



Spectrum Laboratories Limited

Client Number 1044

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www.spectrumlab.co.nz

Authorised Representative

Mr Philip Sparrow
Technical Manager

Programme

Metrology & Calibration Laboratory

Accreditation Number 1112

Initial Accreditation Date 19 August 2014

Conformance Standard

ISO/IEC 17025:2017

General requirements for the competence of testing and calibration laboratories

Laboratory Services Summary

5.35	Hygrometry
5.63	Temperature Controlled Enclosures

Key Technical Personnel

Mr Poyang Chen	5.35, 5.63
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Calibration and Measurement Capabilities (CMC) Uncertainties are expressed as an expanded uncertainty corresponding to a level of confidence of 95 % ^{Note 1}.

Measurement results are traceable to the International System of Units (SI) via an unbroken chain of comparisons to the New Zealand National Standards or to the National Standards of other Signatories to the CIPM MRA.

Calibration measurements are normally carried out at the laboratory's premises unless stated below for on-site calibrations conducted at the customers' premises.

Measurand/Range	Parameter	CMC Uncertainty
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5.35 Hygrometry

(b) Environmental chambers

Verification of ovens, climate chambers and other enclosures for humidity. Verifications are normally carried out as per the relevant IEC Standard, or to a modified in-house procedure for customer specific requirements. Calibrations are normally carried out at the customer's premises.

Dew Point -25 °C to 70 °C	Temperature 0 °C to 70 °C	0.15 °C
Relative Humidity 10 % to 95 %	Temperature 0 °C to 70 °C	1.0 % assuming no significant spatial variation in relative humidity

5.63 Temperature Controlled Enclosures

- (a) Ovens and furnaces (including autoclaves)
- (c) Incubators
- (d) Refrigerators and freezers
- (e) Conditioning rooms and cabinets
- (g) Other enclosures

Verifications are normally carried out as per the relevant IEC Standard, or to a modified in-house procedure for customer specific requirements. Calibrations are normally carried out at the customer's premises.

-38.5 °C to 0 °C	0.1 °C
0 °C to 150 °C	0.03 °C

Note 1:

Unless stated otherwise the CMC is based on the performance of the best available device and measurement uncertainties achieved for specific calibrations may be greater than the CMC Uncertainty. A laboratory may not report measurement uncertainties lower than its CMC. However, if the device under calibration has a

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greater accuracy than the device used to calculate the CMC the laboratory may be able to use the calibration data to lower its CMC Uncertainty. Please contact the laboratory to discuss your specific requirements.

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