Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

10136

Accredited to ISO/IEC 17025:2017

Wave Scientific Ltd

Issue No: 005 **Issue date:** 08 September 2022

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Calibration performed at Customers' sites or premises. 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.

CALIBRATION AND MEASUREMENT CAPABILITY (CMC)

Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty (k = 2)	Remarks
Calibration of Open Area Test Sites, Fully Anechoic Chambers and Semi Anechoic Chambers			Methods/standards applied:
Normalised site attenuation: Open Area Test Sites and Semi anechoic chambers	30 MHz to 200 MHz (Vert.) 200 MHz to 1 GHz (Vert.) 30 MHz to 200 MHz (Horiz.) 200 MHz to 1 GHz (Horiz.)	1.7 dB 1.7 dB 1.3 dB 1.2 dB	CISPR 16-1-4:2010 + A1:2012 + A2:2017 CISPR 16-1-4:2019 EN 55016-1-4:2010 + A1:2012 + A2:2017 CISPR 16-1-4:2019 ANSI C63.4:2014 Including references to ANSI C63.5:2006 and ANSI C63.5:2017 ANSI C63.4:2014 + A1:2017
Normalised site attenuation: Fully Anechoic Chambers	30 MHz to 200 MHz 200 MHz to 1 GHz	1.3 dB 1.2 dB	CISPR 16-1-4:2010 + A1:2012 + A2:2017 CISPR 16-1-4:2019 EN 55016-1-4:2010 + A1:2012 + A2:2017 CISPR 16-1-4:2019
Site Voltage To Standing Wave Ratio	1 GHz to 3 GHz 3 GHz to 18 GHz	0.6 dB 1.1 dB	CISPR 16-1-4:2010 + A1:2012 + A2:2017 CISPR 16-1-4:2019 EN 55016-1-4:2010 + A1:2012 + A2:2017 CISPR 16-1-4:2019
Field Uniformity	80 MHz to 6 GHz	0.8 dB	EN 61000-4-3:2006 + A1:2008 + A2:2010 IEC 61000-4-3:2006 + A1:2007 + A2:2010
END			

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Calibration performed at main address only

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:

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 measurement uncertainty is calculated according to the procedures given in the GUM 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 measurement uncertainty in certificates issued under its accreditation.

Expression of CMCs - symbols and units

It should be noted that the percentage symbol (%) 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 measurand.

Thus, for example, a measurement uncertainty of 1.5 % means $1.5 \cdot 0.01 \cdot q$, where q is the quantity value.

The notation Q[a, b] stands for the root-sum-square of the terms between brackets: $Q[a, b] = [a^2 + b^2]^{1/2}$