



### 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 CRITERION NETWORK LABS, BENGALURU

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

### UNIT #3 GROUND FLOOR EXPLORER BUILDING INTERNATIONAL, TECH PARK WHITEFIELD KARNATAKA, BENGALURU- 560066

#### In the field of Testing

Certificate No. TEC/MRA/CAB/IND-D/66

Issue Date: 01/12/2023 Validity: 02/12/2023 to 01/12/2026

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)

Signed for and on behalf of TEC

Vijay Dixit Director (CA) For Designating Authority TEC

# Ccertificate No: TEC/MRA/CAB/IND-D/66 dated 01/12/2023 issued to M/S Criterion Network Labs, Bengaluru Unit #3 Ground Floor Explorer Building International, Tech Park Whitefield Karnataka, Bengaluru- 560066



Validity: - 02/12/2023 to 01/12/2026

#### **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.

<sup>\*</sup>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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Standard/

Gate No. 5, Khurshid Lal Bhawan, Janpath, New Delhi - 110 001

# SCOPE OF DESIGNATION (ANNEXURE)

Laboratory Name: M/s Criterion Network Labs, Bengaluru

Unit #3 Ground Floor Explorer Building International, Tech Park Whitefield Karnataka, Bengaluru- 560066

Certificate Number: TEC/MRA/CAB/IND-D/66 Page 1 of 9

**Test Parameter or Type of Testing** 

No.	Equipment/ Product			Specification
1.	Router (IPv4, IPv6, MPLS, BNG/BRAS Router)	Parameters Linked with Product Variants	Dynamic Routing Annex-P11 (Functional Testing) IPv4 Parameters RFC 791 (Conformance Testing) IPv6 Complete Suite RFC 2460 or 8200, RFC 4861, RFC 4862, RFC 1981, RFC 4443 (Conformance Testing) BGP for IPv6 RFC 2545 (Conformance Testing) BGP4 and MBGP RFC 4271, RFC 4760 (Conformance Testing) LDP as per RFC 5036 (Conformance Testing) Manageability SNMP v2 or SNMP v3 RFC 3410, RFC 3416 (Functional Testing) OSPF v2 RFC 2328	TEC ER No. TEC37682308 TEC ER No. TEC37682308 TEC ER No. TEC37682308  TEC ER No. TEC37682308  TEC ER No. TEC37682308  TEC ER No. TEC37682308  TEC ER No. TEC37682308  TEC ER No. TEC37682308
			(Conformance Testing) OSPF v3 RFC 2740 (Conformance Testing)	TEC ER No. TEC37682308

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Laboratory Name: M/s Criterion Network Labs, Bengaluru

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Certificate Number: TEC/MRA/CAB/IND-D/66 Page 2 of 9

Test Parameter or Type of Testing

No.	Equipment/ Product	Test I arameter (	Specification Sp	
	Router (IPv4, IPv6, MPLS,	Parameters Linked with	Static Routing Annex-P11	TEC ER No. TEC37682308
]	BNG/BRAS Router)	Product Variants	TCP Parameters RFC 793 (Conformance Testing)	TEC ER No. TEC37682308
			PPPoE RFC 2516 (Functional Testing)	TEC ER No. TEC37682308
			Radius RFC 2865 (Functional Testing)	TEC ER No. TEC37682308
		Interface: 10/100/1000 BASE-T Ethernet	Link Speed and Auto negotiation Test FE IEEE 802.3	TEC ER No. TEC37682308
		Interface: 10/100 BASE-T Ethernet	Link Speed and Auto negotiation Test FE IEEE 802.3	TEC ER No. TEC37682308
		Interface: 10/100/1000 BASE-T Ethernet	Link Speed and Auto negotiation Test GE IEEE 802.3	TEC ER No. TEC37682308
		Interface: 1G Optical Ethernet	Average Launch Power, IEEE 802.3z Cl. 38	TEC ER No. TEC37682308
		Ethernet	Receiver Sensitivity, IEEE 802.3z Cl. 38	TEC ER No. TEC37682308
			Wavelength IEEE 802.3z Cl. 38	TEC ER No. TEC37682308

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Sl. No.	Telecom Equipment/ Product	Test Parameter (	Test Parameter or Type of Testing	
	Router (IPv4, IPv6, MPLS, BNG/BRAS Router)	Interface: 10 G Optical Ethernet	Average Launch Power, IEEE 802.3ae Cl. 52  Receiver Sensitivity, IEEE 802.3ae Cl. 52  Wavelength IEEE 802.3ae Cl. 52	TEC ER No. TEC37682308  TEC ER No. TEC37682308  TEC ER No. TEC37682308
		Interface: 25 G Optical Ethernet	Average Launch Power IEEE 802.3 -2018 Cl. 114  Receiver Sensitivity IEEE 802.3 -2018 Cl. 114  Wavelength IEEE 802.3 -2018 Cl. 114	TEC ER No. TEC37682308  TEC ER No. TEC37682308  TEC ER No. TEC37682308
	C	Interface: 50 G Optical Ethernet	Average Launch Power IEEE 802.3cn Cl.139  Receiver Sensitivity IEEE 802.3cn Cl.139  Wavelength IEEE 802.3cn Cl.139	TEC ER No. TEC37682308  TEC ER No. TEC37682308  TEC ER No. TEC37682308
		Interface: 200 G Optical Ethernet	Average Launch Power IEEE 802.3cn Cl.121, 122 Receiver Sensitivity IEEE 802.3cn Cl.121, 122	TEC ER No. TEC37682308 TEC ER No. TEC37682308

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Sl. No.	Telecom Equipment/ Product	Test Parameter of	or Type of Testing	Standard/ Specification
	Router (IPv4, IPv6, MPLS,	Interface: 200 G Optical Ethernet	Wavelength IEEE 802.3cn Cl.121, 122	TEC ER No. TEC37682308
	BNG/BRAS Router)	Interface: 400 G Optical Ethernet	IEEE 802.3cn Cl.122, 124	TEC ER No. TEC37682308
		Ethernet	Receiver Sensitivity IEEE 802.3cn Cl.122, 124	TEC ER No. TEC37682308
			Wavelength IEEE 802.3cn Cl.122, 124	TEC ER No. TEC37682308
		Interface: Fast Ethernet	Average Launch Power IEEE 802.3u Cl.58	TEC ER No. TEC37682308
		Optical	Receiver Sensitivity IEEE 802.3u Cl.58	TEC ER No. TEC37682308
			Wavelength IEEE 802.3u Cl.58	TEC ER No. TEC37682308
2.	IP Security Equipment (UTM, IPS,	Equipment Linked with	UTM URL Content & Anti- Virus Filtering Annex-P11	TEC ER No. TEC 34732305
	IDS, Firewall Equipment)	Variant	IDS Functional Test Annex-P11	TEC ER No. TEC 34732305
			IPS Functional Test Annex-P11	TEC ER No. TEC 34732305

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Sl. No.	Telecom Equipment/ Product	V1 0		Standard/ Specification
	IP Security Equipment (UTM, IPS, IDS, Firewall Equipment)	Parameters Linked with Product Variant	IPsec Functional Test Annex-P11  IPv4 Parameters RFC 791 (Conformance Testing)  IPv6 RFC 2460 or 8200, RFC 4861, RFC 4862, RFC 1981, RFC 4443 (Conformance Testing)	TEC ER No. TEC 34732305  TEC ER No. TEC 34732305  TEC ER No. TEC 34732305
			Manageability SNMP v2 or SNMP v3 RFC 3410, RFC 3416 (Functional Testing) Policy Functional Test Annex-P11 NAT Functional Test	TEC ER No. TEC 34732305  TEC ER No. TEC 34732305  TEC ER No.
		Interface:1 G Optical Ethernet	Annex-P11  Average Launch Power, IEEE 802.3z Cl. 38  Receiver Sensitivity, IEEE 802.3z Cl. 38  Wavelength	TEC 34732305 TEC ER No. TEC 34732305 TEC ER No. TEC 34732305 TEC ER No.
		Interface: 10/100/1000 BASE-T Ethernet	Link Speed and Auto negotiation Test GE IEEE 802.3	TEC ER No. TEC 34732305 TEC ER No. TEC 34732305

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**Test Parameter or Type of Testing** 

No.	Equipment/ Product		VI 0	Specification
	IP Security Equipment (UTM, IPS,	Interface: 10/100 BASE-T Ethernet	Link Speed and Auto negotiation Test FE IEEE 802.3	TEC ER No. TEC 34732305
	IDS, Firewall Equipment)	Interface: 10 G Optical Ethernet	Average Launch Power IEEE 802.3ae Cl. 52	TEC ER No. TEC 34732305
		Difference	Receiver Sensitivity IEEE 802.3ae Cl. 52	TEC ER No. TEC 34732305
			Wavelength IEEE 802.3ae Cl. 52	TEC ER No. TEC 34732305
3.	PON Family of Broadband Equipment (ONT, ONU,	Parameters Linked with Product Variant	Dual IP Layer Operation RFC 4213 - Address RFC 4213 Cl. 2.1 (Conformance Testing)	TEC ER No. TEC 14762308
	OLT)		Dual IP Layer Operation RFC 4213 - DNS RFC 4213 Cl. 2.2 (Conformance Testing)	TEC ER No. TEC 14762308
			IPv6 Extn. Header Parameters RFC 2460 / RFC 8200 (Conformance Testing)	TEC ER No. TEC 14762308
			IPv6 Header Parameters RFC 2460 / RFC 8200 (Conformance Testing)	TEC ER No. TEC 14762308

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Sl. No.	Telecom Equipment/ Product	J1		Standard/ Specification
	PON Family of Broadband Equipment (ONT, ONU, OLT)	Interface:1G Optical Ethernet	Average Launch Power IEEE 802.3z Cl. 38  Receiver Sensitivity IEEE 802.3z Cl. 38  Wavelength IEEE 802.3z Cl. 38	TEC ER No. TEC 14762308 TEC ER No. TEC 14762308 TEC ER No. TEC 14762308
		Interface: 10/100/1000 BASE-T Ethernet	Link Speed and Auto negotiation Test GE IEEE 802.3	TEC ER No. TEC 14762308
		Interface: 10/100 BASE-T Ethernet	Link Speed and Auto negotiation Test FE IEEE 802.3	TEC ER No. TEC 14762308
		Interface: 10G Optical Ethernet	Average Launch Power, IEEE 802.3ae Cl. 52	TEC ER No. TEC 14762308
		Difference	Receiver Sensitivity, IEEE 802.3ae Cl. 52	TEC ER No. TEC 14762308
			Wavelength IEEE 802.3ae Cl. 52	TEC ER No. TEC 14762308
4.	LAN Switch	MAC Learning an Cl 3.1, Cl 8.2 (ix)	nd Packet Forwarding	TEC/GR/IT/LSW- 001/05.MAR.2014
		Spanning Tree Pro IEEE 802.1d	otocol	TEC/GR/IT/LSW- 001/05.MAR.2014

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Sl. No.	Telecom Equipment/ Product  Infiniband Switch	Test Paramete	st Parameter or Type of Testing	
5.		Parameters Linked with Product Variant	Subnet Manager Annex-P11 Appendix-II Test No. 44	TEC ER No. TEC30012304
6.	Session Border Controller	Parameters Linked with Product Variant	UDP Parameters RFC 768, Annex-P5 SIP Parameters Set-C RFC 3261, Annex-P1	TEC ER No. TEC67222301 TEC ER No. TEC67222301
			SCTP Parameters Set-B RFC 4960, Annex-P9 RTCP Parameters RFC 3551 Set-B (RFC 3551, Annex-P3) RTP Parameters RFC 3550 Set-C RFC 3550. Annex-P2	TEC ER No. TEC67222301 TEC ER No. TEC67222301 TEC ER No. TEC67222301
7.	IP Terminal	Parameters Linked with Product Variant	RTCP Parameters RFC 3551 Set-A, Annex-P3  RTP Parameters RFC 3550 Set-A, Annex-P2  SIP Parameters Set-A RFC 3261, Annex-P1	TEC ER No. TEC 67472003  TEC ER No. TEC 67472003  TEC ER No. TEC 67472003
8.	Private Automatic Branch Exchange	Parameters Linked with Product Variant	DTMF Parameters Set-C RFC 4733, Annex-P8 RTP Parameters RFC 3550 Set-A, Annex-P2	TEC ER No. TEC67292301 TEC ER No. TEC67292301

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Certificate Number: TEC/MRA/CAB/IND-D/66 Page 9 of 9

Last Amended on: ----Validity: 02/12/2023 to 01/12/2026

Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification	
	Private Automatic Branch Exchange	Parameters Linked with Product Variant	SIP Parameters Set-A RFC 3261, Annex-P1 UDP Parameters RFC 768, Annex-P5	TEC ER No. TEC67292301 TEC ER No. TEC67292301	
9.	Softswitch	Parameters Linked with Product Variant	DTMF Parameters Set-B RFC 4733, Annex-P8 SCTP Parameters Set-B RFC 4960, Annex-P9 SIP Parameters Set-D RFC 3261, Annex-P1 UDP Parameters RFC 768, Annex-P5	TEC ER No. TEC67792301 TEC ER No. TEC67792301 TEC ER No. TEC67792301 TEC ER No. TEC67792301	
10.	Media Gateway	Parameters Linked with Product Variant	RTP Parameters RFC 3550 Set-B, Annex-P2 DTMF Parameters Set-A RFC 4733, Annex-P8 SCTP Parameters Set-A RFC 4960, Annex-P9 SIP Parameters Set-B RFC 3261, Annex-P1 UDP Parameters RFC 768, Annex-P5	TEC ER No. TEC66492308	

AD (CA), TEC

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