Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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



Calibration performed by the Organisations at the locations specified below

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details		Activity	Location code
Address Cadzow Industrial Estate Low Waters Road Hamilton ML3 7QE	Local contact Mr D Canning	Audiometer calibrations Calibration of microphones	Lab

Site activities performed away from the locations listed above:

Location details		Activity	Location code
Any suitable customer premises	Contact: Mr D Canning	Audiometer calibrations	Site



Measured Quantity Instrument or Gauge	Range	Expanded Measurement Uncertainty ($k = 2$)	Remarks	Location Code
AUDIOMETRIC EQUIPMENT				
Pure tone air conduction SPL	125 Hz to 8000 Hz	0.50 dB 0.70 dB	Types 1 to 4, as classified in BS EN 60645-1:1995 (Withdrawn) BS EN 60645-1:2001 (Withdrawn) BS EN 60645-1:2015 (Withdrawn) BS EN 60645-1:2017	Lab Site
Narrow band masking	125 Hz to 8000 Hz	0.70 dB 1.0 dB		Lab Site
Pure tone bone conduction FL	250 Hz to 4000 Hz	1.50 dB		Lab & Site
Pure tone frequency	125 Hz to 1000 Hz 1000 Hz to 8000 Hz	0.1%		Lab & Site
Total harmonic distortion	125 Hz to 8000 Hz	0.3% THD		Lab & Site
Attenuator linearity 130 dB to 40 dB HLS <40 dB to 0 dB HLS <0 dB to -10 dB HLS	1000 Hz	0.20 dB 0.40 dB 0.50 dB	Measured between successive Hearing Level Settings	Lab
EAR SIMULATORS				
Force sensitivity level of IEC 60318-6 mechanical coupler	125 Hz to 5000 Hz 6000 Hz to 8000 Hz	0.40 dB 0.60 dB	Response to the application of a known vibratory force	Lab
Mechanical impedance level of IEC 60318-6 mechanical coupler	125 Hz to 8000 Hz	0.40 dB	According to IEC 60318- 6:2008	Lab
			A pass/fail indication is provided	
MICROPHONES				
Pressure Sensitivity of B & K Type 4144 (1") microphones	125 Hz to 3 kHz 4 kHz 6 kHz 8 kHz	0.10 dB 0.13 dB 0.16 dB 0.23 dB	By sequential comparison	Lab
Pressure Sensitivity of B & K Type 4134 (0.5") microphones	125 Hz to 14 kHz 16 kHz	0.10 dB 0.12 dB	By simultaneous comparison	Lab
Pressure Sensitivity of B & K Type 4192 (0.5") microphones	125 Hz to 8 kHz 9 kHz to 12.5 kHz 14 kHz 16 kHz	0.10 dB 0.13 dB 0.20 dB 0.24 dB	By simultaneous comparison	Lab

Calibration and Measurement Capability (CMC)

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	United Kingdom Accreditation Service 2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK			
UKAS CALIBRATION 0798	Diatec Diagnostics Ltd trading as Acoustic Metrology Issue No: 018 Issue date: 12 June 2023			
Accredited to ISO/IEC 17025:2017				
Cal	libration performed by the	e Organisation at the locations spe	ecified	
Measured Quantity Instrument or Gauge	Range	Expanded Measurement	Remarks	Location Code

Instrument or Gauge	Range	Uncertainty $(k = 2)$	Remarks	Code
Sound Calibrators - Class LS, 1 and 2				
Sound Pressure Level	84 dB to 125 dB	0.10 dB	According to BS EN IEC 60942:2018 Annex B using microphone method and insert voltage technique. WS1P microphone (B&K 4144) converted to LS1P configuration using an adaptor ring, or WS2P microphone (B&K 4134)	Lab
Frequency	250 Hz and 1000 Hz	0.01 %	According to BS EN IEC 60942:2018 Annex B	Lab
Total Harmonic Distortion	250 Hz and 1000 Hz	0.20 %	According to BS EN IEC 60942:2018 Annex B	Lab
END				



Accredited to ISO/IEC 17025:2017

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Diatec Diagnostics Ltd trading as Acoustic Metrology

Issue No: 018 Issue date: 12 June 2023

Calibration performed by the Organisation at the locations specified

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 measurement uncertainty 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 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 measurement uncertainty is stated as a percentage, this is to be interpreted as meaning percentage of the measurand. Thus, for example, a measurement uncertainty of 1.5 % means $1.5 \times 0.01 \times q$, where *q* is the quantity value.

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