



Gate No. 5, Khurshid Lal Bhawan, Janpath, New Delhi-110001

#### **CERTIFICATE OF DESIGNATION**

M/s Nemko India (Test Lab) Private Limited, Faridabad

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

Plot No. 193, Sector-68, IMT Faridabad-121 004
In the field of Testing

Certificate No. TEC/MRA/CAB/IND-D/19-II

Issue Date: 30/09/2022

Validity: 30/09/2022 to 29/09/2025

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

Nitin Jain Deputy Director General (CA) For Designating Authority

TEC

## Certificate No: TEC/MRA/CAB/IND-D/19-II dated 30/09/2022 issued to M/s Nemko India (Test Lab) Private Limited, Faridabad Plot No. 193, Sector-68, IMT Faridabad-121004



Validity: - 30/09/2022 to 29/09/2025

#### **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.

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<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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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

Sl. Telecom

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

Test Parameter or Type of Testing

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Validity: 30/09/2022 to 29/09/2025

Last Amended on: ----

Standard/

No.	31		Specification	
1.	EMI/EMC Testing of Telecom Equipment	Radiated Susceptibility Test IEC 61000-4-3:2020  Radiated Emission Test CISPR 32:2015+A1:2019	TEC/SD/DD/EMC- 221/05/OCT-16 & ER Parameters TEC/SD/DD/EMC- 221/05/OCT-16 & ER	
		CISPR 14-1:2020 CISPR 11:2015+A1:2016+A2:2019	Parameters	
2.	Audio/Video, Information	Fixing Conductors Clause 4.6	IEC 62368-1:2018	
	and Communication Technology Equipment-	Equipment for direct insertion into mains socket outlets Clause 4.7	IEC 62368-1:2018	
	Part-1: Safety Requirement	Stress Relief Test Clause 4.8.4.2	IEC 62368-1:2018	
		Battery Replacement Test Clause 4.8.4.3	IEC 62368-1:2018	
		Drop Test Clause 4.8.4.4	IEC 62368-1:2018	

bk/drys Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

Test Parameter or Type of Testing

Laboratory Name:

Sl. Telecom

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Validity: 30/09/2022 to 29/09/2025

Last Amended on: ----

Standard/

No.	Equipment/ Product	Test Parameter or Type of Testing	Specification
Y	Audio/Video, Information	Impact Test Clause 4.8.4.5	IEC 62368-1:2018
	and Communication Technology	Crush Test Clause 4.8.4.6	IEC 62368-1:2018
	Equipment- Part-1: Safety	Compliance Criteria Clause 4.8.5	IEC 62368-1:2018
	Requirement	Accessibility to Electrical Energy Sources and Safeguards Clause 5.3.2	IEC 62368-1:2018
		Maximum Operating Temperature (Temperature Measurement) Clause 5.4.1.4	IEC 62368-1:2018
		Pollution Degrees Clause 5.4.1.5	IEC 62368-1:2018
		RMS Working Voltage Clause 5.4.1.8.2	IEC 62368-1:2018
		Vicat Test Clause 5.4.1.10.2	IEC 62368-1:2018

Director (CA), TEC

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M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Validity: 30/09/2022 to 29/09/2025

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
	Audio/Video, Information and Communication Technology Equipment- Part-1: Safety	Ball Pressure Test Clause 5.4.1.10.3 Clearances	IEC 62368-1:2018 IEC 62368-1:2018
		Clause 5.4.2 Creepage Distances Clause 5.4.3	IEC 62368-1:2018
	Requirement	Antenna Terminal Insulation Clause 5.4.5 Insulation of Internal wire as a part of a	IEC 62368-1:2018 IEC 62368-1:2018
		Supplementary Safeguard Clause 5.4.6 Tests for Semiconductor Components and for Cemented Joints	IEC 62368-1:2018
		Clause 5.4.7 Human Conditioning Clause 5.4.8	IEC 62368-1:2018
		Electric Strength Test Clause 5.4.9	IEC 62368-1:2018

Jok/my Director (CA), TEC

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Validity: 30/09/2022 to 29/09/2025

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
	Audio/Video, Information and Communication Technology Equipment- Part-1: Safety Requirement	Safeguards against Transient Voltages from External Circuits Clause 5.4.10 Impulse Test Clause 5.4.10.2.2 Steady State Test Clause 5.4.10.2.3 Separation between External Circuits and	IEC 62368-1:2018  IEC 62368-1:2018  IEC 62368-1:2018
		Earth Clause 5.4.11 Capacitor Discharge Clause 5.5.2.2	IEC 62368-1:2018
		Resistance of the Protective Bonding System Clause 5.6.6	IEC 62368-1:2018
		Prospective Tough Voltage, Touch Current and Protective Conductor Current Clause 5.7	IEC 62368-1:2018

Skory Director (CA), TEC

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Sl. Telecom No. Equipment/ Product		Test Parameter or Type of Testing	Standard/ Specification
	Audio/Video, Information and Communication Technology	Power Source Circuit Clause 6.2.2 Classification of Potential Ignition Sources Clause 6.2.3	IEC 62368-1:2018 IEC 62368-1:2018
	Equipment- Part-1: Safety Requirement	Safeguards against Fire under Normal Operating Conditions and Abnormal Operating Conditions Clause 6.3 Safeguards against Fire under Single Fault	IEC 62368-1:2018 IEC 62368-1:2018
		Conditions Clause 6.4  Separation of Combustile Materials from a PIS Clause 6.4.7	IEC 62368-1:2018
		Equipment having an Electromechanical Device for Destruction of Media Clause 8.5.4.3 Static Stability Clause 8.6.2	IEC 62368-1:2018 IEC 62368-1:2018

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Sl. No.	Telecom Equipment/	Test Parameter or Type of Testing	Standard/ Specification
140.	Product		Эросин
	Audio/Video,	Glass Slide Test	IEC 62368-1:2018
	Information	Clause 8.6.4	
	and	Horizontal Force test and Compliance	IEC 62368-1:2018
	Communication	Criteria	
	Technology Equipment-	Clause 8.6.5	
	Part-1: Safety	Equipment mounted to a Wall, Ceiling	IEC 62368-1:2018
	Requirement	Clause 8.7	
		Handle Strength	IEC 62368-1:2018
		Clause 8.8	
-		Cart, Stand or Carrier Loading Test and	IEC 62368-1:2018
		Compliance Criteria	
		Clause 8.10.3	
		Mechanical Stability	IEC 62368-1:2018
		Clause 8.10.5	
		Wheels or Castors Attachment Requirement	IEC 62368-1:2018
		Clause 8.9	
		Thermoplastic Temperature Stability	IEC 62368-1:2018
		Clause 8.10.6	

/&\lambda{khys\_ Director (CA), TEC

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Standard/

e of Testing	Specification
	A
mits	IEC 62368-1:2018
	the Proof
1 1	IEC 62368-1:2018
Operating Conditions	IEC 62368-1:2018
78	
t Conditions	IEC 62368-1:2018
	2000 1.2010
e of Markings	IEC 62368-1:2018
on	IEC 62368-1:2018
d Boards	IEC 62368-1:2018
Ringing Signals	IEC 62368-1:2018
a to the state of the state of	IEC 62368-1:2018

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
	Audio/Video, Information and	Steady Force Test Annex T.2 Steady Force Test	IEC 62368-1:2018 IEC 62368-1:2018
	Communication Technology Equipment- Part-1: Safety	Annex T.3 Steady Force Test,100N Annex T.4	IEC 62368-1:2018
	Requirement	Steady Force Test Annex T.5	IEC 62368-1:2018
		Enclosure Impact Test Annex T.6	IEC 62368-1:2018 IEC 62368-1:2018
		Drop Test Annex T.7 Stress Relief Test	IEC 62368-1:2018
		Annex T.8	
		Glass Impact Test Annex T.9	IEC 62368-1:2018

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**Laboratory Name:** 

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Test Parameter or Type of Testing

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Standard/

SI. No.			Specification	
3.	Equipment's Operating in	Receiver Spurious Emission (Conducted) Clause 4.3.1.11 or 4.3.2.10	ETSI EN 300 328 V2.2.2	
	2.4 GHz and 5 GHz Band	Transmitter Unwanted Emission in the Spurious Domain (Conducted) Clause 4.3.1.10 or 4.3.2.9	ETSI EN 300 328 V2.2.2	
		Receiver Spurious Emission (Conducted) Clause 4.2.5	ETSI EN 301 893 V2.1.1	
		Transmitter Unwanted Emission outside the 5GHz RLAN Bands (Conducted) Clause 4.2.4.1	ETSI EN 301 893 V2.1.1	
			Receiver Spurious Emission (Conducted) Clause 4.2.5	ETSI EN 302 502 V2.1.1
		Transmitter unwanted (Conducted) Clause 4.2.3	ETSI EN 302 502 V2.1.1	
			Band Edge Clause 15.407(b)	FCC CFR 47 Part 15 Subpart C
		Carrier Frequency Separation Clause 15.247(a)	FCC CFR 47 Part 15 Subpart C	
		Emission Bandwidth Clause 15.247(a)	FCC CFR 47 Part 15 Subpart C	

Director (CA), TEC

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Validity: 30/09/2022 to 29/09/2025

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification
			150 15
	Equipment's	Emissions in Restricted Bands/Spurious	FCC CFR 47 Part 15
	Operating in	Emission (Conducted)	Subpart C
	2.4 GHz and	Clause 15.247(d)	
	5 GHz Band	Hopping Frequencies	FCC CFR 47 Part 15
		Clause 15.247(a),(g)	Subpart C
		Peak Output Power	FCC CFR 47 Part 15
		Clause 15.247(b),15.247(c),15.247(a)	Subpart C
		Peak Power Spectral Density	FCC CFR 47 Part 15
		Clause 15.247(e)	Subpart C
		Time of Channel Occupancy	FCC CFR 47 Part 15
		Clause 15.247(f)	Subpart C
		User information and MPE Calculations	FCC CFR 47 Part 15
		Clause 15.247(c),15.247 (h) & (i)	Subpart C
		Band Edge	FCC CFR 47 Part 15
		Clause 15.407(b)	Subpart E
		DFS Channel Availability Check at the	FCC CFR 47 Part 15
		beginning and at the end of the Radar	Subpart E
	The state of the s	Bursts.	
		Clause 15.407(h)	

Akbyr Director (CA), TEC

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Plot No. 193, Sector-68, IMT Faridabad-121004.

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Validity: 30/09/2022 to 29/09/2025

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Sl. Telecom No. Equipment/ Product		Test Parameter or Type of Testing	Standard/ Specification
	Product		
	Equipment's Operating in 2.4 GHz and 5 GHz Band	DFS in Service Monitoring for Channel Move Time, Channel Closing Transmission Time and Non Occupancy Period Clause 15.407(h)	FCC CFR 47 Part 15 Subpart E
		DFS Statistical Performance Check Clause 15.407(h)  DFS UNII Detection Bandwidth	FCC CFR 47 Part 15 Subpart E FCC CFR 47 Part 15
		Clause 15.407(h)  Emissions in the Restricted Bands/Spurious Emission (Conducted) Clause. 15.407(b)	Subpart E FCC CFR 47 Part 15 Subpart E
		Frequency Error Clause 15.407(g)	FCC CFR 47 Part 15 Subpart E
		MPE Calculations Clause 15.407(f)	FCC CFR 47 Part 15 Subpart E
		Occupied Channel Bandwidth Clause 15.407(e)	FCC CFR 47 Part 15 Subpart E

Director (CA), TEC

AD (CA), TEC

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification	
	Equipment's Operating in 2.4 GHz and 5 GHz Band	Power Spectral Density Clause 15.407(a)  RF Output Power Clause 15.407(a)  User Information Clause 15.407(c)  Antenna Requirement Clause 15.203		FCC CFR 47 Part 15 Subpart E  FCC CFR 47 Part 15 Subpart C  FCC CFR 47 Part 15 Subpart C  FCC CFR 47 Part 15	
				Subpart C	
4.	HF Radio	Parameters linked with Product Variant	Blocking and Spurious Response Rejection ETSI EN 300 433 V2.1.1 Clause 8.5	TEC ER No. TEC54372108	
			Receiver Adjacent Channel Selectivity ETSI EN 300 433 V2.1.1 Clause 8.2	TEC ER No. TEC54372108	

Jeway Director (CA), TEC

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification	
	HF Radio	Parameters	Receiver Inter-	TEC ER No.	
		linked with	Modulation Response	TEC54372108	
		Product	Rejection		
		Variant	ETSI EN 300 433 V2.1.1		
			Clause 8.3		
			Receiver Maximum	TEC ER No.	
			Useable Sensitivity	TEC54372108	
			ETSI EN 300 433 V2.1.1		
		A 2 1 1 1	Clause 8.1		
			Receiver Spurious	TEC ER No.	
			Radiations (Conducted)	TEC54372108	
			ETSI EN 300 433 V2.1.1	h.	
			Clause 8.4		
			Transmitter Adjacent	TEC ER No.	
			and Alternate Channel	TEC54372108	
			Power		
			ETSI EN 300 433 V2.1.1		
			Clause 7.4		

Strongs Director (CA), TEC AD (CA), TEC

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**Test Parameter or Type of Testing** 

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Last Amended on: ----

Standard/

Specification

No.	Product			Specification
	HF Radio	Parameters	Transmitter Frequency	TEC ER No.
	1	link with	Error	TEC54372108
		Product	ETSI EN 300 433 V2.1.1	
		Variant	Clause 7.1	
	1 6		Transmitter Maximum	TEC ER No.
		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Permissible Frequency	TEC54372108
	and a second		Deviation	
			ETSI EN 300 433 V2.1.1	
			Clause 7.3	
			Transmitter Power	TEC ER No.
			(Conducted)	TEC54372108
			ETSI EN 300 433 V2.1.1	
			Clause 7.2	
		a Care of the A		
			Transmitter Transient	TEC ER No.
			Frequency Behaviour	TEC54372108
			ETSI EN 300 433 V2.1.1	

Director (CA), TEC

AD (CA), TEC

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Clause 7.6



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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification
	HF Radio	Parameters	Transmitter Unwanted	TEC ER No.
		link with	Emission in the Spurious	TEC54372108
		Product	Domain	
		Variant	ETSI EN 300 433 V2.1.1	
			Clause 7.5	

Pro	oduct	Domain	
Va	riant	ETSI EN 300 433 V2.1.1	
		Clause 7.5	
		Adjacent Channel	TEC ER No.
		selectivity	TEC54372108
		ETSI EN 300 783 V2.1.1	
		Clause 6.2	
		Conducted RF Immunity	TEC ER No.
		ETSI EN 300 783 V2.1.1	TEC54372108
		Clause 6.3	
		Maximum Transmitter	TEC ER No.
		Power	TEC54372108
		ETSI EN 300 783 V2.1.1	
		Clause 5.1	
		Maximum Usable	TEC ER No.
		Sensitivity	TEC54372108
		ETSI EN 300 783 V2.1.1	
		Clause 6.1	

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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

### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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**Telecom** 

No. | Equipment/

Last Amended on: ----

**Specification** 

Standard/

	Product		*	<b>Бреспісасіон</b>
	HF Radio	Parameters link with Product Variant	Spurious Radiations (Conducted) ETSI EN 300 783 V2.1.1 Clause 5.3	TEC ER No. TEC54372108
			Unwanted Emissions in the Spurious Domain (Conducted) ETSI EN 300 783 V2.1.1 Clause 5.2	TEC ER No. TEC54372108
5.	Mobile Radio Trunking System	Parameters link with Product Variant	Receiver Adjacent Channel Selectivity ETSI EN 300 086 V2.1.2 Clause 8.4 Receiver Blocking or Desensitization ETSI EN 300 086 V2.1.2 Clause 8.7	TEC ER No. TEC56782108  TEC ER No. TEC56782108
			Caudo 0.7	

SWMys Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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

### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Telecom

Last Amended on: ----

Standard/

No.	Equipment/ Product			Specification
	Mobile Radio Trunking System	Parameters link with Product Variant	Receiver Co-Channel Rejection ETSI EN 300 086 V2.1.2 Clause 8.3 Receiver Desensitization	TEC ER No. TEC56782108 TEC ER No.
			(with Simultaneous Transmission and Reception) ETSI EN 300 086 V2.1.2 Clause 9.1	TEC56782108
			Receiver Inter- Modulation Response Rejection ETSI EN 300 086 V2.1.2 Clause 8.6	TEC ER No. TEC56782108
			Receiver Maximum Useable Sensitivity ETSI EN 300 086 V2.1.2 Clause 8.1	TEC ER No. TEC56782108

Director (CA), TEC

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Sl. No.	Telecom Equipment/ Product	Test Parameter	or Type of Testing	Standard/ Specification
	Mobile Pedie	Darameters	Receiver Spurious	TEC ER No

Mobile Radio	Parameters	Receiver Spurious	TEC ER No.
Trunking	link with	Radiations (Conducted)	TEC56782108
System	Product	ETSI EN 300 086 V2.1.2	
	Variant	Clause 8.8	1
	Varialit	Receiver Spurious	TEC ER No.
		Response Rejection (with	TEC56782108
		Simultaneous	
1 2		Transmission and	
	8 9 2 2 2	Reception)	
		ETSI EN 300 086 V2.1.2	_
	10° ml	Clause 9.2	
		Receiver Spurious	TEC ER No.
	Test Section 1	Response Rejection	TEC56782108
		ETSI EN 300 086 V2.1.2	A 1
		Clause 8.5	
	4 1 1 1 1 1 1 1	Transmitter Adjacent and	TEC ER No.
	A PART OF THE REAL PROPERTY.	Alternate Channel Power	TEC56782108
		ETSI EN 300 086 V2.1.2	
		Clause 7.5	
		Transmitter Frequency	TEC ER No.
		Deviation	TEC56782108
		ETSI EN 300 086 V2.1.2	
		Clause 7.4	

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

### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Last Amended on: ----

Sl.	Telecom	Test Parameter or Type of Testing	Standard/
No.	Equipment/		Specification
	Product		19 91 10

Mobile Radio Trunking System	Parameters link with Product Variant	Transmitter Frequency Error ETSI EN 300 086 V2.1.2 Clause 7.1	TEC ER No. TEC56782108
	Y an ant	Transmitter Intermodulation Attenuation ETSI EN 300 086 V2.1.2 Clause 7.7	TEC ER No. TEC56782108
		Transmitter Power (Conducted) ETSI EN 300 086 V2.1.2 Clause 7.2	TEC ER No. TEC56782108
		Transmitter Unwanted Emissions in the Spurious Domain (Conducted)	TEC ER No. TEC56782108
		ETSI EN 300 086 V2.1.2 Clause 7.6 Receiver Adjacent Channel Selectivity ETSI EN 300 219 V2.1.1 Clause 9.5	TEC ER No. TEC56782108

Director (CA), TEC

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### SCOPE OF DESIGNATION (ANNEXURE)

**Test Parameter or Type of Testing** 

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Telecom

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Last Amended on: ----

Standard/

No.	Equipment/ Product	Test Farancies	of Type of Testing	Specification
	Mobile Radio Trunking System	Parameters link with Product Variant	Receiver Blocking or Desensitization ETSI EN 300 219 V2.1.1 Clause 9.8	TEC ER No. TEC56782108
		, aran	Receiver co-Channel Rejection ETSI EN 300 219 V2.1.1 Clause 9.4	TEC ER No. TEC56782108
			Receiver Desensitization (with Simultaneous Transmission and Reception) ETSI EN 300 219 V2.1.1 Clause 10.1	TEC ER No. TEC56782108
			Receiver Inter- Modulation Response Rejection ETSI EN 300 219 V2.1.1 Clause 9.7	TEC ER No. TEC56782108

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

SI.

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

**Test Parameter or Type of Testing** 

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Telecom

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Standard/

No.	Equipment/ Product			Specification
	Mobile Radio	Parameters link	Receiver Maximum	TEC ER No.
	Trunking System	with Product	Useable Sensitivity,	TEC56782108
		Variant	(responses) ETSI EN 300 219 V2.1.1 Clause 9.2	
		1 1 1 1 1 1 1	Receiver Spurious	TEC ER No.
			Radiations (Conducted) ETSI EN 300 219 V2.1.1	TEC56782108
			Clause 9.9	TEGED N
			Receiver Spurious	TEC ER No.
			Response Rejection (with Simultaneous Transmission and	TEC56782108
-11			Reception)	
			ETSI EN 300 219 V2.1.1	
			Clause 10.2	
			Receiver Spurious	TEC ER No.
			Response Rejection ETSI EN 300 219 V2.1.1	TEC56782108

Skings Director (CA), TEC AD (CA), TEC

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Clause 9.6



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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SI. No.	Telecom Equipment/ Product			Standard/ Specification	
	Mobile Radio	Parameters	Transmitter Adjacent and	TEC ER No.	

Mobile Radio	Parameters	Transmitter Adjacent and	TEC ER No.
Trunking System	link with Product	Alternate Channel Power ETSI EN 300 219 V2.1.1 Clause 8.4	TEC56782108
	Variant	Transmitter Attack Time ETSI EN 300 219 V2.1.1 Clause 8.7	TEC ER No. TEC56782108
		Transmitter Carrier Power, Conducted ETSI EN 300 219 V2.1.1 Clause 8.2	TEC ER No. TEC56782108
		Transmitter Frequency Error ETSI EN 300 219 V2.1.1 Clause 8.1	TEC ER No. TEC56782108
		Transmitter Intermodulation Attenuation ETSI EN 300 219 V2.1.1 Clause 8.6	TEC ER No. TEC56782108
		Transmitter Release Time ETSI EN 300 219 V2.1.1 Clause 8.8	

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

**Test Parameter or Type of Testing** 

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**Telecom** 

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Standard/

Equipment/ Product			Specification
Mobile Radio Trunking System	Parameters link with Product Variant	Transmitter Spurious Emissions (Conducted) ETSI EN 300 219 V2.1.1 Clause 8.5 Transmitter Transient	TEC ER No. TEC56782108 TEC ER No.
		Frequency Behaviour ETSI EN 300 219 V2.1.1 Clause 8.9	TEC56782108
		Receiver Adjacent Channel Selectivity ETSI EN 301 166 V2.1.1 Clause 8.5	TEC ER No. TEC56782108
		Receiver Blocking or Desensitization ETSI EN 301 166 V2.1.1 Clause 8.8	TEC ER No. TEC56782108
		Receiver Co-Channel Rejection ETSI EN 301 166 V2.1.1 Clause 8.10	TEC ER No. TEC56782108
	Product  Mobile Radio Trunking	Mobile Radio Trunking link with System Product	Mobile Radio Trunking System Product Variant  Transmitter Spurious Emissions (Conducted) ETSI EN 300 219 V2.1.1 Clause 8.5 Transmitter Transient Frequency Behaviour ETSI EN 300 219 V2.1.1 Clause 8.9 Receiver Adjacent Channel Selectivity ETSI EN 301 166 V2.1.1 Clause 8.5 Receiver Blocking or Desensitization ETSI EN 301 166 V2.1.1 Clause 8.8 Receiver Co-Channel Rejection ETSI EN 301 166 V2.1.1

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

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

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**Test Parameter or Type of Testing** 

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Telecom

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Last Amended on: ----

Standard/

No.	Equipment/ Product		- Jpc or Lorenza	Specification
	Mobile Radio Trunking System	Parameters link with Product Variant	Receiver Desensitization (with Simultaneous Transmission and Reception) ETSI EN 301 166 V2.1.1 Clause 9.1	TEC ER No. TEC56782108
			Receiver Inter- Modulation Response Rejection ETSI EN 301 166 V2.1.1 Clause 8.7	TEC ER No. TEC56782108
			Receiver Maximum Useable Sensitivity (Analogue, Conducted) ETSI EN 301 166 V2.1.1 Clause 8.1	TEC ER No. TEC56782108
			Receiver Maximum Useable Sensitivity (Digital, Conducted) ETSI EN 301 166 V2.1.1 Clause 8.3	TEC ER No. TEC56782108

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Last Amended on: ----

No.   Eq	quipment/	Specification
Pre	roduct	

Mobile Radio Trunking System	Parameters link with Product Variant	Receiver Spurious Radiations (Conducted) ETSI EN 301 166 V2.1.1 Clause 8.9	TEC ER No. TEC56782108
		Receiver Spurious Response Rejection (with Simultaneous Transmission and Reception) ETSI EN 301 166 V2.1.1	TEC ER No. TEC56782108
		Clause 9.2  Receiver Spurious Response Rejection ETSI EN 301 166 V2.1.1 Clause. 8.6	TEC ER No. TEC56782108
		Transmitter Adjacent and Alternate Channel Power ETSI EN 301 166 V2.1.1 Clause 7.3	TEC56782108
		Transmitter Frequency Error ETSI EN 301 166 V2.1.1 Clause 7.7	TEC ER No. TEC56782108

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### SCOPE OF DESIGNATION (ANNEXURE)

Laboratory Name:

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing	Standard/ Specification	
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Mobile Radio	Parameters	Transmitter	TEC ER No.
Trunking	link with	Intermodulation	TEC56782108
System	Product Variant	Attenuation ETSI EN 301 166 V2.1.1 Clause 7.5	
		Transmitter Maximum Power (PX) Conducted ETSI EN 301 166 V2.1.1 Clause 7.1	TEC ER No. TEC56782108
		Transmitter Time Out Timer ETSI EN 301 166 V2.1.1 Clause 7.8	TEC ER No. TEC56782108
		Transmitter Transient Power ETSI EN 301 166 V2.1.1 Clause 7.6	TEC ER No. TEC56782108
		Transmitter Unwanted Emissions in the Spurious Domain (Conducted) ETSI EN 301 166 V2.1.1 Clause 7.4	TEC ER No. TEC56782108

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification	
	Mobile Radio	Parameters	Adjacent and Alternate	TEC ER No.	
	Trunking	link with	Channel Power	TFC56782108	

Mobile Radio	<b>Parameters</b>	Adjacent and Alternate	TEC ER No.
Trunking	link with	Channel Power	TEC56782108
System	Product	ETSI EN 301 113 V2.1.1	
	Variant	Clause 7.4	
The state of the s	Variant	Adjacent Channel	TEC ER No.
	gent and a transfer	Selectivity	TEC56782108
		ETSI EN 301 113 V2.1.1	
	-	Clause 8.6	
		Blocking or	TEC ER No.
	( n = 1, n = 1	Desensitization	TEC56782108
		ETSI EN 301 113 V2.1.1	
		Clause 8.9	- 12° - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
		Co-Channel Rejection	TEC ER No.
		ETSI EN 301 113 V2.1.1	TEC56782108
		Clause 8.5	a
		Error Behaviour at High	TEC ER No.
de la constanta de la constant		Inputs Levels	TEC56782108
		ETSI EN 301 113 V2.1.1	
		Clause 8.4	
		Frequency Error	TEC ER No.
		ETSI EN 301 113 V2.1.1	TEC56782108
		Clause 7.1	

Director (CA), TEC

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

SI.

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

**Test Parameter or Type of Testing** 

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Standard/

Specification

No.	Product			Specification
	Mobile Radio Trunking System	Parameters link with Product Variant	Intermodulation Attenuation ETSI EN 301 113 V2.1.1 Clause 7.6 Intermodulation Response Rejection ETSI EN 301 113 V2.1.1 Clause 8.8  Level of the Wanted Signal for the Degradation Measurements ETSI EN 301 113 V2.1.1	TEC ER No. TEC56782108  TEC ER No. TEC56782108  TEC ER No. TEC56782108
			Clause 8.3  Maximum Usable Sensitivity (Conducted) ETSI EN 301 113 V2.1.1 Clause 8.1	TEC ER No. TEC56782108

Sking Director (CA), TEC

AD (CA), TEC

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### SCOPE OF DESIGNATION (ANNEXURE)

**Test Parameter or Type of Testing** 

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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**Telecom** 

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Standard/

No.	Equipment/ Product			Specification
	Mobile Radio Trunking System	Parameters link with Product Variant	Receiver Desensitization (with Simultaneous Transmission and Reception) ETSI EN 301 113 V2.1.1 Clause 9.1	TEC ER No. TEC56782108
			Receiver Spurious Radiations (Conducted) ETSI EN 301 113 V2.1.1 Clause 8.10	TEC ER No. TEC56782108
			Receiver Spurious Response Rejection (with Simultaneous Transmission and Reception) ETSI EN 301 113 V2.1.1	TEC ER No. TEC56782108
			Clause 9.2 Spurious Response Rejection ETSI EN 301 113 V2.1.1	TEC ER No. TEC56782108

Johnson (CA), TEC

AD (CA), TEC

Clause 8.7

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Last Amended on: ----

Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification
	Mobile Radio Trunking	Parameters link with	Transient Behaviour of the Transmitter	TEC ER No. TEC56782108

	Mobile Radio	Parameters	Translent Benaviour of	TEC ER No.
	Trunking	link with	the Transmitter	TEC56782108
	System	Product	ETSI EN 301 113 V2.1.1	
		Variant	Clause 7.9	
		Variant	Transmitter Attack Time	TEC ER No.
	III To the	7 70 70 70	ETSI EN 301 113 V2.1.1	TEC56782108
			Cl. 7.7	\
			Transmitter Power	TEC ER No.
			(Conducted)	TEC56782108
		* * *	ETSI EN 301 113 V2.1.1	
			Clause 7.2	
			Transmitter Release	TEC ER No.
			Time	TEC56782108
			ETSI EN 301 113 V2.1.1	
	and the second second		Clause 7.8	
le me			Unwanted Emissions in	TEC ER No.
			the Spurious Domain	TEC56782108
			(Conducted)	
			ETSI EN 301 113 V2.1.1	, and a second s
			Clause 7.5	

SWrys Director (CA), TEC مران (CA), TEC

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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Plot No. 193, Sector-68, IMT Faridabad-121004.

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Sl. No.	Telecom Equipment/ Product	Test Parameter	Test Parameter or Type of Testing		
6.	PTP PMP Microwave	Parameters link with	Automatic Transmitter Power Control	TEC ER No. TEC56422005	-

6.	PTP PMP	Parameters	Automatic Transmitter	TEC ER No.
	Microwave Fixed Radio	link with Product	Power Control ETSI EN 302 326-2	TEC56422005
	Systems	Variant	V2.1.1 Clause. 5.3.6.2	
, =	221 2	No. 1	BER as a Function of	TEC ER No.
			Receiver Input Signal Level	TEC56422005
			ETSI EN 302 326-2 V2.1.1 Clause. 5.4.3	
			Receiver Blocking (CW Spurious Interference	TEC ER No. TEC56422005
			Sensitivity) ETSI EN 302 326-2 V2.1.1	
			Clause. 5.4.4.3	
			Receiver Co-Channel	TEC ER No.
			Interference Sensitivity	TEC56422005
			ETSI EN 302 326-2	
			V2.1.1	
			Clause. 5.4.4.1	

Director (CA), TEC

AD (CA), TEC

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

**Test Parameter or Type of Testing** 

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Telecom

Equipment/

SI.

No.

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Standard/

**Specification** 

PTP PMP	Parameters	Receiver First Adjacent	TEC ER No.
Microwave	link with	Channel Interference	TEC56422005
Fixed Radio	Product	Sensitivity	
Systems	Variant	ETSI EN 302 326-2	
		V2.1.1	
		Clause. 5.4.4.2	
		107	
		Receiver Radio-	TEC ER No.
		Frequency	TEC56422005
		Intermodulation and	
1		Receiver Second	
		Adjacent Channel	
		Interference Sensitivity	
		ETSI EN 302 326-2	. 7
		V2.1.1	
the same of the same of	and the same of the same of	Clause, 5.4.4.4	

Jeklings Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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

### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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\$50000000	Telecom Equipment/	Test Parameter or Type of Testing	Standard/ Specification	
1,0.	Product			

PTP PMP	Parameters	Receiver Unwanted	TEC ER No.
Microwave	link with	Emissions in the	TEC56422005
Fixed Radio	Product	Spurious Domain	
Systems	Variant	(Conducted)	
		ETSI EN 302 326-2	
		V2.1.1	
		Clause. 5.4.2	
	7 11 1	Remote Transmitter	TEC ER No.
		Power Control	TEC56422005
		ETSI EN 302 326-2	
		V2.1.1	
	- 100 m	Clause. 5.3.6.3	
		Transmitter Discrete	TEC ER No.
		(CW) Components	TEC56422005
		exceeding the Transmitter	
	A Company	Radio Frequency	- = 11 10
		Spectrum Mask Limits	
		ETSI EN 302 326-2	
		V2.1.1	
		Clause. 5.3.4.2	

Mhys Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

Telecom

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Last Amended on: ----

Standard/

No.	Product			Specification
	PTP PMP Microwave Fixed Radio Systems	Parameters link with Product Variant	Transmitter Dynamic Change of Modulation Order ETSI EN 302 326-2 V2.1.1 Clause. 5.3.8	TEC ER No. TEC56422005
			Transmitter Radio Frequency Spectrum Mask ETSI EN 302 326-2 V2.1.1 Clause. 5.3.4.1	TEC ER No. TEC56422005
			Transmitter Radio Frequency Tolerance ETSI EN 302 326-2 V2.1.1 Clause. 5.3.3	TEC ER No. TEC56422005
			Transmitter Remote Frequency Control ETSI EN 302 326-2 V2.1.1	TEC ER No. TEC56422005

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

SI.

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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**Telecom** 

No. | Equipment/

Last Amended on: ----

Standard/

Specification

110.	Product			Specification
4,1	PTP PMP Microwave Fixed Radio Systems	Parameters link with Product Variant	Transmitter Unwanted Emissions in the Spurious domain (Conducted) ETSI EN 302 326-2 V2.1.1 Clause. 5.3.5	TEC ER No. TEC56422005
			Receiver Dynamic Change ETSI EN 302 326-2 V2.1.1 Clause. 5.4.3.4	TEC ER No. TEC56422005
			Transmitter Maximum Power and EIRP ETSI EN 302 326-2 V2.1.1 Clause. 5.3.2.2	TEC ER No. TEC56422005
			Transmitter Output	TEC ER No.

Power Environmental

ETSI EN 302 326-2

Clause 5.3.2.3

Variation

V2.1.1

Director (CA), TEC

AD (CA), TEC

TEC56422005

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

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Sl. No.	Telecom Equipment/ Product	Test Parameter	r or Type of Testing	Standard/ Specification
	PTP PMP	Parameters	Adjacent Channel	TEC ER No.

PTP PMP	Parameters	Adjacent Channel	TEC ER No.
Microwave Fixed Radio Systems	link with Product Variant	Interference Sensitivity ETSI EN 302 217-2 V2.1.1 Clause 4.3.3.2.2 Automatic Transmit	TEC56422005 TEC ER No.
		Power Control ETSI EN 302 217-2 V2.1.1 Clause 4.2.2.1.1	TEC56422005
		BER as Function of Receiver Input Signal Level RSL ETSI EN 302 217-2 V2.1.1 Clause 4.3.2	TEC ER No. TEC56422005
		Co-Channel Interference Sensitivity ETSI EN 302 217-2 V2.1.1 Clause 4.3.3.2.2	TEC ER No. TEC56422005

Johnson (CA), TEC

AD (CA), TEC



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Sl. No.	Telecom Equipment/ Product	Test Parameter	r or Type of Testing	Standard/ Specification
	PTP PMP	Parameters	Combined TX Power	TEC ER No.

PTP PMP	Parameters	Combined TX Power	TEC ER No.
Microwave	link with	Output and EIRP Limits	TEC56422005
Fixed Radio	Product	ETSI EN 302 217-2	
Systems	Variant	V2.1.1	
	v ai iaiit	Clause 4.2.1.2	
		CW Spurious	TEC ER No.
		Interference (Blocking	TEC56422005
		and Spurious Response	
		Rejection)	
		ETSI EN 302 217-2	_
		V2.1.1	-
		Clause 4.3.3.3	
	the state of the s	Discrete CW Components	TEC ER No.
	2.815	Exceeding the Spectrum	TEC56422005
		Mask Limits	
		ETSI EN 302 217-2	
		V2.1.1	
	Maria de la compa	Clause 4.2.4	
		Dynamic Change of	TEC ER No.
		Modulation Order	TEC56422005
		ETSI EN 302 217-2	
		V2.1.1	
		Clause 4.2.6	

John Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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#### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification
	PTP PMP Microwave Fixed Radio Systems	Parameters link with Product Variant	Emission Limitations outside the Allocated Band (Conducted) ETSI EN 302 217-2 V2.1.1 Clause. 4.2.8	TEC ER No. TEC56422005
			Maximum Power and EIRP ETSI EN 302 217-2 V2.1.1 Clause 4.2.1.1	TEC ER No. TEC56422005
			Output Power Environmental Variation ETSI EN 302 217-2 V2.1.1 Clause 4.2.1.3	TEC ER No. TEC56422005
			Radio Frequency Spectrum Mask ETSI EN 302 217-2 V2.1.1 Clause 4.2.3	TEC ER No. TEC56422005

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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Sl. No.	Telecom Equipment/ Product	Test Parameter	r or Type of Testing	Standard/ Specification
	PTP PMP	Parameters	Radio Frequency	TEC ER No.

PTP PMP	Parameters	Radio Frequency	TEC ER No.
Microwave Fixed Radio	link with	Tolerance ETSI EN 302 217-2	TEC56422005
Systems	Product Variant	V2.1.1 Clause 4.2.7	
		Remote Frequency	TEC ER No.
		Control ETSI EN 302 217-2	TEC56422005
	" , all " " , all " ,	V2.1.1 Clause 4.2.2.2	
		Remote Transmit Power Control ETSI EN 302 217-2	TEC ER No. TEC56422005
		V2.1.1 Clause 4.2.2.1.2	
		Second Adjacent Channel Interference Sensitivity ETSI EN 302 217-2 V2.1.1 Clause 4.3.3.2.3	TEC ER No. TEC56422005

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

SI.

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Standard/

**Specification** 

	Product			
	PTP PMP Microwave Fixed Radio Systems	Parameters link with Product Variant	Unwanted Emissions in the Spurious Domain (Conducted) Rx ETSI EN 302 217-2 V2.1.1 Clause 4.3.1	TEC ER No. TEC56422005
			Unwanted Emissions in the Spurious Domain (Conducted) ETSI EN 302 217-2 V2.1.1 Clause 4.2.5	TEC ER No. TEC56422005
7.	IoT Gateway	Interface: GSM/GPRS/ EDGE	Transmitter Maximum Output Power and Burst Timing for GSM 3GPP TS 51 010-1 Clause- 13.3 or EN 301 511 (GSM) Clause- 4.2.5	TEC ER No. TEC24492108

Director (CA), TEC

AD (CA), TEC



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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Plot No. 193, Sector-68, IMT Faridabad-121004.

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Standard/

No.	Equipment/ Product			Specification
	IoT Gateway	Interface: GSM/GPRS/ EDGE	Transmitter Output Power for GPRS/EDGE 3GPP TS 51 010-1 Clause- 13.16.2 or EN 301 511 (GSM) Clause- 4.2.10	TEC ER No. TEC24492108
			Transmitter - Output RF Spectrum for GSM 3GPP TS 51 010-1 Clause- 13.4 or EN 301 511 (GSM) Clause- 4.2.6	TEC ER No. TEC24492108
			Transmitter - Output RF Spectrum for GPRS/EDGE 3GPP TS 51 010-1 Clause- 13.16.3 or EN 301 511 (GSM) Clause- 4.2.11	TEC ER No. TEC24492108

Director (CA), TEC

AD (CA), TEC



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**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

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Standard/

No.	Equipment/ Product			Specification
	IoT Gateway	Interface: GSM/GPRS/	Spurious Emissions - MS allocated a Channel	TEC ER No. TEC24492108
		EDGE	3GPP TS 51 010-1	12024472100
			Clause- 14.5.1 or	
			EN 301 511 (GSM)	
			Clause- 4.2.12	
	2 2		Spurious Emissions -	TEC ER No.
			MS in Idle Mode	TEC24492108
			3GPP TS 51 010-1	
		1444	Clause- 12.1.2 or	
			EN 301 511 (GSM)	
			Clause- 4.2.13	
			Frequency Error and	TEC ER No.
			Phase Error for GSM	TEC24492108
			3GPP TS 51 010-1	3 2 14
			Clause- 13.1 or	
			EN 301 511 (GSM)	
			Clause- 4.2.1	

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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M/s Nemko India (Test Lab) Private Limited, Faridabad

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Telecom

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Standard/

No.	Equipment/ Product		1 1 1	Specification
	IoT Gateway	Interface: GSM/GPRS/ EDGE	Frequency Error and Phase Error for GPRS/EDGE 3GPP TS 51 010-1 Clause- 13.16.1 or EN 301 511 (GSM) Clause- 4.2.4	TEC ER No. TEC24492108
			Reference Sensitivity Level (Speech Channels) 3GPP TS 51 010-1 Clause- 14.2.1 or EN 301 511 (GSM) Clause- 4.2.42	TEC ER No. TEC24492108
			Adjacent Channel Rejection - Speech Channels 3GPP TS 51 010-1 Clause- 14.5.1 or EN 301 511 (GSM) Clause- 4.2.38	TEC ER No. TEC24492108

Director (CA), TEC

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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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M/s Nemko India (Test Lab) Private Limited, Faridabad

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Standard/

No.	No. Equipment/ Product		Specification	
	IoT Gateway	Interface: GSM/GPRS/ EDGE	Receiver Blocking 3GPP TS 51 010-1 Clause- 14.7.1 or EN 301 511 (GSM) Clause- 4.2.20	TEC ER No. TEC24492108
		Interface: WCDMA or HSPA	Transmitter Maximum Output Power 3GPP TS 34.121-1 Clause- 5.2 OR EN 301 908-2 (UMTS) Clause- 4.2.2	TEC ER No. TEC24492108
			Spectrum Emissions Mask 3GPP TS 34.121-1 Clause- 5.9 OR EN 301 908-2 (UMTS) Clause- 4.2.3	TEC ER No. TEC24492108

Johnson Johnson Johnson Johnson (CA), TEC

AD (CA), TEC



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

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**Test Parameter or Type of Testing** 

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**Telecom** 

No. | Equipment/

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Standard/

**Specification** 

Product		*	Specification
IoT Gateway	Interface: WCDMA or HSPA	Transmitter Spurious Emissions 3GPP TS 34.121-1 Clause- 5.11 OR EN 301 908-2(UMTS) Clause- 4.2.4	TEC ER No. TEC24492108
		Receiver Spurious Emission 3GPP TS 34.121-1 Clause- 6.8 OR EN 301 908-2 (UMTS) Clause- 4.2.10	TEC ER No. TEC24492108
		Transmitter Minimum Output Power 3GPP TS 34.121-1 Clause-5.4.3 OR EN 301 908-2 (UMTS) Clause- 4.2.5	TEC ER No. TEC24492108

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

SI.

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

**Test Parameter or Type of Testing** 

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Telecom

No. Equipment/

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Standard/

**Specification** 

No.	Product			Specification
	IoT Gateway	Interface: WCDMA or HSPA	Receiver Reference Sensitivity level 3GPP TS 34.121-1 Clause- 6.2 OR EN 301 908-2 (UMTS) Clause- 4.2.13	TEC ER No. TEC24492108
			Receiver Adjacent Channel Selectivity (ACS) 3GPP TS 34.121-1 Clause 6.4 OR EN 301 908-2 (UMTS) Clause- 4.2.6	TEC ER No. TEC24492108
			Receiver In-band Blocking 3GPP TS 34.121-1 Clause- 6.5.2.1 OR EN 301 908-2 (UMTS) Clause- 4.2.7	TEC ER No. TEC24492108

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

SI.

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

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Standard/

No.	Equipment/ Product			Specification
	IoT Gateway	Interface: LTE or LTE-A	Maximum Output Power 3GPP TS 36.521-1 Clause- 6.2.2 OR EN 301 908-13 (LTE) Clause- 4.2.2	TEC ER No. TEC24492108
			Spectrum Emissions Mask 3GPP TS 36.521-1 Clause- 6.6.2.1 OR EN 301 908-13 (LTE) Clause- 4.2.3	TEC ER No. TEC24492108
			Spurious Emissions 3GPP TS 36.521-1 Clauses- 6.6.3.1, 6.6.3.2, 6.6.3.3 OR EN 301 908-13 (LTE) Clause- 4.2.4	TEC ER No. TEC24492108

Director (CA), TEC

AD (CA), TEC



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### SCOPE OF DESIGNATION (ANNEXURE)

Laboratory Name:

Sl. Telecom

M/s Nemko India (Test Lab) Private Limited, Faridabad

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Standard/

No.	Equipment/ Product			Specification
	IoT Gateway	Interface: LTE or LTE-A	Receiver Spurious Emission 3GPP TS 36.521-1 Clause- 7.9 OR EN 301 908-13 (LTE) Clause- 4.2.10	TEC ER No. TEC24492108
		Sensitivity level 3GPP TS 36.52 Clause- 7.3 OR	Receiver Reference Sensitivity level 3GPP TS 36.521-1 Clause- 7.3 OR EN 301 908-13 (LTE) Clause- 4.2.12	TEC ER No. TEC24492108
			Receiver Adjacent Channel Selectivity (ACS) 3GPP TS 36.521-1 Clause- 7.5 OR EN 301 908-13 (LTE) Clause- 4.2.6	TEC ER No. TEC24492108

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification
	IoT Gateway	Interface: LTE or LTE-A	Receiver In-Band Blocking 3GPP TS 36.521-1 Clause- 7.6.1 OR EN 301 908-13 (LTE) Clause- 4.2.7	TEC ER No. TEC24492108  TEC ER No. TEC24492108  TEC ER No. TEC24492108
		Interface: LPWAN- LoRA/ LPWAN- SigFox	Operating Frequency ETSI EN 300 220-2 V3.2.1 Clause 4.2.1 Unwanted Emissions in the Spurious Domain	TEC24492108  TEC ER No.
			(Conducted) ETSI EN 300 220-2 V3.2.1 Clause 4.2.2 TX Effective Radiated Power ETSI EN 300 220-2 V3.2.1 Clause- 4.3.1	TEC ER No. TEC24492108

Director (CA), TEC

AD (CA), TEC



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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification		
	IoT Gateway	Interface:	TX Maximum e. r. p.	TEC ER No.		
		LPWAN-	Spectral Density	TEC24492108		
		LoRA/	ETSI EN 300 220-2	1 25		
		T TOXXIABI	V3.2.1			

1		I .	
	LPWAN- LoRA/ LPWAN- SigFox	Spectral Density ETSI EN 300 220-2 V3.2.1 Clause- 4.3.2	TEC24492108
	Sigrux	TX Duty Cycle ETSI EN 300 220-2 V3.2.1 Clause- 4.3.3	TEC ER No. TEC24492108
		TX Occupied Bandwidth ETSI EN 300 220-2 V3.2.1 Clause- 4.3.4	TEC ER No. TEC24492108
		TX out of Band Emissions ETSI EN 300 220-2 V3.2.1 Clause- 4.3.5	TEC ER No. TEC24492108
		TX Transient ETSI EN 300 220-2 V3.2.1 Clause- 4.3.6	TEC ER No. TEC24492108

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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### SCOPE OF DESIGNATION (ANNEXURE)

**Laboratory Name:** 

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Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification
	IoT Gateway	Interface: LPWAN- LoRA/ LPWAN- SigFox	TX Adjacent Channel Power ETSI EN 300 220-2 V3.2.1 Clause- 4.3.7 TX Behaviour Under Low Voltage Conditions ETSI EN 300 220-2 V3.2.1 Clause- 4.3.8 TX Adaptive Power Control ETSI EN 300 220-2 V3.2.1 Clause- 4.3.9	TEC ER No. TEC24492108  TEC ER No. TEC24492108  TEC ER No. TEC24492108
			TX FHSS ETSI EN 300 220-2 V3.2.1 Clause- 4.3.10	TEC ER No. TEC24492108

Director (CA), TEC

AD (CA), TEC



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M/s Nemko India (Test Lab) Private Limited, Faridabad

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110.	Product			•
	IoT Gateway	Interface: LPWAN- LoRA/ LPWAN-	RX Sensitivity ETSI EN 300 220-2 V3.2.1 Clause- 4.4.1 RX Blocking	TEC ER No. TEC24492108 TEC ER No.
		SigFox	ETSI EN 300 220-2 V3.2.1 Clause- 4.4.2	TEC24492108
			Clear Channel Assessment threshold ETSI EN 300 220-2 V3.2.1	TEC ER No. TEC24492108
			Clause- 4.5.2 Polite Spectrum Access Timing Parameters ETSI EN 300 220-2	TEC ER No. TEC24492108
			V3.2.1 Clause- 4.5.3 TX Short Term Behavior ETSI EN 300 220-2	TEC ER No. TEC24492108

Director (CA), TEC

AD (CA), TEC

Clause- 4.3.11

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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Specification

Standard/

No.	Product			Бреспецион
	IoT Gateway	Interface: LPWAN- LoRA/ LPWAN- SigFox	Adaptive Frequency Agility ETSI EN 300 220-2 V3.2.1 Clause- 4.5.4	TEC ER No. TEC24492108
		Interface: NFC	Permitted Range of Operating Frequencies ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.1	TEC ER No. TEC24492108
		Operating Frequency Ranges ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.2	TEC ER No. TEC24492108	
			Modulation Bandwidth ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.3	TEC ER No. TEC24492108

Director (CA), TEC

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.



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

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

**Laboratory Name:** 

M/s Nemko India (Test Lab) Private Limited, Faridabad

Plot No. 193, Sector-68, IMT Faridabad-121004.

Certificate Number: TEC/MRA/CAB/IND-D/19-II

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Validity: 30/09/2022 to 29/09/2025

Last Amended on: ----

Sl. No.	Telecom Equipment/ Product  IoT Gateway	Test Parameter or Type of Testing		Standard/ Specification
		Interface: NFC	Transmitter H-field Requirements ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.4	TEC ER No. TEC24492108
			Transmitter RF Carrier Current ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.5	TEC ER No. TEC24492108
			Transmitter Radiated E- Field ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.6	TEC ER No. TEC24492108
			Transmitter Conducted Spurious Emissions ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.7	TEC ER No. TEC24492108

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Last Amended on: ----

Sl. No.	Telecom Equipment/ Product	Test Parameter or Type of Testing		Standard/ Specification
	IoT Gateway	Interface: NFC	Transmitter Radiated Spurious Domain Emission Limits < 30 MHz ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.8	TEC ER No. TEC24492108
			Transmitter Frequency Stability ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.3.10	TEC ER No. TEC24492108
			Adjacent Channel Selectivity ETSI EN 300 330 V2.1.1 (2017-02) Clause 4.4.3	TEC ER No. TEC24492108

Director (CA), TEC

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Validity: 30/09/2022 to 29/09/2025

Last Amended on: ----

Sl. No.	Telecom Equipment/ Product  IoT Gateway	Test Parameter or Type of Testing		Standard/ Specification
		Interface:	Receiver Blocking or	TEC ER No.
		NFC	Desensitization	TEC24492108
	780 8		ETSI EN 300 330	
			V2.1.1 (2017-02)	
			Clause 4.4.4	

<sup>\*</sup>The validity of Certificate is up to 29/09/2025 or the continued validity of NABL Accreditation, whichever is earlier.

## Government of India Department of Telecommunications Telecommunication Engineering Centre Gate No. 5, Khurshid Lal Bhawan, Janpath, New Delhi – 110001

No. 1-100/2022-CA/TEC

Dated: 11.11.2022

#### Corrigendum

Subject: Corrigendum to CAB Designation Certificate No. TEC/MRA/CAB/IND-D/19-II dated 30.09.2022 of M/s Nemko India (Test Lab) Private Limited, Faridabad.

Reference: CAB Designation Certificate No. TEC/MRA/CAB/IND-D/19-II dated 30.09.2022

This is in reference to this office CAB Designation Certificate No. TEC/MRA/CAB/IND-D/19-II dated 30.09.2022, issued to M/s Nemko India (Test Lab) Private Limited, Faridabad.

- 2. The following modifications have been made to the aforesaid CAB Designation certificate:
  - (i) ETSI EN 301 113 may be read as ETSI EN 300 113.
  - (ii) ETSI EN 300 783 may be read as ETSI EN 301 783.
  - (iii) "Band Edge Clause 15.407(b), FCC CFR 47 Part 15 Subpart C" may be read as "Band Edge Clause 15.247 (d), 15.205(c), 15.209(a), FCC CFR 47 Part 15 Subpart C.
- 3. All other content of the CAB Designation Certificate No. TEC/MRA/CAB/IND-D/19-II dated 30.09.2022 shall remain unchanged.
- 4. This issues with the approval of competent authority.

(Anshul Kumar Gupta) AD (CA), TEC

To, Ms. Kavita Dagar- Quality Manager, M/s Nemko India (Test Lab) Private Limited, Faridabad Plot No. 193, Sector-68, IMT Faridabad-121 004 Ph.: +91-7503657394, 9205690573

#### Copy to:

1. DDG (NR)/DDG(R), TEC for kind information.