



Valid from 14 December 2021  
to 13 December 2024  
Issued on 28 January 2022

As an accredited laboratory, this laboratory is entitled to  
use the following accreditation symbol.



ISO/IEC 17025  
CL 013-01

## Schedule of Accreditation

Accreditation Scheme for Calibration Laboratories  
Sri Lanka Accreditation Board for Conformity Assessment

Accreditation Number: CL 013-01

**Sri Lankan Engineering Calibration Laboratory**  
Aircraft Maintenance Department,  
SriLankan Airlines Ltd,  
Airline Centre,  
Bandaranaike International Airport,  
Katunayake.

**Scope of Accreditation:** Performing Electrical, Thermal and Mechanical Calibrations as per the test methods appearing in the schedule.

The Laboratory is accredited for the following tests appear on page 02 and 09;

SI No	Type of instrument	Calibration performed	Calibration methods / Measurement procedure	Range of calibration	CMC values	Location
<b>Electrical Calibration</b>						
E.1.1	Digital Voltage measuring instruments	DC Voltage generation	CAL / TMD / 01; based on EURAMET cg-15 Issue No 03 (Rev 0)  Calibration by comparison with a reference standard	$0 \text{ V} \leq V_{DC} \leq 1020 \text{ V}$	0.0013 % + 1.1 $\mu\text{V}$	Permanent laboratory
		AC Voltage generation		$1 \text{ mV} < V_{AC} < 330 \text{ mV}$	0.076 % @ 10 Hz to 100 kHz $\leq$ 0.088 % @ < 100 kHz to 450 kHz	
				$330 \text{ mV} \leq V_{AC} < 3.3 \text{ V}$	0.070 % @ 10 Hz to 100 kHz $\leq$ 0.074 % @ < 100 kHz to 450 kHz	
				$3.3 \text{ V} \leq V_{AC} < 33 \text{ V}$	0.028 % @ 10 Hz to 50 kHz $\leq$ 0.048 % @ < 50 kHz to 90 kHz	
				$33 \text{ V} \leq V_{AC} < 330 \text{ V}$	0.053 % @ 45 Hz to 50 kHz $\leq$ 0.078 % @ < 50 kHz to 100 kHz	
				$330 \text{ V} \leq V_{AC} \leq 1020 \text{ V}$	0.049 % @ 45 Hz to 10 kHz	
				E.1.2	Digital Current measuring instruments	
$330 \mu\text{A} \leq I_{DC} < 3 \text{ A}$	0.011 %					
$3 \text{ A} \leq I_{DC} \leq 20 \text{ A}$	0.070 %					
E.1.2	Digital Current measuring instruments	AC Current generation	CAL / TMD / 01; based on EURAMET cg-15 Issue No 03 (Rev 0)  Calibration by direct	$33 \mu\text{A} < I_{AC} < 330 \text{ mA}$	0.22 % @ 10 Hz to 30 kHz	Permanent laboratory
				$330 \mu\text{A} \leq I_{AC} < 330 \text{ mA}$	0.053 % @ 10 Hz to 45 Hz <	
					0.036 % @ $\leq 45 \text{ Hz}$ to 5 kHz $\leq$	
					0.10 % @ < 5 kHz to 10 kHz $\leq$	
					0.44 % @ < 10 kHz to 30 kHz	
$330 \text{ mA} \leq I_{AC} < 3 \text{ A}$	0.058 % @ 10 Hz to 45 Hz <					

			comparison with a reference standard		0.030 % @ $\leq 45$ Hz to $1$ kHz $\leq$		
					0.25 % @ $< 1$ kHz to $5$ kHz $\leq$		
					0.49 % @ $< 5$ kHz to $10$ kHz		
				$3$ A $\leq I_{AC} \leq 20$ A	0.083 % @ $45$ Hz to $1$ kHz $\leq$		
					0.50 % @ $< 1$ kHz to $5$ kHz		
E.1.3	Digital Resistance measuring instruments	Resistance generation (2 - wire)		$0 \Omega < R < 11 \Omega$	0.019 %		
				$11 \Omega \leq R < 330 \Omega$	0.0016 %		
				$330 \Omega \leq R < 1.1$ M $\Omega$	0.0021 %		
				$1.1$ M $\Omega \leq R < 3.3$ M $\Omega$	0.0033 %		
				$3.3$ M $\Omega \leq R < 11$ M $\Omega$	0.0062 %		
				$11$ M $\Omega \leq R < 33$ M $\Omega$	0.014 %		
				$33$ M $\Omega \leq R < 110$ M $\Omega$	0.057 %		
				$110$ M $\Omega \leq R < 330$ M $\Omega$	0.049 %		
				$330$ M $\Omega \leq R < 1100$ M $\Omega$	0.17 %		
E 2.1	DC Voltage generating instruments	DC Voltage measure	CAL / TMD / 01; based on EURAMET cg-15 Issue No 03 (Rev 0)	$0$ V $\leq V_{DC} \leq 100$ mV	16 ppm + 0.41 $\mu$ V	Permanent laboratory	
					$100$ mV $< V_{DC} \leq 1$ V		15 ppm + 0.73 $\mu$ V
					$1$ V $< V_{DC} \leq 10$ V		14 ppm + 5.9 $\mu$ V
					$10$ V $< V_{DC} \leq 100$ V		16 ppm + 73 $\mu$ V
					$100$ V $< V_{DC} \leq 1000$ V		17 ppm + 600 $\mu$ V
			Calibration by direct comparison with a reference standard	$0$ mV $\leq V_{DC} < 50$ mV	0.07 % + 0.02 mV	Site	
					$50$ mV $\leq V_{DC} < 500$ mV		0.02 % + 0.05 mV
					$500$ mV $\leq V_{DC} < 3$ V		0.2 mV
					$3$ V $\leq V_{DC} < 5$ V		0.01 % + 0.2 mV
					$5$ V $\leq V_{DC} < 50$ V		0.02 % + 1 mV
					$50$ V $\leq V_{DC} < 500$ V		0.01 % + 11 mV
					$500$ V $\leq V_{DC} \leq 1000$ V		0.01 % + 200 mV

	AC Voltage generating instruments	AC Voltage measure		$1 \text{ mV} \leq V_{AC,rms} \leq 10 \text{ mV}$ $10 \text{ mV} < V_{AC,rms} \leq 100 \text{ mV}$	0.081 % @ 1 Hz - 40 Hz 0.040 % @ 40 Hz - 1 kHz 0.063 % @ 1 kHz - 20 kHz 0.23 % @ 20 kHz - 50 kHz 0.62 % @ 50 kHz - 100 kHz 5.0 % @ 100 kHz - 300 kHz 0.022 % @ 1 Hz - 40 Hz 0.013 % @ 40 Hz - 1 kHz 0.026 % @ 1 kHz - 20 kHz 0.065 % @ 20 kHz - 50 kHz 0.11 % @ 50 kHz - 100 kHz 0.39 % @ 100 kHz - 300 kHz	Permanent laboratory
E 2.1	AC Voltage generating instruments	AC Voltage measure	CAL / TMD / 01; based on EURAMET cg-15 Issue No 03 (Rev 0) Calibration by direct comparison with a reference standard	$100 \text{ mV} < V_{AC,rms} \leq 1 \text{ V}$ $1 \text{ V} < V_{AC,rms} \leq 10 \text{ V}$	0.020 % @ 1 Hz - 40 Hz 0.014 % @ 40 Hz - 1 kHz 0.024 % @ 1 kHz - 20 kHz 0.041 % @ 20 kHz - 50 kHz 0.10 % @ 50 kHz - 100 kHz 0.39 % @ 100 kHz - 300 kHz 1.3 % @ 300 kHz - 500 kHz 0.016 % @ 1 Hz - 40 Hz 0.012 % @ 40 Hz - 1 kHz 0.022 % @ 1 kHz - 20 kHz 0.041 % @ 20 kHz - 50 kHz 0.11 % @ 50 kHz - 100 kHz 0.41 % @ 100 kHz - 300 kHz 1.3 % @ 300 kHz - 1 MHz	Permanent laboratory

				$10\text{ V} < V_{AC,rms} \leq 100\text{ V}$	0.036 % @ 40 Hz - 1 kHz 0.033 % @ 1 kHz - 20 kHz 0.046 % @ 20 kHz - 50 kHz 0.15 % @ 50 kHz - 100 kHz	
				$100\text{ V} < V_{AC,rms} \leq 700\text{ V}$	0.059 % @ 40 Hz - 1 kHz	
				$700\text{ V} < V_{AC,rms} \leq 1000\text{ V}$	1.1 % @ 50 Hz to 10 kHz	
				$2.5\text{ mV} < V_{AC,rms} < 50\text{ mV}$	0.5 % + 0.06 mV @ 50 Hz to 1 kHz 7 % @ 1 kHz to 10 kHz 8 % @ 10 kHz to 20 kHz	Site
				$50\text{ mV} \leq V_{AC,rms} < 500\text{ mV}$	0.6 % @ 50 Hz to 1 kHz 7 % @ 1 kHz to 10 kHz 8 % @ 10 kHz to 20 kHz	
E 2.1	AC Voltage generating instruments	AC Voltage measure	CAL / TMD / 01; based on EURAMET cg-15 Issue No 03 (Rev 0)	$500\text{ mV} \leq V_{AC,rms} < 3\text{ V}$	0.8 % @ 50 Hz to 10 kHz 2.1 % @ 10 kHz to 20 kHz	Site
		$3\text{ V} \leq V_{AC,rms} < 50\text{ V}$		0.63 % @ 50 Hz to 10 kHz 2 % @ 10 kHz to 20 kHz		
		$50\text{ V} \leq V_{AC,rms} < 500\text{ V}$		0.4 % + 1.1 V @ 50 Hz to 1 kHz 0.5 % + 0.6 V @ 1 kHz to 10 kHz		
		$500\text{ V} \leq V_{AC,rms} \leq 1000\text{ V}$		1.1 % @ 50 Hz to 10 kHz		
E 2.2	DC Current generating instruments	DC Current measure	Calibration by direct comparison with a reference standard	$0\text{ }\mu\text{A} < I_{DC} \leq 100\text{ }\mu\text{A}$	52 ppm + 0.0012 $\mu\text{A}$	Permanent laboratory
		$100\text{ }\mu\text{A} < I_{DC} \leq 1\text{ mA}$		38 ppm + 0.0085 $\mu\text{A}$		
		$1\text{ mA} < I_{DC} \leq 10\text{ mA}$		39 ppm + 0.085 $\mu\text{A}$		
		$10\text{ mA} < I_{DC} \leq 100\text{ mA}$		56 ppm + 0.86 $\mu\text{A}$		
		$100\text{ mA} < I_{DC} \leq 1\text{ A}$		170 ppm + 14 $\mu\text{A}$		
		$1\text{ A} < I_{DC} \leq 10\text{ A}$		0.1 %		
		$0\text{ }\mu\text{A} < I_{DC} \leq 500\text{ }\mu\text{A}$		0.04 % + 0.2 $\mu\text{A}$	Site	

				$500 \mu\text{A} < I_{DC} \leq 5 \text{ mA}$	0.04 %		
				$5 \text{ mA} < I_{DC} \leq 50 \text{ mA}$	0.2 %		
				$50 \text{ mA} < I_{DC} \leq 400 \text{ mA}$	0.2 % + 0.005 mA		
				$400 \text{ mA} < I_{DC} \leq 10 \text{ A}$	0.1 %		
	AC Current generating instruments	AC Current measure		$30 \mu\text{A} < I_{AC,rms} \leq 100 \mu\text{A}$	0.12 % @ 45 Hz - 1 kHz	Permanent laboratory	
				$100 \mu\text{A} < I_{AC,rms} \leq 100 \text{ mA}$	0.080 % @ 45 Hz - 1 kHz		
				$100 \text{ mA} < I_{AC,rms} \leq 1 \text{ A}$	0.15 % @ 45 Hz - 1 kHz		
				$1 \text{ A} < I_{AC,rms} < 5 \text{ A}$	2 % @ 50 Hz to 1 kHz		
					7.1 % @ 1 kHz to 10 kHz		
				$5 \text{ A} \leq I_{AC,rms} < 10 \text{ A}$	2 % @ 50 Hz to 1 kHz		
6 % @ 1 kHz to 10 kHz							
E 2.2	AC Current generating instruments	AC Current measure	CAL / TMD / 01; based on EURAMET cg-15 Issue No 03 (Rev 0)	Calibration by direct comparison with a reference standard	$25 \mu\text{A} < I_{AC,rms} < 500 \mu\text{A}$	0.8 % + 0.7 $\mu\text{A}$ @ 50 Hz to 1 kHz 1 % @ 1 kHz to 10 kHz	Site
					$500 \mu\text{A} \leq I_{AC,rms} < 50 \text{ mA}$	1 % @ 50 Hz to 10 kHz	
					$50 \text{ mA} \leq I_{AC,rms} < 400 \text{ mA}$	1 % @ 50 Hz to 1 kHz 2.1 % @ 1 kHz to 10 kHz	
					$400 \text{ mA} \leq I_{AC,rms} < 5 \text{ A}$	2 % @ 50 Hz to 1 kHz 7.1 % @ 1 kHz to 10 kHz	
					$5 \text{ A} \leq I_{AC,rms} < 10 \text{ A}$	2 % @ 50 Hz to 1 kHz 6 % @ 1 kHz to 10 kHz	
E 2.3	Resistance generating instruments	Resistance measure (4 – wire)	Calibration by direct comparison with a reference standard	$0 \Omega \leq r \leq 10 \Omega$	28 ppm + 0.15 m $\Omega$	Permanent laboratory	
				$10 \Omega < r \leq 100 \Omega$	23 ppm + 2.0 m $\Omega$		
				$100 \Omega < r \leq 1 \text{ k}\Omega$	15 ppm + 11 m $\Omega$		
				$1 \text{ k}\Omega < r \leq 10 \text{ k}\Omega$	15 ppm + 110 m $\Omega$		
				$10 \text{ k}\Omega < r \leq 100 \text{ k}\Omega$	16 ppm + 800 m $\Omega$		

		Resistance measure (2 – wire)	$100\text{ k}\Omega < r \leq 1\text{ M}\Omega$	77 ppm + 340 $\Omega$	
			$1\text{ M}\Omega < r \leq 10\text{ M}\Omega$	79 ppm + 270 $\Omega$	
			$10\text{ M}\Omega < r \leq 100\text{ M}\Omega$	910 ppm + 34 k $\Omega$	
		Resistance measure (2 – wire)	$0\ \Omega \leq r < 500\ \Omega$	0.06 % + 0.12 $\Omega$	Site
			$500\ \Omega < r \leq 5\text{ k}\Omega$	0.06 % + 0.0004 k $\Omega$	
			$5\text{ k}\Omega < r \leq 50\text{ k}\Omega$	0.06 % + 0.004 k $\Omega$	
			$50\text{ k}\Omega < r \leq 500\text{ k}\Omega$	0.06 % + 0.04 k $\Omega$	
			$500\text{ k}\Omega < r \leq 5\text{ M}\Omega$	0.2 % + 0.0008 M $\Omega$	
			$5\text{ M}\Omega < r \leq 32\text{ M}\Omega$	1.2 % + 0.02 M $\Omega$	
E 2.4	Frequency generating instruments	Frequency measure	$1\text{ Hz} \leq f \leq 10\text{ MHz}$	0.028 % + 5.6 mHz	Permanent laboratory

SI No	Type of instrument	Calibration performed	Calibration methods / Measurement procedure	Range of calibration	CMC values	Location
<b>Mechanical</b>						
M.1.1	Bourdon tube / Electrical Pressure Gauge (Alcohol/Oil)	Gauge Pressure	CAL/TMD/02; Issue No 02 (Rev 01)  Calibration by direct comparison with a reference standard	$0 \text{ MPa} \leq p \leq 10 \text{ MPa}$	4.0 kPa	Permanent laboratory
				$10 \text{ MPa} < p \leq 70 \text{ MPa}$	9.4 kPa	
	Bourdon tube / Electrical Pressure Gauge (Oil)			$70 \text{ MPa} < p \leq 117 \text{ MPa}$	26 kPa	
M.1.2	Bourdon tube / Electrical Pressure Gauge (Nitrogen/Air)	$0 \text{ MPa} \leq p \leq 1.99 \text{ MPa}$	0.43 kPa			
		$1.99 \text{ MPa} < p \leq 2.42 \text{ MPa}$	4.0 kPa			
		$0 \text{ MPa} \geq p > (-) 0.094 \text{ MPa}$	0.058 kPa			
M.2.1	Hand torque tools	Torque	CAL/TMD/03; Issue No 02 (Rev 01)  Calibration by direct comparison with a reference standard	$0.2 \text{ Nm} \leq \tau \leq 2 \text{ Nm}$	0.32%	Permanent laboratory
				$2 \text{ Nm} < \tau < 10 \text{ Nm}$	0.41%	
				$10 \text{ Nm} \leq \tau \leq 250 \text{ Nm}$	0.57%	
				$250 \text{ Nm} < \tau \leq 300 \text{ Nm}$	0.43%	
				$300 \text{ Nm} < \tau \leq 1000 \text{ Nm}$	0.38%	
M.3.1	Mechanical / Digital External Micrometer	Length	CAL/TMD/04; Issue No 01 (Rev 00)  Calibration by direct comparison with a reference standard	$0 \text{ mm} \leq d \leq 12.5 \text{ mm}$	0.0006 mm	Permanent laboratory
				$12.5 \text{ mm} \leq d \leq 25 \text{ mm}$	0.0007 mm	
				$0 \text{ inch} \leq d \leq 1 \text{ inch}$	0.00004 inch	
M.3.2	Mechanical/ Digital Calipers	Length	CAL/TMD/05; Issue No 01 (Rev 00)	$0 \text{ mm} \leq d \leq 150 \text{ mm}$	0.006 mm	Permanent laboratory



			Calibration by direct comparison with a reference standard	$0 \text{ inch} \leq d \leq 6 \text{ inch}$	0.0004 inch	
M.3.3	Dial/ Digital Indicators	Length	CAL/TMD/06; Issue No 01 (Rev 00) Calibration by direct comparison with a reference standard	$0 \text{ inch} \leq d \leq 1 \text{ inch}$	0.00035 inch	Permanent laboratory
<b>Thermal</b>						
T.1.1	Temperature measuring instruments / Temperature indicators	Electrical simulation	CAL/TMD/07; Issue No 01 (Rev 00) Calibration by direct comparison with a reference standard	-100 °C to 1000 °C (Type K Thermocouple)	0.59 °C to 0.76 °C	Permanent Laboratory/ site
				-100 °C to 400 °C (Type T Thermocouple)	0.63 °C to 0.78 °C	

Director/CEO  
Sri Lanka Accreditation Board for Conformity Assessment