

# Appendix C14.1

## Equipment Calibration Certificates

**Brüel & Kjær** 

The Calibration Laboratory  
Skodsborgvej 307, DK-2850 Nærum, Denmark



**CERTIFICATE OF CALIBRATION**

No: CDK2206566

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**CALIBRATION OF**

Sound Level Meter:	Brüel & Kjær Type 2250	No: 2611593	Id: -
Microphone:	Brüel & Kjær Type 4189	No: 3005134	
Preamplifier:	Brüel & Kjær Type ZC-0032	No: 12941	
Supplied Calibrator:	None		
Software version:	BZ7222 Version 4.7.5	Pattern Approval:	PTB1.63-40478500 / 1.63-4078502
Instruction manual:	BE1712-22		

**CUSTOMER**

Enfonic Ltd  
Unit 2A, Century Business Park  
Dublin  
D11 TOHV  
Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC6162-1:2013 class 1. Procedures from IEC 61672-3:2013 were used perform the periodic tests. The accreditation assures the traceability of the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 7.3 - DB: 7.30) by using procedure B&K proc 2250, 4189 (IEC61672:2013)

**RESULTS**


Calibration Mode: **Calibration as received.**

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.




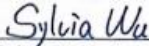
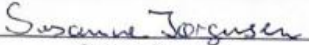
Date of calibration: 2022-08-22

Date of issue: 2022-08-22

  
Morten Høngård Hansen  
Calibration Technician

  
Jesper Bo Vedel  
Approved Signatory

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<b>CERTIFICATE OF CALIBRATION</b>			No: CDK2302913		Page 1 of 12
<b>CALIBRATION OF</b>					
Sound Level Meter:	Brüel & Kjær Type 2250	No:	2690265	Id:	-
Microphone:	Brüel & Kjær Type 4189	No:	2748694		
PreAmplifier:	Brüel & Kjær Type ZC-0032	No:	15279		
Calibrator:	Brüel & Kjær Type 4231	No:	2389038		
Software version:	BZ7224 Version 4.7.5	Pattern Approval:	PTBDE-16-M-PTB-0038 Rev 2 / DE-16-M-PTB-0039 Rev 2		
Instruction manual:	BE1712-22				
<b>CUSTOMER</b>					
	RPS Group Ltd. Knockstown Summerhill A83CD30 Co. Meath Ireland				
<b>CALIBRATION CONDITIONS</b>					
Preconditioning:	4 hours at 23°C ± 3°C				
Environment conditions:	See actual values in <i>Environmental conditions</i> sections.				
<b>SPECIFICATIONS</b>					
The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC 61672-1:2013 class 1. Procedures from IEC 61672-3:2013 were used to perform the periodic tests. The accreditation assures the traceability to the international units system SI.					
<b>PROCEDURE</b>					
The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 8.6 - DB: 8.60) by using procedure B&K proc 2250, 4189 (IEC 61672:2013).					
<b>RESULTS</b>					
Calibration Mode: <b>Calibration as received.</b>					
The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor $k = 2$ providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device(s) under calibration. The results are only applicable for the specific device(s) listed above.					
Date of calibration: 2023-04-20			Date of issue: 2023-04-20		
 Sylvia Wu Andersen Calibration Technician			 Susanne Jørgensen Approved Signatory		
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**Brüel & Kjær** 

The Calibration Laboratory  
Skodsborgvej 307, DK-2850 Nærum, Denmark



**CERTIFICATE OF CALIBRATION**

No: CDK2209384

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**CALIBRATION OF**

Sound Level Meter:	Brüel & Kjær Type 2250	No: 3006559	Id: -
Microphone:	Brüel & Kjær Type 4189	No: 3022867	
Preamplifier:	Brüel & Kjær Type ZC-0032	No: 05085	
Supplied Calibrator:	None		
Software version:	BZ7222 Version 4.7.5	Pattern Approval:	PTB1.63-40478500 / 1.63-4078502
Instruction manual:	BE1712-22		

**CUSTOMER**

Enfonic Ltd  
Unit 2A, Century Business Park  
Dublin  
D11 TOHV  
Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC6162-1:2013 class 1. Procedures from IEC 61672-3:2013 were used perform the periodic tests. The accreditation assures the traceability of the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 7.3 - DB: 7.30) by using procedure B&K proc 2250, 4189 (IEC61672:2013)

**RESULTS**

Calibration Mode: **Calibration as received.**

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2022-10-19

Date of issue: 2022-10-19



Rikke Hansen  
Calibration Technician



Jesper Bo Vedel  
Approved Signatory

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**Brüel & Kjær** 

The Calibration Laboratory  
Skodsborgvej 307, DK-2850 Nærum, Denmark



**CERTIFICATE OF CALIBRATION**

No: CDK2201345

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**CALIBRATION OF**

Sound Level Meter:	Brüel & Kjær Type 2250-Light	No: 3008423	Id: -
Microphone:	Brüel & Kjær Type 4950	No: 2697054	
Preamplifier:	Brüel & Kjær Type ZC-0032	No: 18175	
Supplied Calibrator:	None		
Software version:	BZ7222 Version 4.5.2	Pattern Approval:	PTB1.63-40478500 / 1.63-4078502
Instruction manual:	BE1712-22		

**CUSTOMER**

Enfonic Ltd  
Unit 2A, Century Business Park  
Dublin  
D11 TOHV  
Ireland

**CALIBRATION CONDITIONS**

Preconditioning: 4 hours at 23°C ± 3°C  
Environment conditions: See actual values in *Environmental conditions* sections.

**SPECIFICATIONS**

The Sound Level Meter Brüel & Kjær Type 2250 has been calibrated in accordance with the requirements as specified in IEC6162-1:2013 class 1. Procedures from IEC 61672-3:2013 were used perform the periodic tests. The accreditation assures the traceability of the international units system SI.

**PROCEDURE**

The measurements have been performed with the assistance of Brüel & Kjær Sound Level Meter Calibration System 3630 with application software type 7763 (version 7.3 - DB: 7.30) by using procedure B&K proc 2250, 4189 (IEC61672:2013)

**RESULTS**

Calibration Mode: **Calibration as received.**

The reported expanded uncertainty is based on the standard uncertainty multiplied by a coverage factor  $k = 2$  providing a level of confidence of approximately 95 %. The uncertainty evaluation has been carried out in accordance with EA-4/02 from elements originating from the standards, calibration method, effect of environmental conditions and any short time contribution from the device under calibration.

Date of calibration: 2022-05-25

Date of issue: 2022-05-25





Mikail Önder  
Calibration Technician



Susanne Jørgensen  
Approved Signatory

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<h1>Certificate of Calibration</h1> <p>Issued by University of Salford (Acoustic Calibration Laboratory) UKAS ACCREDITED CALIBRATION LABORATORY NO. 0801</p>		
<p>Page 1 of 2</p>		
<p>APPROVED SIGNATORIES</p> <p>Claire Lomax [ ]      Sean Furlong [ ]</p> <p>Harry Bulger [x]      Daniel Wong-McSweeney [ ]</p>		
<p>acoustic calibration laboratory</p> <p>The University of Salford, Salford, Greater Manchester, M5 4WT, UK http://www.acoustics.salford.ac.uk t 0161 295 3030/0161 295 3319 f 0161 295 4456 e c.lomax1@salford.ac.uk</p>		

Certificate Number: 06198/1

Date of Issue: 30 April 2023

## CALIBRATION OF A SOUND CALIBRATOR

FOR: Enfonic Ltd  
Unit 2A  
Century Business Park  
Dublin  
D11 T0HV

FOR THE ATTENTION OF: Bruna Barros

DESCRIPTION: Calibrator with housing for one-inch microphones and adaptor type UC 0210 for half-inch microphones.

MANUFACTURER: B&K

TYPE: 4231

SERIAL NUMBER: 2022652

DATE RECEIVED: 31 March 2023

DATE OF CALIBRATION: 30 April 2023

LOCATION OF CALIBRATION: Acoustic Calibration Laboratory,  
Newton G31, University of Salford.

TEST PROCEDURE: CTP06 (Laboratory Manual)

Test Engineer (initial):	GP	Name:	Gary Phillips
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*Results in this certificate relate only to instruments tested.*

*This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to the units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full except with the prior written approval of the issuing laboratory.*

e-mail: calibration@svantek.com.pl	Tel.: +48 22 51 88 322	www.svantek.com
	<b>Calibration Laboratory SVANTEK</b> 04-872 Warsaw, ul. Strzygłowska 81 POLAND	 AP 146
Calibration laboratory accredited by Polish Center for Accreditation, a signatory to EA MLA and ILAC MRA that include recognition of calibration certificates Accreditation No AP 146		
<b>CALIBRATION CERTIFICATE</b>		
<b>Date of issue:</b> 5 <sup>th</sup> September, 2022	<b>Certificate No:</b> 00047935/02/2022	<b>Page:</b> 1/6
<b>OBJECT OF CALIBRATION</b>	Noise monitoring station type SV 307A, number 119015, manufacturer SVANTEK with microphone type ST 30A, number 123497, manufacturer SVANTEK.	
<b>APPLICANT</b>	NVM Ireland Ltd. 1st Floor, Unit 13 Boyne Business Park Drogheda Co. Louth Ireland	
<b>CALIBRATION METHOD</b>	Method described in instruction IN-02 "Calibration of the sound level meter", issue number 15 date 23.08.2019, written on the basis of international standard EN IEC 61672-3:2013 Electroacoustics. Part 3: Periodic tests.	
<b>ENVIRONMENTAL CONDITIONS</b>	Temperature: (22.1 + 22.5) °C Ambient pressure: (101.1 + 101.3) kPa Relative humidity: (39 + 44) %	
<b>DATE OF CALIBRATION</b>	2 <sup>nd</sup> September, 2022	
<b>TRACEABILITY</b>	This certificate is issued under the agreement EA MLA in the field of calibration and provides traceability of measurement results to the standards maintained in the Central Office of Measures.	
<b>CALIBRATION RESULTS</b>	The results are presented on pages 2 + 6 of this certificate including measurement uncertainty.	
<b>UNCERTAINTY OF MEASUREMENTS</b>	Uncertainty of measurement has been evaluated in compliance with EA-4/02:2013. The expanded uncertainty assigned corresponds to a coverage probability of 95 % and the coverage factor $k = 2$ .	
		
 Anna Domanska, M. Sc. Technical and Quality Manager		
<small>The certificate may be presented or copied as a whole document only.</small>		



Noise, Vibration & Air Quality

### CALIBRATION CERTIFICATE

Date of issue: 11/08/2023

Certificate No: 1505835-1

Page: 1/3

**INSTRUMENT DETAILS**      Manufacturer:      **SVANTEK**  
Model:      **SV36**  
Serial No.:      **124177**  
Description:      Acoustical Calibrator accuracy class 1 with nominal level  
of 94 dB and 114 dB, and nominal frequency  $f_{n1} = 1000$   
Hz.

**CUSTOMER**      NVM Ireland Ltd

**ENVIRONMENTAL CONDITIONS**      Temperature:      20.1      °C  
Humidity:      72.1      %rh  
Pressure:      100.5      kPa

**DATE OF CALIBRATION**      11/08/2023

**APPROVED BY**      A. Pullinger



Noise, Vibration & Air Quality

**AcSoft Calibration | 11 Abbey Court  
Fraser Road | Priory Business Park  
MK44 3WH | Bedford  
+44 (0) 1234 639550  
[www.acsoft.co.uk](http://www.acsoft.co.uk)**

This calibration was performed by AcSoft Calibration.  
AcSoft Calibration is a trading name of AcSoft Ltd, 11 Abbey Court, Fraser Road, Priory Business Park, Bedford, MK44 3WH  
(AP 21/12/2022 Issue No. 2)



### CALIBRATION CERTIFICATE

**Date of issue:** 15-03-2023

**Certificate No:** 1504818-1

**Page:** 1/6

**INSTRUMENT DETAILS**

Manufacturer: **Svantek**  
Model: **SV977D**  
Serial No.: 99026  
Description: Sound Level Meter

**SENSOR DETAILS**

Manufacturer:	<b>MTG</b>	<b>Svantek</b>
Model:	<b>MK255</b>	<b>SV12L</b>
Serial No.:	21610	126955
Description:	Microphone	Preamplifier

**CUSTOMER**

NVM Ireland Ltd

**ENVIRONMENTAL  
CONDITIONS**

Temperature:	23.50 – 23.10	°C
Humidity:	37.80 – 38.50	%
Pressure:	101.39 – 101.33	kPa

**DATE OF CALIBRATION**

15-03-2023

**APPROVED BY**

A. Pullinger



AcSoft Calibration | 11 Abbey Court  
Fraser Road | Priory Business Park  
MK44 3WH | Bedford  
+44 (0) 1234 639550  
www.acsoft.co.uk