



National Accreditation Board for
Testing and Calibration Laboratories

CERTIFICATE OF ACCREDITATION

TRANSCAL TECHNOLOGIES LLP

has been assessed and accredited in accordance with the standard

ISO/IEC 17025:2017

**"General Requirements for the Competence of Testing &
Calibration Laboratories"**

for its facilities at

#100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU,
KARNATAKA, INDIA

in the field of

CALIBRATION

Certificate Number: CC-2231

Issue Date: 14/06/2024

Valid Until:

13/06/2026

This certificate remains valid for the Scope of Accreditation as specified in the annexure subject to continued satisfactory compliance to the above standard & the relevant requirements of NABL.

(To see the scope of accreditation of this laboratory, you may also visit NABL website www.nabl-india.org)

Name of Legal Entity: TRANSCAL TECHNOLOGIES LLP

Signed for and on behalf of NABL



N. Venkateswaran
Chief Executive Officer



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 1 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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 Active Power (1 Phase, 50 Hz @ 0.1 Lead/Lag, 30 to 600V, 10mA to 20A)	Using Digital Power Meter by Comparison Method	30 mW to 1.2 kW	0.3 % to 0.4 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.1Lead/Lag, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	1.2 kW to 3 kW	0.4 % to 0.2 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.5 Lead/Lag, 10 V to 600 V, 30 mA to 20 A)	Using Digital Power Meter by Comparison Method	150 mW to 6 kW	0.11 % to 0.07 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.5 Lead/Lag, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	6 kW to 15 kW	0.07 % to 0.10 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 2 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.8 Lead/Lag, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	9.6 kW to 24 kW	0.05 % to 0.10 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.8 Lead/Lag, 30 V to 600 V, 10 mA to 20 A)	Using Digital Power Meter by Comparison Method	240 mW to 9.6 kW	0.13 % to 0.05 %
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ UPF, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	12 kW to 30 kW	0.036 % to 0.08 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ UPF, 30 V to 600 V, 1 mA to 20 A)	Using Digital Power Meter by Comparison Method	30 mW to 12 kW	0.10 % to 0.036 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (1 kHz to 10 kHz)	Using 8½ DMM and source by Comparison method	10 mA to 100 mA	0.012 % to 0.023 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 3 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (1 kHz to 10 kHz)	Using 8½ DMM by Direct method	10 mA to 100 mA	0.012 % to 0.023 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (1 kHz to 10 kHz)	Using AC Reference standard and Shunt by Comparison Method	100 mA to 10 A	0.03 % to 0.047 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM by Comparison method	100 µA to 100 mA	0.05 % to 0.01%
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM by Direct method	100 µA to 100 mA	0.055 % to 0.01 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using AC Reference standard and Shunt by Comparison Method	100 mA to 20 A	0.05 % to 0.03 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 4 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM and source by Comparison method	20 µA to 100 µA	0.15 % to 0.016 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM by Direct method	20 µA to 100 µA	0.15 % to 0.016 %
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using 8½ DMM by Direct method	100 µA to 100 mA	0.011 % to 0.023 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using AC Reference standard and Shunt by Comparison Method	100 mA to 20 A	0.03 % to 0.043 %
19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using 8½ DMM by Direct method	20 µA to 100 µA	0.12 % to 0.012 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 5 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using 8½ DMM and source by Comparison method	20 µA to 100 µA	0.12 % to 0.012 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)0	Using 8½ DMM by Comparison method	100 µA to 100 mA	0.011 % to 0.023 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using AC Reference standard and Shunt by Comparison Method	1 A to 20 A	0.022 % to 0.045 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz	Using Standard CT with Power Meter by Direct Method	1000 A to 3000 A	0.2 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @50 Hz	Using Shunt with DMM by Comparison method	20 A to 1000 A	0.043 % to 0.38 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 6 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	> 100 V to 1000 V	0.0079 % to 0.013 %
26	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	1 mV to 1 V	0.2 % to 0.005 %
27	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	1 mV to 1 V	0.2 % to 0.005 %
28	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	1 V to 10 V	0.005 %
29	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	1 V to 10 V	0.005 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 7 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
30	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	10 V to 100 V	0.005 % to 0.013 %
31	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	10 V to 100 V	0.005 % to 0.013 %
32	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	100 V to 1000 V	0.0079 % to 0.013 %
33	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference Standard and source by Comparison method	> 1 V to 10 V	0.011 % to 0.005 %
34	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference standard by Direct method	> 1 V to 10 V	0.011 % to 0.005 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	8 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
35	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference Standard and source by Comparison method	1 mV to 1 V	0.3 % to 0.005 %
36	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference standard by Direct method	1 mV to 1 V	0.3 % to 0.005 %
37	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference Standard and source by Comparison method	1 mV to 100 mV	0.29 % to 0.41 %
38	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference standard by Direct method	1 mV to 100 mV	0.29 % to 0.41 %
39	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference standard by Direct method	1 V to 10 V	0.009 % to 0.15 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 9 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference Standard and source by Comparison method	1 V to 10 V	0.009 % to 0.15 %
41	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference standard by Direct method	100 mV to 1 V	0.02 % to 0.13 %
42	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference Standard and source by Comparison method	100 mV to 1 V	0.02 % to 0.13 %
43	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	1 mV to 100 mV	0.29 % to 0.02 %
44	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard and source by Comparison method	1 mV to 100 mV	0.29 % to 0.02 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 10 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
45	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	1 V to 10 V	0.005 % to 0.017 %
46	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard and source by Comparison method	1 V to 10 V	0.005 % to 0.017 %
47	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard and source by Comparison method	10 V to 600 V	0.005 % to 0.06 %
48	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	10 V to 600 V	0.005 % to 0.06 %
49	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard by Comparison method	100 mV to 1 V	0.005 % to 0.02 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	11 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
50	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	100 mV to 1 V	0.005 % to 0.02 %
51	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (40 Hz to 1 kHz)	Using AC Reference Standard and source by Comparison method	10 V to 1000 V	0.008 % to 0.014 %
52	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (40 Hz to 1 kHz)	Using AC Reference standard by Direct method	10 V to 1000 V	0.008 % to 0.014 %
53	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz & 60 Hz)	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	1 kV to 6 kV	0.32 %
54	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	100 kV to 200 kV	2.56 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 12 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
55	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	28 kV to 100 kV	2.56 %
56	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	6 kV to 28 kV	2.56 %
57	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	1 μ F to 100 μ F	0.06 % to 0.13 %
58	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	100 μ F to 10 mF	0.13 % to 0.11 %
59	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	100 nF to 1 μ F	0.018 % to 0.06 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 13 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
60	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	100 pF to 100 nF	0.03 % to 0.018 %
61	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 100 Hz	Using LCR Meter by comparison method	1 mF to 100 mF	0.15 %
62	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics @ 50Hz	Using power meter by direct method	1st order to 39th order	0.51 %
63	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance @ 1 kHz	Using LCR Meter by comparison method	100 µH to 100 mH	0.065 % to 0.034 %
64	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance @ 1 kHz	Using LCR Meter by comparison method	100 mH to 10 H	0.034 % to 0.073 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

14 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
65	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Phase angle @ 240V, 5A, 50 Hz	Using Digital Power Meter by Comparison Method	0° to 360°	2.01°
66	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Single Phase, 230 V, 1 A, 50 Hz)	Using Digital Power Meter by Comparison Method	0.1 Lag/lead to UPF	0.002 PF
67	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz	Using LCR Meter by comparison method	1 ohm to 10 ohm	0.04 % to 0.023 %
68	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz	Using LCR Meter by comparison method	10 ohm to 100 ohm	0.023 % to 0.017 %
69	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz	Using LCR Meter by comparison method	100 ohm to 10 kohm	0.017 % to 0.048 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	15 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
70	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz to 100 kHz	Using LCR Meter by comparison method	100 ohm to 1 kohm	0.17 %
71	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.2 PF, 120 V to 1000 V, 0.1 A to 20 A)	Using MFC by Direct method	0.96 kW to 4 kW	0.08 % to 0.22 %
72	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.2 PF, 120 V to 240 V, 0.1 A to 20 A)	Using MFC by Direct method	2.4 W to 0.96 kW	0.12 % to 0.08 %
73	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.5 PF, 120 V to 240 V, 0.1 A to 20 A)	Using MFC by Direct method	6 W to 2.4 kW	0.04 % to 0.034 %
74	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.5PF, 240 V to 1000 V, 0.1 A to 20 A)	Using MFC by Direct method	2.4 kW to 10 kW	0.034 % to 0.17 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 16 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.8 PF, 120 V to 240 V, 0.1 A to 20 A)	Using MFC by Direct method	9.6 W to 3.84 kW	0.03 % to 0.02 %
76	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.8PF, 240 V to 1000 V, 0.1 A to 20 A)	Using MFC by Direct method	3.84 kW to 16 kW	0.02 % to 0.16 %
77	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ UPF, 120 V to 240 V, 0.01 A to 20 A)	Using MFC by Direct method	1.2 W to 4.8 kW	0.10 % to 0.02 %
78	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ UPF, 240 V to 1000 V, 0.01 A to 20 A)	Using MFC by Direct method	4.8 kW to 20 kW	0.02 % to 0.16 %
79	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (10 Hz to 40 Hz)	Using MFC by Direct method	200 µA to 200 mA	0.027 % to 0.026 %
80	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (40 Hz to 5 kHz)	Using MFC by Direct method	> 200 mA to 2 A	0.03 % to 0.07 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 17 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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-Alternating Current (< 1 GHz) (Source)	AC Current (40 Hz to 5 kHz)	Using MFC by Direct method	200 µA to 200 mA	0.025 % to 0.07 %
82	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (45 Hz to 5 kHz)	Using MFC by Direct method	2 A to 20 A	0.04 % to 0.53 %
83	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (5 kHz to 10 kHz)	Using MFC by Direct method	200 mA to 3 A	0.038 % to 0.21 %
84	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (5 kHz to 10 kHz)	Using MFC by Direct method	3 A to 330 mA	0.21 % to 0.43 %
85	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz to 1 kHz)	Using MFC by Direct method	10 µA to 200 µA	0.11 % to 0.044 %
86	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz	Using Current Source & current coil, Shunt with DMM by Comparison method	1000 A to 3000 A	0.5 % to 0.9 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 18 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
87	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @50 Hz	Using MFC with current coil by direct method	120 A to 1000 A	0.37 %
88	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @50 Hz	Using Current Source by Direct Method	20 A to 120 A	0.32 %
89	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Energy Active/ Apparent / Reactive Single / Three Phase, 40V to 300V, 0.05A to 20A, 40 Hz to 70 Hz, 0.25 (lead/lag) to UPF	Using three phase energy source direct method	0.5 W to 6 kW	0.23 % to 0.78 %
90	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 1 kHz)	Using MFC by Direct method	200 V to 1000 V	0.016 % to 0.016 %
91	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	> 2 V to 20 V	0.014 % to 0.005 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 19 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
92	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	> 20 V to 200 V	0.013 % to 0.016 %
93	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	> 200 mV to 2 V	0.015 % to 0.008 %
94	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	2 mV to 20 mV	0.23 % to 0.035 %
95	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	20 mV to 200 mV	0.043 % to 0.0097 %
96	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	> 2 V to 20 V	0.015 % to 0.034 %
97	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	> 200 mV to 2 V	0.034 % to 0.036 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 20 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
98	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	2 mV to 20 mV	0.23 % to 0.063 %
99	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	20 mV to 200 mV	0.063 % to 0.062 %
100	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	> 20 mV to 200 mV	0.035 % to 0.034 %
101	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	> 200 mV to 2 V	0.0096 % to 0.012 %
102	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	2 mV to 20 mV	0.23 % to 0.064 %
103	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	2 V to 20 V	0.008 % to 0.015 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 21 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
104	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	20 V to 200 V	0.013 % to 0.021 %
105	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	> 20 mV to 200 mV	0.062 % to 0.45 %
106	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	> 200 mV to 2 V	0.062 % to 0.24 %
107	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	2 mV to 20 mV	0.4 % to 0.78 %
108	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	2 V to 20 V	0.036 % to 0.26 %
109	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 1 kHz)	Using MFC by Direct method	50 µV to 2 mV	1 % to 0.33 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	22 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
110	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance @ 1kHz	Using MFC DCB by direct method	10 µF to 110 mF	0.5 % to 1.3 %
111	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Capacitance @ 1kHz	Using MFC DCB by direct method	220 pF to 10 µF	6 % to 0.5 %
112	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Harmonics @ 50Hz	Using MFC source by direct method	1st order to 39th order	0.51 %
113	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Power Factor , Single Phase, 230V, 5A	Using MFC by Direct method	0.2 lag to UPF	0.002 PF
114	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Power Factor , Single Phase, 230V, 5A	Using MFC by Direct method	0.2 lead to UPF	0.002 PF
115	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	Power Factor , Three Phase	Using Energy Source by Direct method	0.25 lag to UPF	0.008 PF



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 23 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
116	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power Factor , Three Phase	Using Energy Source by Direct method	0.25 lead to UPF	0.008 PF
117	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	1 µA to 10 µA	0.13 % to 0.0057 %
118	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	1 µA to 10 µA	0.13 % to 0.0057 %
119	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	1 A to 20 A	0.0038 % to 0.01 %
120	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	1 A to 20 A	0.0038 % to 0.01 %
121	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	10 µA to 100 µA	0.0043 % to 0.002 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 24 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
122	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	10 µA to 100 µA	0.0043 % to 0.002 %
123	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM by VR Method	10 nA to 100 nA	0.49 % to 0.65 %
124	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	100 µA to 100 mA	0.002 %
125	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	100 µA to 100 mA	0.002 %
126	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	100 mA to 1 A	0.002 % to 0.0041 %
127	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	100 mA to 1 A	0.002 % to 0.0041 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

25 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
128	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM by VR Method	100 nA to 1 μ A	0.12 % to 0.13 %
129	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM VI Method	20 A to 75 A	0.047 % to 0.08 %
130	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM VI Method	75 A to 1000 A	0.08 % to 0.3 %
131	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 600 V, 1 mA to 20 A)	Using Digital power Meter by Direct Method	1 kW to 12 kW	0.02 % to 0.15 %
132	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 600 V, 1 mA to 20 A)	Using Digital power Meter by Direct Method	1 mW to 10 W	0.15 % to 0.06 %
133	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 600 V, 1 mA to 20 A)	Using Digital power Meter by Direct Method	10 W to 1 kW	0.06 % to 0.02 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 26 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
134	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 1V to 1000V, 1mA to 20A	Using Digital Multimeter by Comparison Method	1 kW to 20 kW	0.05 %
135	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 1V to 1000V, 1mA to 20A	Using Digital Multimeter by Comparison Method	1 mW to 10 W	0.02 %
136	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 1V to 1000V, 1mA to 20A	Using Digital Multimeter by Comparison Method	10 W to 1 kW	0.02 % to 0.05 %
137	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 30 V to 1000V, 1A to 30A	Using Digital power Meter by Direct Method	12 kW to 30 kW	0.15 % to 0.09 %
138	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	0.5 mV to 100 mV	0.024 % to 0.0009 %
139	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	0.5 mV to 100 mV	0.024 % to 0.0009 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 27 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
140	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using HV Divider with DMM by Direct Method	1 kV to 6 kV	0.2 %
141	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	1 V to 10 V	0.0004 % to 0.0004 %
142	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	1 V to 10 V	0.0004 % to 0.0004 %
143	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	10 V to 1000 V	0.0004 % to 0.00064 %
144	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	10 V to 1000 V	0.0004 % to 0.00064 %
145	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	100 mV to 1 V	0.0009 % to 0.0004 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 28 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
146	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	100 mV to 1 V	0.0009 % to 0.0004 %
147	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using HV Divider with DMM's by comparison method	40 kV to 100 kV	1.7 %
148	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	50 µV to 0.5 mV	0.8 % to 0.024 %
149	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	50 µV to 0.5 mV	0.8 % to 0.024 %
150	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using Source, & HV Probe with DMM by direct method	6 kV to 40 kV	2 %
151	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Magnetic Flux	Using Standard Magnets and Gauss Meter by Comparison Method	100 Gauss to 10000 Gauss	5.26 % to 6.38 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 29 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
152	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Power @ HF 400 kHz	Using Differential Probe in Combination with Oscilloscope by Comparison Method	1 W to 400 W	5.08 %
153	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	1 Mohm to 10 Mohm	0.0012 % to 0.0014 %
154	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	1 Mohm to 10 Mohm	0.0012 % to 0.0014 %
155	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and Shunt with DMM / MFC by VI Method	1 mohm to 10 ohm	0.021 % to 0.004 %
156	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM / Micro Ohm Meter by Direct method	1 mohm to 100 mohm	0.15 % to 0.018 %
157	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	1 ohm to 10 ohm	0.0007 % to 0.00038 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 30 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
158	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	1 ohm to 10 ohm	0.0007 % to 0.00038 %
159	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and Shunt with DMM / MFC by VI Method	10 µohm to 1 mohm	0.75 % to 0.021 %
160	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	10 kohm to 100 kohm	0.0005 % to 0.0006 %
161	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	10 kohm to 100 kohm	0.0005 % to 0.0006 %
162	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	10 Mohm to 100 Mohm	0.0014 % to 0.0095 %
163	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	10 Mohm to 100 Mohm	0.0014 % to 0.0095 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 31 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
164	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	10 ohm to 100 ohm	0.00038 % to 0.0007 %
165	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	10 ohm to 100 ohm	0.00038 % to 0.0007 %
166	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	100 kohm to 1 Mohm	0.0006 % to 0.0012 %
167	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	100 kohm to 1 Mohm	0.0006 % to 0.0012 %
168	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	100 Mohm to 20 Gohm	0.0095 % to 0.148 %
169	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM / Micro Ohm Meter by Direct method	100 mohm to 1 ohm	0.018 % to 0.09 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 32 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
170	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	100 Mohm to 20 Gohm	0.0095 % to 0.148 %
171	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	100 ohm to 10 kohm	0.0007 % to 0.0005 %
172	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	100 ohm to 10 kohm	0.0007 % to 0.0005 %
173	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM with MFC by VI Method	20 Gohm to 1 Tohm	2 %
174	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	1 mA to 100 mA	0.003 % to 0.0063 %
175	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	10 µA to 100 µA	0.004 % to 0.003 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 33 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
176	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	10 A to 20 A	0.0043 % to 0.0048 %
177	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Decade Megaohm box by Direct method	10 nA to 10 μ A	0.16 % to 0.0053 %
178	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	100 μ A to 1 mA	0.003 %
179	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	100 mA to 2 A	0.0063 % to 0.003 %
180	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Shunt with DMM & Current coil by direct method	120 A to 3000 A	0.65 % to 1.2 %
181	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	2 A to 10 A	0.003 % to 0.0043 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 34 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
182	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Current Source by direct method	20 A to 120 A	0.1 % to 0.6 %
183	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 1 mA to 1000 A)	Using MFC with 50 turns current coil by Direct Method	1 kW to 1 MW	0.06 % to 0.35 %
184	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 1 mA to 1000 A)	Using MFC with 50 turns current coil by Direct Method	1 mW to 10 W	0.07 % to 0.03 %
185	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 1 mA to 1000 A)	Using MFC with 50 turns current coil by Direct Method	10 W to 1 kW	0.03 % to 0.06 %
186	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	0.5 mV to 100 mV	0.19 % to 0.00034 %
187	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using DC Voltage Reference Standard by Direct Method	1.018 V, 10 V	0.00034 % , 0.00031 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 35 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
188	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	10 V to 100 V	0.00036 % to 0.00032 %
189	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	100 mV to 10 V	0.00034 % to 0.0004 %
190	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	100 V to 1000 V	0.00032 % to 0.00064 %
191	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	50 µV to 0.5 mV	0.129 % to 0.19 %
192	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1 kohm	0.0008 %
193	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1 Mohm	0.0018 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 36 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
194	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1 ohm	0.0035 %
195	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1.9 kohm	0.0006 %
196	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1.9 Mohm	0.002 %
197	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1.9 ohm	0.0025 %
198	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	10 kohm	0.0007 %
199	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	10 Mohm	0.0039 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 37 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
200	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	10 ohm	0.0013 %
201	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	100 kohm	0.0009 %
202	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	100 Mohm	0.0101 %
203	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	100 ohm	0.002 %
204	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	19 kohm	0.0008 %
205	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	19 Mohm	0.0055 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 38 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
206	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	19 ohm	0.0012 %
207	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	190 kohm	0.00082 %
208	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	190 ohm	0.0009 %
209	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using DMB by Direct Method	1 Gohm to 1 Tohm	1.79 % to 2.0 %
210	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	1 Mohm to 10 Mohm	0.004 % to 0.016 %
211	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Standard Resistors by Direct Method	1 mohm to 100 mohm	0.1 % to 0.025 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 39 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
212	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	1 ohm to 10 ohm	0.014 % to 0.0023 %
213	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Standard Resistors by Direct Method	10 µohm to 1 mohm	0.6 % to 0.1 %
214	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	10 Mohm to 300 Mohm	0.016 % to 0.46 %
215	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	10 ohm to 100 ohm	0.0023 % to 0.005 %
216	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	100 kohm to 1 Mohm	0.0032 % to 0.004 %
217	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Standard Resistors by Direct Method	100 mohm to 1 ohm	0.025 % to 0.07 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 40 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
218	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	100 ohm to 100 kohm	0.005 % to 0.0032 %
219	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	300 Mohm to 1 Gohm	0.46 % to 1.79 %
220	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	VA (CT Burden Box 1A & 5A), 50 Hz & 60 Hz @ 0.8 PF to UPF	Using DMM by VI Method/ Power Analyser by Direct Method	1 VA to 110 VA	0.1 %
221	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	VA (PT Burden Box 110 V & 63.5V), 50 Hz & 60Hz @ 0.8 PF to UPF	Using DMM by VI Method/ Using Power Analyser by Direct Method	2.5 VA to 110 VA	0.2 % to 0.2 %
222	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Conductivity Meter - Simulation method (1 µS to 10000 µS)	Using MFC & Decade Mega ohm Box simulation by method	100 ohm to 1 Mohm	0.6 %
223	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Current Transformer - Phase Error 1% to 120% of rated current 1A/5A secondary	Using Precision Current Transformer @ Automatic test set by Comparison method	5 A to 2000 A	3min



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 41 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
224	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Current Transformer - Ratio error 5A to 2000A Primary 1A/5A Secondary	Using Precision Current Transformer @ Automatic test set by Comparison method	5 A to 2000 A	0.034%
225	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Band Width @ 50 kHz	Using 6½ Multifunction Calibrator with 1.1 GHz at 1 Mohm option by Direct method	50 kHz to 1 GHz	0.52 dBm
226	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, 0 to 130V (DC signal)	Using 6½ Multifunction Calibrator with 1.1 GHz at 1Mohm option by Direct method	1 mV to 55 Vp-p	0.2%
227	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, 0 to 130V (DC signal)	Using 6½ Multifunction Calibrator with 1.1 GHz at 1Mohm option by Direct method	1 mV to 130 V	0.2%
228	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, Scope Amplitude Square Wave Signal, 10 Hz to 10 kHz	Using 6½ Multifunction Calibrator with 1.1 GHz option by Direct method	1 mV to 55 V	0.56 % to 0.2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	42 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
229	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, Scope Amplitude Square Wave Signal, 10 Hz to 10 kHz	Using 6½ Multifunction Calibrator with 1.1 GHz option by Direct method	5 mV to 55 V	0.5 % to 0.2 %
230	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, Time Marker	Using 6½ Multifunction Calibrator with 1.1 GHz option & Rubidium standard, by Direct method	1 ns to 1000 sec	0.00005%
231	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	pH Meter - Simulation method (0 to 14 pH)	Using MFC by simulation method	-440 mV to 440 mV	0.5%
232	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Potential Transformer - Phase error 6.6kV and 11kV (80% to 120%)	Using Precision Potential Transformer @ Automatic test set by Comparison method	6.6 kV and 11 kV	4min
233	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Potential Transformer - Ratio error 6.6kV and 11kV Primary (80% to 120%)	Using Precision Potential Transformer @ Automatic test set by Comparison method	6.6 kV and 11 kV	0.068%



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 43 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
234	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Turns Ratio meter-Turns Ratio	Using DMM by Voltage to Voltage, Comparison method	0.8 to 2021	0.3%
235	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) Voltage front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	1.2 μ s	9.62 %
236	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) Voltage pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	50 μ s	0.59 %
237	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	\pm 250 A to \pm 10 kA	9.38 %
238	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) current front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	8 μ s	1.92 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 44 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
239	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) current pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	20 μ s	0.59%
240	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	± 0.25 kV to ± 30 kV	3.3 %
241	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	± 0.25 kA to ± 10 kA	3.3% to 9.18%
242	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) current front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	8 μ s	1.86%
243	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) current pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	20 μ s	0.55%



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 45 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
244	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	± 0.25 kV to ± 15 kV	3.45 %
245	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) Voltage front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	1.2 μs	10.93%
246	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) Voltage pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	50 μs	0.61%
247	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Decoupling of common mode disturbance, Coupling factor, Voltage division factor (coupling & decoupling network, line impedance stabilization network) 150 kHz to 400 MHz	Using Vector Network Analyzer as per IEC 61000-4-6, CISPR-22, CISPR-32 (Voltage division factor) by Direct method	1 dB to 90 dB	0.85 dB



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 46 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
248	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Display error of Detectors with sinusoidal signals	Using Signal Generator, Reference Source Source as per CISPR-16-1-1 by Comparison method	4 GHz to 7 GHz	0.5d B μ V
249	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Display error of Detectors with sinusoidal signals	Using Signal Generator, Reference Source Source as per CISPR-16-1-1 by Comparison method	9 kHz to 4 GHz	0.5 dB μ V
250	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Capacitive clamp) Pulse Amplitude	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	\pm 2.0 kV	3.27 %
251	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Capacitive clamp) Pulse Rise time	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	5 ns	0.84 %
252	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Capacitive clamp) Pulse width	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	50 ns	0.44 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 47 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
253	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (CDN output) Pulse Rise time	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	5.5 ns	0.57 %
254	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (CDN output) Pulse width	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	45 ns	0.44 %
255	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (CDN output) Pulse Amplitude	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	±125 V to ±5 kV	3.41 %
256	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Burst Duration (2.5 kHz/5 kHz)	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	15 ms	2.05 %
257	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Burst Period	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	300 ms	0.2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 48 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
258	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Pulse Amplitude	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	± 125 V to ± 5 kV	3.45 %
259	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Pulse Rise time	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	5 ns	0.63 %
260	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Pulse width	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	50 ns	0.44 %
261	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Repetition frequency (inverse)	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	(2.5,5,100,1000) kHz	1.12 %
262	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator First peak current (± 2.0 kV to ± 30 kV)	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	± 6.38 A to ± 146.25 A	5.2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 49 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
263	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator Current @ 30 ns or current @ t1 ns (± 2.0 kV to ±30 kV)	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	± 0.39 A to ± 78 A	3.92 % to 5.2 %
264	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator Current @ 60 ns or current @ t2 ns (± 2.0 kV to ±30 kV)	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	± 0.15 A to ± 39 A	3.86 % to 5.2 %
265	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator - Rise time	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	0.6 ns to 1 ns	4.88 %
266	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Impedance (Transient limiter, Line impedance stabilization network, bulk current injection probe, directional coupler, attenuator, cable, ESD target) 9 kHz to 400 MHz	Using Vector Network Analyzer as per CISPR 16-1-2 by Direct method	1 Ohm to 300 Ohm	2.9 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 50 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
267	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Insertion loss/RF Attenuation (Transient limiter, Line impedance stabilization network, Bulk current injection probe, Directional coupler, Attenuator, Cable, ESD Target) 5 kHz to 30 GHz	Using Vector Network Analyzer as per CISPR 16-1-2 by Direct method	1 dB to 90 dB	0.83 dB
268	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Isolation (Line impedance Stabilization network) 9 kHz to 400 MHz	Using Vector Network Analyzer as per CISPR 16-1-2 by Direct method	1 dB to 90 dB	0.83 dB
269	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Phase Angle (Line Impedance Stabilization Network) 9 kHz to 400 MHz	Using Vector Network Analyzer as per CISPR 16-1-2 by direct method	-90° to 90°	0.5°
270	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-12 by Direct method	± 20 A to ± 150 A	5.35 % to 2.83 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 51 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
271	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Oscillation Frequency (Period) 100 kHz, 1 MHz & 10 MHz	Using Oscilloscope, High voltage Differential probe, Current probe probe as per IEC 61000-4-12 by Direct method	10 μ S & 1 μ S	1.85 %
272	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Rise Time	Using Oscilloscope, High voltage Differential probe, Current probe probe as per IEC 61000-4-12 by Direct method	0.75 ns	1.83 %
273	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe probe as per IEC 61000-4-12 by Direct method	\pm 0.25 kV to \pm 5 kV	3.34 %
274	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	\pm 15 A to \pm 150 A	6.77 % to 3.37 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 52 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
275	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Current front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	5 μ s	2.89 %
276	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Current pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	320 μ s	0.9 %
277	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	\pm 0.25 kV to \pm 10 kV	3.4 %
278	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Voltage front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	10 μ s	4.64 %
279	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Voltage pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	700 μ s	0.25 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 53 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
280	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Voltage Dips & Interruption Generator Dips/Interruption time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-11 & IEC 61000-4-29 by Direct method	10 ms to 60s	1.73 % to 3.6%
281	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Voltage Dips & Interruption Generator Output voltage at no load	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-11 & IEC 61000-4-29 by Direct method	10 % to 90 %	3.5 %
282	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (Attenuator/Signal Generator) (1 kHz to 18 GHz)	Using RF Reference Source Signal Generator, Attenuator, Multimeter & Power Meter by Comparison Method	1 dB to 70 dB	0.27 dBm
283	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (1 kHz to 18 GHz)	Using Power Meter, Spectrum Analyzer by Comparison Method	1 dB to 110 dB	0.14dBm to 0.5dBm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 54 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
284	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (Attenuator/Signal Generator) (18 GHz to 40 GHz)	Using Multimeter & Power Meter by Comparison method	1 dB to 70 dB	0.55 dBm
285	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Harmonics (n=2,3), Frequency (10 Hz to 2.9 GHz)	Using Spectrum Analyzer Upto 30 GHz by Direct Method	> (-)10dBc %	5.21 %
286	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Modulation AM CW: 100 kHz to 3.9 GHz Modulation Rate 1 kHz to 10 kHz AM Depth	Using Signal/ Spectrum Analyzer, Modulation analyzer as transfer by Relative Sideband Amplitude by Comparison Method	1 % to 98 %	2 % to 2 %
287	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Modulation FM CW: 100 kHz to 25 GHz Modulation Rate 50 Hz to 267 kHz FM Deviation	Using Signal/ Spectrum Analyzer by Bessel Function by Comparison Method	50 Hz to 4 MHz	1.3 %
288	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power (Power meter, Signal Generator, RF Reference Source) (18 GHz to 40 GHz)	Using Power Meter, Spectrum Analyzer by Direct Method	-60 dBm to 13 dBm	0.54 dB



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 55 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
289	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power (Signal Generator, RF Reference Source (10 Hz to 29.99 GHz)	Using Power Meter, Spectrum Analyzer by Comparison Method	-60 dBm to 10 dBm	0.54 dB
290	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power (Signal Generator, RF Reference Source, Power meter) (1 kHz to 18 GHz)	Using Power Meter, Spectrum Analyzer by Direct Method	-60 dBm to 13 dBm	0.17 dBm to 0.24 dBm
291	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Reflection Coefficient (1 kHz to 18 GHz)	Using Network Analyzer by Direct method	0.024 rho to 0.33 rho	0.032rho
292	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	3 dB Bandwidth (Filter, Power meter, Power Sensor, Oscilloscope)	Using RF Reference Source, Signal Generator by Direct Method	Upto 40 GHz	3.31 %
293	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD PT 100 Type	Using 8½ DMM by Simulation method	-200 °C to 800 °C	0.02 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 56 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
294	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - L Type	Using 8½ DMM by Simulation method	-200 °C to 900 °C	0.14 °C
295	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - N Type	Using 8½ DMM by Simulation method	-200 °C to 1300 °C	0.06 °C
296	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - J Type	Using 8½ DMM by Simulation method	-200 °C to 1200 °C	0.05 °C
297	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - K Type	Using 8½ DMM by Simulation method	-200 °C to 1372 °C	0.05 °C
298	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - R & S Type	Using 8½ DMM by Simulation method	1 °C to 1750 °C	0.09 °C
299	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - T Type	Using 8½ DMM by Simulation method	-200 °C to 400 °C	0.05 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 57 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
300	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - U Type	Using 8½ DMM by Simulation method	-200 °C to 400 °C	0.19°C
301	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple- E Type	Using 8½ DMM by Simulation method	-200 °C to 1000 °C	0.05°C
302	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - B Type	Using 8½ DMM by Simulation method	600 °C to 1800 °C	0.09 °C
303	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT 100 Type	Using MFC by Simulation method	-200 °C to 800 °C	0.07 °C
304	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - B Type	Using 6½ Multifunction Calibrator by Simulation method	600 °C to 1800 °C	0.12 °C
305	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - E Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1000 °C	0.07 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 58 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
306	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - J Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1200 °C	0.05°C
307	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - K Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1372 °C	0.06°C
308	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - L Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 900 °C	0.1 °C
309	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - N Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1300 °C	0.05°C
310	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - R Type & S Type	Using 6½ Multifunction Calibrator by Simulation method	1 °C to 1750 °C	0.16 °C
311	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - T Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 400 °C	0.06°C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 59 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
312	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - U Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 400 °C	0.09°C
313	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Disciplined Frequency Standard, Frequency Counter by Direct Method	1 GHz to 18 GHz	1.4 Hz to 2.6 Hz
314	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Disciplined Frequency Standard, Frequency Counter by Direct Method	1 mHz to 10 Hz	10 µHz
315	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Disciplined Frequency Standard, Frequency Counter by Direct Method	1 MHz to 100 MHz	0.7 mHz to 60 mHz
316	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Disciplined Frequency Standard, Frequency Counter by Direct Method	10 Hz to 10 kHz	10 µHz to 21 µHz
317	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Disciplined Frequency Standard, Frequency Counter by Direct Method	10 kHz to 1 MHz	21 µHz to 0.7 mHz



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 60 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
318	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Disciplined Frequency Standard, Frequency Counter by Direct Method	100 MHz to 1 GHz	60 mHz to 1.4 Hz
319	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Frequency	Using Disciplined Frequency Standard, Frequency Counter by Direct Method	18 GHz to 40 GHz	2.6 Hz to 6.5 Hz
320	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time	Using Timer by Comparison Method	100 ms to 15000 s	1.022 % to 0.01 %
321	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time	Using Timer by Comparison Method	15000 s to 86400 s	0.01 %
322	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	1 GHz to 18 GHz	1.3 Hz to 2.5 Hz
323	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	1 mHz to 10 Hz	10 μHz



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 61 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
324	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	1 MHz to 100 MHz	0.6 mHz to 64 mHz
325	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	10 Hz to 10 kHz	10 µHz to 21 µHz
326	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	10 kHz to 1 MHz	21 µHz to 0.63 mHz
327	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	100 MHz to 1 GHz	64 mHz to 1.3 Hz
328	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	18 GHz to 40 GHz	2.5 Hz to 6.5 Hz
329	FLUID FLOW-FLOW MEASURING DEVICES	Anemometers / Air Velocity Meters	Using Anemometer by Comparison Method	0.2 m/s to 0.85 m/s	9.2 % to 2.53 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 62 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
330	FLUID FLOW-FLOW MEASURING DEVICES	Anemometers / Air Velocity Meters	Using Anemometer by Comparison Method	0.85 m/s to 2 m/s	2.53 % to 3.32 %
331	FLUID FLOW-FLOW MEASURING DEVICES	Anemometers / Air Velocity Meters	Using Anemometer by Comparison Method	2 m/s to 30 m/s	3.32 % to 1.28 %
332	FLUID FLOW-FLOW MEASURING DEVICES	Flow Meters (Air)	Using Mass Flow Meter by Comparison Method	0.005 lpm to 0.1 lpm	1.19 %
333	FLUID FLOW-FLOW MEASURING DEVICES	Flow Meters (Air)	Using Mass Flow Meter by Comparison Method	0.1 lpm to 5 lpm	0.89 %
334	FLUID FLOW-FLOW MEASURING DEVICES	Flow Meters (Air)	Using Mass Flow Meter by Comparison Method	250 lpm to 800 lpm	0.76 %
335	FLUID FLOW-FLOW MEASURING DEVICES	Flow Meters (Air)	Using Mass Flow Meter by Comparison method	5 lpm to 250 lpm	0.55 %
336	FLUID FLOW-FLOW MEASURING DEVICES	Flow Meters (Air)	Using Mass Flow Meter by Comparison Method	800 lpm to 2000 lpm	0.76 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	63 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
337	FLUID FLOW-FLOW MEASURING DEVICES	Liquid Flow Meter	Using Weighing System 200g & Timer by Gravimetric Method	0.03 mlpm to 0.2 lpm	0.37 % to 0.22 %
338	FLUID FLOW-FLOW MEASURING DEVICES	Liquid Flow Meter	Using Weighing System 200g, 60 kg & Timer by Gravimetric Method	0.2 lpm to 60 lpm	0.2 % to 0.25 %
339	FLUID FLOW-FLOW MEASURING DEVICES	Liquid Flow Meter	Using Weighing System 600kg & Timer by Gravimetric Method	60 lpm to 500 lpm	0.25 % to 0.33 %
340	MECHANICAL-ACCELERATION AND SPEED	Accelerometer	Using Portable Vibration Calibrator By Direct method	11 Hz to 5000 Hz	2.3 % to 3.3 %
341	MECHANICAL-ACCELERATION AND SPEED	Accelerometer	Using Portable Vibration Calibrator By Direct method	5 Hz to 10 Hz	3.5 % to 3.5 %
342	MECHANICAL-ACCELERATION AND SPEED	Accelerometer	Using Portable Vibration Calibrator By Direct method	5001 Hz to 10000 Hz	3.4 %
343	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	5000 rpm to 20000 rpm	0.13 % to 0.09 %
344	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	100 rpm to 1000 rpm	0.4 % to 0.09 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 64 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
345	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	1000 rpm to 5000 rpm	0.27 % to 0.13 %
346	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	20000 rpm to 50000 rpm	0.09 % to 0.09 %
347	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Using Digital Tachometer by Direct Method	50000 rpm to 99000 rpm	0.07 % to 0.027 %
348	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	6 rpm to 100 rpm	0.61 % to 0.40 %
349	MECHANICAL-ACCELERATION AND SPEED	Portable Vibration Calibrator	Using Accelerometer and Oscilloscope By Direct method	5 Hz to 500 Hz	1.58 % to 1.61 %
350	MECHANICAL-ACCELERATION AND SPEED	Portable Vibration Calibrator	Using Accelerometer and Oscilloscope By Direct method	5001 Hz to 15000 Hz	2.12 % to 2.5 %
351	MECHANICAL-ACCELERATION AND SPEED	Portable Vibration Calibrator	Using Accelerometer and Oscilloscope By Direct method	501 Hz to 5000 Hz	1.65 % to 1.69 %
352	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Digital Tachometer by Comparison Method	100 rpm to 1000 rpm	0.38 % to 0.24 %
353	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Digital Tachometer by Comparison Method	1000 rpm to 4000 rpm	0.24 % to 0.11 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 65 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
354	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Digital Tachometer by Comparison Method	4000 rpm to 8000 rpm	0.11 % to 0.05 %
355	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Contact Type)	Digital Tachometer by Comparison Method	6 rpm to 100 rpm	1.12 % to 0.38 %
356	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Non Contact Type)	Digital Tachometer by Comparison Method	100 rpm to 1000 rpm	0.37 % to 0.23 %
357	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Non Contact Type)	Digital Tachometer by Comparison Method	1000 rpm to 5000 rpm	0.23 % to 0.1 %
358	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Non Contact Type)	Digital Tachometer by Comparison Method	20000 rpm to 99000 rpm	0.07 % to 0.06 %
359	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Non Contact Type)	Digital Tachometer by Comparison Method	5000 rpm to 20000 rpm	0.1 % to 0.07 %
360	MECHANICAL-ACCELERATION AND SPEED	Tachometer (Non Contact Type)	Digital Tachometer by Comparison Method	6 rpm to 100 rpm	1.13 % to 0.37 %
361	MECHANICAL-ACCELERATION AND SPEED	Vibration meter - Acceleration (10 Hz to 1 kHz)	Using Portable Vibration Calibrator by Direct Method / Vibration Meter by Comparison Method	1 m/s ² to 100 m/s ²	3.37 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	66 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
362	MECHANICAL-ACCELERATION AND SPEED	Vibration meter - Displacement (10 Hz to 100 Hz)	Using Portable Vibration Calibrator by Direct Method / Vibration Meter by Comparison Method	0.01 mm to 2 mm	2.71 %
363	MECHANICAL-ACCELERATION AND SPEED	Vibration meter - Velocity (10 Hz to 1 kHz)	Using Portable Vibration Calibrator by Direct Method / Vibration Meter by Comparison Method	1 mm/s to 100 mm/s	2.72 %
364	MECHANICAL-ACOUSTICS	Acoustic Pressure - Pressure field / Piston Phone @1 kHz	Using Sound Level Calibrator and Reference Microphone and Oscilloscope by Substitution Method	94 dB & 114 dB	0.5 dB
365	MECHANICAL-ACOUSTICS	Acoustic Pressure-Pressure field Sound Level Calibrator /Piston Phone @ 250Hz & 1 kHz	Using Sound Level Calibrator and Reference Microphone and Oscilloscope by Substitution Method	94 dB & 114 dB	0.5 dB
366	MECHANICAL-ACOUSTICS	Sound Level Meter @1 kHz	Using Sound Level Calibrator by Direct Method	94 & 114 dB	0.3 dB
367	MECHANICAL-ACOUSTICS	Sound Level Meter @ 250 Hz	Using Sound Level Calibrator by Direct Method	94 dB & 114 dB	0.3 dB



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 67 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
368	MECHANICAL-DENSITY AND VISCOSITY	Specific Gravity Hydrometer/ Density / Baume / Brix Hydrometer / Lactometer / Alcoholmeter	Calibration of Hydrometers by Cuckows method	0.600 to 2.000	0.00014
369	MECHANICAL-DENSITY AND VISCOSITY	Viscosity (Dynamic Viscosity) - Rotational Viscometer	Calibration using Standard Viscosity liquids by comparison method	50 cP to 94900 cP	0.87 %
370	MECHANICAL-DENSITY AND VISCOSITY	Viscosity Cups, Zahn Cups, Shell Cups, ISO Cups	Calibration using liquids of known Kinematic Viscosity by Comparison method	20 cst to 300 cst	0.39 %
371	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	2D Height Gauge (Digital) L.C: 0.1 μm (Linearity)	Using Long Slip Gauge Block by Comparison method	0 to 600 mm	2.7 μm
372	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	2D Height Gauge (Digital) L.C: 0.1 μm (Squareness)	Using Squareness Cylinder & Lever Dial Gauge by Comparison method	0 to 600 mm	5.6 μm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 68 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
373	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Angle Graticule	Using Video Measuring Machine By Direct method	0° to 360°	1.8 minutes of arc
374	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Angle Plate (Flatness)	Using CMM By Direct Method	600X400X450 mm	2.5µm
375	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Angle Plate (Parallelism)	Using CMM By Direct Method	600X400X450 mm	2.5 µm
376	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Angle Plate (Squareness)	Using CMM By Direct Method	600X400X450 mm	2.5 µm
377	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bench Center (Co-axiality)	Using Taper Mandrels, Lever Dial Gauge by Comparison method	0 to 500 mm	4.1 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 69 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
378	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bench Center (Parallelism)	Using Straight Mandrels, Lever Dial Gauge by Comparison method	0 to 500 mm	4.5 µm
379	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bevel Protractor/Protractor / Combination Set LC : 1'	Using Angle Block Set by Comparison method	0° to 360°	1.60 minutes of arc
380	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Bore Dial Gauge for Transmission Accuracy check LC: 1 µm	Using Length Measuring Machine by Direct method	0 to 2 mm	0.43 µm
381	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Caliper (Vernier/Dial/Digital) LC : 10 µm	Using Gauge Block Set, Caliper Checker by Comparison method	0 to 600 mm	8.1 µm
382	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Caliper (Vernier/Dial/Digital) LC : 10 µm	Using Gauge Block Set, Caliper Checker by Comparison method	1000 mm to 2000 mm	12.0 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 70 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
383	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Caliper (Vernier/Dial/Digital) LC : 10 µm	Using Gauge Block Set, Caliper Checker by Comparison method	600 mm to 1000 mm	10.3 µm
384	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Coating Thickness Gauge with Foils LC:0.1 µm	Using Standard Thickness Foils by Comparison method	0 to 2000 µm	1.8 µm
385	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Comparator Stand (Flatness of work Table)	Using Lever Dial Gauge / CMM by Direct method	300 mm x 200 mm	1.5 µm
386	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Comparator Stand(Flatness of workTable)	Using Optical Flat by Comparison method	50 mm to 100 mm	0.1 µm
387	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Cylindrical Measuring Pin	Using Electronic Probe with Comparator Stand by Comparison method	0.1 mm to 26 mm	0.6 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

71 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
388	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Caliper LC : 10 µm	Using Gauge Block Set by Comparison method	0 to 300 mm	8.2 µm
389	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Caliper, L.C.: 10 µm	Using Gauge Block Set Comparison method	300 mm to 600 mm	13.1 µm
390	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Micrometer LC : 1 µm	Using Gauge Block Set by comparison method	0 to 150 mm	2.1 µm
391	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Micrometer LC : 1 µm	Using Gauge Block Set by Comparison Method	0 to 300 mm	6.6 µm
392	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Depth Micrometer, L.C.: 1 µm	Using Gauge Block Set by Comparison method	0 to 600 mm	11.4 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 72 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
393	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Comparators LC 0.0005 mm	Using Slip gauge Set By Comparison Method	± 0.05 mm	0.4 µm
394	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Gauge (Lever Type) LC : 1 µm	Using Length Measuring Machine by Direct method	0 to 2 mm	0.3 µm
395	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Dial Gauge (Plunger /Digital/ Dial Thickness Gauge)/LVDT LC : 1 µm	Using LMM/Slip gauge set by Direct method	0 to 100 mm	0.7 µm
396	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Digital Bevel Protractor / Protractor/Combination Set LC: 1'	Using Video Measuring Machine by Direct method	0° to 360°	1.8 minutes of arc
397	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Electronic Level LC 0.001 mm/m	Using Tilting Fixture & Electronic probe with DRO by Direct method	± 2 mm/m	1.7 µm/m



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

73 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
398	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Electronic Probe with Comparator stand	Using Gauge Block set and Optical Flat by Comparison method	0 to 25 mm	0.3 µm
399	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Electronic Probe with DRO	Using Gauge Blocks by Comparison method	0 to 50 mm	0.3 µm
400	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Elongation Gauge	Using 2D Height Gauge by Comparison Method	0 to 100 mm	5.9 µm
401	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Engineering Square (Parallelism)	Using Lever Dial gauge & Surface Plate by Comparison method	Up to 400 mm	3.4 µm
402	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Engineering Square (Parallelism)	Using CMM By Direct method	Up to 600 mm	2.5 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 74 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
403	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Engineering Square (Squareness)	Using Granite Square & Slip Gauge by Comparison method	Up to 400 mm	6.2 μm
404	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Engineering Square (Squareness)	Using CMM By Direct method	Up to 600 mm	2.5 μm
405	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Engineering Square (Straightness)	Using Lever Dial gauge & Surface Plate by Comparison method	Up to 400 mm	3.4 μm
406	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Engineering Square (Straightness)	Using CMM By Direct method	Up to 600 mm	2.5 μm
407	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech / Electronic / Digital) LC : 0.1μm	Using Gauge Blocks & Optical Parallels by Comparison method	0 to 25 mm	0.4 μm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 75 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
408	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech / Electronic / Digital) LC : 1 µm	Using Gauge Block & Optical Parallels/Flat by Comparison method	0 to 150 mm	0.90 µm
409	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech / Electronic / Digital) LC : 1 µm	Using Gauge Block & Optical Parallels by Comparison method	150 mm to 450 mm	3 µm
410	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech / Electronic / Digital) LC : 1 µm	Using Gauge Block Optical Parallels By Comparison method	450 mm to 1000 mm	8.1 µm
411	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech / Electronic / Digital) LC : 10 µm	Using Gauge Blocks & optical parallels by Comparison method	1000 mm to 2000 mm	9.0 µm
412	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Feeler Gauge	Using Electronic Probe with Comparator stand / Dig Micrometer by Direct method	0.1 mm to 1 mm	0.8 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 76 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
413	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Fillet Gauge/ Form Gauge (Angle)	Using Video Measuring Machine by Direct method	0° to 90°	2.2 minutes of arc
414	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Fillet Gauge/ Form Gauge (Length)	Using Video Measuring Machine by Direct method	0 to 150 mm	3.1 µm
415	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Flankiness Gauge	Using Video Measuring Machine & 2D Height Gauge by Direct method	0 to 100 mm	5.9 µm
416	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Hegman Gauge	Using Electronic Probe with DRO by Direct Method	0 to 1 mm	2.3 µm
417	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Vernier/Dial/Digital) L.C: 10 µm	Using Gauge Blocks and Caliper Checker, Lever Dial Gauge by Comparison method	0 to 600 mm	8.0 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	77 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
418	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Vernier/Dial/Digital) LC: 10 µm	Using Long Slip Gauge Block by Comparison method	0 to 1000 mm	8.7 µm
419	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Inclinometer L.C 0.01°	Using Angle Gauge Blocks by Comparison Method	0° to 90°	0.4 minutes of arc
420	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Inside/ Outside Dial Caliper LC: 1 µm Inside Caliper from 5 to 100 mm and for outside caliper 0 to 100 mm.	Using Gauge Block set by Comparison method	0 to 100 mm	0.7 µm
421	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Internal / Stick Micrometer LC : 10 µm	Using Gauge Block Set By Comparison method	1000 mm to 5000 mm	(5.0+0.002xL) µm, where L in mm
422	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Internal / Stick Micrometer LC : 10 µm	Using Gauge Block Set by Comparison method	50 mm to 1000 mm @ step of 300 mm	(2.7+2.3xL) µm, where L is length in m



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 78 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
423	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Jigs, Fixtures, PCD gauges, lever arm, master block, Receiver Gauge - Linear Measurement	Using CMM By Comparison method	upto 500X1000 mm	3.6 µm
424	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Laser Distance Meter (L.C: 0.01 mm)	Using Slip Gauge set and long series gauge block by Comparison Method	0 to 2000 mm	350 µm
425	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Laser Micrometer L.C 0.0001mm	Using Cylindrical Setting Master by Direct method	Up to 30 mm	1.1 µm
426	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Limit Gauge (Angle)	Using Video Measuring Machine By Direct method	0° to 360°	2.4 minutes of arc
427	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Limit Gauge (Length,Radius,Diameter)	Using Video Measuring Machine By Direct method	Up to 150 mm	4.6 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 79 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
428	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Limit Gauge - Spline Gauge (GO ,NOGO) Major, Minor & Over pins Diameter	Using Video Measuring Machine by Direct method	10 mm to 100 mm	4.6 µm
429	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring Scales (L.C: 0.5 mm)	Using Length Measuring Machine (Tape and Scale Calibrator)by Direct method	Up to 2000 mm	114x(SQRT L) µm, where L in m
430	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Measuring Tape/Pi Tape (L.C: 0.1 mm)	Using Length Measuring Machine (Tape and Scale Calibrator) by Direct method	Up to 50 m	122.8x(SQRT L) µm, Where L in m
431	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Micrometer Head LC: 1 µm	Using Length Measuring Machine by Direct method	0 to 50 mm	0.8 µm
432	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Micrometer Setting Rod	Using Gauge Block Set, long series gauge block set & Electronic probe with DRO by Comparison method	1000 mm to 1950 mm	7.9 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 80 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
433	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Micrometer Setting Rod	Using Gauge Block Set, long series gauge block set & Electronic probe with DRO by Comparison method	25 mm to 1000 mm	4.7 µm
434	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Pistol Caliper LC: 100µm	Using Gauge Block Set by Comparison method	0 to 100 mm	60.4 µm
435	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain / Setting / Master Ring Gauge	Using CMM By Direct Method	300 mm to 350 mm	3.0 µm
436	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain / Setting /Master Ring Gauge	Using Length Measuring Machine, Master Ring Gauge By Direct method	100 mm to 325 mm	2.6 µm
437	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain / Setting /Master Ring Gauge	Using Length Measuring Machine, Master Ring gauge by Direct method	2 mm to 100 mm	1.8 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 81 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
438	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Plug Gauge/Master Disc	Using Length Measuring Machine by comparison method	100 mm to 400 mm	1.6 µm
439	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Plain Plug Gauge/Width Gauge/Master Disc	Using Electronic Probe, Gauge block set with DRO By comparison method	Up to 100 mm	1.0 µm
440	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Radius Gauge	Using Video Measuring Machine by Direct method	0.4 mm to 30 mm	1.4 µm
441	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Sine Bar/ Sine Centre / Sine Table	Using Gauge Blocks, Angle Gauge Blocks, Lever Dial Gauge, CMM/VMS by Comparison method	0° to 45°	2.82 s of arc
442	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Snap Gauge	Using Gauge Block Set by Comparison method	3 mm to 500 mm	2.7 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 82 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
443	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Sphere / Spherical Ball Diameter	Using LMM/ Electronic probe with DRO by Comparison method	Up to 50 mm	0.4 µm
444	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Spirit Level (Type 1, 2 & 3) Sensitivity : 0.01 mm/m	Using Tilting Fixture & Electronic probe with DRO by Direct method	Up to 0.4 mm/m	7.9 µm/m
445	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Straight Edge/Parallels	Using Slip gauge set and Lever Dial Gauge by Direct Method	Up to 2000 mm	16.8 µm
446	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Surface Plate	Using Electronic Level by Direct method	3 m x 2 m	1.3(Sqrt(L+W)/100) µm, where L=Length in mm, W=Width in mm
447	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper Plain Plug Gauge (Minor & Major Diameter)	Using CMM By Direct method	Up to 100 mm	1.7 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

83 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
448	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper Plain Plug Gauge-Taper Half Angle	Using CMM By Direct Method	Up to 20°	2.4 s of arc
449	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper Plain Ring Gauge (Minor & major Diameter)	Using CMM By Direct Method	5 mm to 100 mm	1.4 µm
450	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper Plain Ring Gauge-Taper Half Angle	Using CMM By Direct Method	Up to 30°	1.65 s of arc
451	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper Scale	Using Video Measuring Machine By Direct method	1 mm to 15 mm	9.5 µm
452	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper Thread Plug Gauge-Effective Diameter @ basic length	Using Length Measuring Machine by Direct method	Up to 100 mm	1.4 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	84 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
453	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper Thread Ring Gauge -Effective Diameter @ basic length	Using Length Measuring Machine by Direct method	Up to 100 mm	1.4 μm
454	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper/Conical/Cylindrical Mandrel - coaxiality	Using CMM By Direct Method	3 mm to 200 mm	3.0 μm
455	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper/Conical/Cylindrical Mandrel - Dia @ Gauge Plane/ Roundness/Straightness	Using CMM By Direct Method	3 mm to 50 mm	2.8 μm
456	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Taper/Conical/Cylindrical Mandrel - Taper Angle	Using CMM By Direct Method	Up to 20°	2.5 s of arc
457	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Test Sieves	Using Video Measuring Machine By Direct method	0.032 mm to 125 mm	1.1 μm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

85 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
458	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thickness Foils	Using Electronic Probe with DRO / Comparator Stand by Direct method	Up to 2.5 mm	1.6 µm
459	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Pitch Gauge (Angle)	Using Video Measuring Machine by Direct method	55° & 60°	2.2 minutes of arc
460	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Pitch Gauge (Pitch)	Using Video Measuring Machine by Direct method	0.25 mm to 6.35 mm	1.2 µm
461	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Plug Gauge (Major Dia, Effective Dia)	Using Length Measuring Machine, Master Disc by comparison method	100 mm to 400 mm	1.7 µm
462	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Plug Gauge (Major Dia, Effective Dia)	Using FCDM by comparison method	2 mm to 100 mm	1.6 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 86 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
463	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Ring Gauge (For Effective Dia)	Using Length Measuring Machine, Master Ring by comparison method	3 mm to 100 mm	1.9 µm
464	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Thread Ring Gauge (For Effective Dia.)	Using Length Measuring Machine, Master Ring by comparison method	100 mm to 325 mm	1.9 µm
465	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Three Point Micrometer LC: 1.0 µm	Using Setting Ring Gauge by Comparison method	2.5 mm to 100 mm	2.1 µm
466	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Ultrasonic Thickness Gauge LC: 100 µm	Using Gauge Block Set by Comparison method	0 to 100 mm	52.1 µm
467	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Ultrasonic ThicknessGauge LC: 1 µm	Using Gauge Block Set by Comparison method	0 mm to 50 mm	3.1 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 87 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
468	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	V- Block (Sqareness)	Using Lever Dial Gauge Gauge & Mandrel by Direct method	300x125x200 mm	4.4 µm
469	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	V- Block (Symmetricity)	Using Lever Dial Gauge Gauge & Mandrel by Direct method	300x125x200 mm	4.4 µm
470	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	V- Block (Parallelism)	Using Lever Dial Gauge Gauge & Mandrel by Direct method	300x125x200 mm	4.4 µm
471	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Wet Film Thickness Gauge	Using Video Measuring Machine by Direct method	0.025 mm to 25 mm	1 µm
472	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Wire Gauge	Using Video Measuring Machine By Direct method	0.19 mm to 7.62 mm	8.0 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 88 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
473	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Angle gauge Blocks	Using Sine Bar, Slip gauge & Electronic comparator by Comparison method	Up to 45°	7.4 s of arc
474	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Caliper Checker	Using CMM by Direct Method	20 mm to 1000 mm	3.7 µm
475	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Caliper Checker/Step Gauge	Using Gauge Blocks & Electronic Comparator by Comparison method	20 mm to 600 mm	3.7 µm
476	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Coordinate Measuring Machine (L.C: 0.1 µm) - Probing Error	Using Gauge Block Set Grade '0', Step Gauge Block Grade '0' and Reference sphere by Comparison method	Upto 30 mm Probing Ball Dia.	1.1 µm
477	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Coordinate Measuring Machine (L.C: 0.1 µm) - X,Y,Z total Measuring error (3D error) (MPEE)	Using Gauge Block Set Grade '0', Step Gauge Block and Reference sphere by Comparison method	Up to 1000 mm	1.2 µm; i.e (0.9+0.5 L) µm, where L in m
478	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Cylindrical Setting Master (Diameter and Concentricity)	Using Electronic Probe with DRO, & FCDM / Lever Dial Gauge by Direct method	3 mm to 100 mm	1.1µm for Diameter and 1.3µm for Concentricity



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 89 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
479	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Dial Calibration Tester (L.C: 0.1 µm)	Using Electronic Probe with DRO, Slip gauge and optical flat by Comparison Method	0 to 25 mm	0.7 µm
480	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Electronic Comparator (Lever Type) (L.C: 0.0001 mm)	Using LMM by Direct method	Up to 2 mm	0.3 µm
481	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Floating Carriage Micrometer (L.C: 0.0001 mm)	Using Electronic probe with DRO and slip gauge set, Mandrels & Master Cylinders, by Direct method	0 to 100 mm	1.2 µm
482	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Gauge Block Accessories Flatness	Using Optical flat by Comparison method	Up to 50 mm	0.23 µm
483	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Gauge Block Accessories Parallelism	Using Electronic Comparator with DRO by Comparison method	Up to 50 mm	0.50 µm
484	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Gauge Block Accessories Size	Using Electronic Probe Range 25 mm with DRO by Direct method	Up to 5.0 mm	1.8 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 90 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
485	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Gauge Block Grade K,0,1,2	Using Slip Gauge Calibrator & K Grade Slip Gauge by Comparison method	>25 mm to 50 mm	0.12 µm
486	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Gauge Block Grade K,0,1,2	Using Slip gauge Calibrator & K grade Slip Gauges by Comparison method	>50 mm to 75 mm	0.15 µm
487	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Gauge Block Grade K,0,1,2	Using Slip Gauge Calibrator & K grade Slip Gauges by Comparison method	>75 mm to 100 mm	0.18 µm
488	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Gauge Block Grade K,0,1,2	Using Gauge block Calibrator & k Grade Gauges by Comparison method	Up to 25 mm	0.11 µm
489	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Granite square - Flatness	Using CMM By Direct Method	600x450x100 mm	2.5 µm
490	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Granite square /Cylindrical square-Squareness	Using CMM By Direct Method	600x450x100 mm	2.8 µm
491	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Length Measuring Machine (L.C: 0.0001 mm)	Using Gauge Block Set (0 Grade) by Comparison method	0 to 100 mm	0.4 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 91 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
492	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Long Gauge Blocks	Using Gauge Block Set (K Grade) Electronic Comparator by Comparison method	100 mm to 200 mm	0.9 µm
493	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Long Gauge Blocks	Using Gauge Block Set (k Grade) Electronic Comparator by Comparison method	300 mm	1.1 µm
494	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Long Gauge Blocks	Using Gauge Block Set (k Grade) Electronic Comparator by Comparison method	400 mm	1.5 µm
495	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Long Gauge Blocks	Using Gauge Block Set (k Grade) Electronic Comparator by Comparison method	500 mm	1.6 µm
496	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Long Gauge Blocks	Using CMM By Direct Method	500 mm to 1000 mm	2.5 µm
497	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Optical Flat - Flatness	Using Master Flat with Monochromatic Light Source by Comparison method	Up to 60 mm	0.072 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	92 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
498	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Profile Projector / Microscope - Magnification	Using Glass Scale & Slip gauge by Comparison method	10X to 100X	0.1 %
499	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Profile Projector/Microscope /VMS (L.C: 0.1 µm) - Length	Using Glass Scale and Slip Gauge by Comparison method	0 to 400 mm	6.0 µm
500	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Profile Projector/VMS (L.C: 1 s) - Angle	Using Angle Gauge Block, Angle Graticule by Comparison method	0° to 360°	4 s
501	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Roughness Master	Using Surface Roughness Tester by Comparison method	Up to 3.5 µm	6.1 %
502	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Roughness Tester	Using Depth master and Roughness master by Direct method	Up to 3.5 µm	6.9 %
503	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Tape & Scale Calibrator (L.C: 0.001 mm)	Using Gauge Block Set (0 Grade) by Comparison method	0 to 1000 mm	6.0 µm
504	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Thread Measuring Wire	Using Electronic Probe with DRO by Direct Method	0.170 mm to 6.350 mm	0.5 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 93 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
505	MECHANICAL-DUROMETER	Spring force Calibration of Rubber Hardness Tester Shore A, B, E, O	Using Load Cell with Indicator By Direct method As per ASTM D 2240	0 to 100 Shore(A,B,E,O)	0.11 shore
506	MECHANICAL-DUROMETER	Spring Force Calibration of Rubber Hardness Tester Shore C, D, DO	Using Load Cell with Indicator By Direct method As per ASTM D 2240	0 to 100 Shore(C,D,DO)	0.1 shore
507	MECHANICAL-FORCE PROVING INSTRUMENTS	Load Cells / Force Proving Instruments	Using Dead Weight Force Calibration Machines and Newton weights as per ISO 376 by Direct Method	1 kN to 10 kN	0.052 %
508	MECHANICAL-FORCE PROVING INSTRUMENTS	Load Cells / Force Proving Instruments	Using Dead Weight Force Calibration Machines and Newton weights as per ISO 376 by Direct Method	100 N to 1000 N	0.045 %
509	MECHANICAL-HARDNESS TESTING MACHINES	Brinell Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HBW 10 / 3000	1.52 %
510	MECHANICAL-HARDNESS TESTING MACHINES	Brinell Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HBW 2.5/187.5	1.57 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 94 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
511	MECHANICAL-HARDNESS TESTING MACHINES	Brinell Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HBW 5 / 750	1.57 %
512	MECHANICAL-HARDNESS TESTING MACHINES	Rockwell Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HRA	0.9 HRA
513	MECHANICAL-HARDNESS TESTING MACHINES	Rockwell Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HRBW	0.96 HRBW
514	MECHANICAL-HARDNESS TESTING MACHINES	Rockwell Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HRC	0.78 HRC
515	MECHANICAL-HARDNESS TESTING MACHINES	Vickers Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HV 10	1.8 %
516	MECHANICAL-HARDNESS TESTING MACHINES	Vickers Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HV 20	1.7 %
517	MECHANICAL-HARDNESS TESTING MACHINES	Vickers Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HV 30	1.6 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 95 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
518	MECHANICAL-HARDNESS TESTING MACHINES	Vickers Hardness Testing Machine	Using Hardness Blocks by Indirect Method as per ISO 6506 (Part 2)	HV 50	2.6 %
519	MECHANICAL-MOBILE FORCE MEASURING SYSTEM	Push Pull Gauge	Using Newtonian Weights And frame fixture By Direct Method Using As per VDI - VDE 2624 part 2.1	1 N to 2000 N	0.21 % of rdg
520	MECHANICAL-PRESSURE INDICATING DEVICES	Absolute Pressure Gauges	Using Absolute Digital Pressure Gauge using Pneumatic pump by comparison method	0.05 bar(abs) to 4 bar(abs)	0.23 %rdg
521	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure Gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	0.1 mbar to 10 mbar	0.01 mbar
522	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure Gauge, DMM, Hydraulic comparator pump Based on DKD-R6-1 by Comparison method	1 bar to 40 bar	0.037 bar



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 96 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
523	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure Gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	10 mbar to 100 mbar	0.069 mbar
524	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	100 mbar to 2 bar	0.0008 bar
525	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	2 bar to 20 bar	0.0022 bar
526	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Transducers, Transmitters, Magnehelic Gauges	Using Pressure Gauge, DMM, Hydraulic Comparator pump Based on DKD-R6-1 by Comparison method	700 bar to 1000 bar	0.33 bar



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 97 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
527	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Transducers, Transmitters, Magnehelic Gauges	Using Pressure gauge, DMM, Hydraulic Comparator pump Based on DKD-R6-1 by Comparison method	40 bar to 700 bar	0.12 bar
528	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	20 bar to 40 bar	0.024 bar
529	MECHANICAL-PRESSURE INDICATING DEVICES	Digital/Analogue Pressure Gauges, Transducers/ Transmitters & Switches	Using DMM, Hydraulic (oil operated) Dead Weight Tester, Procedure based on DKD-R 6-1 By Comparison method	6 bar to 60 bar	0.014 % rdg.
530	MECHANICAL-PRESSURE INDICATING DEVICES	Digital/Analogue Pressure Gauges, Transducers/ Transmitters & Switches	Using Hydraulic (oil operated) Dead Weight Tester, DMM based on DKD-R6-1 by Comparison method	60 bar to 1200 bar	0.015 % rdg.
531	MECHANICAL-PRESSURE INDICATING DEVICES	Pressure (Absolute) Pressure Gauges	Using desiccator and vacuum pump as per OIML R 110 By Comparison method	50 mbar (abs) to 915 mbar (abs)	0.757 % rdg.



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 98 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
532	MECHANICAL-PRESSURE INDICATING DEVICES	Vacuum Digital/Analogue Vacuum Gauges, Transducers/ Transmitters, Switches	Using Pressure gauge, DMM, Pneumatic Vacuum Comparator pump Based on DKD-R6-1 by Comparison method	0 mbar to -900 mbar	0.20 mbar
533	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by Direct method as per ISO 6789 : 2017	1 Nm to 2 Nm	0.17 % of rdg
534	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by direct method as per ISO 6789 : 2017	0.01 Nm to 0.1 Nm	0.83 % of rdg
535	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by Direct method as per ISO 6789 : 2017	0.1 Nm to 1 Nm	0.73 % of rdg
536	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by direct method as per ISO 6789 : 2017	2 Nm to 20 Nm	0.21 % of rdg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 99 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
537	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by Direct method as per ISO 6789 : 2017	20 Nm to 200 Nm	0.26 % of rdg
538	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by Direct method as per ISO 6789 : 2017	200 Nm to 2000 Nm	0.24 % of rdg
539	MECHANICAL-TORQUE MEASURING DEVICES	Torque Sensors/Torque Meters	Using Dead Weight Torque Calibration System by Direct method as per BS 7882: 2017	0.1 Nm to 10 Nm	0.11 % of rdg
540	MECHANICAL-TORQUE MEASURING DEVICES	Torque Sensors/Torque Meters	Using Dead Weight Torque Calibration System by Direct method as per BS 7882 : 2017	10 Nm to 500 Nm	0.03 % of rdg
541	MECHANICAL-VOLUME	Micro Pipette/ Syringes / Dilutors / Burettes / Positive Displacement Pipettes / Dispensers	Using weighing balance of d = 0.001 mg and Distilled Water based on Gravimetric method as per ISO 8655: 2022	0.5 µl to 10 µl	0.05 µl



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 100 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
542	MECHANICAL-VOLUME	Micro Pipette/ Syringes / Dilutors / Burettes / Positive Displacement Pipettes / Dispensers	Using weighing balance of d = 0.001 mg & 0.01 mg and Distilled Water based on Gravimetric method as per ISO 8655: 2022	10 µl to 100 µl	0.06 µl
543	MECHANICAL-VOLUME	Micro Pipette/ Syringes / Dilutors / Burettes / Positive Displacement Pipettes / Dispensers	Using weighing balance of d = 1mg and Distilled Water based on Gravimetric method as per ISO 8655: 2022	10 ml to 100 ml	7.48 µl
544	MECHANICAL-VOLUME	Micro Pipette/ Syringes / Dilutors / Burettes / Positive Displacement Pipettes / Dispensers	Using weighing balance of d = 0.01 mg and Distilled Water based on Gravimetric method as per ISO 8655: 2022	100 µl to 1000 µl	0.13 µl
545	MECHANICAL-VOLUME	Micro Pipette/ Syringes / Dilutors / Burettes / Positive Displacement Pipettes / Dispensers	Using weighing balance of d = 0.01 mg and Distilled Water based on Gravimetric method as per ISO 8655: 2022	1000 µl to 10000 µl	0.53 µl



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 101 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
546	MECHANICAL-VOLUME	One Mark Pipette, Graduated Pipette, Graduated Burette, Volumetric Flask, Measuring Jar, Pycnometer	Using weighing balance of $d = 0.01$ mg and Distilled Water based on Gravimetric method as per ISO 4787: 2021	0.1 ml to 1 ml	0.00007 ml
547	MECHANICAL-VOLUME	One Mark Pipette, Graduated Pipette, Graduated Burette, Volumetric Flask, Measuring Jar, Pycnometer	Using weighing balance of $d = 0.01$ mg and Distilled Water based on Gravimetric method as per ISO 4787: 2021	1 ml to 10 ml	0.00046 ml
548	MECHANICAL-VOLUME	One Mark Pipette, Graduated Pipette, Graduated Burette, Volumetric Flask, Measuring Jar, Pycnometer	Using weighing balance of $d = 1$ mg and Distilled Water based on Gravimetric method as per ISO 4787: 2021	1001 ml to 5000 ml	0.226 ml
549	MECHANICAL-VOLUME	One Mark Pipette, Graduated Pipette, Graduated Burette, Volumetric Flask, Measuring Jar, Pycnometer	Using weighing balance of $d = 0.01$ mg & 0.1 mg and Distilled Water based on Gravimetric method as per ISO 4787: 2021	11 ml to 100 ml	0.0045 ml



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 102 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
550	MECHANICAL-VOLUME	One Mark Pipette, Graduated Pipette, Graduated Burette, Volumetric Flask, Measuring Jar, Pycnometer	Using Weighing Balance with $d=1$ mg and Distilled water by Gravimetric method as per ISO 4787: 2021	101 ml to 1000 ml	0.045 ml
551	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class 1 and Coarser, $d \geq 0.01$ mg)	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 50 g	0.02 mg
552	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class 1 and Coarser, $d \geq 0.0001$ mg)	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 2 g	0.002 mg
553	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class II and Coarser $d \geq 1$ g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	500 mg to 150 kg	1 g
554	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class II and Coarser $d \geq 100$ g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	1 kg to 1000 kg	100 g



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 103 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
555	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class III and Coarser d ≥ 100 mg)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	500 mg to 50 kg	100 mg
556	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class III and Coarser d ≥ 500 g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	2 kg to 3000 kg	500 g
557	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class III and Coarser d ≥ 10 g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	1 kg to 300 kg	10 g
558	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.001 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 20 g	0.005 mg
559	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.001 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 5 g	0.004 mg
560	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.01 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-076 By Direct Method	1 mg to 1 kg	0.12 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 104 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
561	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d \geq 0.01 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 200 g	0.03 mg
562	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d \geq 0.01 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 500 g	0.06 mg
563	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class II and Coarser d \geq 1 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	500 mg to 20 kg	7 mg
564	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class II and Coarser d \geq 1 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	500 mg to 5 kg	1 mg
565	MECHANICAL-WEIGHING SCALE AND BALANCE	Spring Balance	Using F1 class Weights By Direct Method	>1500 g to 200 kg	0.1 % of rdg
566	MECHANICAL-WEIGHING SCALE AND BALANCE	Spring Balance	Using F1 class Weights By Direct method	10 g to 1500 g	0.28 % of rdg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 105 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
567	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 Class Weights and coarser and Mass comparator of $d = 0.1 \mu\text{g}$ as Per OIML R - 111 by Subdivision method	1 mg	0.0010 mg
568	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d = 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision methods	10 mg	0.0010 mg
569	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d = 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision methods	100 mg	0.0013 mg
570	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d = 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision methods	2 mg	0.0010 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

106 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
571	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision methods	20 mg	0.0010 mg
572	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision methods	200 mg	0.0014 mg
573	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision method	5 mg	0.0010 mg
574	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision method	50 mg	0.0012 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 107 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
575	MECHANICAL-WEIGHTS	Accuracy class E1 & coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.1 \mu\text{g}$ as per OIML R-111 by Subdivision methods Through ABBA cycles	500 mg	0.0016 mg
576	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 1\mu\text{g}$ as per OIML R-111 by Substitution methods Through ABBA cycles	1 g	0.0020 mg
577	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.01\text{mg}$ as per OIML R-111 by Substitution methods Through ABBA cycles	1 kg	0.12 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	108 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
578	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 1 \mu\text{g}$ as per OIML R-111 Substitution methods Through ABBA cycles	10 g	0.005 mg
579	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.01\text{mg}$ as per OIML R-111 by Substitution methods Through ABBA cycles	100 g	0.02 mg
580	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 1 \mu\text{g}$ as per OIML R-111 by Substitution methods Through ABBA cycles	2 g	0.0030 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	109 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
581	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 1 \mu\text{g}$ as per OIML R-111 by Substitution methods Through ABBA cycles	20 g	0.005 mg
582	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.01\text{mg}$ as per OIML R-111 by Substitution methods Through ABBA cycles	200 g	0.03 mg
583	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 1 \mu\text{g}$ as per OIML R-111 by Substitution methods Through ABBA cycles	5 g	0.004 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 110 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
584	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.01\text{mg}$ as per OIML R-111 by Substitution methods Through ABBA cycles	50 g	0.01 mg
585	MECHANICAL-WEIGHTS	Weights E1 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 0.01\text{mg}$ as per OIML R-111 by Substitution methods Through ABBA cycles	500 g	0.06 mg
586	MECHANICAL-WEIGHTS	Weights E2 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of $d= 1\text{mg}$ as per OIML R-111 by Substitution methods Through ABBA cycles	10 kg	3 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 111 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
587	MECHANICAL-WEIGHTS	Weights E2 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of d= 1mg as per OIML R-111 by Substitution methods Through ABBA cycles	2 kg	1 mg
588	MECHANICAL-WEIGHTS	Weights E2 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of d= 1mg as per OIML R-111 by Substitution methods Through ABBA cycles	20 kg	7 mg
589	MECHANICAL-WEIGHTS	Weights E2 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of d= 1mg as per OIML R-111 by Substitution methods Through ABBA cycles	5 kg	2 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	112 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
590	MECHANICAL-WEIGHTS	Weights F2 class and Coarser	Using E1 class Standard weights and coarser and Mass comparator of d= 100mg as per OIML R-111 by Substitution methods Through ABBA cycles	50 kg	100 mg
591	OPTICAL-OPTICAL	Illuminance meter	Using Standard Illuminance Meter by Comparison Method	1 lux to 100000 lux	6 %
592	OPTICAL-OPTICAL	Illuminance Meter	Using Standard Illuminance Meter by Comparison Method	100000 lux to 199000 lux	5 %
593	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Dial / Digital Meters @ (10 °C to 60 °C)	Using Temperature & Humidity Meter with Humidity chamber (multiposition) by Comparison method	10 %RH to 95 %RH	1.17 %RH
594	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Dial / Digital Meters @ 23 °C	Using Temperature & Humidity Meter with Humidity Chamber by Comparison Method	5 %RH to 10 %RH	1.17 %RH



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 113 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
595	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Dial / Digital Meters @ 25 °C	Using Temperature & Humidity Meter with Humidity Chamber by Comparison Method	10 %RH to 95 %RH	1.17 %RH
596	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Meters (Dial / Digital)	Using Humidity standard solution by Direct method	5 % RH	0.33 % RH
597	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Meters (Dial / Digital)	Using Humidity standard solution by Direct method	95 % RH	0.81 % RH
598	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Transmitter / Digital Humidity Meters	Using Class A RTD Sensor with Digital Indicator by Comparison Method	0 °C to 60 °C	0.18 °C
599	THERMAL-TEMPERATURE	Blackbody Source / IR Thermal Source / Blackbody Cavity (Built in Temperature sensor with Display unit)	Using IR Thermometer by Direct Method	-20 °C to 1200 °C	4.08 °C
600	THERMAL-TEMPERATURE	Dew Point Meter (10 %RH to 50 %RH)	Using Digital Temperature/Humidity/Dew Point Meter, Multi function Calibrator and Humidity Chamber by comparison method	-20 °C to 40 °C	1.01 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 114 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
601	THERMAL-TEMPERATURE	Indicator of Furnace, Dry Block Bath	Using SSPRT & S-Type Thermocouple with Digital Indicator by Direct Method using single sensor	650 °C to 1200 °C	1.49 °C
602	THERMAL-TEMPERATURE	Indicator of liquid bath, Freezer, Dry Block Bath, Cold Room, Environmental Chamber	Using SPRT with Digital Indicator by Direct Method using single sensor	-100 °C to 140 °C	0.072 °C
603	THERMAL-TEMPERATURE	Indicator of liquid bath, Furnace, Oven, Dry Block Bath	Using SPRT with Digital Indicator by Direct Method using single sensor	140 °C to 650 °C	0.08 °C
604	THERMAL-TEMPERATURE	IR Thermometer/Pyrometer/Thermal Imager	Using IR thermometer and Black body source Emissivity 0.95 by Comparison method	-20 °C to 500 °C	1.87 °C
605	THERMAL-TEMPERATURE	IR Thermometer/Pyrometer/Thermal Imager	Using IR thermometer and Black body source Emissivity 0.99 by Comparison method	500 °C to 1200 °C	3.73 °C
606	THERMAL-TEMPERATURE	Liquid in Glass Thermometer, Digital Thermometer	Using Liquid Bath, SPRT with Digital Indicator by Comparison Method	-80 °C to 250 °C	0.28 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 115 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
607	THERMAL-TEMPERATURE	RTD, SPRT Indicator with sensor	Using LN2, SPRT with Digital Indicator and Cryo bath by Comparison method	-196 °C	0.07 °C
608	THERMAL-TEMPERATURE	RTD, SPRT, Thermocouples, Indicator with sensor	Using Dry Bath, SPRT with Digital Indicator by Comparison Method	140 °C to 650 °C	0.08 °C
609	THERMAL-TEMPERATURE	RTD, Thermocouples, Indicator with sensor	Using Dry Temperature bath, SPRT with Digital indicator by Comparison method	-100 °C to -45 °C	0.07 °C
610	THERMAL-TEMPERATURE	RTD, Thermocouples, Indicator with sensor	Using Dry Temperature Bath, SPRT with Digital Indicator by Comparison Method	-45 °C to 140 °C	0.02 °C
611	THERMAL-TEMPERATURE	Thermocouples, Indicator with sensor	Using SSPRT & S-Type Thermocouple with Digital Indicator by Comparison Method	650 °C to 1200 °C	1.47 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 116 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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 Active Power (1 Phase, 50 Hz @ 0.1 Lead/Lag, 30 to 600V, 10mA to 20A)	Using Digital Power Meter by Comparison Method	30 mW to 1.2 kW	0.3 % to 0.4 %
2	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.1Lead/Lag, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	1.2 kW to 3 kW	0.4 % to 0.2 %
3	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.5 Lead/Lag, 10 V to 600 V, 30 mA to 20 A)	Using Digital Power Meter by Comparison Method	150 mW to 6 kW	0.11 % to 0.07 %
4	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.5 Lead/Lag, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	6 kW to 15 kW	0.07 % to 0.10 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 117 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
5	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.8 Lead/Lag, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	9.6 kW to 24 kW	0.05 % to 0.10 %
6	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ 0.8 Lead/Lag, 30 V to 600 V, 10 mA to 20 A)	Using Digital Power Meter by Comparison Method	240 mW to 9.6 kW	0.13 % to 0.05 %
7	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ UPF, 30 V to 1000 V, 1 A to 30 A)	Using Digital Power Meter by Comparison Method	12 kW to 30 kW	0.036 % to 0.08 %
8	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Active Power (1 Phase, 50 Hz @ UPF, 30 V to 600 V, 1 mA to 20 A)	Using Digital Power Meter by Comparison Method	30 mW to 12 kW	0.10 % to 0.036 %
9	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (1 kHz to 10 kHz)	Using 8½ DMM and source by Comparison method	10 mA to 100 mA	0.012 % to 0.023 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 118 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
10	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (1 kHz to 10 kHz)	Using 8½ DMM by Direct method	10 mA to 100 mA	0.012 % to 0.023 %
11	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (1 kHz to 10 kHz)	Using AC Reference standard and Shunt by Comparison Method	100 mA to 10 A	0.03 % to 0.047 %
12	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM by Comparison method	100 µA to 100 mA	0.05 % to 0.01%
13	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM by Direct method	100 µA to 100 mA	0.055 % to 0.01 %
14	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using AC Reference standard and Shunt by Comparison Method	100 mA to 20 A	0.05 % to 0.03 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 119 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
15	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM and source by Comparison method	20 µA to 100 µA	0.15 % to 0.016 %
16	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (10 Hz to 50 Hz)	Using 8½ DMM by Direct method	20 µA to 100 µA	0.15 % to 0.016 %
17	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using 8½ DMM by Direct method	100 µA to 100 mA	0.011 % to 0.023 %
18	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using AC Reference standard and Shunt by Comparison Method	100 mA to 20 A	0.03 % to 0.043 %
19	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using 8½ DMM by Direct method	20 µA to 100 µA	0.12 % to 0.012 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 120 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
20	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)	Using 8½ DMM and source by Comparison method	20 µA to 100 µA	0.12 % to 0.012 %
21	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 1 kHz)0	Using 8½ DMM by Comparison method	100 µA to 100 mA	0.011 % to 0.023 %
22	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current (50 Hz to 5 kHz)	Using AC Reference standard and Shunt by Comparison Method	1 A to 20 A	0.022 % to 0.045 %
23	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @ 50 Hz	Using Standard CT with Power Meter by Direct Method	1000 A to 3000 A	0.2 %
24	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Current @50 Hz	Using Shunt with DMM by Comparison method	20 A to 1000 A	0.043 % to 0.38 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 121 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
25	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	> 100 V to 1000 V	0.0079 % to 0.013 %
26	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	1 mV to 1 V	0.2 % to 0.005 %
27	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	1 mV to 1 V	0.2 % to 0.005 %
28	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	1 V to 10 V	0.005 %
29	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	1 V to 10 V	0.005 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 122 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
30	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference standard by Direct method	10 V to 100 V	0.005 % to 0.013 %
31	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	10 V to 100 V	0.005 % to 0.013 %
32	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (1 kHz to 20 kHz)	Using AC Reference Standard and source by Comparison method	100 V to 1000 V	0.0079 % to 0.013 %
33	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference Standard and source by Comparison method	> 1 V to 10 V	0.011 % to 0.005 %
34	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference standard by Direct method	> 1 V to 10 V	0.011 % to 0.005 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 123 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
35	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference Standard and source by Comparison method	1 mV to 1 V	0.3 % to 0.005 %
36	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (10 Hz to 1 kHz)	Using AC Reference standard by Direct method	1 mV to 1 V	0.3 % to 0.005 %
37	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference Standard and source by Comparison method	1 mV to 100 mV	0.29 % to 0.41 %
38	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference standard by Direct method	1 mV to 100 mV	0.29 % to 0.41 %
39	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference standard by Direct method	1 V to 10 V	0.009 % to 0.15 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	124 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference Standard and source by Comparison method	1 V to 10 V	0.009 % to 0.15 %
41	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference standard by Direct method	100 mV to 1 V	0.02 % to 0.13 %
42	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (100 kHz to 1 MHz)	Using AC Reference Standard and source by Comparison method	100 mV to 1 V	0.02 % to 0.13 %
43	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	1 mV to 100 mV	0.29 % to 0.02 %
44	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard and source by Comparison method	1 mV to 100 mV	0.29 % to 0.02 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 125 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
45	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	1 V to 10 V	0.005 % to 0.017 %
46	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard and source by Comparison method	1 V to 10 V	0.005 % to 0.017 %
47	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard and source by Comparison method	10 V to 600 V	0.005 % to 0.06 %
48	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	10 V to 600 V	0.005 % to 0.06 %
49	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference Standard by Comparison method	100 mV to 1 V	0.005 % to 0.02 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 126 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
50	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (20 kHz to 100 kHz)	Using AC Reference standard by Direct method	100 mV to 1 V	0.005 % to 0.02 %
51	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (40 Hz to 1 kHz)	Using AC Reference Standard and source by Comparison method	10 V to 1000 V	0.008 % to 0.014 %
52	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (40 Hz to 1 kHz)	Using AC Reference standard by Direct method	10 V to 1000 V	0.008 % to 0.014 %
53	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage (50 Hz & 60 Hz)	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	1 kV to 6 kV	0.32 %
54	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	100 kV to 200 kV	2.56 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 127 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
55	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	28 kV to 100 kV	2.56 %
56	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	AC Voltage @ 50 Hz	Using HV Divider with DMM's, Sources, HV Probe with DMM by comparison method	6 kV to 28 kV	2.56 %
57	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	1 µF to 100 µF	0.06 % to 0.13 %
58	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	100 µF to 10 mF	0.13 % to 0.11 %
59	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	100 nF to 1 µF	0.018 % to 0.06 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 128 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
60	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 1 kHz	Using LCR Meter by comparison method	100 pF to 100 nF	0.03 % to 0.018 %
61	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Capacitance @ 100 Hz	Using LCR Meter by comparison method	1 mF to 100 mF	0.15 %
62	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Harmonics @ 50Hz	Using power meter by direct method	1st order to 39th order	0.51 %
63	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance @ 1 kHz	Using LCR Meter by comparison method	100 µH to 100 mH	0.065 % to 0.034 %
64	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Inductance @ 1 kHz	Using LCR Meter by comparison method	100 mH to 10 H	0.034 % to 0.073 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

129 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
65	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Phase angle @ 240V, 5A, 50 Hz	Using Digital Power Meter by Comparison Method	0° to 360°	2.01°
66	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Power Factor (Single Phase, 230 V, 1 A, 50 Hz)	Using Digital Power Meter by Comparison Method	0.1 Lag/lead to UPF	0.002 PF
67	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz	Using LCR Meter by comparison method	1 ohm to 10 ohm	0.04 % to 0.023 %
68	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz	Using LCR Meter by comparison method	10 ohm to 100 ohm	0.023 % to 0.017 %
69	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz	Using LCR Meter by comparison method	100 ohm to 10 kohm	0.017 % to 0.048 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	130 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
70	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Measure)	Resistance @ 1 kHz to 100 kHz	Using LCR Meter by comparison method	100 ohm to 1 kohm	0.17 %
71	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.2 PF, 120 V to 1000 V, 0.1 A to 20 A)	Using MFC by Direct method	0.96 kW to 4 kW	0.08 % to 0.22 %
72	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.2 PF, 120 V to 240 V, 0.1 A to 20 A)	Using MFC by Direct method	2.4 W to 0.96 kW	0.12 % to 0.08 %
73	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.5 PF, 120 V to 240 V, 0.1 A to 20 A)	Using MFC by Direct method	6 W to 2.4 kW	0.04 % to 0.034 %
74	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.5PF, 240 V to 1000 V, 0.1 A to 20 A)	Using MFC by Direct method	2.4 kW to 10 kW	0.034 % to 0.17 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 131 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.8 PF, 120 V to 240 V, 0.1 A to 20 A)	Using MFC by Direct method	9.6 W to 3.84 kW	0.03 % to 0.02 %
76	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ 0.8PF, 240 V to 1000 V, 0.1 A to 20 A)	Using MFC by Direct method	3.84 kW to 16 kW	0.02 % to 0.16 %
77	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ UPF, 120 V to 240 V, 0.01 A to 20 A)	Using MFC by Direct method	1.2 W to 4.8 kW	0.10 % to 0.02 %
78	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Active Power (1Phase, 50 Hz @ UPF, 240 V to 1000 V, 0.01 A to 20 A)	Using MFC by Direct method	4.8 kW to 20 kW	0.02 % to 0.16 %
79	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (10 Hz to 40 Hz)	Using MFC by Direct method	200 µA to 200 mA	0.027 % to 0.026 %
80	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (40 Hz to 5 kHz)	Using MFC by Direct method	> 200 mA to 2 A	0.03 % to 0.07 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 132 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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-Alternating Current (< 1 GHz) (Source)	AC Current (40 Hz to 5 kHz)	Using MFC by Direct method	200 μ A to 200 mA	0.025 % to 0.07 %
82	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (45 Hz to 5 kHz)	Using MFC by Direct method	2 A to 20 A	0.04 % to 0.53 %
83	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (5 kHz to 10 kHz)	Using MFC by Direct method	200 mA to 3 A	0.038 % to 0.21 %
84	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (5 kHz to 10 kHz)	Using MFC by Direct method	3 A to 330 mA	0.21 % to 0.43 %
85	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current (50 Hz to 1 kHz)	Using MFC by Direct method	10 μ A to 200 μ A	0.11 % to 0.044 %
86	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Current @ 50 Hz	Using Current Source & current coil, Shunt with DMM by Comparison method	1000 A to 3000 A	0.5 % to 0.9 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 133 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
87	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @50 Hz	Using MFC with current coil by direct method	120 A to 1000 A	0.37 %
88	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Current @50 Hz	Using Current Source by Direct Method	20 A to 120 A	0.32 %
89	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Energy Active/ Apparent / Reactive Single / Three Phase, 40V to 300V, 0.05A to 20A, 40 Hz to 70 Hz, 0.25 (lead/lag) to UPF	Using three phase energy source direct method	0.5 W to 6 kW	0.23 % to 0.78 %
90	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 1 kHz)	Using MFC by Direct method	200 V to 1000 V	0.016 % to 0.016 %
91	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	> 2 V to 20 V	0.014 % to 0.005 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 134 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
92	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	> 20 V to 200 V	0.013 % to 0.016 %
93	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	> 200 mV to 2 V	0.015 % to 0.008 %
94	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	2 mV to 20 mV	0.23 % to 0.035 %
95	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (10 Hz to 20 kHz)	Using MFC by Direct method	20 mV to 200 mV	0.043 % to 0.0097 %
96	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	> 2 V to 20 V	0.015 % to 0.034 %
97	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	> 200 mV to 2 V	0.034 % to 0.036 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 135 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
98	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	2 mV to 20 mV	0.23 % to 0.063 %
99	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (100 kHz to 300 kHz)	Using MFC by Direct method	20 mV to 200 mV	0.063 % to 0.062 %
100	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	> 20 mV to 200 mV	0.035 % to 0.034 %
101	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	> 200 mV to 2 V	0.0096 % to 0.012 %
102	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	2 mV to 20 mV	0.23 % to 0.064 %
103	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	2 V to 20 V	0.008 % to 0.015 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 136 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
104	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (20 kHz to 100 kHz)	Using MFC by Direct method	20 V to 200 V	0.013 % to 0.021 %
105	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	> 20 mV to 200 mV	0.062 % to 0.45 %
106	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	> 200 mV to 2 V	0.062 % to 0.24 %
107	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	2 mV to 20 mV	0.4 % to 0.78 %
108	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (300 kHz to 1 MHz)	Using MFC by Direct method	2 V to 20 V	0.036 % to 0.26 %
109	ELECTRO-TECHNICAL-Alternating Current (< 1 GHz) (Source)	AC Voltage (50 Hz to 1 kHz)	Using MFC by Direct method	50 µV to 2 mV	1 % to 0.33 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	137 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
110	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance @ 1kHz	Using MFC DCB by direct method	10 µF to 110 mF	0.5 % to 1.3 %
111	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Capacitance @ 1kHz	Using MFC DCB by direct method	220 pF to 10 µF	6 % to 0.5 %
112	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Harmonics @ 50Hz	Using MFC source by direct method	1st order to 39th order	0.51 %
113	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power Factor , Single Phase, 230V, 5A	Using MFC by Direct method	0.2 lag to UPF	0.002 PF
114	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power Factor , Single Phase, 230V, 5A	Using MFC by Direct method	0.2 lead to UPF	0.002 PF
115	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power Factor , Three Phase	Using Energy Source by Direct method	0.25 lag to UPF	0.008 PF



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 138 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
116	ELECTRO-TECHNICAL- Alternating Current (< 1 GHz) (Source)	Power Factor , Three Phase	Using Energy Source by Direct method	0.25 lead to UPF	0.008 PF
117	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	1 µA to 10 µA	0.13 % to 0.0057 %
118	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	1 µA to 10 µA	0.13 % to 0.0057 %
119	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	1 A to 20 A	0.0038 % to 0.01 %
120	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	1 A to 20 A	0.0038 % to 0.01 %
121	ELECTRO-TECHNICAL- DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	10 µA to 100 µA	0.0043 % to 0.002 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 139 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
122	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	10 µA to 100 µA	0.0043 % to 0.002 %
123	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM by VR Method	10 nA to 100 nA	0.49 % to 0.65 %
124	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	100 µA to 100 mA	0.002 %
125	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	100 µA to 100 mA	0.002 %
126	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM and source by Comparison method	100 mA to 1 A	0.002 % to 0.0041 %
127	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using 8½ DMM by Direct method	100 mA to 1 A	0.002 % to 0.0041 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 140 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
128	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM by VR Method	100 nA to 1 μ A	0.12 % to 0.13 %
129	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM VI Method	20 A to 75 A	0.047 % to 0.08 %
130	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Current	Using Shunt with DMM VI Method	75 A to 1000 A	0.08 % to 0.3 %
131	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 600 V, 1 mA to 20 A)	Using Digital power Meter by Direct Method	1 kW to 12 kW	0.02 % to 0.15 %
132	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 600 V, 1 mA to 20 A)	Using Digital power Meter by Direct Method	1 mW to 10 W	0.15 % to 0.06 %
133	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power (1 V to 600 V, 1 mA to 20 A)	Using Digital power Meter by Direct Method	10 W to 1 kW	0.06 % to 0.02 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 141 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
134	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 1V to 1000V, 1mA to 20A	Using Digital Multimeter by Comparison Method	1 kW to 20 kW	0.05 %
135	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 1V to 1000V, 1mA to 20A	Using Digital Multimeter by Comparison Method	1 mW to 10 W	0.02 %
136	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 1V to 1000V, 1mA to 20A	Using Digital Multimeter by Comparison Method	10 W to 1 kW	0.02 % to 0.05 %
137	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Power @ 30 V to 1000V, 1A to 30A	Using Digital power Meter by Direct Method	12 kW to 30 kW	0.15 % to 0.09 %
138	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	0.5 mV to 100 mV	0.024 % to 0.0009 %
139	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	0.5 mV to 100 mV	0.024 % to 0.0009 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 142 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
140	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using HV Divider with DMM by Direct Method	1 kV to 6 kV	0.2 %
141	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	1 V to 10 V	0.0004 % to 0.0004 %
142	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	1 V to 10 V	0.0004 % to 0.0004 %
143	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	10 V to 1000 V	0.0004 % to 0.00064 %
144	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	10 V to 1000 V	0.0004 % to 0.00064 %
145	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	100 mV to 1 V	0.0009 % to 0.0004 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 143 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
146	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	100 mV to 1 V	0.0009 % to 0.0004 %
147	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using HV Divider with DMM's by comparison method	40 kV to 100 kV	1.7 %
148	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM and source by Comparison method	50 µV to 0.5 mV	0.8 % to 0.024 %
149	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using 8½ DMM by Direct method	50 µV to 0.5 mV	0.8 % to 0.024 %
150	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	DC Voltage	Using Source, & HV Probe with DMM by direct method	6 kV to 40 kV	2 %
151	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Magnetic Flux	Using Standard Magnets and Gauss Meter by Comparison Method	100 Gauss to 10000 Gauss	5.26 % to 6.38 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 144 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
152	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Power @ HF 400 kHz	Using Differential Probe in Combination with Oscilloscope by Comparison Method	1 W to 400 W	5.08 %
153	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	1 Mohm to 10 Mohm	0.0012 % to 0.0014 %
154	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	1 Mohm to 10 Mohm	0.0012 % to 0.0014 %
155	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and Shunt with DMM / MFC by VI Method	1 mohm to 10 ohm	0.021 % to 0.004 %
156	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM / Micro Ohm Meter by Direct method	1 mohm to 100 mohm	0.15 % to 0.018 %
157	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	1 ohm to 10 ohm	0.0007 % to 0.00038 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 145 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
158	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	1 ohm to 10 ohm	0.0007 % to 0.00038 %
159	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and Shunt with DMM / MFC by VI Method	10 µohm to 1 mohm	0.75 % to 0.021 %
160	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	10 kohm to 100 kohm	0.0005 % to 0.0006 %
161	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	10 kohm to 100 kohm	0.0005 % to 0.0006 %
162	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	10 Mohm to 100 Mohm	0.0014 % to 0.0095 %
163	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	10 Mohm to 100 Mohm	0.0014 % to 0.0095 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 146 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
164	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	10 ohm to 100 ohm	0.00038 % to 0.0007 %
165	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	10 ohm to 100 ohm	0.00038 % to 0.0007 %
166	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	100 kohm to 1 Mohm	0.0006 % to 0.0012 %
167	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	100 kohm to 1 Mohm	0.0006 % to 0.0012 %
168	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	100 Mohm to 20 Gohm	0.0095 % to 0.148 %
169	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM / Micro Ohm Meter by Direct method	100 mohm to 1 ohm	0.018 % to 0.09 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 147 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
170	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	100 Mohm to 20 Gohm	0.0095 % to 0.148 %
171	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM and source by Comparison method	100 ohm to 10 kohm	0.0007 % to 0.0005 %
172	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM by Direct method	100 ohm to 10 kohm	0.0007 % to 0.0005 %
173	ELECTRO-TECHNICAL-DIRECT CURRENT (Measure)	Resistance	Using 8½ DMM with MFC by VI Method	20 Gohm to 1 Tohm	2 %
174	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	1 mA to 100 mA	0.003 % to 0.0063 %
175	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	10 µA to 100 µA	0.004 % to 0.003 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 148 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
176	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	10 A to 20 A	0.0043 % to 0.0048 %
177	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Decade Megaohm box by Direct method	10 nA to 10 μ A	0.16 % to 0.0053 %
178	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	100 μ A to 1 mA	0.003 %
179	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	100 mA to 2 A	0.0063 % to 0.003 %
180	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Shunt with DMM & Current coil by direct method	120 A to 3000 A	0.65 % to 1.2 %
181	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using MFC by Direct method	2 A to 10 A	0.003 % to 0.0043 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 149 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
182	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Current	Using Current Source by direct method	20 A to 120 A	0.1 % to 0.6 %
183	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 1 mA to 1000 A)	Using MFC with 50 turns current coil by Direct Method	1 kW to 1 MW	0.06 % to 0.35 %
184	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 1 mA to 1000 A)	Using MFC with 50 turns current coil by Direct Method	1 mW to 10 W	0.07 % to 0.03 %
185	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Power (1 V to 1000 V, 1 mA to 1000 A)	Using MFC with 50 turns current coil by Direct Method	10 W to 1 kW	0.03 % to 0.06 %
186	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	0.5 mV to 100 mV	0.19 % to 0.00034 %
187	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using DC Voltage Reference Standard by Direct Method	1.018 V, 10 V	0.00034 % , 0.00031 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :

TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard

ISO/IEC 17025:2017

Certificate Number

CC-2231

Page No

150 of 190

Validity

14/06/2024 to 13/06/2026

Last Amended on

26/07/2024

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)(±)
188	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	10 V to 100 V	0.00036 % to 0.00032 %
189	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	100 mV to 10 V	0.00034 % to 0.0004 %
190	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	100 V to 1000 V	0.00032 % to 0.00064 %
191	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	DC Voltage	Using MFC by Direct method	50 µV to 0.5 mV	0.129 % to 0.19 %
192	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1 kohm	0.0008 %
193	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1 Mohm	0.0018 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 151 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
194	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1 ohm	0.0035 %
195	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1.9 kohm	0.0006 %
196	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1.9 Mohm	0.002 %
197	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	1.9 ohm	0.0025 %
198	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	10 kohm	0.0007 %
199	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	10 Mohm	0.0039 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 152 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
200	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	10 ohm	0.0013 %
201	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	100 kohm	0.0009 %
202	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	100 Mohm	0.0101 %
203	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	100 ohm	0.002 %
204	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	19 kohm	0.0008 %
205	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	19 Mohm	0.0055 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 153 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
206	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	19 ohm	0.0012 %
207	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	190 kohm	0.00082 %
208	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Discrete Resistance	Using MFC by Direct method	190 ohm	0.0009 %
209	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using DMB by Direct Method	1 Gohm to 1 Tohm	1.79 % to 2.0 %
210	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	1 Mohm to 10 Mohm	0.004 % to 0.016 %
211	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Standard Resistors by Direct Method	1 mohm to 100 mohm	0.1 % to 0.025 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	154 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
212	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	1 ohm to 10 ohm	0.014 % to 0.0023 %
213	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Standard Resistors by Direct Method	10 µohm to 1 mohm	0.6 % to 0.1 %
214	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	10 Mohm to 300 Mohm	0.016 % to 0.46 %
215	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	10 ohm to 100 ohm	0.0023 % to 0.005 %
216	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	100 kohm to 1 Mohm	0.0032 % to 0.004 %
217	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using Standard Resistors by Direct Method	100 mohm to 1 ohm	0.025 % to 0.07 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	155 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
218	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	100 ohm to 100 kohm	0.005 % to 0.0032 %
219	ELECTRO-TECHNICAL-DIRECT CURRENT (Source)	Resistance	Using MFC by Direct method	300 Mohm to 1 Gohm	0.46 % to 1.79 %
220	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	VA (CT Burden Box 1A & 5A), 50 Hz & 60 Hz @ 0.8 PF to UPF	Using DMM by VI Method/ Power Analyser by Direct Method	1 VA to 110 VA	0.1 %
221	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Measure)	VA (PT Burden Box 110 V & 63.5V), 50 Hz & 60Hz @ 0.8 PF to UPF	Using DMM by VI Method/ Using Power Analyser by Direct Method	2.5 VA to 110 VA	0.2 % to 0.2 %
222	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Conductivity Meter - Simulation method (1 µS to 10000 µS)	Using MFC & Decade Mega ohm Box simulation by method	100 ohm to 1 Mohm	0.6 %
223	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Current Transformer - Phase Error 1% to 120% of rated current 1A/5A secondary	Using Precision Current Transformer @ Automatic test set by Comparison method	5 A to 2000 A	3min



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 156 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
224	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Current Transformer - Ratio error 5A to 2000A Primary 1A/5A Secondary	Using Precision Current Transformer @ Automatic test set by Comparison method	5 A to 2000 A	0.034%
225	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope - Band Width @ 50 kHz	Using 6½ Multifunction Calibrator with 1.1 GHz at 1 Mohm option by Direct method	50 kHz to 1 GHz	0.52 dBm
226	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, 0 to 130V (DC signal)	Using 6½ Multifunction Calibrator with 1.1 GHz at 1Mohm option by Direct method	1 mV to 55 Vp-p	0.2%
227	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, 0 to 130V (DC signal)	Using 6½ Multifunction Calibrator with 1.1 GHz at 1Mohm option by Direct method	1 mV to 130 V	0.2%
228	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, Scope Amplitude Square Wave Signal, 10 Hz to 10 kHz	Using 6½ Multifunction Calibrator with 1.1 GHz option by Direct method	1 mV to 55 V	0.56 % to 0.2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 157 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
229	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, Scope Amplitude Square Wave Signal, 10 Hz to 10 kHz	Using 6½ Multifunction Calibrator with 1.1 GHz option by Direct method	5 mV to 55 V	0.5 % to 0.2 %
230	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Oscilloscope, Time Marker	Using 6½ Multifunction Calibrator with 1.1 GHz option & Rubidium standard, by Direct method	1 ns to 1000 sec	0.00005%
231	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	pH Meter - Simulation method (0 to 14 pH)	Using MFC by simulation method	-440 mV to 440 mV	0.5%
232	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Potential Transformer - Phase error 6.6kV and 11kV (80% to 120%)	Using Precision Potential Transformer @ Automatic test set by Comparison method	6.6 kV and 11 kV	4min
233	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Potential Transformer - Ratio error 6.6kV and 11kV Primary (80% to 120%)	Using Precision Potential Transformer @ Automatic test set by Comparison method	6.6 kV and 11 kV	0.068%



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 158 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
234	ELECTRO-TECHNICAL-ELECTRICAL EQUIPMENT (Source)	Turns Ratio meter-Turns Ratio	Using DMM by Voltage to Voltage, Comparison method	0.8 to 2021	0.3%
235	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) Voltage front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	1.2 μ s	9.62 %
236	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) Voltage pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	50 μ s	0.59 %
237	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	\pm 250 A to \pm 10 kA	9.38 %
238	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) current front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	8 μ s	1.92 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 159 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
239	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) current pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	20 μ s	0.59%
240	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (CDN output) Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	\pm 0.25 kV to \pm 30 kV	3.3 %
241	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	\pm 0.25 kA to \pm 10 kA	3.3% to 9.18%
242	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) current front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	8 μ s	1.86%
243	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) current pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	20 μ s	0.55%



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 160 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
244	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	± 0.25 kV to ± 15 kV	3.45 %
245	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) Voltage front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	1.2 μs	10.93%
246	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Combination wave surge test system (Generator output) Voltage pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	50 μs	0.61%
247	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Decoupling of common mode disturbance, Coupling factor, Voltage division factor (coupling & decoupling network, line impedance stabilization network) 150 kHz to 400 MHz	Using Vector Network Analyzer as per IEC 61000-4-6, CISPR-22, CISPR-32 (Voltage division factor) by Direct method	1 dB to 90 dB	0.85 dB



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 161 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
248	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Display error of Detectors with sinusoidal signals	Using Signal Generator, Reference Source Source as per CISPR-16-1-1 by Comparison method	4 GHz to 7 GHz	0.5d B μ V
249	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Display error of Detectors with sinusoidal signals	Using Signal Generator, Reference Source Source as per CISPR-16-1-1 by Comparison method	9 kHz to 4 GHz	0.5 dB μ V
250	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Capacitive clamp) Pulse Amplitude	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	\pm 2.0 kV	3.27 %
251	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Capacitive clamp) Pulse Rise time	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	5 ns	0.84 %
252	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Capacitive clamp) Pulse width	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	50 ns	0.44 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 162 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
253	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (CDN output) Pulse Rise time	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	5.5 ns	0.57 %
254	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (CDN output) Pulse width	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	45 ns	0.44 %
255	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (CDN output) Pulse Amplitude	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	±125 V to ±5 kV	3.41 %
256	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Burst Duration (2.5 kHz/5 kHz)	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	15 ms	2.05 %
257	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Burst Period	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	300 ms	0.2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name :	TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA		
Accreditation Standard	ISO/IEC 17025:2017		
Certificate Number	CC-2231	Page No	163 of 190
Validity	14/06/2024 to 13/06/2026	Last Amended on	26/07/2024

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)(±)
258	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Pulse Amplitude	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	± 125 V to ± 5 kV	3.45 %
259	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Pulse Rise time	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	5 ns	0.63 %
260	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Pulse width	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	50 ns	0.44 %
261	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrical fast transient test system (Generator output) Repetition frequency (inverse)	Using Oscilloscope with Load Resistor 50 Ohms & 1000 Ohms as per IEC 61000-4-4 by Direct method	(2.5,5,100,1000) kHz	1.12 %
262	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator First peak current (± 2.0 kV to ± 30 kV)	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	± 6.38 A to ± 146.25 A	5.2 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 164 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
263	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator Current @ 30 ns or current @ t1 ns (± 2.0 kV to ±30 kV)	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	± 0.39 A to ± 78 A	3.92 % to 5.2 %
264	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator Current @ 60 ns or current @ t2 ns (± 2.0 kV to ±30 kV)	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	± 0.15 A to ± 39 A	3.86 % to 5.2 %
265	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Electrostatic Discharge Generator - Rise time	Using Oscilloscope, ESD Target as per IEC 61000-4-2 & ISO 10605 by Direct method	0.6 ns to 1 ns	4.88 %
266	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Impedance (Transient limiter, Line impedance stabilization network, bulk current injection probe, directional coupler, attenuator, cable, ESD target) 9 kHz to 400 MHz	Using Vector Network Analyzer as per CISPR 16-1-2 by Direct method	1 Ohm to 300 Ohm	2.9 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 165 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
267	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Insertion loss/RF Attenuation (Transient limiter, Line impedance stabilization network, Bulk current injection probe, Directional coupler, Attenuator, Cable, ESD Target) 5 kHz to 30 GHz	Using Vector Network Analyzer as per CISPR 16-1-2 by Direct method	1 dB to 90 dB	0.83 dB
268	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Isolation (Line impedance Stabilization network) 9 kHz to 400 MHz	Using Vector Network Analyzer as per CISPR 16-1-2 by Direct method	1 dB to 90 dB	0.83 dB
269	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Phase Angle (Line Impedance Stabilization Network) 9 kHz to 400 MHz	Using Vector Network Analyzer as per CISPR 16-1-2 by direct method	-90° to 90°	0.5°
270	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-12 by Direct method	± 20 A to ± 150 A	5.35 % to 2.83 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 166 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
271	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Oscillation Frequency (Period) 100 kHz, 1 MHz & 10 MHz	Using Oscilloscope, High voltage Differential probe, Current probe probe as per IEC 61000-4-12 by Direct method	10 μS & 1 μS	1.85 %
272	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Rise Time	Using Oscilloscope, High voltage Differential probe, Current probe probe as per IEC 61000-4-12 by Direct method	0.75 ns	1.83 %
273	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Ring Wave Generator - Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe probe as per IEC 61000-4-12 by Direct method	± 0.25 kV to ± 5 kV	3.34 %
274	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Current amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	± 15 A to ± 150 A	6.77 % to 3.37 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 167 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
275	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Current front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	5 μ s	2.89 %
276	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Current pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	320 μ s	0.9 %
277	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Voltage Amplitude	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	\pm 0.25 kV to \pm 10 kV	3.4 %
278	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Voltage front time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	10 μ s	4.64 %
279	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Telecom surge test system - Voltage pulse width	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-5 by Direct method	700 μ s	0.25 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 168 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
280	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Voltage Dips & Interruption Generator Dips/Interruption time	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-11 & IEC 61000-4-29 by Direct method	10 ms to 60s	1.73 % to 3.6%
281	ELECTRO-TECHNICAL-EMI/ EMC (Measure)	Voltage Dips & Interruption Generator Output voltage at no load	Using Oscilloscope, High voltage Differential probe, Current probe as per IEC 61000-4-11 & IEC 61000-4-29 by Direct method	10 % to 90 %	3.5 %
282	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (Attenuator/Signal Generator) (1 kHz to 18 GHz)	Using RF Reference Source Signal Generator, Attenuator, Multimeter & Power Meter by Comparison Method	1 dB to 70 dB	0.27 dBm
283	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (1 kHz to 18 GHz)	Using Power Meter, Spectrum Analyzer by Comparison Method	1 dB to 110 dB	0.14dBm to 0.5dBm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 169 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
284	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Attenuation (Attenuator/Signal Generator) (18 GHz to 40 GHz)	Using Multimeter & Power Meter by Comparison method	1 dB to 70 dB	0.55 dBm
285	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Harmonics (n=2,3), Frequency (10 Hz to 2.9 GHz)	Using Spectrum Analyzer Upto 30 GHz by Direct Method	> (-)10dBc %	5.21 %
286	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Modulation AM CW: 100 kHz to 3.9 GHz Modulation Rate 1 kHz to 10 kHz AM Depth	Using Signal/ Spectrum Analyzer, Modulation analyzer as transfer by Relative Sideband Amplitude by Comparison Method	1 % to 98 %	2 % to 2 %
287	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Modulation FM CW: 100 kHz to 25 GHz Modulation Rate 50 Hz to 267 kHz FM Deviation	Using Signal/ Spectrum Analyzer by Bessel Function by Comparison Method	50 Hz to 4 MHz	1.3 %
288	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power (Power meter, Signal Generator, RF Reference Source) (18 GHz to 40 GHz)	Using Power Meter, Spectrum Analyzer by Direct Method	-60 dBm to 13 dBm	0.54 dB



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 170 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
289	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power (Signal Generator, RF Reference Source (10 Hz to 29.99 GHz)	Using Power Meter, Spectrum Analyzer by Comparison Method	-60 dBm to 10 dBm	0.54 dB
290	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Power (Signal Generator, RF Reference Source, Power meter) (1 kHz to 18 GHz)	Using Power Meter, Spectrum Analyzer by Direct Method	-60 dBm to 13 dBm	0.17 dBm to 0.24 dBm
291	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Measure)	Reflection Coefficient (1 kHz to 18 GHz)	Using Network Analyzer by Direct method	0.024 rho to 0.33 rho	0.032rho
292	ELECTRO-TECHNICAL-RF/MICROWAVE (1 GHZ AND ABOVE) (Source)	3 dB Bandwidth (Filter, Power meter, Power Sensor, Oscilloscope)	Using RF Reference Source, Signal Generator by Direct Method	Upto 40 GHz	3.31 %
293	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	RTD PT 100 Type	Using 8½ DMM by Simulation method	-200 °C to 800 °C	0.02 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 171 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
294	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - L Type	Using 8½ DMM by Simulation method	-200 °C to 900 °C	0.14°C
295	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - N Type	Using 8½ DMM by Simulation method	-200 °C to 1300 °C	0.06°C
296	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - J Type	Using 8½ DMM by Simulation method	-200 °C to 1200 °C	0.05°C
297	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - K Type	Using 8½ DMM by Simulation method	-200 °C to 1372 °C	0.05°C
298	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - R & S Type	Using 8½ DMM by Simulation method	1 °C to 1750 °C	0.09 °C
299	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - T Type	Using 8½ DMM by Simulation method	-200 °C to 400 °C	0.05°C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 172 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
300	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - U Type	Using 8½ DMM by Simulation method	-200 °C to 400 °C	0.19°C
301	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple- E Type	Using 8½ DMM by Simulation method	-200 °C to 1000 °C	0.05°C
302	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Measure)	Thermocouple - B Type	Using 8½ DMM by Simulation method	600 °C to 1800 °C	0.09 °C
303	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	RTD PT 100 Type	Using MFC by Simulation method	-200 °C to 800 °C	0.07 °C
304	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - B Type	Using 6½ Multifunction Calibrator by Simulation method	600 °C to 1800 °C	0.12 °C
305	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - E Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1000 °C	0.07 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 173 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
306	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - J Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1200 °C	0.05°C
307	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - K Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1372 °C	0.06°C
308	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - L Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 900 °C	0.1 °C
309	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - N Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 1300 °C	0.05°C
310	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - R Type & S Type	Using 6½ Multifunction Calibrator by Simulation method	1 °C to 1750 °C	0.16 °C
311	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - T Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 400 °C	0.06°C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 174 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
312	ELECTRO-TECHNICAL-TEMPERATURE SIMULATION (Source)	Thermocouple - U Type	Using 6½ Multifunction Calibrator by Simulation method	-200 °C to 400 °C	0.09°C
313	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time	Using Timer by Comparison Method	100 ms to 15000 s	1.022 % to 0.01 %
314	ELECTRO-TECHNICAL-TIME & FREQUENCY (Measure)	Time	Using Timer by Comparison Method	15000 s to 86400 s	0.01 %
315	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	1 GHz to 18 GHz	1.3 Hz to 2.5 Hz
316	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	1 mHz to 10 Hz	10 µHz
317	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	1 MHz to 100 MHz	0.6 mHz to 64 mHz



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 175 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
318	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	10 Hz to 10 kHz	10 µHz to 21 µHz
319	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	10 kHz to 1 MHz	21 µHz to 0.63 mHz
320	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	100 MHz to 1 GHz	64 mHz to 1.3 Hz
321	ELECTRO-TECHNICAL-TIME & FREQUENCY (Source)	Frequency	Disciplined Frequency Standard ,Function Generator / Signal Generator by Direct method	18 GHz to 40 GHz	2.5 Hz to 6.5 Hz
322	FLUID FLOW-FLOW MEASURING DEVICES	Liquid Flow Meter	Using Clamp on Ultra Sonic Flow Meter by Comparison Method	1 m ³ /hr to 350 m ³ /hr	1.20 %
323	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	5000 rpm to 20000 rpm	0.13 % to 0.09 %
324	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	100 rpm to 1000 rpm	0.4 % to 0.09 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 176 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
325	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	1000 rpm to 5000 rpm	0.27 % to 0.13 %
326	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	20000 rpm to 50000 rpm	0.09 % to 0.09 %
327	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Using Digital Tachometer by Direct Method	50000 rpm to 99000 rpm	0.07 % to 0.027 %
328	MECHANICAL-ACCELERATION AND SPEED	Centrifuge / Speed measuring , Speed Source	Digital Tachometer by Direct Method	6 rpm to 100 rpm	0.61 % to 0.40 %
329	MECHANICAL-ACCELERATION AND SPEED	Vibration Machine / Vibration Measurement - Acceleration (5Hz to 10 kHz)	Using Accelerometer and Oscilloscope By Direct Method	1 g to 200 g	2.36 to 1.46
330	MECHANICAL-ACCELERATION AND SPEED	Vibration Machine / Vibration Measurement - Displacement (5Hz to 350Hz)	Using Vibration Meter / Accelerometer and Oscilloscope by Direct Method	0.1 to 25 mm	1.29 % to 1.29
331	MECHANICAL-ACCELERATION AND SPEED	Vibration Machine / Vibration Measurement - Velocity (5Hz to 1 kHz)	Using Vibration Meter / Accelerometer and Oscilloscope by Direct Method	2 to 2500 mm/s	1.4 %



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 177 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
332	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Caliper (Vernier/Dial/Digital) LC : 10 µm	Using Gauge Block Set, Caliper Checker by Comparison method	1000 mm to 2000 mm	12.0 µm
333	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	External Micrometer (Mech / Electronic / Digital) LC : 10 µm	Using Gauge Blocks & optical parallels by Comparison method	1000 mm to 2000 mm	9.0 µm
334	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Vernier/Dial/Digital) L.C: 10 µm	Using Gauge Blocks and Caliper Checker, Lever Dial Gauge by Comparison method	0 to 600 mm	8.0 µm
335	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Height Gauge (Vernier/Dial/Digital) LC: 10 µm	Using Long Slip Gauge Block by Comparison method	0 to 1000 mm	8.7 µm
336	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Laser Micrometer L.C 0.0001mm	Using Cylindrical Setting Master by Direct method	Up to 30 mm	1.1 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 178 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
337	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Straight Edge/Parallels	Using Slip gauge set and Lever Dial Gauge by Direct Method	Up to 2000 mm	16.8 µm
338	MECHANICAL-DIMENSION (BASIC MEASURING INSTRUMENT, GAUGE ETC.)	Surface Plate	Using Electronic Level by Direct method	3 m x 2 m	1.3(Sqrt(L+W)/100) µm, where L=Length in mm, W=Width in mm
339	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Coordinate Measuring Machine (L.C: 0.1 µm) - Probing Error	Using Gauge Block Set Grade '0' ,Step Gauge Block Grade '0' and Reference sphere by Comparison method	Upto 30 mm Probing Ball Dia.	1.1 µm
340	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Coordinate Measuring Machine (L.C: 0.1 µm) - X,Y,Z total Measuring error (3D error) (MPEE)	Using Gauge Block Set Grade '0' ,Step Gauge Block and Reference sphere by Comparison method	Up to 1000 mm	1.2 µm; i.e (0.9+0.5 L) µm, where L in m
341	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Dial Calibration Tester (L.C: 0.1 µm)	Using Electronic Probe with DRO, Slip gauge and optical flat by Comparison Method	0 to 25 mm	0.7 µm



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 179 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
342	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Length Measuring Machine (L.C: 0.0001 mm)	Using Gauge Block Set (0 Grade) by Comparison method	0 to 100 mm	0.4 µm
343	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Profile Projector / Microscope - Magnification	Using Glass Scale & Slip gauge by Comparison method	10X to 100X	0.1 %
344	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Roughness Tester	Using Depth master and Roughness master by Direct method	Up to 3.5 µm	6.9 %
345	MECHANICAL-DIMENSION (PRECISION INSTRUMENTS)	Tape & Scale Calibrator (L.C: 0.001 mm)	Using Gauge Block Set (0 Grade) by Comparison method	0 to 1000 mm	6.0 µm
346	MECHANICAL-IMPACT TESTING MACHINE	Verification of Impact Testing Machine (Charpy)	Using Load Cell, Clinometer, Height Gauge & Spirit Level as per ISO 148 (Part 2)	0 J to 300 J	0.5 %
347	MECHANICAL-IMPACT TESTING MACHINE	Verification of Impact Testing Machine (Izod)	Using Load Cell, Clinometer, Height Gauge & Spirit Level as per BS 131 Part 4	0 J to 170 J	0.5 %
348	MECHANICAL-PRESSURE INDICATING DEVICES	Absolute Pressure Gauges	Using Absolute Digital Pressure Gauge using Pneumatic pump by comparison method	0.05 bar(abs) to 4 bar(abs)	0.23 %rdg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 180 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
349	MECHANICAL-PRESSURE INDICATING DEVICES	Altimeter Chamber	Using Digital Baromete, Procedure based on OIML R 97 guidelines & AN 4528(Published Paper) by Comparison Method	10 abs mbar to 1100 mbar abs bar	1 abs mbar
350	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure Gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	0.1 mbar to 10 mbar	0.01 mbar
351	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure Gauge, DMM, Hydraulic comparator pump Based on DKD-R6-1 by Comparison method	1 bar to 40 bar	0.037 bar



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 181 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
352	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure Gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	10 mbar to 100 mbar	0.069 mbar
353	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	100 mbar to 2 bar	0.0008 bar
354	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Differential Pressure Gauge, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	2 bar to 20 bar	0.0022 bar
355	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Transducers, Transmitters, Magnehelic Gauges	Using Pressure Gauge, DMM, Hydraulic Comparator pump Based on DKD-R6-1 by Comparison method	700 bar to 1000 bar	0.33 bar



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 182 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
356	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Transducers, Transmitters, Magnehelic Gauges	Using Pressure gauge, DMM, Hydraulic Comparator pump Based on DKD-R6-1 by Comparison method	40 bar to 700 bar	0.12 bar
357	MECHANICAL-PRESSURE INDICATING DEVICES	Digital / Analogue Pneumatic Pressure Gauges, Transducers, Transmitters, Switches / Magnehelic Gauges	Using Pressure gauge, DMM, Pneumatic pump Based on DKD-R6-1 by Comparison method	20 bar to 40 bar	0.024 bar
358	MECHANICAL-PRESSURE INDICATING DEVICES	Digital/Analogue Pressure Gauges, Transducers/ Transmitters & Switches	Using DMM, Hydraulic (oil operated) Dead Weight Tester, Procedure based on DKD-R 6-1 By Comparison method	6 bar to 60 bar	0.014 % rdg.
359	MECHANICAL-PRESSURE INDICATING DEVICES	Digital/Analogue Pressure Gauges, Transducers/ Transmitters & Switches	Using Hydraulic (oil operated) Dead Weight Tester, DMM based on DKD-R6-1 by Comparison method	60 bar to 1200 bar	0.015 % rdg.



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 183 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
360	MECHANICAL-PRESSURE INDICATING DEVICES	Vacuum Digital/Analogue Vacuum Gauges, Transducers/ Transmitters, Switches	Using Pressure gauge, DMM, Pneumatic Vacuum Comparator pump Based on DKD-R6-1 by Comparison method	0 mbar to -900 mbar	0.20 mbar
361	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by Direct method as per ISO 6789 : 2017	1 Nm to 2 Nm	0.17 % of rdg
362	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by direct method as per ISO 6789 : 2017	0.01 Nm to 0.1 Nm	0.83 % of rdg
363	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by Direct method as per ISO 6789 : 2017	0.1 Nm to 1 Nm	0.73 % of rdg
364	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by direct method as per ISO 6789 : 2017	2 Nm to 20 Nm	0.21 % of rdg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 184 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
365	MECHANICAL-TORQUE GENERATING DEVICES	Torque Wrench, Torque Driver, Type-I Class (B,C,D,E) Type II, Class (A,B,D,E)	Using Torque sensors of Various capacities, Torque Calibration Rig by Direct method as per ISO 6789 : 2017	20 Nm to 200 Nm	0.26 % of rdg
366	MECHANICAL-UTM, TENSION CREEP AND TORSION TESTING MACHINE	Uniaxial Testing Machine Compression	Using Force Proving Instruments by Comparison method as per IS 1828	10 N to 1000 kN	0.52 %
367	MECHANICAL-UTM, TENSION CREEP AND TORSION TESTING MACHINE	Uniaxial Testing Machine Tension	Using Force Proving Instruments by Comparison method as per IS 1828	10 N to 300 kN	0.32 %
368	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class 1 and Coarser, $d \geq 0.01$ mg)	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 50 g	0.02 mg
369	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class 1 and Coarser, $d \geq 0.0001$ mg)	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 2 g	0.002 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 185 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
370	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class II and Coarser d ≥ 1 g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	500 mg to 150 kg	1 g
371	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class II and Coarser d ≥ 100 g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	1 kg to 1000 kg	100 g
372	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class III and Coarser d ≥ 100 mg)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	500 mg to 50 kg	100 mg
373	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class III and Coarser d ≥ 500 g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	2 kg to 3000 kg	500 g
374	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance (Class III and Coarser d ≥ 10 g)	Using F1 and M1 class standard weights up to 3000 kg as per OIML R-76 By Direct Method	1 kg to 300 kg	10 g
375	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.001 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 20 g	0.005 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 186 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
376	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.001 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 5 g	0.004 mg
377	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.01 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-076 By Direct Method	1 mg to 1 kg	0.12 mg
378	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.01 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 200 g	0.03 mg
379	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class 1 and Coarser d ≥ 0.01 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	1 mg to 500 g	0.06 mg
380	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class II and Coarser d ≥ 1 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	500 mg to 20 kg	7 mg
381	MECHANICAL-WEIGHING SCALE AND BALANCE	Electronic Weighing Balance Class II and Coarser d ≥ 1 mg	Using E1 Class Standard Weights 1 mg to 20 kg as per OIML R-76 By Direct Method	500 mg to 5 kg	1 mg



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 187 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
382	THERMAL-SPECIFIC HEAT & HUMIDITY	Dry cabinet, De-Humidifer	Using Humidity Meter by Direct Method	5 %RH to 10 %RH	0.98%RH
383	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Chambers, Climatic Chamber, Altitude Chamber (At Temp: 10°C to 60°C)	Using Temperature sensors & Humidity Sensors By Direct Method using multi sensors	10 %RH to 95 %RH	1.19 %RH
384	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Chambers, Dry cabinet, De-humidifier @ (60 °C to 85 °C)	Using Temperature sensors & Humidity Meter by wet & dry method	30 %RH to 95 %RH	2.24 %RH
385	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Dial / Digital Meters @ (10 °C to 60 °C)	Using Temperature & Humidity Meter with Humidity chamber (multiposition) by Comparison method	10 %RH to 95 %RH	1.17 %RH
386	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Dial / Digital Meters @ 23 °C	Using Temperature & Humidity Meter with Humidity Chamber by Comparison Method	5 %RH to 10 %RH	1.17 %RH
387	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Dial / Digital Meters @ 25 °C	Using Temperature & Humidity Meter with Humidity Chamber by Comparison Method	10 %RH to 95 %RH	1.17 %RH



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 188 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
388	THERMAL-SPECIFIC HEAT & HUMIDITY	Humidity Transmitter / Digital Humidity Meters	Using Class A RTD Sensor with Digital Indicator by Comparison Method	0 °C to 60 °C	0.18 °C
389	THERMAL-SPECIFIC HEAT & HUMIDITY	Indicator of Humidity Chambers, Climatic Chamber, Altitude Chamber (At Temp: 10 °C to 60 °C)	Using Temperature & Humidity Meter by Direct Method	10 %RH to 95 %RH	1.14 %RH
390	THERMAL-TEMPERATURE	Blackbody Source / IR Thermal Source / Blackbody Cavity (Built in Temperature sensor with Display unit)	Using IR Thermometer by Direct Method	-20 °C to 1200 °C	4.08 °C
391	THERMAL-TEMPERATURE	Incubators & Autoclave (Non medical purpose only) Thermal Chambers / Ovens, Water Bath	Using RTD's with Data logger by Direct Method	-100 °C to 200 °C	0.56 °C
392	THERMAL-TEMPERATURE	Indicator of Furnace, Dry Block Bath	Using SSPRT & S-Type Thermocouple with Digital Indicator by Direct Method using single sensor	650 °C to 1200 °C	1.49 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 189 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
393	THERMAL-TEMPERATURE	Indicator of liquid bath, Freezer, Dry Block Bath, Cold Room, Environmental Chamber	Using SPRT with Digital Indicator by Direct Method using single sensor	-100 °C to 140 °C	0.072 °C
394	THERMAL-TEMPERATURE	Indicator of liquid bath, Furnace, Oven, Dry Block Bath	Using SPRT with Digital Indicator by Direct Method using single sensor	140 °C to 650 °C	0.08 °C
395	THERMAL-TEMPERATURE	Ovens, Furnace	Using RTDs & N Type Thermocouples with Data logger by Direct Method	200 °C to 650 °C	0.55 °C
396	THERMAL-TEMPERATURE	Ovens, Furnace	Using N Type Thermocouples with Data logger by Direct Method	650 °C to 1200 °C	1.5 °C
397	THERMAL-TEMPERATURE	RTD, SPRT Indicator with sensor	Using LN2, SPRT with Digital Indicator and Cryo bath by Comparison method	-196 °C	0.07 °C
398	THERMAL-TEMPERATURE	RTD, SPRT, Thermocouples, Indicator with sensor	Using Dry Bath, SPRT with Digital Indicator by Comparison Method	140 °C to 650 °C	0.08 °C



National Accreditation Board for Testing and Calibration Laboratories

SCOPE OF ACCREDITATION

Laboratory Name : TRANSCAL TECHNOLOGIES LLP, #100, 10TH CROSS, BETWEEN SAMPIGE & MARGOSA ROAD, MALLESWARAM, BENGALURU, KARNATAKA, INDIA

Accreditation Standard ISO/IEC 17025:2017

Certificate Number CC-2231 **Page No** 190 of 190

Validity 14/06/2024 to 13/06/2026 **Last Amended on** 26/07/2024

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)(±)
399	THERMAL-TEMPERATURE	RTD, Thermocouples, Indicator with sensor	Using Dry Temperature bath, SPRT with Digital indicator by Comparison method	-100 °C to -45 °C	0.07 °C
400	THERMAL-TEMPERATURE	RTD, Thermocouples, Indicator with sensor	Using Dry Temperature Bath, SPRT with Digital Indicator by Comparison Method	-45 °C to 140 °C	0.02 °C
401	THERMAL-TEMPERATURE	Thermocouples, Indicator with sensor	Using SSPRT & S-Type Thermocouple with Digital Indicator by Comparison Method	650 °C to 1200 °C	1.47 °C

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