


Schedule of Accreditation

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United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p>UKAS CALIBRATION</p> <p>0666</p> <p>Accredited to ISO/IEC 17025:2005</p>	<p>Allied Aerosystems Ltd</p> <p>Issue No: 044 Issue date: 20 September 2018</p>	
	<p>Avionic and Metrology Centre Unit G1/2 Treforest Industrial Estate Pontypridd CF37 5YL</p>	<p>Contact: Mr P Ashurst Tel: +44 (0)1443 849970 Fax: +44 (0)1443 849988 E-Mail: phillip.ashurst@allied-aerosystems.com Website: www.allied-aerosystems.co.uk</p>
<p>Calibration performed by the Organisations at the locations specified below</p>		

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details	Activity	Location code
<p>Address Avionic and Metrology Centre Unit G1/2 Treforest Industrial Estate Pontypridd CF37 5YL</p> <p>Local contact Mr P Ashurst Tel: +44 (0)1443 849970 Fax: +44 (0)1443 849988 E-Mail: phillip.ashurst@allied-aerosystems.com</p>	<p>Electrical, DC&LF Electrical, RF Rotational speed Time</p>	Lab 1
<p>Address Units 1-6, Moy Road Industrial Estate Taffs Well Cardiff CF15 7QR</p> <p>Local contact All correspondence and deliveries are to be made to the above address</p>	<p>Dimensional Torque Mass Temperature Pressure Surface plates and tables Accelerometry</p>	Lab 2

Site activities performed away from the locations listed above:

Location details	Activity	Location code
<p>Customers' Premises</p> <p>The customers' site or premises must be suitable for the nature of the particular calibrations undertaken and will be the subject of contract review arrangements between the laboratory and the customer.</p>	<p>Non-automatic weighing instruments Surface plates and tables Temperature Pressure</p>	Site



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DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
ELECTRICAL DC VOLTAGE Generation Measurement	0 mV to 220 mV 220 mV to 2.2 V 2.2 V to 11 V 11 V to 22 V 22 V to 220 V 220 V to 1100 V 0 mV to 200 mV 200 mV to 2 V 2 V to 20 V 20 V to 200 V 200 V to 1 kV	8.4 ppm + 0.60 μ V 7.0 ppm + 1.0 μ V 7.0 ppm + 3.6 μ V 7.0 ppm + 6.6 μ V 8.0 ppm + 80 μ V 9.0 ppm + 560 μ V 5.2 ppm + 1.2 μ V 3.3 ppm + 0.59 μ V 3.2 ppm + 5.1 μ V 4.7 ppm + 51 μ V 15 ppm + 0.29 mV		Lab 1
DC CURRENT Generation Measurement	0 μ A to 220 μ A 220 μ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A 2.2 A to 11 A 11 A to 20 A 20 A to 100 A 11 A to 16.5 A 16.5 A to 150 A 150 A to 1025 A 0 μ A to 200 μ A 200 μ A to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2.0 A to 20 A 20 A to 100 A	50 ppm + 8.0 nA 50 ppm + 8.0 nA 50 ppm + 100 nA 60 ppm + 800 nA 81 ppm + 25 μ A 0.08 % + 0.39 mA 0.10 % + 4.6 mA 0.10 % + 23 mA 0.30 % + 2.4 mA 0.30 % + 18 mA 0.30 % + 61 mA 10 ppm + 0.48 nA 10 ppm + 4.7 nA 10 ppm + 47 nA 39 ppm + 0.93 μ A 200 ppm + 16 μ A 440 ppm + 51 μ A 0.11 %	Simulated using a multi turn coil	Lab 1



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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
DC RESISTANCE				Lab 1
Generation	0 Ω 1 m Ω 10 m Ω 100 m Ω 1.0 Ω 1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1.0 k Ω 1.9 k Ω 10 k Ω 19 k Ω 100 k Ω 190 k Ω 1.0 M Ω 1.9 M Ω 10 M Ω 19 M Ω 100 M Ω	59 $\mu\Omega$ 0.010 % 0.010 % 0.010 % 110 ppm 98 ppm 31 ppm 37 ppm 18 ppm 18 ppm 14 ppm 14 ppm 12 ppm 13 ppm 15 ppm 16 ppm 25 ppm 30 ppm 54 ppm 68 ppm 110 ppm		
Measurement	0 Ω to 2 Ω 2 Ω to 20 Ω 20 Ω to 200 Ω 200 Ω to 2 k Ω 2 k Ω to 20 k Ω 20 k Ω to 200 k Ω 200 k Ω to 2 M Ω 2 M Ω to 20 M Ω 20 M Ω to 200 M Ω 200 M Ω to 2 G Ω	12 ppm + 5.0 $\mu\Omega$ 8.5 ppm + 21 $\mu\Omega$ 8.5 ppm + 70 $\mu\Omega$ 8.4 ppm + 0.62 m Ω 8.4 ppm + 6.2 m Ω 8.6 ppm + 62 m Ω 9.9 ppm + 1.4 Ω 16 ppm + 120 Ω 68 ppm + 670 Ω 0.060 % + 1.2 M Ω		
AC VOLTAGE				Lab 1
Generation	10 Hz to 20 Hz 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V 20 Hz to 40 Hz 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	0.071 % + 4.6 μ V 0.057 % + 5.0 μ V 0.057 % + 13 μ V 0.051 % + 80 μ V 0.051 % + 810 μ V 0.051 % + 8.1 mV 0.050 % + 4.5 μ V 0.023 % + 5.0 μ V 0.022 % + 8.0 μ V 0.017 % + 25 μ V 0.017 % + 250 μ V 0.017 % + 2.6 mV		



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AC VOLTAGE (cont'd) Generation (cont.)				Lab 1
	<i>40 Hz to 20 kHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	0.046 % + 4.5 μ V 0.014 % + 5.0 μ V 0.0090 % + 1.0 μ V 0.0090 % + 7.0 μ V 0.0090 % + 62 μ V 0.0090 % + 1.0 mV		
	<i>50 Hz to 1 kHz</i> 220 V to 1100 V	0.010 % + 5.0 mV		
	<i>20 kHz to 50 kHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	0.058 % + 6.0 μ V 0.039 % + 7.0 μ V 0.033 % + 8.0 μ V 0.013 % + 17 μ V 0.013 % + 170 μ V 0.023 % + 3.5 mV		
	<i>50 kHz to 100 kHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V 22 V to 220 V	0.10 % + 7.0 μ V 0.090 % + 7.0 μ V 0.090 % + 25 μ V 0.025 % + 70 μ V 0.025 % + 350 μ V 0.050 % + 8.0 mV		
	<i>100 kHz to 300 kHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V	0.12 % + 13 μ V 0.11 % + 12 μ V 0.11 % + 25 μ V 0.050 % + 140 μ V 0.050 % + 1.5 mV		
	<i>300 kHz to 500 kHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V	0.18 % + 25 μ V 0.17 % + 25 μ V 0.17 % + 35 μ V 0.11 % + 360 μ V 0.13 % + 4.3 mV		
	<i>500 kHz to 1 MHz</i> 1 mV to 2.2 mV 2.2 mV to 22 mV 22 mV to 220 mV 220 mV to 2.2 V 2.2 V to 22 V	0.35 % + 25 μ V 0.34 % + 25 μ V 0.34 % + 80 μ V 0.22 % + 850 μ V 0.27 % + 8.5 mV		



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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AC VOLTAGE (cont'd) Measurement	<p><i>10 Hz to 20 Hz</i> 1.3 μV to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V 22 V to 70 V 70 V to 220 V</p> <p><i>20 Hz to 40 Hz</i> 2 μV to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V 22 V to 70 V 70 V to 220 V</p> <p><i>40 Hz to 20 kHz</i> 1.3 μV to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V 22 V to 70 V 70 V to 220 V</p> <p><i>100 Hz to 20 kHz</i> 220 V to 700 V 700 V to 1100</p>	<p>0.010 % 1.3 μV 70 ppm + 1.8 μV 60 ppm + 2.1 μV 50 ppm + 1.5 μV 50 ppm + 2.4 μV 50 ppm + 11 μV 50 ppm + 23 μV 50 ppm + 0.11 mV 50 ppm + 0.3 mV 50 ppm + 1.7 mV 50 ppm + 3.7 mV</p> <p>50 ppm + 2 μV 50 ppm + 2.2 μV 50 ppm + 2.1 μV 30 ppm + 2.2 μV 30 ppm + 3 μV 30 ppm + 10.5 μV 30 ppm + 14.6 μV 30 ppm + 30.3 μV 30 ppm + 0.28 mV 30 ppm + 0.55 mV 30 ppm + 2.0 mV</p> <p>40 ppm + 1.3 μV 30 ppm + 1.5 μV 30 ppm + 1.8 μV 20 ppm + 1.7 μV 20 ppm + 2.5 μV 20 ppm + 13.3 μV 20 ppm + 11.7 μV 20 ppm + 44 μV 20 ppm + 81 μV 20 ppm + 0.13 mV 40 ppm + 0.9 mV</p> <p>20 ppm + 12 mV 20 ppm + 20 mV</p>		Lab 1



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AC VOLTAGE (cont'd) Measurement (cont'd)	<p><i>20 kHz to 50 kHz</i> 1.8 μV to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V 22 V to 70 V 70 V to 220 V 220 V to 700 V</p> <p><i>50 kHz to 100 kHz</i> 2.2 μV to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V 22 V to 70 V 70 V to 220 V 220 V to 700 V</p> <p><i>100 kHz to 300 kHz</i> 5.7 μV to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V 22 V to 70 V</p> <p><i>300 kHz to 500 kHz</i> 6 μV to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V</p>	<p>50 ppm + 1.8 μV 40 ppm + 1.9 μV 40 ppm + 2.1 μV 30 ppm + 3.2 μV 20 ppm + 4 μV 20 ppm + 7 μV 20 ppm + 15 μV 20 ppm + 25 μV 20 ppm + 41 μV 30 ppm + 0.61 mV 30 ppm + 1.9 mV 0.009 % + 15 mV</p> <p>70 ppm + 2.2 μV 50 ppm + 2.2 μV 70 ppm + 2.5 μV 70 ppm + 4.4 μV 50 ppm + 9.3 μV 50 ppm + 3.7 μV 50 ppm + 25 μV 60 ppm + 31 μV 60 ppm + 21 μV 60 ppm + 4 mV 60 ppm + 9.1 mV 0.04 % + 17 mV</p> <p>0.017 % + 5.7 μV 0.010 % + 5.8 μV 0.009 % + 5.8 μV 0.010 % + 6.9 μV 0.009 % + 11 μV 0.009 % + 9 μV 0.008 % + 24 μV 0.012 % + 67 μV 0.012 % + 21 μV 0.012 % + 7.0 mV</p> <p>0.051 % + 6.0 μV 0.032 % + 7.0 μV 0.027 % + 9.0 μV 0.023 % + 22 μV 0.022 % + 9.0 μV 0.022 % + 34 μV 0.019 % + 17 μV 0.030 % + 0.18 mV 0.030 % + 0.20 mV</p>		Lab 1



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AC VOLTAGE (cont'd) Measurement (cont'd)	500 kHz to 1 MHz 7 μ V to 2.2 mV 2.2 mV to 7 mV 7 mV to 22 mV 22 mV to 70 mV 70 mV to 220 mV 220 mV to 700 mV 700 mV to 2.2 V 2.2 V to 7 V 7 V to 22 V	0.19 % + 7.0 μ V 0.14 % + 7.0 μ V 0.11 % + 9.0 μ V 0.11 % + 21 μ V 0.08 % + 7.0 μ V 0.08 % + 33 μ V 0.07 % + 21 μ V 0.10 % + 0.34 mV 0.10 % + 0.26 mV		Lab 1
AC CURRENT Generation	45 Hz to 1 kHz 22 μ A to 220 μ A 220 μ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A 45 Hz to 100 Hz 2.2 A to 11 A 11 A to 20 A 20 A to 100 A 100 Hz to 1 kHz 2.2 A to 11 A 11 A to 20 A 45 Hz to 65 Hz 11 A to 16.5 A 16.5 A to 150 A 150 A to 1025 A 65 Hz to 440 Hz 11 A to 16.5 A 16.5 A to 150 A 150 A to 1025 A 1 kHz to 5 kHz 22 μ A to 220 μ A 220 μ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A	0.021 % + 16 nA 0.018 % + 35 nA 0.014 % + 370 nA 0.014 % + 3.6 μ A 0.065 % + 42 μ A 0.070 % + 2.4 mA 0.14 % + 5.8 mA 0.27 % + 120 mA 0.070 % + 2.4 mA 0.17 % + 24 mA 0.40 % + 3.5 mA 0.40 % + 29 mA 0.40 % + 110 mA 1.0 % + 4.0 mA 1.0 % + 32 mA 1.0 % + 120 mA 0.064 % + 40 nA 0.062 % + 400 nA 0.060 % + 4.0 μ A 0.060 % + 40 μ A 0.075 % + 80 μ A	Simulated using a multi turn coil Simulated using a multi turn coil	Lab 1



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AC CURRENT (cont'd) Generation (cont'd) Measurement	<p><i>5 kHz to 10 kHz</i> 22 μA to 220 μA 220 μA to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A</p> <p><i>50 Hz to 1 kHz</i> 1 μA to 200 μA 200 μA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A</p> <p><i>50 Hz to 60 Hz</i> 20 A to 100 A</p> <p><i>1 kHz to 5 kHz</i> 1 μA to 200 μA 200 μA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A</p> <p><i>5 kHz to 10 kHz</i> 1 μA to 200 μA 200 μA to 2 mA 2 mA to 20 mA 20 mA to 200 mA 200 mA to 2 A 2 A to 20 A</p>	<p>0.17 % + 120 nA 0.17 % + 800 nA 0.16 % + 8.0 μA 0.16 % + 80 μA 0.85 % + 160 μA</p> <p>0.034 % + 26 nA 0.033 % + 0.26 μA 0.033 % + 2.6 μA 0.034 % + 26 μA 0.078 % + 0.26 mA 0.11 % + 2.6 mA</p> <p>0.17 %</p> <p>0.036 % + 26 nA 0.033 % + 0.26 μA 0.033 % + 6.4 μA 0.034 % + 26 μA 0.09 % + 0.27 mA 0.33 % + 2.6 mA</p> <p>0.052 % + 26 nA 0.034 % + 0.26 μA 0.033 % + 6.4 μA 0.034 % + 26 μA 0.091 % + 0.27 mA 0.38 % + 2.0 mA</p>		Lab 1
DC POWER 0.1 mW to 100 kW	<p><i>33 mV to 1020 V</i> <i>3.3 mA to 9 mA</i> <i>9 mA to 33 mA</i> <i>33 mA to 90 mA</i> <i>90 mA to 330 mA</i></p> <p><i>330 mA to 900 mA</i> <i>900 mA to 2.2 A</i> <i>2.2 A to 4.5 A</i> <i>4.5 A to 11 A</i></p> <p><i>11 A to 20.5 A</i> <i>20.5 A to 100 A</i></p>	<p>0.040 % 0.030 % 0.040 % 0.030 %</p> <p>0.080 % 0.060 % 0.12 % 0.090 %</p> <p>0.13 % 0.13 %</p>		Lab 1



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DC POWER (cont'd) 0.1 W to 1 MW for clamp meters	33 mV to 1020 V 10 A to 16.5 A 16.5 A to 110 A 110 A to 150 A 150 A to 1000 A	0.25 % 0.27 % 0.28 % 0.31 %		Lab 1
AC POWER Nominal unity power factor 0.1 mW to 100 kW 45 Hz to 65 Hz	33 mV to 330 mV 3.3 mA to 9 mA 9 mA to 33 mA 33 mA to 90 mA 90 mA to 330 mA 330 mA to 900 mA 900 mA to 2.2 A 2.2 A to 4.5 A 4.5 A to 11 A 11 A to 20.5 A 20.5 A to 100 A 330 mV to 1020 V 3.3 mA to 9 mA 9 mA to 33 mA 33 mA to 90 mA 90 mA to 330 mA 330 mA to 900 mA 900 mA to 2.2 A 2.2 A to 4.5 A 4.5 A to 11 A 11 A to 20.5 A 20.5 A to 100 A	0.40 % 0.25 % 0.35 % 0.25 % 0.35 % 0.25 % 0.35 % 0.30 % 0.22 % 0.90 % 0.25 % 0.15 % 0.25 % 0.15 % 0.25 % 0.15 % 0.30 % 0.30 % 0.22 % 0.90 %		Lab 1
0.1 W to 1 MW for clamp meters	33 mV to 1020 V 10 A to 16.5 A 16.5 A to 110 A 110 A to 150 A 150 A to 1000 A	0.32 % 0.34 % 0.34 % 0.43 %		



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PHASE ANGLE				Lab 1
Voltage Current	0 ° to 360 ° 10 Hz to 65 Hz 65 Hz to 500 Hz 0.5 kHz to 1kHz 1 kHz to 5 kHz 5 kHz to 10 kHz	0.18 ° 1.0 ° 2.3 ° 7.0 ° 12 °	3.3 mA to 20.5 A 33 mV to 1020 V	
Calibration of 17th Edition Test Equipment				Lab 1
INSULATION TESTERS				
Continuity	0 Ω to 100 mΩ 100 mΩ to 500 mΩ 0.5 Ω to 1 Ω 1 Ω to 5 Ω 5 Ω to 200 Ω 200 Ω to 10 kΩ	5.0 mΩ 1.1 % + 12 mΩ 0.53 % + 12 mΩ 0.46 % + 12 mΩ 0.25 % + 12 mΩ 0.25 %		
High Resistance	10 kΩ to 1 MΩ 1 MΩ to 10 MΩ 10 MΩ to 1 GΩ 1 GΩ to 10 GΩ	0.24 % 0.35 % 0.6 % 1.3 %	Uncertainty increases by 0.10 % per 200 V above 500 V	
Test Voltage Measurement	0 V to 2 kV DC 10 kΩ to 1 MΩ 1 MΩ to 10 GΩ	1.0 % + 2.0 V 1.0 % + 5.0 V		
LINE / LOOP IMPEDANCE TESTERS				
Resistance Nominal values	25 mΩ 50 mΩ 100 mΩ 330 mΩ 500 mΩ 1 Ω 1.8 Ω 5 Ω 10 Ω 18 Ω 50 Ω 100 Ω 180 Ω 500 Ω 1 kΩ 1.8 kΩ	6.0 mΩ 6.0 mΩ 6.0 mΩ 9.0 mΩ 10 mΩ 12 mΩ 22 mΩ 36 mΩ 0.070 Ω 0.12 Ω 0.35 Ω 0.59 Ω 1.2 Ω 3.0 Ω 5.9 Ω 12 Ω		



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LINE / LOOP IMPEDANCE TESTERS (Ctd)				
Current Measurement	0.05 A 0.1 A 0.25 A 0.5 A 0.8 A 1.5 A 2.0 A 3.2 A 6 A 8 A 10 A 14 A 25 A 28 A 30 A	1.5 % + 2.0 mA 1.5 % + 3.0 mA 1.5 % + 5.0 mA 1.5 % + 10 mA 1.5 % + 20 mA 1.5 % + 30 mA 1.5 % + 50 mA 1.5 % + 70 mA 1.5 % + 100 mA 1.5 % + 150 mA 1.5 % + 0.20 A 1.5 % + 0.30 A 1.5 % + 0.35 A 1.5 % + 0.50 A 1.5 % + 0.70 A		Lab 1
RCD TESTERS				
Timing	10 ms to 5 s	0.024 % + 0.32 ms		
Current				
0.5 x I and 1 x I Mode	3 mA to 30 mA 30 mA to 300 mA 300 mA to 3000 mA	1.3 % + 1.3 μ A 1.3 % + 14 μ A 1.3 % + 0.13 mA		
1.4 x I and 2 x I Mode	3 mA to 30 mA 30 mA to 300 mA 300 mA to 1500 mA	2.6 % + 1.3 μ A 2.6 % + 14 μ A 2.6 % + 0.13 mA		
5 x I Mode	3 mA to 30 mA 30 mA to 300 mA 300 mA to 600 mA	6.4 % + 1.3 μ A 6.4 % + 14 μ A 6.4 % + 0.13 mA		
LEAKAGE TESTERS				
Current				
Passive/Differential/Substitute Modes	0.1 mA to 30 mA	0.30 % + 2 μ A (ac + dc) rms		
Active Mode	0.1 mA to 30 mA	0.30 % + 1 μ A (ac + dc) rms		
Touch Voltage	250 V Range	5.0 % + 3.0 V		



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PORTABLE APPLIANCE TESTERS				Lab 1
Earth / Ground Bond Resistance. Nominal values At 50 Hz to 60 Hz	25 m Ω 50 m Ω 100 m Ω 330 m Ω 500 m Ω 1 Ω 1.8 Ω 5 Ω 10 Ω 18 Ω 50 Ω 100 Ω 180 Ω 500 Ω 1 k Ω 1.8 k Ω	6.0 m Ω 6.0 m Ω 6.0 m Ω 9.0 m Ω 10 m Ω 12 m Ω 22 m Ω 36 m Ω 70 m Ω 0.12 Ω 0.35 Ω 0.59 Ω 1.2 Ω 3.0 Ω 5.9 Ω 12 Ω		
Earth / Ground Bonding Current At 50 Hz to 60 Hz	0.05 A 0.1 A 0.25 A 0.5 A 0.8 A 1.5 A 2.0 A 3.2 A 6 A 8 A 10 A 14 A 25 A 28 A 30 A	1.5 % + 2 mA 1.5 % + 3 mA 1.5 % + 5 mA 1.5 % + 10 mA 1.5 % + 20 mA 1.5 % + 30 mA 1.5 % + 50 mA 1.5 % + 70 mA 1.5 % + 100 mA 1.5 % + 150 mA 1.5 % + 0.2 A 1.5 % + 0.3 A 1.5 % + 0.35 A 1.5 % + 0.5 A 1.5 % + 0.7 A		
Insulation Resistance	10 k Ω to 1 M Ω 1 M Ω to 10 M Ω 10 M Ω to 1 G Ω 1 G Ω to 10 G Ω	0.24 % 0.35 % 0.60 % 1.3 %	Uncertainty Increases by 0.10 % per 200 V above 500 V	
Test Voltage	0 V to 2 kV DC 10 k Ω to 1 M Ω 1 M Ω to 10 G Ω	1.0 % + 2.0 V 1.0 % + 5.0 V		



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Allied Aerosystems Ltd
Issue No: 044 Issue date: 20 September 2018

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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
PORTABLE APPLIANCE TESTERS (Ctd)				Lab 1
Continuity	100 m Ω to 500 m Ω 0.5 Ω to 1 Ω 1 Ω to 5 Ω 5 Ω to 200 Ω 200 Ω to 10 k Ω	1.1 % + 12 m Ω 0.53 % + 12 m Ω 0.46 % + 12 m Ω 0.25 % + 12 m Ω 0.25 %		
HIPOT/HV TESTERS				
HVDC Voltage	0.1 kV to 10 kV 10 kV to 20 kV 20 kV-50 kV	0.35 % + 7 V 1.2 % + 12.2 V 1.2 % + 0.13 kV		
HVAC Peak Voltage	50 Hz to 60 Hz 0.1 kV to 10 kV 10 kV to 20 kV 20 kV-50 kV	0.6 % + 19 V 2.0 % + 12 V 2.0 % + 0.13 kV		
DC Leakage Current	0 A to 300 μ A 0.3 mA to 3 mA 3 mA to 30 mA 30 mA to 300 mA	0.37 % + 0.26 μ A 0.24 % + 1.9 μ A 0.24 % + 19 μ A 0.24 % + 0.19 mA		
AC Leakage Current	20 Hz to 400 Hz 0 A to 300 μ A 0.3 mA to 3 mA 3 mA to 30 mA 30 mA to 300 mA	0.37 % + 0.26 μ A 0.24 % + 1.9 μ A 0.24 % + 19 μ A 0.24 % + 0.19 mA		
FREQUENCY	10 MHz, 5 MHz, 1 MHz, 100 kHz 1 Hz to 10 Hz 10 Hz to 100 Hz 100 Hz to 1 kHz 1kHz to 10kHz 10 kHz to 100 kHz 100 kHz to 10 MHz 10 MHz to 100 MHz 100 MHz to 1 GHz 1 GHz to 10 GHz 10 GHz to 20 GHz	1.0 in 10^{12} 2.0 in 10^6 1.0 in 10^6 1.0 in 10^7 1.0 in 10^8 1.0 in 10^9 1.0 in 10^9 1.6 in 10^{10} 19 in 10^{12} 15 in 10^{12} 2.8 in 10^{12}	For oscillator calibration over gate times of 100 s or greater Can be quoted as time for repetitive events	Lab 1



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TEMPERATURE SIMULATION Electrical calibration of temperature indicators and simulators				Lab 1
Resistance thermometers (Pt 100)	-200 °C to 400 °C 400 °C to 800 °C	0.070 °C 0.070 °C	Other RTD types can be calibrated but may have larger uncertainties	
Thermocouples				
Type J	-250 °C to 0 °C 0 °C to 1370 °C	0.070 °C 0.070 °C	Excluding cold junction compensation	
	-250 °C to 0 °C 0 °C to 1370 °C	0.14 °C 0.14 °C	Including cold junction compensation	
Type K	-250 °C to 0 °C 0 °C to 1370 °C	0.090 °C 0.070 °C	Excluding cold junction compensation	
	-250 °C to 0 °C 0 °C to 1370 °C	0.15 °C 0.14 °C	Including cold junction compensation	
Type R	50 °C to 400 °C 400 °C to 1700 °C	0.22 °C 0.14 °C	Excluding cold junction compensation	
	50 °C to 400 °C 400 °C to 1700 °C	0.24 °C 0.20 °C	Including cold junction compensation	
Type T	-250 °C to 0 °C 0 °C to 400 °C	0.090 °C 0.070 °C	Excluding cold junction compensation	
	-250 °C to 0 °C 0 °C to 400 °C	0.15 °C 0.14 °C	Including cold junction compensation	
Cold junction compensation	At ambient temperature 22 °C \pm 5 °C	0.05 °C		
TIME				Lab 1
Elapsed Time	1 s to 24 hrs	0.20 s 0.0010 s	Mechanically triggered Electronically triggered	
ROTATIONAL SPEED				Lab 1
Tachometers	60 rpm to 999 rpm 1 000 rpm to 9 999 rpm 10 000 rpm to 120 000 rpm	6.2 ppm + 0.0060 rpm 6.2 ppm + 0.058 rpm 6.0 ppm + 0.58 rpm	Optical or electrically triggered devices. Mechanical tachometers will attract a larger uncertainty due to resolution.	



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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
VOLTAGE REFLECTION COEFFICIENT	10 MHz to 9 GHz ≤ 1.0	0.020	Using R & S ZNB-20 The uncertainties are quoted for 50 Ω systems for devices fitted only with Type N Connectors. Results and uncertainties may also be quoted in units of Return Loss (dB) or VSWR .	Lab 1
	9 GHz to 18 GHz ≤ 1.0	0.054		
RF ATTENUATION	10 MHz to 4 GHz 0 dB to 10 dB	0.036 dB	Using R & S ZNB-20 The uncertainties are quoted for 50 Ω systems for devices fitted only with Type N Connectors which present a near match to the 50 Ω measurement system. Measurement of devices presenting a significant mismatch will receive much larger uncertainties.	Lab 1
	10 dB to 40 dB	0.040 dB		
	40 dB to 50 dB	0.050 dB		
	50 dB to 70 dB	0.080 dB		
	70 dB to 90 dB	0.090 dB		
	4 GHz to 12 GHz 0 dB to 10 dB	0.043 dB		
	10 dB to 20 dB	0.040 dB		
	20 dB to 30 dB	0.050 dB		
	30 dB to 40 dB	0.040 dB		
	40 dB to 50 dB	0.060 dB		
	50 dB to 70 dB	0.13 dB		
	70 dB to 80 dB	0.12 dB		
80 dB to 90 dB	0.13 dB			
RF POWER	12 GHz to 18 GHz 0 dB to 10 dB	0.16 dB	0 dBm is 1 mW across 50 Ω Note: These uncertainties are for type N systems with a source VSWR of 1.20:1 or less. Measurement of devices with a higher mismatch will receive much higher measurement uncertainties.	Lab 1
	10 dB to 20 dB	0.16 dB		
	20 dB to 30 dB	0.15 dB		
	30 dB to 40 dB	0.16 dB		
	40 dB to 50 dB	0.24 dB		
	50 dB to 70 dB	0.25 dB		
	70 dB to 90 dB	0.26 dB		
	1 mW Reference 50 MHz	0.0060 mW		
	100 KHz to 300 KHz +20 dBm to +10 dBm	0.21 dB		
	+10 dBm to -25 dBm	0.16 dB		
	300 KHz to 1 MHz +20 dBm to +10 dBm	0.16 dB		
	+10 dBm to -25 dBm	0.10 dB		
	1 MHz to 10 MHz +20 dBm to +10 dBm	0.15 dB		
	+10 dBm to -25 dBm	0.09 dB		
	10 MHz to 30 MHz +20 dBm to +10 dBm	0.16 dB		
	+10 dBm to -20 dBm	0.10 dB		
-20 dBm to -30 dBm	0.14 dB			
-30 dBm to *60 dBm	0.19 dB			



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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
RF POWER (cont'd)	<p><i>30 MHz to 3.9 GHz</i> +20 dBm to +10 dBm +10 dBm to -20 dBm -20 dBm to -30 dBm -30 dBm to -60 dBm</p> <p><i>4 GHz to 12 GHz</i> +20 dBm to +10 dBm +10 dBm to -20 dBm -20 dBm to -30 dBm -30 dBm to -60 dBm</p> <p><i>12 GHz to 18 GHz</i> +20 dBm to +10 dBm +10 dBm to -20 dBm -20 dBm to -30 dBm -30 dBm to -60 dBm</p>	<p>0.15 dB 0.08 dB 0.13 dB 0.12 dB</p> <p>0.16 dB 0.10 dB 0.14 dB 0.14 dB</p> <p>0.16 dB 0.10 dB 0.15 dB 0.15 dB</p>		Lab 1



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Issue No: 044 Issue date: 20 September 2018

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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
DIMENSIONAL MEASUREMENTS			All linear calibrations may be given in inch units.	Lab 2
MEASURING INSTRUMENTS AND MACHINES				
Micrometers				
External	BS 870:2008 0 mm to 600 mm	Heads 2.0 μm between any two points. Zero set $1.0 + (8.0 \times \text{length in m}) \mu\text{m}$		
Internal	BS 959:2008 and above 0 mm to 1000 mm	Heads 2.0 μm between any two points. Extension rods $1.0 + (8.0 \times \text{length in m}) \mu\text{m}$		
Depth	BS 6468:2008 0 mm to 300 mm	Heads 2.0 μm between any two points. Extension rods $1.0 + (8.0 \times \text{length in m}) \mu\text{m}$		
Micrometer heads	As BS 1734:1951 0 to 100	1.6 μm		
Micrometer setting rods/ Length gauges, flat & spherical ended	BS 870:2008 25 mm to 600 mm	$1.0 + (5.0 \times \text{length in m}) \mu\text{m}$		
Three point bore	3 mm to 150 mm	Overall performance 5.0 μm		
Vernier Gauges				
Caliper	BS 887:2008 and above 0 mm to 1500 mm	Overall performance $10 + (30 \times \text{length in m}) \mu\text{m}$		
Depth	As BS 6365: 2008 0 to 600			
Dial gauges and dial test indicators	As BS 907:2008 and BS 2795:1981 0 mm to 25 mm	2.0 μm		
Simple height gauges	BS EN ISO 13225:2012 0 mm to 300mm 300 mm to 450mm 450 mm to 600mm 600 mm to 1000mm	25 μm 26 μm 27 μm 28 μm		
Spirit levels	As BS 958:1968 5 seconds to 60 minutes of arc nominal sensitivity	1.5 seconds of arc		



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Allied Aerosystems Ltd**Issue No: 044 Issue date: 20 September 2018**

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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
ACCELEROMETRY Portable Accelerometer (brake meters)	Horizontal acceleration 16 % to 100 %	1.0 % of horizontal acceleration	Horizontal acceleration expressed as a percentage (%) of the local free fall acceleration due to gravity.	Lab 2
LENGTH Plain plug and pin gauges (parallel) Cylindrical setting standards Plain ring gauges (parallel) and setting standards Thread measuring cylinders Plain gap gauges (parallel) Gauge blocks Inch (Steel) Millimetre (Steel) Feeler Gauges Paint thickness setting foils Parallels	1 mm to 50 mm diameter 50 mm to 150 mm diameter 3 mm to 50 mm diameter 50 mm to 100 mm 100 mm to 150 mm diameter 150 mm to 200 mm diameter As BS3777:1964 and BS5590:1978 and specials 0.1 to 5.0 diameter 1 to 50mm As BS 4311-1:2007 0.01 inch to 0.4 inch 0.4 inch to 1 inch 2 inch 3 inch 4 inch As BS EN ISO 3650:1999 0.25 mm to 10 mm 10 mm to 25 mm 30 mm, 40 mm, 50 mm 60 mm, 70 mm, 75 mm 80 mm, 90 mm, 100 mm As BS 957:2008 0.02 mm to 1.00 mm 0.01 mm to 8 mm As BS 906:1972 5 to 50 x 100 x 400	1.0 μ m 1.5 μ m 1.7 μ m 1.8 μ m 2.2 μ m 2.3 μ m 0.8 μ m 3 μ m Class (see note) $\frac{C}{3.4}$ 4.1 5.7 7.6 9.6 } μ inches $\frac{C}{0.10}$ 0.11 0.13 0.17 0.20 } μ m 1.5 μ m 2.0 μ m 2 μ m to 5 μ m	All linear calibrations may be given in inch units. Note: Class C uncertainties apply to the measurement of length of steel gauges by comparison with grade K standards of length of a similar material. Class C uncertainties apply to new and used grade 0,1 & 2 gauges to BS 4311-1:2007 and BS EN ISO 3650:1999	Lab 2



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Issue No: 044 Issue date: 20 September 2018

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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Squares Blade type Right angle and box angle plates Vee blocks	50 mm to 450 mm As BS 5535:1978 50 mm to 300 mm As BS 3731:1987 20 mm to 100 mm	5.5 μ m Squareness: 3.0 +(1.0 per 100 mm) Parallelism: 0.003 mm 5 μ m	The uncertainty quoted is for the departure from flatness, i.e. the distance separating the two parallel planes which just enclose the surface under consideration.	
FORM Surface plates and tables Granite Cast iron	BS 817:2008 160 mm x 100 mm to 2500 mm x 1600 mm	1.5 μ m + (0.80 x diagonal in m) μ m See Note 1	The uncertainty quoted is for the departure from flatness, i.e. the distance separating the two parallel planes which just enclose the surface under consideration.	Lab 2 and Site
MASS See notes 1 and 2	Nominal Value (g) 50 000 20 000 10 000 5 000 2 000 1 000 500 200 100 50 20 10 5 2 1 0.5 0.2 0.1 0.05 0.02 0.01 0.005 to 0.001	(mg) 50 20 10 5.0 2.0 1.0 0.50 0.20 0.10 0.060 0.050 0.040 0.030 0.024 0.020 0.016 0.012 0.010 0.0080 0.0060 0.0050 0.0040	Note 1: Calibrations can be given in other units as required. Note 2: Intermediate values can be calibrated to an uncertainty interpolated from the next higher and lower values in the table.	Lab 2



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Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
TORQUE			Note 1: Values may be given in other units i.e. lbf/ft, mV/V etc.	Lab 2
Torque Wrenches	1 to 2500 N-m See note 1	1.6 %	Calibrated to BS EN ISO 6789:2003 (Withdrawn and superceded)	
Torque Screwdrivers	0.1 to 25 N-m See note 1	1.6 %		
Static Torque Transducers	0.005 to 1500 N-m Classes 0.05 to 5.0 See note 1	0.04 % of reading	Calibrated to BS 7882:2008 (Withdrawn and superceded)	
TEMPERATURE				Lab 2
Temperature block calibrators	-50 °C to +100 °C 100 °C to 250 °C 250 °C to 650 °C	0.060 °C 0.060 °C to 0.13 °C 0.13 °C		
Resistance thermometers	-40 °C to 0 °C 0 °C Ambient temperature (20 °C) 0 °C to 250 °C 250 °C to 270 °C 270 °C to 650 °C	0.035 °C 0.025 °C 0.025 °C 0.040 °C 0.090 °C 0.35 °C		
Thermocouples	-40 °C to 50 °C 50 °C to 250 °C 250 °C to 650 °C 650 °C to 1000 °C 1000 °C to 1200 °C	0.10 °C 0.10 °C to 0.20 °C 0.35 °C to 0.60 °C 1.7 °C to 2.5 °C 2.5 °C to 3.5 °C		
Compensating and extension cables for Base metal thermocouples Noble metal thermocouples	0 °C and 20 °C to 40 °C 0 °C and 20 °C to 40 °C	0.055 °C 0.12 °C		
Digital thermometers with probes	-40 °C to 0 °C 0 °C Ambient temperature (20 °C) 0 °C to 250 °C 250 °C to 270 °C 270 °C to 650 °C 650 °C to 1000 °C 1000 °C to 1200 °C	0.035 °C 0.025 °C 0.025 °C 0.040 °C 0.065 °C 0.25 °C 1.7 °C to 2.5 °C 2.5 °C to 3.5 °C		
Liquid in glass thermometers	-40 °C to 70 °C 70 °C to 270 °C	0.050 °C 0.050 °C to 0.20 °C	Thermometers can be read with an uncertainty of 1/5 of the smallest marked division	
Liquid baths	-50 °C to 300 °C	0.040 °C	Suitable for characterisation of temperature calibration baths	



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ELECTRICAL SIMULATION Electrical calibration of temperature indicators and simulators				Lab 2
Base metal thermocouples	-200 °C to -100 °C -100 °C to -30 °C -30 °C to 1200 °C 1200 °C to 1370 °C	0.18 °C 0.09 °C 0.08 °C 0.11 °C	Uncertainties based on Types J, K, R and B. Uncertainties may be higher for other thermocouple types Including cold junction compensation	
Noble metal thermocouples	-50 °C to +50 °C 50 °C to 270 °C 270 °C to 1820 °C	0.70 °C 0.50 °C 0.40 °C	Including cold junction compensation	
Cold junction compensation	Ambient temperature	0.08 °C		
PRESSURE Gas pressure (absolute) Calibration of pressure measuring instruments and gauges	3.5 kPa to 175 kPa 175 kPa to 700 kPa 700 kPa to 7 MPa 7 MPa to 17 MPa	0.0050 % + 1.4 Pa 0.0063 % 0.0054 % 0.013 % + 35 Pa		Lab 2
Gas pressure (gauge) Calibration of pressure measuring instruments and gauges	- 100 kPa to 0 kPa 0 kPa to 3.5 kPa 3.5 kPa to 175 kPa 175 kPa to 700 kPa 700 kPa to 7 MPa 7 MPa to 17 MPa	60 Pa 2.0 Pa 0.0045 % 0.0053 % 0.0043 % 0.013 %		
Hydraulic pressure (gauge) Calibration of pressure measuring instruments and gauges	350 kPa to 7.1 MPa 7.1 MPa to 83.6 MPa 83.6 MPa to 140 MPa	0.0093 % + 0.10 kPa 0.0087 % 0.053 % + 10 kPa		
Hydraulic pressure (gauge) Calibration of pressure measuring instruments and gauges	0 MPa to 7 MPa 7 MPa to 35 MPa 35 MPa to 70 MPa 70 MPa to 140 MPa	0.040 % + 1.5 kPa 0.053 % + 2.0 kPa 0.050 % + 7.5 kPa 0.053 % + 10 kPa		Site



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NON AUTOMATIC WEIGHING INSTRUMENTS (NAWI) Electronic, single pan weighing machines and weighing instruments See notes 1 and 2	Capacity 200 mg 500 mg 1 g 2 g 5 g 10 g 12 g 50 g 100 g 200 g 500 g 1 kg 2 kg 5 kg 10 kg 20 kg 50 kg 100 kg 200 kg 500 kg 1000 kg 2000 kg	0.012 mg 0.015 mg 0.018 mg 0.025 mg 0.037 mg 0.042 mg 0.058 mg 0.092 mg 0.16 mg 0.30 mg 0.78 mg 3.3 mg 6.5 mg 16 mg 33 mg 65 mg 160 mg 3.5 g 7.0 g 18 35 g 70 g	Note 1: Weights are available in OIML Class E2 Max grouped load 800 g OIML Class F1 Max grouped load 95 kg OIML Class M1 Max grouped load 3500 kg Note 2: Other loads within the overall listed range may also be used.	Site
TEMPERATURE Temperature controlled environmental chambers, fridges/refrigerators, freezers, ovens, incubators and rooms Digital thermometers with probes	-40 °C to 250 °C -20 °C to 140 °C	1.0 °C 0.20°C	Single and multipoint time dependent temperature profiling, also referred to as spatial temperature surveying or mapping	Site
END				



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Appendix - Calibration and Measurement Capabilities

Introduction

The definitive statement of the accreditation status of a calibration laboratory is the Accreditation Certificate and the associated Schedule of Accreditation. This Schedule of Accreditation is a critical document, as it defines the measurement capabilities, ranges and boundaries of the calibration activities for which the organisation holds accreditation.

Calibration and Measurement Capabilities (CMCs)

The capabilities provided by accredited calibration laboratories are described by the Calibration and Measurement Capability (CMC), which expresses the lowest uncertainty of measurement that can be achieved during a calibration. If a particular device under calibration itself contributes significantly to the uncertainty (for example, if it has limited resolution or exhibits significant non-repeatability) then the uncertainty quoted on a calibration certificate will be increased to account for such factors. The CIPM-ILAC definition of the CMC is as follows:

A CMC is a calibration and measurement capability available to customers under normal conditions:

(a) as published in the BIPM key comparison database (KCDB) of the CIPM MRA; or

(b) as described in the laboratory's scope of accreditation granted by a signatory to the ILAC Arrangement.

The CMC is normally used to describe the uncertainty that appears in an accredited calibration laboratory's schedule of accreditation and is the uncertainty for which the laboratory has been accredited using the procedure that was the subject of assessment. The CMC is calculated according to the procedures given in M3003 and is normally stated as an expanded uncertainty at a coverage probability of 95 %, which usually requires the use of a coverage factor of $k = 2$. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published CMC in certificates issued under its accreditation.

The CMC may be described using various methods in the Schedule of Accreditation:

As a single value that is valid throughout the range.

As an explicit function of the measurand or of a parameter (see below).

As a range of values. The range is stated such that the customer can make a reasonable estimate of the likely uncertainty at any point within the range.

As a matrix or table where the CMCs depend on the values of the measurand and a further quantity.

In graphical form, providing there is sufficient resolution on each axis to obtain at least two significant figures for the CMC.

Expression of CMCs - symbols and units

In general, only units of the SI and those units recognised for use with the SI are used to express the values of quantities and of the associated CMCs. Nevertheless, other commonly used units may be used where considered appropriate for the intended audience. For example, the term "ppm" (part per million) is frequently used by manufacturers of test and measurement equipment to specify the performance of their products. Terms like this may be used in Schedules of Accreditation where they are in common use and understood by the users of such equipment, providing their use does not introduce any ambiguity in the capability that is being described.

When the CMC is expressed as an explicit function of the measurand or of a parameter, this often comprises a relative term (e.g., percentage) and an absolute term, i.e. one expressed in the same units as those of the measurand. This form of expression is used to describe the capability that can be achieved over a range of values. Some examples, and an indication of how they are to be interpreted, are shown below.

DC voltage, 100 mV to 1 V: 0.0025 % + 5.0 μ V:

Over the range 100 mV to 1 V, the CMC is 0.0025 % \cdot V + 5.0 μ V, where V is the measured voltage.

Hydraulic pressure, 0.5 MPa to 140 MPa: 0.0036 % + 0.12 ppm/MPa + 4.0 Pa

Over the range 0.5 MPa to 140 MPa, the CMC is 0.0036 % \cdot p + (0.12 \cdot 10⁻⁶ \cdot p \cdot 10⁻⁶) + 4.0 Pa, where p is the measured pressure in Pa.

It should be noted that the percentage symbol (%) simply represents the number 0.01. In cases where the CMC is stated only as a percentage, this is to be interpreted as meaning percentage of the measured value or indication.

Thus, for example, a CMC of 1.5 % means 1.5 \cdot 0.01 \cdot i, where i is the instrument indication.