National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 1 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
Permanent Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 100 kHz)	Using DMM by Direct Method	100 mV to 100 V	1.6 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz to 1 kHz)	Using DMM by Direct Method	10 mV to 100 mV	0.04 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using DMM with Shunt, AC Shunt by VI Method	1 A to 20 A	0.25 % to 0.85 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using DMM by Direct Method	10 µA to 100 µA	0.2 %
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using DMM by Direct Method	100 µA to 1 A	0.25 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Resistance (1 kHz)	Using Precision LCR Meter by Direct Method	1 ohm to 100 kohm	0.1 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 2 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 kHz - 100 kHz)	Using DMM by Direct Method	10 mV to 3 V	0.09 % to 0.05 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz to 1 kHz)	Using DMM by Direct Method	100 mV to 100 V	0.04 % to 0.06 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz to 1 kHz)	Using DMM , Power Analyser by Direct Method	100 V to 1000 V	0.06 % to 0.25 %
10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Amplitude Modulation (MF:1 kHz), CW:10 MHz to 2 GHz, Depth:10 % to 90 %	Using Modulation Analyzer by Direct Method	10 % to 90 %	7.2 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance (1 kHz)	Using Precision LCR Meter by Direct Method	1 pF to 1 µF	0.2 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Current & Voltage Harmonics Square wave (Voltage: 60 V p-p,1 A), 50 Hz sine wave (240 V,1 A) THD (Current and Voltage): Harmonics order	Using 3 Phase Power Analyzer by Direct Method	1st to 39th	0.6 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 3 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Frequency Modulation (MF:1 kHz), CW:10 MHz to 1 GHz, Frequency Deviation:10 kHz to 100 kHz	Using Modulation Analyzer Boonton by Direct Method	10 kHz to 100 kHz	9.2 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance (1 kHz)	Using Precision LCR Meter by Direct Method	100 µH to 10 H	0.2 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	LF Power (Active), 50 Hz, 1 phase, 63 V, to 550 V , 0.1 A to 20 A @ UPF	Using 3 phase Power Analyzer by Direct Method	6.3 W to 11 kW	0.5 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Lag/Lead)	Using 3 phase Power Analyser by Direct Method	0.2 PF to 1 PF	0.002 PF to 0.002 PF
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (1 kHz - 5 kHz)	Using Multi Product Calibrator by Direct Method	300 mA to 10 A	1 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using Multi Product Calibrator with current coil by Direct Method	20 A to 50 A	0.85 % to 0.85 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 4 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using Multi Product Calibrator with current coil by Direct Method	50 A to 1000 A	0.85 % to 1.0 %
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz- 1 kHz)	Using Multi Product Calibrator by Direct Method	3 A to 20 A	0.1 % to 0.85 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz- 1 kHz)	Using Multi Product Calibrator by Direct Method	30 µA to 300 mA	0.2 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz- 1 kHz)	Using Multi Product Calibrator by Direct Method	300 mA to 3 A	0.2 % to 0.1 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (1 kHz)	Using Standard Decade Resistor by Direct Method	10 ohm to 100 ohm	0.6 % to 0.1 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (1 kHz)	Using Standard Resistor by Direct Method	100 ohm to 100 kohm	0.1 % to 0.06 %
25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (50 Hz to 1 kHz)	Using Standard Decade Resistor by Direct Method	1 ohm to 10 ohm	0.6 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 5 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
26	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (50 Hz to 1 kHz)	Using AC Shunt by using Direct Method	10 mohm	0.5 %
27	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 kHz - 100 kHz)	Using Multi Product Calibrator by Direct Method	3 V to 300 V	0.05 % to 0.28 %
28	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz - 500 kHz)	Using Multi Product Calibrator by Direct Method	100 mV to 3 V	0.1 % to 0.19 %
29	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz - 10 kHz)	Using Multi Product Calibratorby Direct Method	1 V to 1000 V	0.03 % to 0.1 %
30	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz - 10 kHz)	Using Multi Product Calibrator by direct Method	10 mV to 1 V	0.04 % to 0.03 %
31	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance (1 kHz)	Using Capacitance Standard by Direct Method	1000 pF to 1 µF	0.1 %
32	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance (1 kHz)	Using Capacitance Standard by Direct Method	1 pF to 1000 pF	0.1 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 6 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
33	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Inductance (1 kHz)	Using Inductance Standard by Direct Method	100 µH to 10 H	0.15 % to 0.3 %
34	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	LF Power (Active), 50 Hz, 1 phase, 63 V, to 550 V , 0.1 A to 20 A @ UPF	Using Multiproduct Calibrator by Direct method	6.3 W to 11 kW	0.25 %
35	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Power Factor (Lag/Lead)	Using Reference Std. by Direct Method	0 to 1 PF	0.002 pF to 0.002 pF
36	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 3 phase power Analyser by Direct Method	1 A to 20 A	0.01 % to 0.62 %
37	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	Using Electrostatic Voltmeter with HV Source by Comparison Method	2 kV to 20 kV	5.29 % to 2.0 %
38	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	10 µA to 100 µA	0.03 % to 0.02 %
39	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	10 nA to 100 nA	0.5 % to 0.12 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 7 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
40	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	100 µA to 100 mA	0.02 % to 0.01 %
41	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	100 mA to 1 A	0.01 % to 0.01 %
42	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by direct Method	100 nA to 10 µA	0.12 % to 0.03 %
43	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 1000 V 0.1 A to 20 A)	Using 3 phase power analyser by direct method	0.1 W to 20 kW	0.25 %
44	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using DMM by Direct Method	1 ohm to 100 ohm	0.01 % to 0.003 %
45	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using Micr Ohm Meter by Direct Method	10 mohm to 1 ohm	0.15 % to 0.07 %
46	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using DMM by Direct Method	10 Mohm to 100 Mohm	0.005 % to 0.1 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 8 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
47	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using DMM by Direct Method	100 ohm to 10 Mohm	0.003 % to 0.005 %
48	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance (@ 1000 V)	Using Tera Ohm Meter by Direct Method	100 Mohm to 20 Gohm	0.47 % to 3.3 %
49	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance (@ 1000 V)	Using Tera Ohm Meter Direct Method	20 Gohm to 1 Tohm	3.3 %
50	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	1 mV to 10 mV	0.024 % to 0.01 %
51	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	1 V to 1000 V	0.002 % to 0.002 %
52	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	-10 mV to 1 mV	0.01 % to 0.024 %
53	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	10 mV to 1 V	0.01 % to 0.002 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 9 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
54	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by direct method	-100 mV to -10 mV	0.01 % to 0.01 %
55	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (@ 1000 V)	Using MPC with DMM By V/I Method	100 Mohm to 100 Gohm	0.015 % to 0.36 %
56	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	1 A to 10 A	0.02 % to 0.014 %
57	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	10 µA to 10 mA	0.02 % to 0.01 %
58	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	10 mA to 1 A	0.01 % to 0.02 %
59	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	100 nA to 10 µA	1.3 % to 0.02 %
60	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator with current coil by Direct Method	50 A to 1000 A	0.62 % to 0.8 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 10 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
61	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 0.1 A to 20 A)	Using Multi Product Calibrator by Direct Method	0.1 W to 20 kW	0.15 % to 0.25 %
62	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (2 wire)	Using Std. Resistance by Direct Method	1 Gohm to 1 Tohm	0.1 % to 1.5 %
63	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 wire)	Using Std. Resistance by Direct Method	1 mohm to 1 ohm	0.11 %
64	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	10 V to 1000 V	0.001 % to 0.002 %
65	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	10 mV to 100 mV	0.01 %
66	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	-100 mV to 10 mV	0.01 % to 0.01 %
67	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	100 mV to 10 V	0.01 % to 0.001 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 11 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
68	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Standard Resistor	Using Standard Resistance values (discrete) by Direct Method	1 ohm to 1 Gohm	0.04 % to 0.1 %
69	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Calibration Amplitude 1 kHz	Using MPC by Direct Method	2 mV to 100 V	0.2 % to 1 %
70	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Calibration Time Base (Marker)	Using MPC by Direct Method	2 ns to 20 ms	0.13%
71	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Calibration Time Base (Marker)	Using MPC by Direct Method	20 ms to 5 s	0.13 % to 0.5 %
72	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	RF Level - 100 kHz to 3 GHz	Using Level Meter and 100 V Insertion Unit By Direct Method	-30 dBm to 13 dBm	0.90 dB to 0.55 dB
73	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Amplitude Modulation (10 MHz to 2 GHz)/ CW:10 MHz to 2 GHz/MF: 1 kHz	Using Signal Generator by Direct Method	10 % to 90 %	4 % to 4 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 12 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
74	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Frequency Modulation (10 MHz to 2 GHz)/ CW:10 MHz to 2 GHz/MF: 1 kHz	Using Signal Generator by Direct Method	10 kHz to 500 kHz	9 % to 9 %
75	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Level (10 MHz to 2 GHz)	Using Signal Generator by Direct Method	(-)40 dBm to 13 dBm	0.9 dB to 0.74 dB
76	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD PT-100	Using DMM by Direct Method	(-)200 °C to 800 °C	0.39 °C
77	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple B,E,C,J,K,L,N,R,S,T& U	Using DMM By Direct Method	(-)200 °C to 1750 °C (-100 mV to 100 mV)	0.4 °C
78	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT-100	Using MPC By Direct Method	(-)200 °C to 800 °C	0.29 °C
79	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple B,C,E,J,K,L,N,R,S,T,U	Using MPC By Direct Method	(-) 200°C to 1750 °C (-100 mV to 100 mV)	0.37 °C
80	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Frequency Counter By Direct Method	10 Hz to 10 kHz	0.00005 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 13 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
81	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Frequency Counter with Signal Generator (output reference) By Direct Method	10 kHz to 2 GHz	0.00005 % to 0.00001 %
82	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time Interval	Using frequency counter by Comparison Method	5 s to 3600 s	0.1 s to 0.1 s
83	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using Signal Generator by Direct Method	1 MHz to 2 GHz	0.00001 %
84	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using Multi Product Calibrator by Direct Method	10 Hz to 1 MHz	0.00003 %
85	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Using Digital Tachometer with RPM Source By Comparison Method	200 RPM to 10000 RPM	1 % to 0.46 %
86	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Non-Contact Type)	Using Digital Tachometer with RPM Source By Comparison Method	200 RPM to 10000 RPM	0.43 % to 0.31 %
87	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Gauge plunger Type (Analog/Digital) (L.C : 0.01 mm)	Using Dial Calibration Tester by Comparison Method	0.01 mm to 25 mm	5 µm

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 14 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
88	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Analog/Digital) (L.C : 0.001 mm)	Using gauge Blocks Comparison Method	0.5 mm to 25 mm	2 µm
89	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Feeler gauges	Using Digital Micrometer by Comparison Method	0.02 mm to 1 mm	3 µm
90	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Vernier/Digital) L.C.: 0.02 mm	Using Gauge Blocks/Length Bars and Surface Plate by comparison Method.	0.5 mm to 300 mm	22 µm
91	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Test Sieves: Aperture Size	Using Profile Projector by Comparison Method.	0.03 mm to 3.5 mm	5.1 µm
92	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Vernier Caliper (Analog/Digital) L.C.: 0.01 mm	Using Gauge Blocks/Length Bars by Comparison Method	0.5 mm to 600 mm	22 µm
93	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure - Dial Pressure Gauges, ,Digital Pressure Gauges	Using Dead Weight Tester by Comparison Method	30 bar to 700 bar	0.025 %of rdg

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 15 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
94	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure - Dial Pressure gauges,Digital Pressure Gauges	Using Dead Weight Tester by Comparison Method	3 bar to 35 bar	0.054 % of rdg to 0.025 % of rdg
95	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure-Dial Pressure Gauges, Digital Pressure gauges	Using Digital Pressure Gauge with Source By Comparison Method	0 to 700 bar	0.2 bar
96	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure - Dial Pressure Gauges, Digital Pressure Gauges.	Using Digital Pressure Gauge with Source By Comparison Method	(-) 0.9 bar to 0	0.003 bar
97	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure - Dial Pressure Gauges, Digital Pressure Gauges.	Using Digital Pressure Gauge with Source by Comparison Method	0 to 20 bar	0.016 bar
98	MECHANICAL-WEIGHING SCALE AND BALANCE	Calibration of Balances Readability: 1 mg and coarser, Accuracy: Class II	Using E2 and F1 Class weights by comparison method as per OIML R-76-1	1 mg to 200 g	0.6 mg
99	MECHANICAL-WEIGHING SCALE AND BALANCE	Calibration of Balances Readability: 5 g, Accuracy: Class IIII	Using E2 and F1 Class weights by comparison method as per OIML R-76-1	1 kg to 50 kg	6.6 g
100	MECHANICAL-WEIGHING SCALE AND BALANCE	Calibration of Balances Readability:0.1 g, Accuracy: Class III	Using E2 and F1 Class weights by comparison method as per OIML R-76-1	200 g to 12 kg	0.1 g

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 16 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
101	MECHANICAL-WEIGHTS	Accuracy Class F1 & Coarser	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	100 mg	0.01 mg
102	MECHANICAL-WEIGHTS	Accuracy Class F1 & Coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability : 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	20 mg	0.01 mg
103	MECHANICAL-WEIGHTS	Accuracy Class F1 & Coarser	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	200 mg	0.01 mg
104	MECHANICAL-WEIGHTS	Accuracy Class F1 & Coarser	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	50 mg	0.01 mg

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 17 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
105	MECHANICAL-WEIGHTS	Accuracy Class F1 & Coarser	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	500 mg	0.01 mg
106	MECHANICAL-WEIGHTS	Accuracy Class F2 & Coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability : 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	1 mg	0.01 mg
107	MECHANICAL-WEIGHTS	Accuracy Class F2 & Coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability : 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	10 mg	0.01 mg
108	MECHANICAL-WEIGHTS	Accuracy Class F2 & Coarser	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	2 mg	0.01 mg

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 18 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
109	MECHANICAL-WEIGHTS	Accuracy Class F2 & Coarser	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	5 mg	0.01 mg
110	MECHANICAL-WEIGHTS	Accuracy Class M2 & Coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability : 0.1 g) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	5 kg	0.103 mg
111	MECHANICAL-WEIGHTS	Accuracy Class M3	Using E 2 Class Standard Weights and Mass Comparator (Readability : 0.1 g) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	1 kg	0.088 g
112	MECHANICAL-WEIGHTS	Accuracy Class M3	Using E2 Class Standard Weights and Mass Comparator (Readability : 2 g) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	20 kg	1600 mg

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 19 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
113	MECHANICAL-WEIGHTS	Weights of Accuracy Class M2 & Coarser	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.1 g) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	10 kg	0.103 g
114	MECHANICAL-WEIGHTS	Weights of Accuracy Class M3	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.1 g) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	2 kg	0.088 g
115	MECHANICAL-WEIGHTS	Weights of Accuracy Class M3	Using E2 Class Standard Weights and Mass Comparator (Readability: 0.1 g) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	500 g	0.088 g
116	MECHANICAL-WEIGHTS	Weights of F1 class and coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability :0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	1 g	0.016 mg

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 20 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
117	MECHANICAL-WEIGHTS	Weights of F1 class and coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability :0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	10 g	0.03 mg
118	MECHANICAL-WEIGHTS	Weights of F1 class and coarser	Using E2 Class Standard Weights and Mass Comparator (Readability:0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	2 g	0.016 mg
119	MECHANICAL-WEIGHTS	Weights of F1 class and coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability :0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	20 g	0.03 mg
120	MECHANICAL-WEIGHTS	Weights of F1 class and coarser	Using E2 Class Standard Weights and Mass Comparator (Readability:0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	5 g	0.016 mg

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 21 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
121	MECHANICAL-WEIGHTS	Weights of F1 class and coarser	Using F1 Class Standard Weights and Mass Comparator (Readability:0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	50 g	0.03 mg
122	MECHANICAL-WEIGHTS	Weights of F2 class and coarser	Using E 2 Class Standard Weights and Mass Comparator (Readability :0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	100 g	0.13 mg
123	MECHANICAL-WEIGHTS	Weights of F2 class and coarser	Using E2 Class Standard Weights and Mass Comparator (Readability:0.01 mg) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	200 g	0.13 mg
124	MECHANICAL-WEIGHTS	Weights of M3 Class	Using E 2 Class Standard Weights and Mass Comparator (Readability :5 g) by Subdivision Method (ABBA Cycle) as per OIML R 111-1	50 kg	6.6 g

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 22 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
125	THERMAL-TEMPERATURE	Calibration of Environmental Chamber, Refrigerator, Deep Freezer, Dry Block Calibrator and Liquid Bath, Oven/Incubator (Industrial Purpose only)	Using RTD with LXI Data Acquisition Switch Unit Multipoint measurements upto 16 points by comparison Method	(-)40 °C to 180 °C	1.53 °C
126	THERMAL-TEMPERATURE	PRT with or without Temperature Indicator / Controller, PRT with transmitter	Using 7½ digit DMM, SSPRT and Dry Block Calibrator by Comparison Method	200 °C to 600 °C	0.7 °C
127	THERMAL-TEMPERATURE	PRT, Thermocouple with or without Temperature Indicator / Controller, PRT Thermocouple with Transmitter, Glass Thermometer	Using 7½ DMM, SSPRT and Refrigerated and Heating Circulator by Comparison Method	(-)40 °C to 200 °C	0.4 °C
128	THERMAL-TEMPERATURE	Thermocouple with or without Temperature Indicator /Controller	Using 'S' type Thermocouple, 6.5 Digits Digital multimeter and Dry Block Calibrator by Comparson Method	600 °C to 1000 °C	1.7 °C

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 23 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
Site Facility					
1	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 100 kHz)	Using DMM by Direct Method	100 mV to 100 V	1.6 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz to 1 kHz)	Using DMM by Direct Method	10 mV to 100 mV	0.04 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using DMM with Shunt, AC Shunt by VI Method	1 A to 20 A	0.25 % to 0.85 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using DMM by Direct Method	10 µA to 100 µA	0.2 %
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using DMM by Direct Method	100 µA to 1 A	0.25 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC High Voltage (50 Hz)	Using ESV Meter by Direct Method	2 kV to 15 kV	5.72 % to 2.3 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 24 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 kHz - 100 kHz)	Using DMM by Direct Method	10 mV to 3 V	0.09 % to 0.05 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz to 1 kHz)	Using DMM by Direct Method	100 mV to 100 V	0.04 % to 0.06 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz to 1 kHz)	Using DMM , Power Analyser by Direct Method	100 V to 1000 V	0.06 % to 0.25 %
10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Amplitude Modulation (MF:1 kHz), CW:10 MHz to 2 GHz, Depth:10 % to 90 %	Using Modulation Analyzer by Direct Method	10 % to 90 %	7.2 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance (1 kHz)	Using Precision LCR Meter by Direct Method	1 pF to 1 µF	0.2 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Current & Voltage Harmonics Square wave (Voltage: 60 V p-p,1 A), 50 Hz sine wave (240 V,1 A) THD (Current and Voltage): Harmonics order	Using 3 Phase Power Analyzer by Direct Method	1st to 39th	0.6 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 25 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Frequency Modulation (MF:1 kHz), CW:10 MHz to 1 GHz, Frequency Deviation:10 kHz to 100 kHz	Using Modulation Analyzer Boonton by Direct Method	10 kHz to 100 kHz	9.2 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance (1 kHz)	Using Precision LCR Meter by Direct Method	100 µH to 10 H	0.2 %
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	LF Power (Active), 50 Hz, 1 phase, 63 V, to 550 V , 0.1 A to 20 A @ UPF	Using 3 phase Power Analyzer by Direct Method	6.3 W to 11 kW	0.5 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Lag/Lead)	Using 3 phase Power Analyser by Direct Method	0.2 PF to 1 PF	0.002 PF to 0.002 PF
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (1 kHz - 5 kHz)	Using Multi Product Calibrator by Direct Method	300 mA to 10 A	1 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using Multi Product Calibrator with current coil by Direct Method	20 A to 50 A	0.85 % to 0.85 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 26 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz)	Using Multi Product Calibrator with current coil by Direct Method	50 A to 1000 A	0.85 % to 1.0 %
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz- 1 kHz)	Using Multi Product Calibrator by Direct Method	3 A to 20 A	0.1 % to 0.85 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz- 1 kHz)	Using Multi Product Calibrator by Direct Method	30 µA to 300 mA	0.2 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz- 1 kHz)	Using Multi Product Calibrator by Direct Method	300 mA to 3 A	0.2 % to 0.1 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (1 kHz)	Using Standard Decade Resistor by Direct Method	10 ohm to 100 ohm	0.6 % to 0.1 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (1 kHz)	Using Standard Resistor by Direct Method	100 ohm to 100 kohm	0.1 % to 0.06 %
25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (50 Hz to 1 kHz)	Using Standard Decade Resistor by Direct Method	1 ohm to 10 ohm	0.6 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 27 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
26	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Resistance (50 Hz to 1 kHz)	Using AC Shunt by using Direct Method	10 mohm	0.5 %
27	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 kHz - 100 kHz)	Using Multi Product Calibrator by Direct Method	3 V to 300 V	0.05 % to 0.28 %
28	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz - 500 kHz)	Using Multi Product Calibrator by Direct Method	100 mV to 3 V	0.1 % to 0.19 %
29	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz - 10 kHz)	Using Multi Product Calibratorby Direct Method	1 V to 1000 V	0.03 % to 0.1 %
30	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz - 10 kHz)	Using Multi Product Calibrator by direct Method	10 mV to 1 V	0.04 % to 0.03 %
31	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance (1 kHz)	Using Capacitance Standard by Direct Method	1000 pF to 1 µF	0.1 %
32	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance (1 kHz)	Using Capacitance Standard by Direct Method	1 pF to 1000 pF	0.1 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 28 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
33	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Inductance (1 kHz)	Using Inductance Standard by Direct Method	100 µH to 10 H	0.15 % to 0.3 %
34	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	LF Power (Active), 50 Hz, 1 phase, 63 V, to 550 V , 0.1 A to 20 A @ UPF	Using Multiproduct Calibrator by Direct method	6.3 W to 11 kW	0.25 %
35	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Power Factor (Lag/Lead)	Using Reference Std. by Direct Method	0 to 1 PF	0.002 pF to 0.002 pF
36	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 3 phase power Analyser by Direct Method	1 A to 20 A	0.01 % to 0.62 %
37	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC High Voltage	Using Electrostatic Voltmeter with HV Source by Comparison Method	2 kV to 20 kV	5.29 % to 2.0 %
38	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	10 µA to 100 µA	0.03 % to 0.02 %
39	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	10 nA to 100 nA	0.5 % to 0.12 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 29 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
40	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	100 µA to 100 mA	0.02 % to 0.01 %
41	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by Direct Method	100 mA to 1 A	0.01 % to 0.01 %
42	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using DMM by direct Method	100 nA to 10 µA	0.12 % to 0.03 %
43	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 1000 V 0.1 A to 20 A)	Using 3 phase power analyser by direct method	0.1 W to 20 kW	0.25 %
44	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using DMM by Direct Method	1 ohm to 100 ohm	0.01 % to 0.003 %
45	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using Micr Ohm Meter by Direct Method	10 mohm to 1 ohm	0.15 % to 0.07 %
46	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using DMM by Direct Method	10 Mohm to 100 Mohm	0.005 % to 0.1 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 30 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
47	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance	Using DMM by Direct Method	100 ohm to 10 Mohm	0.003 % to 0.005 %
48	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance (@ 1000 V)	Using Tera Ohm Meter by Direct Method	100 Mohm to 20 Gohm	0.47 % to 3.3 %
49	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Resistance (@ 1000 V)	Using Tera Ohm Meter Direct Method	20 Gohm to 1 Tohm	3.3 %
50	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	1 mV to 10 mV	0.024 % to 0.01 %
51	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	1 V to 1000 V	0.002 % to 0.002 %
52	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	-10 mV to 1 mV	0.01 % to 0.024 %
53	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by Direct Method	10 mV to 1 V	0.01 % to 0.002 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 31 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
54	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using DMM by direct method	-100 mV to -10 mV	0.01 % to 0.01 %
55	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance (@ 1000 V)	Using MPC with DMM By V/I Method	100 Mohm to 100 Gohm	0.015 % to 0.36 %
56	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	1 A to 10 A	0.02 % to 0.014 %
57	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	10 µA to 10 mA	0.02 % to 0.01 %
58	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	10 mA to 1 A	0.01 % to 0.02 %
59	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator by Direct Method	100 nA to 10 µA	1.3 % to 0.02 %
60	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Multi Product Calibrator with current coil by Direct Method	50 A to 1000 A	0.62 % to 0.8 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 32 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
61	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 0.1 A to 20 A)	Using Multi Product Calibrator by Direct Method	0.1 W to 20 kW	0.15 % to 0.25 %
62	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (2 wire)	Using Std. Resistance by Direct Method	1 Gohm to 1 Tohm	0.1 % to 1.5 %
63	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Resistance (4 wire)	Using Std. Resistance by Direct Method	1 mohm to 1 ohm	0.11 %
64	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	10 V to 1000 V	0.001 % to 0.002 %
65	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	10 mV to 100 mV	0.01 %
66	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	-100 mV to 10 mV	0.01 % to 0.01 %
67	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using Multi Product Calibrator by Direct Method	100 mV to 10 V	0.01 % to 0.001 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 33 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
68	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Standard Resistor	Using Standard Resistance values (discrete) by Direct Method	1 ohm to 1 Gohm	0.04 % to 0.1 %
69	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Bandwidth (CRO)	Using MPC by Direct Method	50 kHz to 1 GHz	6.34 %
70	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Calibration Amplitude 1 kHz	Using MPC by Direct Method	2 mV to 100 V	0.2 % to 1 %
71	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Calibration Time Base (Marker)	Using MPC by Direct Method	2 ns to 20 ms	0.13%
72	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope Calibration Time Base (Marker)	Using MPC by Direct Method	20 ms to 5 s	0.13 % to 0.5 %
73	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Amplitude Modulation (10 MHz to 2 GHz)/ CW:10 MHz to 2 GHz/MF: 1 kHz	Using Signal Generator by Direct Method	10 % to 90 %	4 % to 4 %
74	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	Frequency Modulation (10 MHz to 2 GHz)/ CW:10 MHz to 2 GHz/MF: 1 kHz	Using Signal Generator by Direct Method	10 kHz to 500 kHz	9 % to 9 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 34 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
75	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	RF Level (10 MHz to 2 GHz)	Using Signal Generator by Direct Method	(-)40 dBm to 13 dBm	0.9 dB to 0.74 dB
76	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD PT-100	Using DMM by Direct Method	(-)200 °C to 800 °C	0.39 °C
77	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple B,E,C,J,K,L,N,R,S,T& U	Using DMM By Direct Method	(-)200 °C to 1750 °C (-100 mV to 100 mV)	0.4 °C
78	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT-100	Using MPC By Direct Method	(-)200 °C to 800 °C	0.29 °C
79	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple B,C,E,J,K,L,N,R,S,T,U	Using MPC By Direct Method	(-) 200°C to 1750 °C (-100 mV to 100 mV)	0.37 °C
80	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Frequency Counter By Direct Method	10 Hz to 10 kHz	0.00005 %
81	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Frequency Counter with Signal Generator (output reference) By Direct Method	10 kHz to 2 GHz	0.00005 % to 0.00001 %

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 35 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
82	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time Interval	Using frequency counter by Comparison Method	5 s to 3600 s	0.1 s to 0.1 s
83	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using Signal Generator by Direct Method	1 MHz to 2 GHz	0.00001 %
84	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Using Multi Product Calibrator by Direct Method	10 Hz to 1 MHz	0.00003 %
85	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Non-Contact Type)	Using Digital Tachometer with RPM Source By Comparison Method	200 RPM to 10000 RPM	0.43 % to 0.31 %
86	MECHANICAL-PRESSURE INDICATING DEVICES	Hydraulic Pressure-Dial Pressure Gauges, Digital Pressure gauges	Using Digital Pressure Gauge with Source By Comparison Method	0 to 700 bar	0.2 bar
87	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure - Dial Pressure Gauges, Digital Pressure Gauges.	Using Digital Pressure Gauge with Source By Comparison Method	(-) 0.9 bar to 0	0.003 bar
88	MECHANICAL-PRESSURE INDICATING DEVICES	Pneumatic Pressure - Dial Pressure Gauges, Digital Pressure Gauges.	Using Digital Pressure Gauge with Source by Comparison Method	0 to 20 bar	0.016 bar
89	MECHANICAL-WEIGHING SCALE AND BALANCE	Calibration of Balances Readability: 1 mg and coarser, Accuracy: Class II	Using E2 and F1 Class weights by comparison method as per OIML R-76-1	1 mg to 200 g	0.6 mg

SCOPE OF ACCREDITATION

Laboratory Name : ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-4345 **Page No** 36 of 37

Validity 08/04/2025 to 07/04/2029 **Last Amended on** -

S.No	Discipline / Group	Measurand or Reference Material/Type of instrument or material to be calibrated or measured / Quantity Measured /Instrument	Calibration or Measurement Method or procedure	Measurement range and additional parameters where applicable(Range and Frequency)	* Calibration and Measurement Capability(CMC)(±)
90	MECHANICAL-WEIGHING SCALE AND BALANCE	Calibration of Balances Readability: 5 g, Accuracy: Class IIII	Using E2 and F1 Class weights by comparison method as per OIML R-76-1	1 kg to 50 kg	6.6 g
91	MECHANICAL-WEIGHING SCALE AND BALANCE	Calibration of Balances Readability:0.1 g, Accuracy: Class III	Using E2 and F1 Class weights by comparison method as per OIML R-76-1	200 g to 12 kg	0.1 g
92	THERMAL-TEMPERATURE	Calibration of Environmental Chamber, Refrigerator, Deep Freezer, Dry Block Calibrator and Liquid Bath, Oven/Incubator (Industrial Purpose only)	Using RTD with LXI Data Acquisition Switch Unit Multipoint measurements upto 16 points by comparison Method	(-)40 °C to 180 °C	1.53 °C
93	THERMAL-TEMPERATURE	PRT / Thermocouple with or without Temperature Indicator/Controller, PRT / Thermocouple with transmitter	Using 7½ Digits Digital Multimeter, SSPRT and Dry Block Calibrator by Comparsion Method	150 °C to 600 °C	0.5 °C to 0.7 °C
94	THERMAL-TEMPERATURE	PRT with or without temperature Indicator / Controller, PRT with Transmitter.	Using 7½ DMM, SSPRT and Dry block calibrator by Comparison Method	(-)30 °C to 140 °C	0.3 °C
95	THERMAL-TEMPERATURE	Thermocouple with and without indicator/controller/temperature transmitter Temperature Transmitter	Using S Type Thermocouple, 6.5 Digits Digital multimeter and Dry Block Calibrator by Comparison Method	600 °C to 1000 °C	1.7 °C

SCOPE OF ACCREDITATION

Laboratory Name :	ELECTRONICS TEST AND DEVELOPMENT CENTRE, B108, INDUSTRIAL AREA, PHASE-8, MOHALI, S.A.S NAGAR, PUNJAB, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-4345	**Page No**	37 of 37
Validity	08/04/2025 to 07/04/2029	**Last Amended on**	-

*** CMCs represent expanded uncertainties expressed at approximately the 95% level of confidence, using a coverage factor of k = 2.**