No: TEC/MRA/CAB/IND-D/71 dated 23/02/2024 issued to  
M/s Compliance International Telecom Laboratories  
(A unit of Compliance International Pvt. Ltd.)  
X-35, 3rd Floor, Okhla Phase-II, New Delhi-110 002.**



**Validity: - 23/02/2024 to 22/02/2027**

### **Terms & Conditions**

This certificate is issued as per the terms and conditions stipulated in the TEC SCHEME FOR DESIGNATING DOMESTIC CONFORMITY ASSESEMENT BODIES AND CERTIFICATION BODIES FOR CONFORMITY ASSESEMENT AND CERTIFICATION OF TELECOMMUNICATION EQUIPMENT ISSUE 3 NO. TEC 04019:2023.

Some of the conditions are reiterated as under:

#### **A. Obligations of the Designated CAB.**

1. It shall ensure that it maintains its accreditation status from any recognised Indian accreditation body like NABL during validity period of certificate.
2. It shall follow the stipulated procedures, rules and policies laid down by Designating Authority (DA) or Mutual Recognition Agreement (MRA)\* partner for testing and evaluation.
3. In respect of tests for which it is seeking designation, it shall have no interest whatsoever in any business to carry on testing in an unfair or biased manner.
4. It shall fully indemnify DA from and against all liabilities, damages, claims, costs, and expenses incurred or sustained by DA as a result of any action taken or omitted by DA relating to the process of designation.
5. It shall comply with DA's or MRA partner's terms and conditions for designation and recognition as modified from time to time.
6. It shall be under obligation to participate in the online process prescribed by TEC for test and certification against TEC's GR/IR/ER and standards.
7. It shall have a record system which shall have a retention period of at least 5 years for documents related to the equipment testing. It shall maintain all the relevant documents including list of products submitted for testing, product-wise testing and evaluation reports. These documents shall be produced before the DA within seven days, as and when required.
8. It shall ensure the Intellectual Property Rights of the customers in the course of testing by maintaining professional ethics, secrecy and keeping all the product related information confidential.

\*Applicable only if recognized by MRA (Mutual Recognition Agreement) partner.

9. It shall notify the DA in writing of occurrence of any of the following incident(s) within 2 weeks of its occurrence
  - a) Cessation of its business of conformity assessment for which it is Designated or accredited
  - b) Changes in its legal, commercial, or Organisational status
  - c) Changes, which may affect continuing compliance with any of the criteria or requirement specified by DA or MRA partner.
  - d) Change of premises

## **B. REFERENCE TO DESIGNATION STATUS**

1. Designated CABs may advertise their designation status with regard to standards or parts thereof which are included in the scope of designation.
2. The advertisement should not imply, or otherwise suggest that DA or MRA Partner has endorsed the product or imply that the designated CAB is an agent or representative of DA or MRA Partner.
3. CABs whose designations have been suspended or withdrawn for any reason, shall discontinue advertisement of their designated status and not make any misleading statements regarding their designation status.

## **C. POST-DESIGNATION SURVEILLANCE**

As and when required, DA shall conduct surveillance assessments and other non-routine assessments on the Designated CABs to ensure that standards of practices are maintained as well as to investigate complaints made against them.

## **D. SUSPENSION OR WITHDRAWAL OF DESIGNATION**

1. DA shall suspend or withdraw the designation of a CAB if
  - a. Its accreditation is withdrawn.
  - b. It is found that the CAB is not complying with the stipulated criteria or requirements.
  - c. It is guilty of any offence involving fraud or dishonesty.
  - d. DA concludes that there is a just cause for withdrawing the designation.
2. A CAB whose designation, and recognition in case of MRA, has been suspended or withdrawn shall be removed from the list of designated CABs, in case it fails to take corrective measures.
3. DA shall keep the designation of a Designated CAB under suspension, until the completion of formal review process.

## **E. AMENDMENT TO THE SCHEME**

DA reserves the rights to amend the scheme, as and when required, for the purpose of streamlining designation process.

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**SCOPE OF DESIGNATION**  
**(ANNEXURE)**

**Laboratory Name: M/s Compliance International Telecom Laboratories**  
**(A unit of Compliance International Pvt. Ltd.)**  
**X-35, 3rd Floor, Okhla Phase-II, New Delhi-110 002**

**Certificate Number: TEC/MRA/CAB/IND-D/71**

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**Validity: 23/02/2024 to 22/02/2027**

**Last Amended on: ----**

| Sl. No. | Telecom Equipment/Product                         | Test Parameter or Type of Testing  | Standard/Specification                                    |                        |
|---------|---|--|---|------------------------|
| 1.      | <b>Router (IPv4, IPv6, MPLS, BNG/BRAS Router)</b> | <b>Parameters Linked with Product Variants</b>   | Dynamic Routing (Annex P-11)                              | TEC ER No. TEC37682308 |
|         |   | IPv4 Parameters RFC 791 (Conformance Testing)  | TEC ER No. TEC37682308                                    |                        |
|         |   | IPv6 Complete Suite RFC2460 or 8200, RFC 4861, RFC 4862, RFC 1981, RFC4443 (Conformance Testing) | TEC ER No. TEC37682308                                    |                        |
|         |   | BGP for IPv6 RFC 2545 (Conformance Testing)  | TEC ER No. TEC37682308                                    |                        |
|         |   | BGP4 as per RFC 4271 and MBGP as per RFC 4760 (Conformance Testing)                              | TEC ER No. TEC37682308                                    |                        |
|         |   | LDP as per RFC 5036 (Conformance Testing)  | TEC ER No. TEC37682308                                    |                        |
|         |   | Manageability SNMP v2 or v3 RFC 3410, RFC 3416 (Functional Testing)                              | TEC ER No. TEC37682308                                    |                        |
|         |   | OSPF v2 RFC 2328 (Conformance Testing)   | TEC ER No. TEC37682308                                    |                        |
|         |   | OSPF v3 RFC 2740 (Conformance Testing)   | TEC ER No. TEC37682308                                    |                        |
|         |   | Static Routing Annex-P11   | TEC ER No. TEC37682308                                    |                        |
|         |   | TCP Parameters RFC 793 (Conformance Testing)   | TEC ER No. TEC37682308                                    |                        |
|         |   | <b>Interface: 10/100/1000 BASE-T Ethernet</b>  | Link Speed and Auto negotiation Test GE IEEE 802.3Annex-H | TEC ER No. TEC37682308 |

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|---------|---|--|--|
|         | <b>Router (IPv4, IPv6, MPLS, BNG/BRAS Router)</b> | <b>Interface: 10/100 BASE-T Ethernet</b> | Link Speed and Auto negotiation Test<br>FE<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC37682308 |
|         |   | <b>Interface: 1G Optical Ethernet</b>    | Average Launch Power<br>IEEE 802.3z Cl. 38 Annex-H<br>TEC ER No. TEC37682308               |
|         |   |  | Receiver Sensitivity<br>IEEE 802.3z Cl. 38 Annex-H<br>TEC ER No. TEC37682308               |
|         |   |  | Wavelength<br>IEEE 802.3z Cl. 38 Annex-H<br>TEC ER No. TEC37682308                         |
|         |   | <b>Interface: 10 G Optical Ethernet</b>  | Average Launch Power<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC37682308              |
|         |   |  | Receiver Sensitivity<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC37682308              |
|         |   |  | Wavelength<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC37682308                        |
|         |   | <b>Interface: 100 G Optical Ethernet</b> | Average Launch Power<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC37682308              |
|         |   |  | Receiver Sensitivity<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC37682308              |
|         |   |  | Wavelength<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC37682308                        |
|         |   | <b>Interface: 40 G Optical Ethernet</b>  | Average Launch Power<br>IEEE 802.3ba Cl. 86 87 Annex-H<br>TEC ER No. TEC37682308           |
|         |   |  | Receiver Sensitivity<br>IEEE 802.3ba Cl. 86 87 Annex-H<br>TEC ER No. TEC37682308           |
|         |   |  | Wavelength<br>IEEE 802.3ba Cl. 86 87 Annex-H<br>TEC ER No. TEC37682308                     |

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| Sl. No. | Telecom Equipment/Product                         | Test Parameter or Type of Testing       | Standard/Specification   |                           |
|---------|---|---|--|---------------------------|
|         | <b>Router (IPv4, IPv6, MPLS, BNG/BRAS Router)</b> | <b>Interface: Fast Ethernet Optical</b> | Average Launch Power<br>IEEE 802.3u Annex-H  | TEC ER No.<br>TEC37682308 |
|         |   |   | Receiver Sensitivity<br>IEEE 802.3u Annex-H  | TEC ER No.<br>TEC37682308 |
|         |   |   | Wavelength<br>IEEE 802.3u Annex-H  | TEC ER No.<br>TEC37682308 |
|         |   | <b>Interface: ISDN PRI</b>              | Bit Rate Tolerance for PRI<br>ITU-T G.703 Clause no. 11.1 Annex-I  | TEC ER No.<br>TEC37682308 |
|         |   |   | Pulse Mask<br>ITU-T G.703 Clause no. 11.2 Annex-I  | TEC ER No.<br>TEC37682308 |
|         |   |   | Input Return Loss<br>ITU-T G.703 Clause no. 11.3 Annex-I   | TEC ER No.<br>TEC37682308 |
|         |   |   | Output Jitter<br>ITU-T G.823 Clause no. 5.1 Annex-I  | TEC ER No.<br>TEC37682308 |
|         |   |   | Input Jitter Tolerance<br>ITU-T G.823 Clause no. 7.1.2 Annex-I   | TEC ER No.<br>TEC37682308 |
|         |   |   | Layer-III PRI Specification - Call Setup<br>ITU-T Q.931 Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1 | TEC ER No.<br>TEC37682308 |
|         |   |   |  |                           |

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| Sl. No. | Telecom Equipment/Product                         | Test Parameter or Type of Testing | Standard/Specification   |                        |
|---------|---|-----------------------------------|--|------------------------|
|         | <b>Router (IPv4, IPv6, MPLS, BNG/BRAS Router)</b> | <b>Interface: ISDN PRI</b>        | Layer-III PRI Specification – Call Clearing<br>ITU-T Q.931<br>Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1 | TEC ER No. TEC37682308 |
|         |   | <b>Interface: 2 Mbps -E1</b>      | Input Jitter Tolerance   | TEC ER No. TEC37682308 |
|         |   |                                   | Input Return Loss  | TEC ER No. TEC37682308 |
|         |   |                                   | Nominal Bit Rate with Tolerance  | TEC ER No. TEC37682308 |
|         |   |                                   | Output Jitter  | TEC ER No. TEC37682308 |
|         |   |                                   | Pulse Mask   | TEC ER No. TEC37682308 |
|         |   | <b>Interface: 34 Mbps -E3</b>     | Input Jitter Tolerance   | TEC ER No. TEC37682308 |
|         |   |                                   | Input Return Loss  | TEC ER No. TEC37682308 |
|         |   |                                   | Nominal Bit Rate with Tolerance  | TEC ER No. TEC37682308 |
|         |   |                                   | Output Jitter  | TEC ER No. TEC37682308 |
|         |   |                                   | Pulse Mask   | TEC ER No. TEC37682308 |

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| Sl. No. | Telecom Equipment/Product                         | Test Parameter or Type of Testing                      | Standard/Specification                                 |   |
|---------|---|--|--|---|
|         | <b>Router (IPv4, IPv6, MPLS, BNG/BRAS Router)</b> | <b>Interface: 45 Mbps</b>                              | DC Power<br>ITU-T G.703 Annex-I                        | TEC ER No.<br>TEC37682308                     |
|         |   |  | Input Jitter Tolerance<br>ITU-T G.824 Annex-I          | TEC ER No.<br>TEC37682308                     |
|         |   |  | Nominal Bit Rate with Tolerance ITU-T G.703 Annex-I    | TEC ER No.<br>TEC37682308                     |
|         |   |  | Output Jitter<br>ITU-T G.824 Annex-I                   | TEC ER No.<br>TEC37682308                     |
|         |   |  | Pulse Mask<br>ITU-T G.703 Annex-I                      | TEC ER No.<br>TEC37682308                     |
|         |   | <b>Interface: STM-1 Electrical</b>                     | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC37682308                     |
|         |   |  | Input Return Loss<br>ITU-T G.703 Annex-K               | TEC ER No.<br>TEC37682308                     |
|         |   |  | Nominal Bit Rate with Tolerance<br>ITU-T G.703 Annex-K | TEC ER No.<br>TEC37682308                     |
|         |   |  | Output Jitter<br>ITU-T G.825 Annex-K                   | TEC ER No.<br>TEC37682308                     |
|         |   |  | Pulse Mask<br>ITU-T G.703 Annex-K                      | TEC ER No.<br>TEC37682308                     |
|         |   |  | <b>Interface: STM-1 Optical</b>                        | Input Jitter Tolerance<br>ITU-T G.825 Annex-K |
|         |   | Mean Launched Power<br>ITU-T G.957 Annex-K             |  | TEC ER No.<br>TEC37682308                     |
|         |   | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K |  | TEC ER No.<br>TEC37682308                     |
|         |   | Operating Wavelength Range<br>ITU-T G.957 Annex-K      |  | TEC ER No.<br>TEC37682308                     |

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| Sl. No. | Telecom Equipment/Product  | Test Parameter or Type of Testing        | Standard/Specification                                 |                           |
|---------|--|--|--|---------------------------|
|         | <b>Router<br/>(IPv4, IPv6,<br/>MPLS,<br/>BNG/BRAS<br/>Router</b> | <b>Interface:<br/>STM-1 Optical</b>      | Output Jitter<br>ITU-T G.783 Annex-K                   | TEC ER No.<br>TEC37682308 |
|         |  |  | Receiver Overload<br>ITU-T G.957 Annex-K               | TEC ER No.<br>TEC37682308 |
|         |  |  | Receiver Sensitivity<br>ITU-T G.957 Annex-K            | TEC ER No.<br>TEC37682308 |
|         |  | <b>Interface:<br/>STM-4<br/>Optical</b>  | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC37682308 |
|         |  |  | Mean Launched Power<br>ITU-T G.957 Annex-K             | TEC ER No.<br>TEC37682308 |
|         |  |  | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K | TEC ER No.<br>TEC37682308 |
|         |  |  | Operating Wavelength Range<br>ITU-T G.957 Annex-K      | TEC ER No.<br>TEC37682308 |
|         |  |  | Output Jitter<br>ITU-T G.783 Annex-K                   | TEC ER No.<br>TEC37682308 |
|         |  |  | Receiver Overload<br>ITU-T G.957 Annex-K               | TEC ER No.<br>TEC37682308 |
|         |  |  | Receiver Sensitivity<br>ITU-T G.957 Annex-K            | TEC ER No.<br>TEC37682308 |
|         |  | <b>Interface:<br/>STM-16<br/>Optical</b> | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC37682308 |
|         |  |  | Mean Launched Power<br>ITU-T G.957 Annex-K             | TEC ER No.<br>TEC37682308 |
|         |  |  | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K | TEC ER No.<br>TEC37682308 |
|         |  |  | Operating Wavelength Range<br>ITU-T G.957 Annex-K      | TEC ER No.<br>TEC37682308 |

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|--|---|-----------------------------------|---|--|
|  | <b>Router (IPv4, IPv6, MPLS, BNG/BRAS Router)</b> | <b>Interface: STM-16 Optical</b>  | Output Jitter<br>ITU-T G.783 Annex-K              | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | Receiver Overload<br>ITU-T G.957 Annex-K          | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | Receiver Sensitivity<br>ITU-T G.957 Annex-K       | TEC ER No.<br>TEC37682308                        |
|  |   | <b>Interface: STM-64 Optical</b>  | Input Jitter Tolerance<br>ITU-T G.825 Annex-K     | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | Mean Launched Power<br>ITU-T G.957 Annex-K        | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | Operating Wavelength Range<br>ITU-T G.691 Annex-K | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | Output Jitter<br>ITU-T G.783 Annex-K              | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | Receiver Overload<br>ITU-T G.691 Annex-K          | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | Receiver Sensitivity<br>ITU-T G.691 Annex-K       | TEC ER No.<br>TEC37682308                        |
|  |   |                                   | <b>Parameters Linked with Product Variant</b>     | IPv4 Parameters RFC 791<br>(Conformance Testing) |
| IPV6 Complete Suite<br>RFC 2460 or 8200, RFC 4861, RFC 4862, RFC 1981, RFC 4443<br>(Conformance Testing) | TEC ER No.<br>TEC34732305                         |                                   |   |  |
| Manageability SNMP v2 or<br>SNMP v3<br>RFC 3410, RFC 3416<br>(Functional Testing)                        | TEC ER No.<br>TEC34732305                         |                                   |   |  |

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| Sl. No. | Telecom Equipment/Product  | Test Parameter or Type of Testing             | Standard/Specification                                 |                           |
|---------|--|---|--|---------------------------|
|         | <b>IP Security Equipment (UTM, IPS, IDS, Firewall Equipment)</b> | <b>Interface: 1 G Optical Ethernet</b>        | Average Launch Power<br>IEEE 802.3z Cl. 38 Annex-H     | TEC ER No.<br>TEC34732305 |
|         |  |   | Receiver Sensitivity<br>IEEE 802.3z Cl. 38 Annex-H     | TEC ER No.<br>TEC34732305 |
|         |  |   | Wavelength<br>IEEE 802.3z Cl. 38 Annex-H               | TEC ER No.<br>TEC34732305 |
|         |  | <b>Interface: 10/100/1000 BASE-T Ethernet</b> | Link Speed and Auto negotiation Test<br>GE             | TEC ER No.<br>TEC34732305 |
|         |  |   | IEEE 802.3 Annex-H                                     |                           |
|         |  | <b>Interface: 10/100 BASE-T Ethernet</b>      | Link Speed and Auto negotiation Test<br>FE             | TEC ER No.<br>TEC34732305 |
|         |  |   | IEEE 802.3 Annex-H                                     |                           |
|         |  | <b>Interface: 10 G Optical Ethernet</b>       | Average Launch Power<br>IEEE 802.3ae Cl. 52 Annex-H    | TEC ER No.<br>TEC34732305 |
|         |  |   | Receiver Sensitivity<br>IEEE 802.3ae Cl. 52 Annex-H    | TEC ER No.<br>TEC34732305 |
|         |  |   | Wavelength<br>IEEE 802.3ae Cl. 52 Annex-H              | TEC ER No.<br>TEC34732305 |
|         |  | <b>Interface: 100 G Optical Ethernet</b>      | Average Launch Power<br>IEEE 802.3ba Cl. 86 88 Annex-H | TEC ER No.<br>TEC34732305 |
|         |  |   | Receiver Sensitivity<br>IEEE 802.3ba Cl. 86 88 Annex-H | TEC ER No.<br>TEC34732305 |
|         |  |   | Wavelength<br>IEEE 802.3ba Cl. 86 88 Annex-H           | TEC ER No.<br>TEC34732305 |
|         |  | <b>Interface: 40 G Optical Ethernet</b>       | Average Launch Power<br>IEEE 802.3ba Cl. 86 87 Annex-H | TEC ER No.<br>TEC34732305 |

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|---|--|--|--|---------------------------|
|   | <b>IP Security Equipment (UTM, IPS, IDS, Firewall Equipment)</b> | <b>Interface: 40 G Optical Ethernet</b>  | Receiver Sensitivity<br>IEEE 802.3ba Cl. 86 87 Annex-H | TEC ER No.<br>TEC34732305 |
|   |  |  | Wavelength<br>IEEE 802.3ba Cl. 86 87 Annex-H           | TEC ER No.<br>TEC34732305 |
|   |  | <b>Interface: Fast Ethernet Optical</b>  | Average Launch Power<br>IEEE 802.3u Annex-H            | TEC ER No.<br>TEC34732305 |
|   |  |  | Receiver Sensitivity<br>IEEE 802.3u Annex-H            | TEC ER No.<br>TEC34732305 |
|   |  |  | Wavelength<br>IEEE 802.3u Annex-H                      | TEC ER No.<br>TEC34732305 |
|   |  |  |  |                           |
| <b>3. Transmission Terminal Equipment-1</b> | <b>Interface: GPON</b>   | Line Test for GPON Int.<br>IEEE 802.3ah  | TEC ER No.<br>TEC78832308                              |                           |
|   |  | Operating Wavelength in upstream direction for GPON Int.<br>ITU-T G.984.2, Cl. 8.2.5.2   | TEC ER No.<br>TEC78832308                              |                           |
|   |  | Operating Wavelength in downstream direction for GPON Int.<br>ITU-T G.984.2, Cl. 8.2.5.1 | TEC ER No.<br>TEC78832308                              |                           |
|   |  | Opt. Output Power for GPON Int. at OLT<br>G.984.2  | TEC ER No.<br>TEC78832308                              |                           |
|   |  | Opt. Output Power for GPON Int. at ONT<br>G.984.2  | TEC ER No.<br>TEC78832308                              |                           |
|   |  | Receiver Sensitivity for GPON Int. at OLT<br>G.984.2                                     | TEC ER No.<br>TEC78832308                              |                           |

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|---------|--|---|--|---------------------------|
|         | <b>Transmission Terminal Equipment-1</b> | <b>Interface: GPON</b>                        | Receiver Sensitivity for GPON Int. at ONT<br>G.984.2                             | TEC ER No.<br>TEC78832308 |
|         |  |   | Throughput for GPON Int. G.984.1, RFC 2544                                       | TEC ER No.<br>TEC78832308 |
|         |  | <b>Interface: 2 Wire</b>                      | Idle State Current for 2 wire Int. ETSI EN 300 001 ETSI TBR-21 Cl. 4.4.1 Annex D | TEC ER No.<br>TEC78832308 |
|         |  |   | Insulation Test for 2 wire Int. ETSI EN 300 001 Annex-D                          | TEC ER No.<br>TEC78832308 |
|         |  |   | Longitudinal Conversion Loss for 2W Int. Q.552 Cl. 2.2.2 Annex-D                 | TEC ER No.<br>TEC78832308 |
|         |  |   | Maximum Loop Current for 2W Int. ETSI EN 300 001 ETSI TBR-21, Cl.4.4.3 Annex-D   | TEC ER No.<br>TEC78832308 |
|         |  |   | Return Loss for 2W Int. Q.552 Cl. 2.2.1.2 Annex-D                                | TEC ER No.<br>TEC78832308 |
|         |  | <b>Interface: 1 G Optical Ethernet</b>        | Average Launch Power IEEE 802.3z Cl. 38 Annex-H                                  | TEC ER No.<br>TEC78832308 |
|         |  |   | Receiver Sensitivity IEEE 802.3z Cl. 38 Annex-H                                  | TEC ER No.<br>TEC78832308 |
|         |  |   | Wavelength IEEE 802.3z Cl. 38 Annex-H  | TEC ER No.<br>TEC78832308 |
|         |  | <b>Interface: 10/100/1000 BASE-T Ethernet</b> | Link Speed and Auto negotiation Test GE IEEE 802.3 Annex-H                       | TEC ER No.<br>TEC78832308 |

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|---------|--|--|---|------------------------|
|         | <b>Transmission Terminal Equipment-1</b> | <b>Interface: 10/100 BASE-T Ethernet</b> | Link Speed and Auto negotiation<br>Test FE IEEE 802.3<br>TEC ER No. TEC78832308   |                        |
|         |  | <b>Interface: 10 G Optical Ethernet</b>  | Average Launch Power<br>IEEE 802.3ae Cl. 52 Annex-H   | TEC ER No. TEC78832308 |
|         |  |  | Receiver Sensitivity<br>IEEE 802.3ae Cl. 52 Annex-H   | TEC ER No. TEC78832308 |
|         |  |  | Wavelength<br>IEEE 802.3ae Cl. 52 Annex-H   | TEC ER No. TEC78832308 |
|         |  | <b>Interface: ISDN PRI</b>               | Bit Rate Tolerance for PRI<br>ITU-T G.703 Clause no. 11.1 Annex-I   | TEC ER No. TEC78832308 |
|         |  |  | Pulse Mask<br>ITU-T G.703 Clause no. 11.2 Annex-I   | TEC ER No. TEC78832308 |
|         |  |  | Input Return Loss<br>ITU-T G.703 Clause no. 11.3 Annex-I  | TEC ER No. TEC78832308 |
|         |  |  | Output Jitter<br>ITU-T G.823 Clause no. 5.1 Annex-I   | TEC ER No. TEC78832308 |
|         |  |  | Input Jitter Tolerance<br>ITU-T G.823 Clause no. 7.1.2 Annex-I  | TEC ER No. TEC78832308 |
|         |  |  | Layer-III PRI Specification - Call Setup<br>ITU-T Q.931<br>Clause no.3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message<br>Annex-D1 | TEC ER No. TEC78832308 |

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|---------|--|-----------------------------------|---|--------------------------------|------------------------|
|         | <b>Transmission Terminal Equipment-1</b> | <b>Interface: ISDN PRI</b>        | Layer-III PRI Specification - Call Clearing<br>ITU-T Q.931<br>Clause no.3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1 | TEC ER No. TEC78832308         |                        |
|         |  | <b>Interface: 2 Mbps-E1</b>       | Input Jitter Tolerance  | ITU-T G.823 ETSI TBR-4 Annex-I | TEC ER No. TEC78832308 |
|         |  |                                   | Input Return Loss   | ITU-T G.703 Annex-I            | TEC ER No. TEC78832308 |
|         |  |                                   | Nominal Bit Rate with Tolerance   | ITU-T G.703 Annex-I            | TEC ER No. TEC78832308 |
|         |  |                                   | Output Jitter   | ITU-T G.823 Annex-I            | TEC ER No. TEC78832308 |
|         |  |                                   | Pulse Mask  | ITU-T G.703 Annex-I            | TEC ER No. TEC78832308 |
|         |  | <b>Interface: 34 Mbps-E3</b>      | Input Jitter Tolerance  | ITU-T G.823 Annex-I            | TEC ER No. TEC78832308 |
|         |  |                                   | Input Return Loss   | ITU-T G.703 Annex-I            | TEC ER No. TEC78832308 |
|         |  |                                   | Nominal Bit Rate with Tolerance   | ITU-T G.703 Annex-I            | TEC ER No. TEC78832308 |
|         |  |                                   | Output Jitter   | ITU-T G.823 Annex-I            | TEC ER No. TEC78832308 |
|         |  |                                   | Pulse Mask  | ITU-T G.703 Annex-I            | TEC ER No. TEC78832308 |
|         |  | <b>Interface: 45 Mbps</b>         | DC Power  | ITU-T G.703 Annex-I            | TEC ER No. TEC78832308 |

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|---------|--|------------------------------------|--|---------------------------|
|         | <b>Transmission Terminal Equipment-1</b> | <b>Interface: 45 Mbps</b>          | Input Jitter Tolerance<br>ITU-T G.824 Annex-I          | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Nominal Bit Rate with Tolerance<br>ITU-T G.703 Annex-I | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Output Jitter<br>ITU-T G.824 Annex-I                   | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Pulse Mask<br>ITU-T G.703 Annex-I                      | TEC ER No.<br>TEC78832308 |
|         |  | <b>Interface: STM-1 Electrical</b> | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Input Return Loss<br>ITU-T G.703 Annex-K               | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Nominal Bit Rate with Tolerance<br>ITU-T G.703 Annex-K | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Output Jitter<br>ITU-T G.825 Annex-K                   | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Pulse Mask<br>ITU-T G.703 Annex-K                      | TEC ER No.<br>TEC78832308 |
|         |  | <b>Interface: STM-1 Optical</b>    | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Mean Launched Power<br>ITU-T G.957 Annex-K             | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Operating Wavelength Range<br>ITU-T G.957 Annex-K      | TEC ER No.<br>TEC78832308 |
|         |  |                                    | Output Jitter<br>ITU-T G.783 Annex-K                   | TEC ER No.<br>TEC78832308 |

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|---------|--|--|--|---|
|         | <b>Transmission Terminal Equipment-1</b> | <b>Interface: STM-1 Optical</b>                        | Receiver Overload<br>ITU-T G.957 Annex-K               | TEC ER No.<br>TEC78832308                     |
|         |  |  | Receiver Sensitivity<br>ITU-T G.957 Annex-K            | TEC ER No.<br>TEC78832308                     |
|         |  | <b>Interface: STM-4 Optical</b>                        | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC78832308                     |
|         |  |  | Mean Launched Power<br>ITU-T G.957 Annex-K             | TEC ER No.<br>TEC78832308                     |
|         |  |  | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K | TEC ER No.<br>TEC78832308                     |
|         |  |  | Operating Wavelength Range<br>ITU-T G.957 Annex-K      | TEC ER No.<br>TEC78832308                     |
|         |  |  | Output Jitter<br>ITU-T G.783 Annex-K                   | TEC ER No.<br>TEC78832308                     |
|         |  |  | Receiver Overload<br>ITU-T G.957 Annex-K               | TEC ER No.<br>TEC78832308                     |
|         |  |  | Receiver Sensitivity<br>ITU-T G.957 Annex-K            | TEC ER No.<br>TEC78832308                     |
|         |  |  | <b>Interface: STM-16 Optical</b>                       | Input Jitter Tolerance<br>ITU-T G.825 Annex-K |
|         |  | Mean Launched Power<br>ITU-T G.957 Annex-K             |  | TEC ER No.<br>TEC78832308                     |
|         |  | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K |  | TEC ER No.<br>TEC78832308                     |
|         |  | Operating Wavelength Range<br>ITU-T G.957 Annex-K      |  | TEC ER No.<br>TEC78832308                     |
|         |  | Output Jitter<br>ITU-T G.783 Annex-K                   |  | TEC ER No.<br>TEC78832308                     |

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|---------|--|---|---|---|
|         | <b>Transmission Terminal Equipment-1</b> | <b>Interface: STM-16 Optical</b>                        | Receiver Overload<br>ITU-T G.957 Annex-K          | TEC ER No.<br>TEC78832308                         |
|         |  |   | Receiver Sensitivity<br>ITU-T G.957 Annex-K       | TEC ER No.<br>TEC78832308                         |
|         |  | <b>Interface: STM-64 Optical</b>                        | Input Jitter Tolerance<br>ITU-T G.825 Annex-K     | TEC ER No.<br>TEC78832308                         |
|         |  |   | Mean Launched Power<br>ITU-T G.691 Annex-K        | TEC ER No.<br>TEC78832308                         |
|         |  |   | Operating Wavelength Range<br>ITU-T G.691 Annex-K | TEC ER No.<br>TEC78832308                         |
|         |  |   | Output Jitter<br>ITU-T G.783 Annex-K              | TEC ER No.<br>TEC78832308                         |
|         |  |   | Receiver Overload<br>ITU-T G.691 Annex-K          | TEC ER No.<br>TEC78832308                         |
|         |  |   | Receiver Sensitivity<br>ITU-T G.691 Annex-K       | TEC ER No.<br>TEC78832308                         |
|         |  |   | <b>Interface: OTU-1</b>                           | Central Frequency<br>ITU-T G.959.1, G.693 Annex-L |
|         |  | Input Jitter Tolerance<br>ITU-T G.8251 Annex-L          |   | TEC ER No.<br>TEC78832308                         |
|         |  | Input Jitter Tolerance<br>ITU-T G.8251 Annex-L          |   | TEC ER No.<br>TEC78832308                         |
|         |  | Mean Total Input Power<br>ITU-T G.959.1, G.693 Annex-L  |   | TEC ER No.<br>TEC78832308                         |
|         |  | Mean Total Output Power<br>ITU-T G.959.1, G.693 Annex-L |   | TEC ER No.<br>TEC78832308                         |
|         |  | Nominal Bit Rate with Tolerance<br>ITU-T G.709 Annex-L  |   | TEC ER No.<br>TEC78832308                         |

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|--|--|-----------------------------------|---|--|
|  | <b>Transmission Terminal Equipment-1</b>           | <b>Interface: OTU-1</b>           | Output Jitter<br>ITU-T G.8251 Annex-L                   | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Receiver Sensitivity<br>ITU-T G.959.1, G.693 Annex-L    | TEC ER No.<br>TEC78832308                |
|  |  | <b>Interface: OTU-2</b>           | Central Frequency<br>ITU-T G.959.1, G.693 Annex-L       | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Input Jitter Tolerance<br>ITU-T G.8251 Annex-L          | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Mean Total Input Power<br>ITU-T G.959.1, G.693 Annex-L  | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Mean Total Output Power<br>ITU-T G.959.1, G.693 Annex-L | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Receiver Overload<br>ITU-T G.959.1, G.693 Annex-L       | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Nominal Bit Rate with Tolerance<br>ITU-T G.709 Annex-L  | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Output Jitter<br>ITU-T G.8251 Annex-L                   | TEC ER No.<br>TEC78832308                |
|  |  |                                   | Receiver Sensitivity<br>ITU-T G.959.1, G.693 Annex-L    | TEC ER No.<br>TEC78832308                |
|  |  |                                   | <b>4</b>  | <b>Transmission Terminal Equipment-2</b> |
| <b>Interface: 1 G Optical Ethernet</b> | Average Launch Power<br>IEEE 802.3z Cl. 38 Annex-H | TEC ER No.<br>TEC70122308         |   |  |
|  | Receiver Sensitivity<br>IEEE 802.3z Cl. 38 Annex-H | TEC ER No.<br>TEC70122308         |   |  |

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|---------|--|---|--|
|         | <b>Transmission Terminal Equipment-2</b> | <b>Interface: 1 G Optical Ethernet</b>        | Wavelength<br>IEEE 802.3z Cl. 38 Annex-H<br>TEC ER No. TEC70122308                         |
|         |  | <b>Interface: 10/100/1000 BASE-T Ethernet</b> | Link Speed and Auto negotiation Test<br>GE<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC70122308 |
|         |  | <b>Interface: 10/100 BASE-T Ethernet</b>      | Link Speed and Auto negotiation Test<br>FE<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC70122308 |
|         |  | <b>Interface: 10 G Optical Ethernet</b>       | Average Launch Power<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC70122308              |
|         |  |   | Receiver Sensitivity<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC70122308              |
|         |  |   | Wavelength<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC70122308                        |
|         |  | <b>Interface: 100 G Optical Ethernet</b>      | Average Launch Power<br>IEEE 802.3ba Cl. 86 88 Annex-H<br>TEC ER No. TEC70122308           |
|         |  |   | Receiver Sensitivity<br>IEEE 802.3ba Cl. 86 88 Annex-H<br>TEC ER No. TEC70122308           |
|         |  |   | Wavelength<br>IEEE 802.3ba Cl. 86 88 Annex-H<br>TEC ER No. TEC70122308                     |
|         |  | <b>Interface: 40 G Optical Ethernet</b>       | Average Launch Power<br>IEEE 802.3ba Cl. 86 87 Annex-H<br>TEC ER No. TEC70122308           |
|         |  |   | Receiver Sensitivity<br>IEEE 802.3ba Cl. 86 87 Annex-H<br>TEC ER No. TEC70122308           |
|         |  |   | Wavelength<br>IEEE 802.3ba Cl. 86 87 Annex-H<br>TEC ER No. TEC70122308                     |

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**SCOPE OF DESIGNATION**  
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|---------|--|---|---------------------------|
|         | <b>Transmission Terminal Equipment-2</b> | <b>Interface: ISDN PRI</b><br>Bit Rate Tolerance for PRI<br>ITU-T G.703 Clause no. 11.1 Annex-I   | TEC ER No.<br>TEC70122308 |
|         |  | Pulse Mask<br>ITU-T G.703 Clause no. 11.2 Annex-I   | TEC ER No.<br>TEC70122308 |
|         |  | Input Return Loss<br>ITU-T G.703 Clause no. 11.3 Annex-I  | TEC ER No.<br>TEC70122308 |
|         |  | Output Jitter<br>ITU-T G.823 Clause no. 5.1 Annex-I   | TEC ER No.<br>TEC70122308 |
|         |  | Input Jitter Tolerance<br>ITU-T G.823 Clause no. 7.1.2 Annex-I  | TEC ER No.<br>TEC70122308 |
|         |  | Layer-III PRI Specification - Call Setup<br>ITU-T Q.931 Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1    | TEC ER No.<br>TEC70122308 |
|         |  | Layer-III PRI Specification – Call Clearing<br>ITU-T Q.931 Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1 | TEC ER No.<br>TEC70122308 |

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| Sl. No. | Telecom Equipment/Product                | Test Parameter or Type of Testing  | Standard/Specification                                 |                           |
|---------|--|------------------------------------|--|---------------------------|
|         | <b>Transmission Terminal Equipment-2</b> | <b>Interface: STM-1 Electrical</b> | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Input Return Loss<br>ITU-T G.703 Annex-K               | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Nominal Bit Rate with Tolerance<br>ITU-T G.703 Annex-K | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Output Jitter<br>ITU-T G.825 Annex-K                   | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Pulse Mask<br>ITU-T G.703 Annex-K                      | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface: STM-1 Optical</b>    | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Mean Launched Power<br>ITU-T G.957 Annex-K             | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Operating Wavelength Range<br>ITU-T G.957 Annex-K      | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Output Jitter<br>ITU-T G.783 Annex-K                   | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Receiver Overload<br>ITU-T G.957 Annex-K               | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Receiver Sensitivity<br>ITU-T G.957 Annex-K            | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface: STM-4 Optical</b>    | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC70122308 |
|         |  |                                    | Mean Launched Power<br>ITU-T G.957 Annex-K             | TEC ER No.<br>TEC70122308 |

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|---------|--|-----------------------------------|--|---------------------------|
|         | <b>Transmission Terminal Equipment-2</b> | <b>Interface: STM-4 Optical</b>   | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Operating Wavelength Range<br>ITU-T G.957 Annex-K      | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Output Jitter<br>ITU-T G.783 Annex-K                   | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Receiver Overload<br>ITU-T G.957 Annex-K               | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Receiver Sensitivity<br>ITU-T G.957 Annex-K            | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface: STM-16 Optical</b>  | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Mean Launched Power<br>ITU-T G.957 Annex-K             | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Operating Wavelength Range<br>ITU-T G.957 Annex-K      | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Output Jitter<br>ITU-T G.783 Annex-K                   | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Receiver Overload<br>ITU-T G.957 Annex-K               | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Receiver Sensitivity<br>ITU-T G.957 Annex-K            | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface: STM-64 Optical</b>  | Input Jitter Tolerance<br>ITU-T G.825 Annex-K          | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Mean Launched Power<br>ITU-T G.691 Annex-K             | TEC ER No.<br>TEC70122308 |

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|---------|--|--|---|---------------------------|
|         | <b>Transmission Terminal Equipment-2</b> | <b>Interface:<br/>STM-64<br/>Optical</b> | Operating Wavelength Range<br>ITU-T G.691 Annex-K       | TEC ER No.<br>TEC70122308 |
|         |  |  | Output Jitter<br>ITU-T G.783 Annex-K                    | TEC ER No.<br>TEC70122308 |
|         |  |  | Receiver Overload<br>ITU-T G.691 Annex-K                | TEC ER No.<br>TEC70122308 |
|         |  |  | Receiver Sensitivity<br>ITU-T G.691 Annex-K             | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface:<br/>OTU-1</b>              | Central Frequency<br>ITU-T G.959.1, G.693 Annex-L       | TEC ER No.<br>TEC70122308 |
|         |  |  | Input Jitter Tolerance<br>ITU-T G.8251 Annex-L          | TEC ER No.<br>TEC70122308 |
|         |  |  | Input Jitter Tolerance<br>ITU-T G.8251 Annex-L          | TEC ER No.<br>TEC70122308 |
|         |  |  | Mean Total Input Power<br>ITU-T G.959.1, G.693 Annex-L  | TEC ER No.<br>TEC70122308 |
|         |  |  | Mean Total Output Power<br>ITU-T G.959.1, G.693 Annex-L | TEC ER No.<br>TEC70122308 |
|         |  |  | Nominal Bit Rate with Tolerance<br>ITU-T G.709 Annex-L  | TEC ER No.<br>TEC70122308 |
|         |  |  | Output Jitter<br>ITU-T G.8251 Annex-L                   | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface:<br/>OTU-2</b>              | Receiver Sensitivity<br>ITU-T G.959.1, G.693 Annex-L    | TEC ER No.<br>TEC70122308 |
|         |  |  | Central Frequency<br>ITU-T G.959.1, G.693 Annex-L       | TEC ER No.<br>TEC70122308 |
|         |  |  | Input Jitter Tolerance<br>ITU-T G.8251 Annex-L          | TEC ER No.<br>TEC70122308 |

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|---------|--|-----------------------------------|---|---------------------------|
|         | <b>Transmission Terminal Equipment-2</b> | <b>Interface: OTU-2</b>           | Mean Total Input Power<br>ITU-T G.959.1, G.693 Annex-L  | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Mean Total Output Power<br>ITU-T G.959.1, G.693 Annex-L | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Receiver Overload<br>ITU-T G.959.1, G.693 Annex-L       | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Nominal Bit Rate with Tolerance<br>ITU-T G.709 Annex-L  | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Output Jitter<br>ITU-T G.8251 Annex-L                   | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface: OTU-3</b>           | Central Frequency<br>ITU-T G.959.1, G.693 Annex-L       | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Mean Total Input Power<br>ITU-T G.959.1, G.693 Annex-L  | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Mean Total Output Power<br>ITU-T G.959.1, G.693 Annex-L | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Receiver Overload<br>ITU-T G.959.1, G.693 Annex-L       | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Nominal Bit Rate with Tolerance<br>ITU-T G.709 Annex-L  | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Receiver Sensitivity<br>ITU-T G.959.1, G.693 Annex-L    | TEC ER No.<br>TEC70122308 |
|         |  | <b>Interface: OTU-4</b>           | Central Frequency<br>ITU-T G.959.1, G.695 Annex-L       | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Mean Total Input Power<br>ITU-T G.959.1, G.695 Annex-L  | TEC ER No.<br>TEC70122308 |
|         |  |                                   | Mean Total Output Power<br>ITU-T G.959.1, G.695 Annex-L | TEC ER No.<br>TEC70122308 |

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|          | <b>Transmission Terminal Equipment-2</b>                 | <b>Interface: OTU-4</b><br>Nominal Bit Rate with Tolerance<br>ITU-T G.709 Annex-L   | TEC ER No.<br>TEC70122308 |
|          |  | Receiver Sensitivity<br>ITU-T G.959.1, G.695 Annex-L  | TEC ER No.<br>TEC70122308 |
| <b>5</b> | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Parameters Linked with Product Variants</b><br>Dual IP Layer Operation RFC 4213 – Address<br>RFC 4213 Cl. 2.1<br>(Conformance Testing) | TEC ER No.<br>TEC14762308 |
|          |  | Dual IP Layer Operation RFC 4213 – DNS<br>RFC 4213 Cl. 2.2<br>(Conformance Testing)   | TEC ER No.<br>TEC14762308 |
|          |  | IPV4 Parameters Set-A<br>RFC 791 Conformance Testing)   | TEC ER No.<br>TEC14762308 |
|          |  | IPV6 Extn. Header Parameters<br>RFC 2460 / RFC 8200<br>(Conformance Testing)  | TEC ER No.<br>TEC14762308 |
|          |  | IPV6 Header Parameters<br>RFC 2460 / RFC 8200<br>(Conformance Testing)  | TEC ER No.<br>TEC14762308 |
|          |  | MAC Address Limitation in PON<br>IEEE 802.3   | TEC ER No.<br>TEC14762308 |
|          |  | Password based authentication in<br>PON G.984.3   | TEC ER No.<br>TEC14762308 |
|          |  | DOS prevention SSHv1-2 for CLI in<br>PON<br>G.984.3   | TEC ER No.<br>TEC14762308 |
|          |  | MAC based 802.1x authentication in<br>PON<br>IEEE 802.1x  | TEC ER No.<br>TEC14762308 |

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|---------|--|--|--|---|
|         | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Parameters Linked with Product Variants</b>                             | Switch Fabric throughput capability OLT<br>G.984.1                                   | TEC ER No.<br>TEC14762308               |
|         |  |  | Throughput of PON<br>RFC 2544  | TEC ER No.<br>TEC14762308               |
|         |  |  | Frame loss of PON<br>RFC 2544  | TEC ER No.<br>TEC14762308               |
|         |  |  | Latency of PON<br>RFC 2544   | TEC ER No.<br>TEC14762308               |
|         |  |  | VLAN stacking to Network support at OLT<br>G.984.1 IEEE 802.1Q                       | TEC ER No.<br>TEC14762308               |
|         |  |  | MAC address learning and aging control<br>G.984.1                                    | TEC ER No.<br>TEC14762308               |
|         |  |  | MAC learning support at OLT<br>G.984.1   | TEC ER No.<br>TEC14762308               |
|         |  |  | Maximum Bandwidth Limiting/<br>Minimum Guaranteed Bandwidth in PON<br>G.984.3-200803 | TEC ER No.<br>TEC14762308               |
|         |  |  | Minimum two Classification in PON<br>G.984.3-200803                                  | TEC ER No.<br>TEC14762308               |
|         |  |  | Port ID based VLAN support at OLT<br>G.984.1 IEEE 802.1Q                             | TEC ER No.<br>TEC14762308               |
|         |  |  | <b>Interface: EPON</b>   | Line Test for EPON Int.<br>IEEE 802.3ah |
|         |  | Operating Wavelength in downstream direction for EPON Int.<br>IEEE 802.3ah |  | TEC ER No.<br>TEC14762308               |

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|---------|--|--|--|---|
|         | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Interface: EPON</b>   | Operating Wavelength in Upstream direction for EPON Int.<br>IEEE 802.3ah | TEC ER No.<br>TEC14762308               |
|         |  |  | Opt Output Power for EPON Int. at OLT<br>IEEE 802.3ah                    | TEC ER No.<br>TEC14762308               |
|         |  |  | Opt Output Power for EPON Int. at ONT<br>IEEE 802.3ah                    | TEC ER No.<br>TEC14762308               |
|         |  |  | Receiver Sensitivity for EPON Int. at OLT<br>IEEE 802.3ah                | TEC ER No.<br>TEC14762308               |
|         |  |  | Receiver Sensitivity for EPON Int. at ONT<br>IEEE 802.3ah                | TEC ER No.<br>TEC14762308               |
|         |  |  | Throughput for EPON Int.<br>RFC 2544                                     | TEC ER No.<br>TEC14762308               |
|         |  |  | <b>Interface: GPON</b>   | Line Test for GPON Int.<br>IEEE 802.3ah |
|         |  | Operating Wavelength in upstream direction for GPON Int.<br>ITU-T G.984.2, Cl. 8.2.5.2   |  | TEC ER No.<br>TEC14762308               |
|         |  | Operating Wavelength in Downstream direction for GPON Int.<br>ITU-T G.984.2, Cl. 8.2.5.1 |  | TEC ER No.<br>TEC14762308               |
|         |  | Opt Output Power for GPON Int. at OLT<br>G.984.2   |  | TEC ER No.<br>TEC14762308               |

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|---------|--|-----------------------------------|--|---------------------------|
|         | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Interface: GPON</b>            | Opt Output Power for GPON Int. at ONT<br>G.984.2                     | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Receiver Sensitivity for GPON Int. at OLT<br>G.984.2                 | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Receiver Sensitivity for GPON Int. at ONT<br>G.984.2                 | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Throughput for GPON Int. G.984.1, RFC 2544                           | TEC ER No.<br>TEC14762308 |
|         |  | <b>Interface: NGPON2</b>          | Line Test for NGPON2 Int. IEEE 802.3ah                               | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Operating Wavelength in downstream direction for NGPON2 Int. G.989.2 | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Operating Wavelength in Upstream direction for NGPON2 Int. G.989.2   | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Opt Output Power for NGPON2 Int. at OLT<br>G.989.2                   | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Opt Output Power for NGPON2 Int. at ONT<br>G.989.2                   | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Receiver Sensitivity for NGPON2 Int. at OLT<br>G.989.2               | TEC ER No.<br>TEC14762308 |
|         |  |                                   | Receiver Sensitivity for NGPON2 Int. at ONT<br>G.989.2               | TEC ER No.<br>TEC14762308 |

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**SCOPE OF DESIGNATION**  
**(ANNEXURE)**

**Laboratory Name: M/s Compliance International Telecom Laboratories**  
**(A unit of Compliance International Pvt. Ltd.)**  
**X-35, 3rd Floor, Okhla Phase-II, New Delhi-110 002**

**Certificate Number: TEC/MRA/CAB/IND-D/71**

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| Sl. No. | Telecom Equipment/Product                                | Test Parameter or Type of Testing | Standard/Specification   |                        |
|---------|--|-----------------------------------|--|------------------------|
|         | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Interface: NGPON2</b>          | Throughput for NGPON2 Int. G.989.2                                   | TEC ER No. TEC14762308 |
|         |  | <b>Interface: WDMPON</b>          | Line Test for WDMPON Int. IEEE 802.3ah                               | TEC ER No. TEC14762308 |
|         |  |                                   | Operating Wavelength in downstream direction for WDMPON Int. G.694.1 | TEC ER No. TEC14762308 |
|         |  |                                   | Operating Wavelength in upstream direction for WDMPON Int. G.694.1   | TEC ER No. TEC14762308 |
|         |  |                                   | Opt Output Power for WDM PON Int. at OLT G.694.1                     | TEC ER No. TEC14762308 |
|         |  |                                   | Opt Output Power for WDM PON Int. at ONT G.694.1                     | TEC ER No. TEC14762308 |
|         |  |                                   | Receiver Sensitivity for WDM PON Int. at OLT G.694.1                 | TEC ER No. TEC14762308 |
|         |  |                                   | Receiver Sensitivity for WDM PON Int. at ONT G.694.1                 | TEC ER No. TEC14762308 |
|         |  |                                   | Throughput for WDM PON Int. G.694.1, RFC 2544                        | TEC ER No. TEC14762308 |
|         |  | <b>Interface: XGPON</b>           | Line Test for XG PON Int. IEEE 802.3ah                               | TEC ER No. TEC14762308 |
|         |  |                                   | Operating Wavelength in downstream direction for XGPON Int. G.987.2  | TEC ER No. TEC14762308 |

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| Sl. No. | Telecom Equipment/Product                                | Test Parameter or Type of Testing | Standard/Specification  |                        |
|---------|--|-----------------------------------|---|------------------------|
|         | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Interface: XGPON</b>           | Operating Wavelength in upstream direction for XGPON Int. G.987.2     | TEC ER No. TEC14762308 |
|         |  |                                   | Opt Output Power for XGPON Int. at OLT G.987.2                        | TEC ER No. TEC14762308 |
|         |  |                                   | Opt Output Power for XGPON Int. at ONT G.987.2                        | TEC ER No. TEC14762308 |
|         |  |                                   | Receiver Sensitivity for GPON Int. at OLT G.987.2                     | TEC ER No. TEC14762308 |
|         |  |                                   | Receiver Sensitivity for XGPON Int. at ONT G.987.2                    | TEC ER No. TEC14762308 |
|         |  |                                   | Throughput for XGPON Int. G.987.1, RFC 2544                           | TEC ER No. TEC14762308 |
|         |  | <b>Interface: XGSPON</b>          | Line Test for XGSPON Int. IEEE 802.3ah                                | TEC ER No. TEC14762308 |
|         |  |                                   | Operating Wavelength in downstream direction for XGSPON Int. G.9807.1 | TEC ER No. TEC14762308 |
|         |  |                                   | Operating Wavelength in upstream direction for XGSPON Int. G.9807.1   | TEC ER No. TEC14762308 |
|         |  |                                   | Opt Output Power for XGSPON Int. at OLT G.9807.1                      | TEC ER No. TEC14762308 |

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| Sl. No. | Telecom Equipment/Product                                | Test Parameter or Type of Testing      | Standard/Specification   |                           |
|---------|--|--|--|---------------------------|
|         | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Interface: XGSPON</b>               | Opt Output Power for XGSPON Int. at ONT<br>G.9807.1                                    | TEC ER No.<br>TEC14762308 |
|         |  |  | Receiver Sensitivity for XGSPON Int. at OLT<br>G.9807.1                                | TEC ER No.<br>TEC14762308 |
|         |  |  | Receiver Sensitivity for XGSPON Int. at ONT<br>G.9807.1                                | TEC ER No.<br>TEC14762308 |
|         |  |  | Throughput for XGPON Int.<br>G9807.1, RFC 2544   | TEC ER No.<br>TEC14762308 |
|         |  | <b>Interface: 2 Wire</b>               | Idle State Current for 2 wire Int.<br>ETSI EN 300 001 ETSI TBR-21<br>Cl. 4.4.1 Annex D | TEC ER No.<br>TEC14762308 |
|         |  |  | Insulation Test for 2 wire Int.<br>ETSI EN 300 001 Annex-D                             | TEC ER No.<br>TEC14762308 |
|         |  |  | Longitudinal Conversion Loss for 2W Int.<br>Q.552 Cl. 2.2.2 Annex-D                    | TEC ER No.<br>TEC14762308 |
|         |  |  | Maximum Loop Current for 2W Int.<br>ETSI EN 300 001 ETSI TBR-21,<br>Cl.4.4.3 Annex-D   | TEC ER No.<br>TEC14762308 |
|         |  |  | Return Loss for 2W Int.<br>Q.552 Cl. 2.2.1.2 Annex-D                                   | TEC ER No.<br>TEC14762308 |
|         |  | <b>Interface: 1 G Optical Ethernet</b> | Average Launch Power IEEE 802.3z<br>Cl. 38 Annex-H                                     | TEC ER No.<br>TEC14762308 |
|         |  |  | Receiver Sensitivity<br>IEEE 802.3z Cl. 38 Annex-H                                     | TEC ER No.<br>TEC14762308 |

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|---------|--|---|--|
|         | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Interface: 1 G Optical Ethernet</b>        | Wavelength<br>IEEE 802.3z Cl. 38 Annex-H<br>TEC ER No. TEC14762308                         |
|         |  | <b>Interface: 10/100/1000 BASE-T Ethernet</b> | Link Speed and Auto negotiation Test<br>GE<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC14762308 |
|         |  | <b>Interface: 10/ 100 BASE-T Ethernet</b>     | Link Speed and Auto negotiation Test<br>FE<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC14762308 |
|         |  | <b>Interface: 10 BASE-T Ethernet</b>          | Link Speed<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC14762308                                 |
|         |  | <b>Interface: 10 G Optical Ethernet</b>       | Average Launch Power IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC14762308                 |
|         |  |   | Receiver Sensitivity<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC14762308              |
|         |  |   | Wavelength<br>IEEE 802.3ae Cl. 52 Annex-H<br>TEC ER No. TEC14762308                        |
|         |  | <b>Interface: 2 Mbps-E1</b>                   | Input Jitter Tolerance<br>ITU-T G.823 ETSI TBR-4 Annex-I<br>TEC ER No. TEC14762308         |
|         |  |   | Input Return Loss<br>ITU-T G.703 Annex-I<br>TEC ER No. TEC14762308                         |
|         |  |   | Nominal Bit Rate with Tolerance<br>ITU-T G.703 Annex-I<br>TEC ER No. TEC14762308           |
|         |  |   | Output Jitter<br>ITU-T G.823 Annex-I<br>TEC ER No. TEC14762308                             |

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|---------------|--|--|--|
|               | <b>PON Family of Broadband Equipment (ONT, ONU, OLT)</b> | <b>Interface: 2 Mbps-E1</b>  | Pulse Mask<br>ITU-T G.703 Annex-I<br>TEC ER No. TEC14762308                      |
|               |  | <b>Interface: STM-1 Optical</b>  | Input Jitter Tolerance<br>ITU-T G.825 Annex-K<br>TEC ER No. TEC14762308          |
|               |  |  | Mean Launched Power<br>ITU-T G.957 Annex-K<br>TEC ER No. TEC14762308             |
|               |  |  | Nominal Bit Rate with Tolerance<br>ITU-T G.957 Annex-K<br>TEC ER No. TEC14762308 |
|               |  |  | Operating Wavelength Range<br>ITU-T G.957 Annex-K<br>TEC ER No. TEC14762308      |
|               |  |  | Output Jitter<br>ITU-T G.783 Annex-K<br>TEC ER No. TEC14762308                   |
|               |  |  | Receiver Overload<br>ITU-T G.957 Annex-K<br>TEC ER No. TEC14762308               |
|               |  |  | Receiver Sensitivity<br>ITU-T G.957 Annex-K<br>TEC ER No. TEC14762308            |
| <b>6 PABX</b> | <b>Interface: Fast Ethernet Electrical</b>               | Link Speed and Auto negotiation Test FE<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC67292301      |  |
|               | <b>Interface: Gigabit Ethernet Electrical</b>            | Link Speed and Auto negotiation Test GE<br>IEEE 802.3 Annex-H<br>TEC ER No. TEC67292301      |  |
|               | <b>Interface: 2-Wire Trunk</b>                           | Current on Junction/ Trunk Line in PABX<br>ETSI EN 300 001 Annex-D<br>TEC ER No. TEC67292301 |  |
|               |  | DC Resistance<br>ETSI TBR-21 Clause 4.4.1 Annex-D<br>TEC ER No. TEC67292301                  |  |

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| Sl. No. | Telecom Equipment/Product | Test Parameter or Type of Testing  | Standard/Specification   |                           |
|---------|---------------------------|------------------------------------|--|---------------------------|
|         | <b>PABX</b>               | <b>Interface:<br/>2-Wire Trunk</b> | Longitudinal Conversion Loss for 2W Trunk Int.<br>Clause No. 2.2.2 & Figure-2 of ITU-T Q.552 Annex-D | TEC ER No.<br>TEC67292301 |
|         |                           |                                    | Resistance to Earth<br>Clause No. 4.4.4 of ETSI TBR-21 Annex-D                                       | TEC ER No.<br>TEC67292301 |
|         |                           |                                    | Return Loss for 2 W Trunk Int.<br>Clause No. 2.2.1.2 & Figure-1 of ITU-T Q.552 Annex-D               | TEC ER No.<br>TEC67292301 |
|         |                           |                                    | Transmission of DTMF Signalling<br>Clause 6 & 7 of ITU-T Q.23 Annex-D                                | TEC ER No.<br>TEC67292301 |
|         |                           | <b>Interface:<br/>ISDN PRI</b>     | Bit Rate Tolerance for PRI<br>ITU-T G.703 Clause no. 11.1 Annex-I                                    | TEC ER No.<br>TEC67292301 |
|         |                           |                                    | Pulse Mask<br>ITU-T G.703 Clause no. 11.2 Annex-I  | TEC ER No.<br>TEC67292301 |
|         |                           |                                    | Input Return Loss<br>ITU-T G.703 Clause no. 11.3 Annex-I   | TEC ER No.<br>TEC67292301 |
|         |                           |                                    | Output Jitter<br>ITU-T G.823 Clause no. 5.1 Annex-I  | TEC ER No.<br>TEC67292301 |
|         |                           |                                    | Input Jitter Tolerance<br>ITU-T G.823 Clause no. 7.1.2 Annex-I                                       |                           |
|         |                           |                                    |  |                           |

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| Sl. No.  | Telecom Equipment/Product               | Test Parameter or Type of Testing             | Standard/Specification  |                        |
|----------|---|---|---|------------------------|
|          | <b>PABX</b>                             | <b>Interface: ISDN PRI</b>                    | Layer-III PRI Specification - Call Setup<br>ITU-T Q.931 Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1    | TEC ER No. TEC67292301 |
|          |   |   | Layer-III PRI Specification – Call Clearing<br>ITU-T Q.931 Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1 | TEC ER No. TEC67292301 |
| <b>7</b> | <b>ISDN Customer Premises Equipment</b> | <b>Interface: Fast Ethernet Electrical</b>    | Link Speed and Auto negotiation Test FE<br>IEEE 802.3 Annex-H   | TEC ER No. TEC64732301 |
|          |   | <b>Interface: Gigabit Ethernet Electrical</b> | Link Speed and Auto negotiation Test GE<br>IEEE 802.3 Annex-H   | TEC ER No. TEC64732301 |
|          |   | <b>Interface: 2-Wire Trunk</b>                | Current on Junction/ Trunk Line in PABX<br>ETSI EN 300 001 Annex-D  | TEC ER No. TEC64732301 |
|          |   |   | DC Resistance<br>ETSI TBR-21 Clause 4.4.1 Annex-D   | TEC ER No. TEC64732301 |

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| Sl. No. | Telecom Equipment/Product               | Test Parameter or Type of Testing | Standard/Specification   |                        |
|---------|---|-----------------------------------|--|------------------------|
|         | <b>ISDN Customer Premises Equipment</b> | <b>Interface: 2-Wire Trunk</b>    | Longitudinal Conversion Loss for 2W Trunk Int.<br>Clause No. 2.2.2 & Figure-2 of ITU-T Q.552 Annex-D | TEC ER No. TEC64732301 |
|         |   |                                   | Resistance to Earth<br>Clause No. 4.4.4 of ETSI TBR-21 Annex-D                                       | TEC ER No. TEC64732301 |
|         |   |                                   | Return Loss for 2 W Trunk Int.<br>Clause No. 2.2.1.2 & Figure-1 of ITU-T Q.552 Annex-D               | TEC ER No. TEC64732301 |
|         |   |                                   | Transmission of DTMF Signalling<br>Clause 6 & 7 of ITU-T Q.23 Annex-D                                | TEC ER No. TEC64732301 |
|         |   | <b>Interface: ISDN PRI</b>        | Bit Rate Tolerance for PRI<br>ITU-T G.703 Clause no. 11.1 Annex-I                                    | TEC ER No. TEC64732301 |
|         |   |                                   | Pulse Mask<br>ITU-T G.703 Clause no. 11.2 Annex-I  | TEC ER No. TEC64732301 |
|         |   |                                   | Input Return Loss<br>ITU-T G.703 Clause no. 11.3 Annex-I   | TEC ER No. TEC64732301 |
|         |   |                                   | Output Jitter<br>ITU-T G.823 Clause no. 5.1 Annex-I  | TEC ER No. TEC64732301 |
|         |   |                                   | Input Jitter Tolerance<br>ITU-T G.823 Clause no. 7.1.2 Annex-I                                       | TEC ER No. TEC64732301 |
|         |   |                                   |  |                        |

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|----------|---|--|------------------------|
|          | <b>ISDN Customer Premises Equipment</b> | <b>Interface: ISDN PRI</b><br>Layer-III PRI Specification - Call Setup<br>ITU-T Q.931 Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1 | TEC ER No. TEC64732301 |
|          |   | Layer-III PRI Specification – Call Clearing<br>ITU-T Q.931 Clause No. 3.1.1, 3.1.2, 3.1.3, 3.1.14, 3.1.15, 3.1.5, 3.1.9, 3.1.10, 4.5.5, 4.5.8, 4.5.10, 4.5.13, Table 6-5 for all call clearing message Annex-D1                            | TEC ER No. TEC64732301 |
| <b>8</b> | <b>2-Wire Telephone Equipment</b>       | <b>Interface: 2 Wire</b><br>Idle State Current for 2 wire Int.<br>ETSI EN 300 001 ETSI TBR-21 Cl. 4.4.1 Annex D  | TEC ER No. TEC18352108 |
|          |   | Insulation Test for 2 wire Int.<br>ETSI EN 300 001 Annex-D   | TEC ER No. TEC18352108 |
|          |   | Longitudinal Conversion Loss for 2W Int.<br>Q.552 Cl. 2.2.2 Annex-D  | TEC ER No. TEC18352108 |
|          |   | Maximum Loop Current for 2W Int.<br>ETSI EN 300 001 ETSI TBR-21, Cl.4.4.3 Annex-D  | TEC ER No. TEC18352108 |
|          |   | Return Loss for 2W Int.<br>Q.552 Cl. 2.2.1.2 Annex-D   | TEC ER No. TEC18352108 |

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|----------------|----------------------------------|--|--|
| <b>9</b>       | <b>Conferencing Equipment</b>    | <b>Parameters Linked with Product Variant</b>  | Voice Conference Verification (Functional Test)<br>TEC ER No. TEC12662108                                  |
|                |                                  | <b>Interface: 2 Wire</b>   | Idle State Current for 2 wire Int. ETSI EN 300 001 ETSI TBR-21 Cl. 4.4.1 Annex D<br>TEC ER No. TEC12662108 |
|                |                                  |  | Insulation Test for 2 wire Int. ETSI EN 300 001 Annex-D<br>TEC ER No. TEC12662108                          |
|                |                                  |  | Longitudinal Conversion Loss for 2W Int. Q.552 Cl. 2.2.2 Annex-D<br>TEC ER No. TEC12662108                 |
|                |                                  |  | Maximum Loop Current for 2W Int. ETSI EN 300 001 ETSI TBR-21, Cl.4.4.3 Annex-D<br>TEC ER No. TEC12662108   |
|                |                                  |  | Return Loss for 2W Int. Q.552 Cl. 2.2.1.2 Annex-D<br>TEC ER No. TEC12662108                                |
| <b>10</b>      | <b>Cordless Telephone</b>        | <b>Interface: 2 Wire</b>   | Idle State Current for 2 wire Int. ETSI EN 300 001 ETSI TBR-21 Cl. 4.4.1 Annex D<br>TEC ER No. TEC12672301 |
|                |                                  | Insulation Test for 2 wire Int. ETSI EN 300 001 Annex-D<br>TEC ER No. TEC12672301                        |  |
|                |                                  | Longitudinal Conversion Loss for 2W Int. Q.552 Cl. 2.2.2 Annex-D<br>TEC ER No. TEC12672301               |  |
|                |                                  | Maximum Loop Current for 2W Int. ETSI EN 300 001 ETSI TBR-21, Cl.4.4.3 Annex-D<br>TEC ER No. TEC12672301 |  |

**\*The validity of Certificate is up to 22/02/2027 or the continued validity of NABL Accreditation, whichever is earlier.**

**GOVERNMENT OF INDIA**  
**MINISTRY OF COMMUNICATIONS**  
**DEPARTMENT OF TELECOMMUNICATIONS**  
**TELECOMMUNICATION ENGINEERING CENTRE**  
Gate No. 5, Khurshid Lal Bhawan, Janpath, New Delhi - 110 001



**SCOPE OF DESIGNATION**  
**(ANNEXURE)**

**Laboratory Name: M/s Compliance International Telecom Laboratories**  
**(A unit of Compliance International Pvt. Ltd.)**  
**X-35, 3rd Floor, Okhla Phase-II, New Delhi-110 002**

**Certificate Number: TEC/MRA/CAB/IND-D/71**

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**Validity: 23/02/2024 to 22/02/2027**

**Last Amended on: ----**

| Sl. No.   | Telecom Equipment/Product | Test Parameter or Type of Testing             | Standard/Specification  |
|-----------|---------------------------|---|---|
|           | <b>Cordless Telephone</b> | <b>Interface: 2 Wire</b>                      | Return Loss for 2W Int. Q.552 Cl. 2.2.1.2 Annex-D<br>TEC ER No. TEC12672301 |
| <b>11</b> | <b>Feedback device</b>    | <b>Parameters Linked with Product Variant</b> | IPv6 as per RFC 2460 / RFC 8200<br>TEC ER No. TEC23232106                   |
|           |                           |   | IPv6 Dual Stack as per RFC 4213<br>TEC ER No. TEC23232106                   |

**AD (CA), TEC**

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