



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

CERTIFICATE OF DESIGNATION

M/S UL INDIA PRIVATE LIMITED, BENGALURU
has been assessed and designated as Conformity Assessment Body (CAB)

for its facilities at

**30/A, I STAGE, VISHVESHWARYA INDUSTRIAL ESTATE, DODDANEKKUNDI,
INDUSTRIAL AREA, BENGALURU - 560 048**

In the field of Testing

Certificate No. TEC/MRA/CAB/IND-D/59-II


Issue Date: 28/10/2020

Valid Until: 27/10/2023

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


28/10/2020
Kamal Bhagat
Deputy Director General (MRA)
For Designating Authority
TEC

SCOPE OF DESIGNATION

Laboratory Name: M/s UL India Private Limited,
30/A, I Stage, Vishveshwarya Industrial Estate, Doddanekkundi,
Industrial Area, Bengaluru - 560 048

Certificate Number: TEC/MRA/CAB/IND-D/59-II

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Validity: 28/10/2020 to 27/10/2023*

Last Amended on: ____

Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
1.	EMI/EMC Testing of Telecommunication Equipment	Conducted Emission Test CISPR 32 (Edition 2.0) (2015-03)/ EN 55032:2015	TEC/SD/DD/EMC-221/05/OCT-16
		Conducted Emission Test CISPR 11: 2015	TEC/SD/DD/EMC-221/05/OCT-16
		Radiated Emission Test CISPR 32 (Edition 2.0) (2015-03)/ EN 55032:2015	TEC/SD/DD/EMC-221/05/OCT-16
		Radiated Emission Test CISPR 11 (Edition 6.2) (2019-01)	TEC/SD/DD/EMC-221/05/OCT-16
		Electrostatic Discharge Immunity Test IEC 61000-4-2(Edition2.0):(2008-12)/ EN 61000-4-2: 2009	TEC/SD/DD/EMC-221/05/OCT-16
		Radiated Radio Frequency Electromagnetic Field Immunity Test IEC 61000-4-3 (Edition 3.2) Consol. with Amd. 1 & 2 (2010-04) / EN 61000-4-3:2006 Amd. 2 :2010	TEC/SD/DD/EMC-221/05/OCT-16
		Electrical Fast Transient (EFT)/ Burst Immunity Test IEC 61000-4-4(Edition 3.0):(2012-04) / EN 61000-4-4 : 2012	TEC/SD/DD/EMC-221/05/OCT-16

Director (MRA), TEC

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[Signature]
28/10/2020
AD (MRA), TEC

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
	EMI/EMC Testing of Telecommunication Equipment	Surge Immunity Test IEC 61000-4-5:2014/AMD1:2017 (Ed 3.1) / EN 61000-4-5: 2014	TEC/SD/DD/EMC-221/05/OCT-16
		Conducted RF Immunity Test IEC 61000-4-6 (Edition 4.0):(2013-10) /EN 61000-4-6: 2014	TEC/SD/DD/EMC-221/05/OCT-16
		Voltage Dips, Short Interruption & Voltage Variations Immunity Test IEC61000-4-11(2nd Edition):(2004-03) IEC 61000-4-11 (2.1 Edition): (2017-05)/ EN 61000-4-11: 2004	TEC/SD/DD/EMC-221/05/OCT-16
		Voltage Dips, Short Interruptions and Voltage variations on DC Input Power Port Immunity Tests IEC 61000-4-29:Ed 01, 2000-08/ EN 61000-4-29: 2000-11	TEC/SD/DD/EMC-221/05/OCT-16
2.	Equipment Operating in 2.4 GHz and 5 GHz Frequency Bands	RF Output Power (Clause 4.3.1.2/4.3.2.2)	ETSI EN 300 328 V2.1.1 (2016-11)
		Power Spectral Density (Clause 4.3.2.3)	ETSI EN 300 328 V2.1.1 (2016-11)
		Duty cycle, Tx-Sequence Tx-gap Clause 4.3.1.3/4.3.2.4)	ETSI EN 300 328 V2.1.1 (2016-11)

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Sl. No.	Telecom Equipment/Product	Test Parameter or Type of Testing	Standard/ Specification
	Equipment Operating in 2.4 GHz and 5 GHz Frequency Bands	Accumulated transmit time, Frequency Occupation & Hopping Sequence (Clause 4.3.1.4)	ETSI EN 300 328 V2.1.1 (2016-11)
		Hopping Frequency Separation (Clause 4.3.1.5)	ETSI EN 300 328 V2.1.1 (2016-11)
		Medium Utilization (Clause 4.3.1.6/4.3.2.5)	ETSI EN 300 328 V2.1.1 (2016-11)
		Adaptivity (Clause 4.3.1.7/4.3.2.6)	ETSI EN 300 328 V2.1.1 (2016-11)
		Occupied Channel Bandwidth (Clause 4.3.1.8/4.3.2.7)	ETSI EN 300 328 V2.1.1 (2016-11)
		Transmitter Unwanted Emissions in the OOB domain (Clause 4.3.1.9/4.3.2.8)	ETSI EN 300 328 V2.1.1 (2016-11)
		Transmitter Unwanted Emissions in the Spurious Domain – Conducted and Radiated (Clause 4.3.1.10/4.3.2.9)	ETSI EN 300 328 V2.1.1 (2016-11)
		Receiver Spurious Emission – Conducted and Radiated (Clause 4.3.1.11/4.3.2.10)	ETSI EN 300 328 V2.1.1 (2016-11)

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Sl. No.	Telecom Equipment/Product	Test Parameter or Type of Testing	Standard/ Specification
	Equipment Operating in 2.4 GHz and 5 GHz Frequency Bands	Receiver Blocking (Clause 4.3.1.12/4.3.2.11)	ETSI EN 300 328 V2.1.1 (2016-11)
		Maximum Conducted Output Power (Clause 15.247(b))	FCC Part 15 Subpart C
		Power Spectral Density [Clause 15.247(e)]	FCC Part 15 Subpart C
		6 dB Bandwidth & 99% Occupied Channel Bandwidth [Clause 15.247(a)(2)]	FCC Part 15 Subpart C
		Band Edge Compliance (Emissions in the Non-Restricted Frequency Band) and Conducted Spurious Emission [Clause 15.247(d)]	FCC Part 15 Subpart C
		Radiated Emission, Transmitter Spurious Emission, Receiver Spurious Emission, Unwanted Emissions [Clause 15.209,15.205]	FCC Part 15 Subpart C
		Bandwidth Occupancy (20dB Bandwidth) [Clause 15.247(a)(1)/15.215(c)]	FCC Part 15 Subpart C

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
	Equipment Operating in 2.4 GHz and 5 GHz Frequency Bands	Number of Hopping Channel [Clause 15.247 (a)(1)]	FCC Part 15 Subpart C
		Carrier Frequency Separation [Clause 15.247(a)(1)]	FCC Part 15 Subpart C
		Time of Occupancy [Clause 15.247(a)(1)]	FCC Part 15 Subpart C
		Carrier Frequencies (Clause 4.2.1)	ETSI EN 301 893 V2.1.1 (2017-05)
		Nominal and Occupied Channel Bandwidth (Clause 4.2.2)	ETSI EN 301 893 V2.1.1 (2017-05)
		RF Output Power Transmit Power Control (TPC) Power Density (Clause 4.2.3)	ETSI EN 301 893 V2.1.1 (2017-05)
		Transmitter Unwanted Emissions within the 5 GHz RLAN bands (Clause 4.2.4.2)	ETSI EN 301 893 V2.1.1 (2017-05)
		Transmitter Unwanted Emissions outside the 5 GHz RLAN bands – Conducted and Radiated (Clause 4.2.4.1)	ETSI EN 301 893 V2.1.1 (2017-05)

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Sl. No.	Telecom Equipment/Product	Test Parameter or Type of Testing	Standard/ Specification
	Equipment Operating in 2.4 GHz and 5 GHz Frequency Bands	Receiver Spurious Emission-Conducted and Radiated (Clause 4.2.5)	ETSI EN 301 893 V2.1.1 (2017-05)
		Adaptivity (Clause 4.2.7)	ETSI EN 301 893 V2.1.1 (2017-05)
		Dynamic Frequency Selection (DFS) (Clause 4.2.6)	ETSI EN 301 893 V2.1.1 (2017-05)
		Receiver Blocking (Clause 4.2.8)	ETSI EN 301 893 V2.1.1 (2017-05)
		Maximum Conducted Output Power [Clause 15.407(a)]	FCC Part 15 Subpart E
		6 dB Bandwidth & 99% Occupied Channel Bandwidth [Clause 15.407(a)]	FCC Part 15 Subpart E
		Maximum Power Spectral Density [Clause 15.407(a)]	FCC Part 15 Subpart E
		Band Edge Compliance (Emissions in the Non-Restricted Frequency Band) and Conducted Spurious Emission [Clause 15.407(b)]	FCC Part 15 Subpart E
		Emission Bandwidth (X dB Bandwidth) [Clause 15.407(a)]	FCC Part 15 Subpart E

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Industrial Area, Bengaluru - 560 048

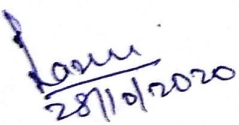
Certificate Number: TEC/MRA/CAB/IND-D/59-II

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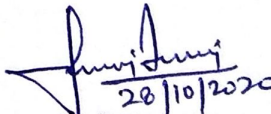
Validity: 28/10/2020 to 27/10/2023*

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
	Equipment Operating in 2.4 GHz and 5 GHz Frequency Bands	Dynamic Frequency Selection [Clause 15.407(h)]	FCC Part 15 Subpart E
		Radiated Emission, Transmitter Spurious Emission, Receiver Spurious Emission, Unwanted Emissions [Clause 15.209 & 15.407(b)]	FCC Part 15 Subpart E
		Designation of Centre Frequencies & Frequency Error (Clause 4.2.1)	ETSI EN 302 502 V2.1.1 (2017-03)
		Transmitter RF Output Power, EIRP, TPC and EIRP Spectral Density (Clause 4.2.2 & 4.2.4)	ETSI EN 302 502 V2.1.1 (2017-03)
		Transmitter Unwanted Emissions within the 5725MHz to 5875MHz Band (Clause 4.2.3.2)	ETSI EN 302 502 V2.1.1 (2017-03)
		Transmitter Unwanted Emissions outside the 5 GHz RLAN Bands – Conducted & Radiated (Clause 4.2.3.1)	ETSI EN 302 502 V2.1.1 (2017-03)
		Receiver Spurious Emission – Conducted & Radiated (Clause 4.2.5)	ETSI EN 302 502 V2.1.1 (2017-03)


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AD (MRA), TEC

Annexure-I **Certificate No: TEC/MRA/CAB/IND-D/59-II dated 28/10/2020 issued to ISO 9001:2015**
M/s UL India Private Limited,
30/A, I Stage, Vishveshwarya Industrial Estate, Doddanekkundi, Industrial
Area, Bengaluru- 560048

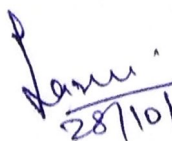
Terms & Conditions

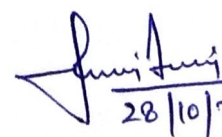
This certificate is issued as per the terms and conditions stipulated in the TEC SCHEME FOR DESIGNATING DOMESTIC CONFORMITY ASSESEMENT BODIES AND CERTIFICATION BODIES FOR CONFORMITY ASSESEMENT AND CERTIFICATION OF TELECOMMUNICATION EQUIPMENT ISSUE 2 NO. TEC/DES-01/02.DEC.2017.

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.
9. It shall notify the DA in writing of occurrence of any of the following incident(s) within 2 weeks of its occurrence


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- 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

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

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

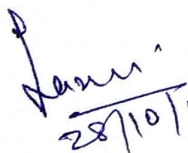
As and when required, DA shall conduct surveillance assessments and other non-routine assessments on the Designated CABs to ensure that standards of practices are maintained as well as to investigate complaints made against them.

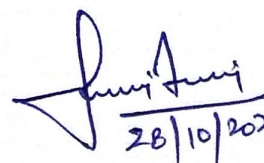
D. SUSPENSION OR WITHDRAWAL OF DESIGNATION

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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