



Certificate of Calibration and Conformance

Certificate number: **U39947**

Test Object: **Sound Level Meter, BS EN IEC 61672-1:2003 Class 1**
Associated Frequency Analyser to BS EN IEC 61260:1996 Class 1

Producer: **Norsonic AS.**

Type: **118**

Serial number: **28260**

Customer: **Sol Acoustics**

Address: **Unit 11, Brunel Court,**
Gadbrook Park, Rudheath. CW9 7LP.

Contact Person: **Brian Horner**

Order No:

Introduction:

Calibration has been performed as set out in CA Technical Procedures which are based on the procedures for periodic verification of sound level meters as per the **Test Object** listed above. Results and conformance statement are overleaf and detailed results, where appropriate, are provided in the attached Measurement Report.

Tested:	<i>Producer</i>	<i>Type</i>	<i>Serial No</i>	<i>Certificate No</i>
Microphone	Norsonic	1225	285614	39946
Calibrator*	Norsonic	1251	29917	U39945
Preamplifier	Norsonic	1206	30962	Included

* The calibrator was complete with any required coupler for the microphone specified.

Additional items that have also been submitted for verification:

Wind shield Norsonic Nor1451 (Ø 60mm)

Attenuator -

Extension cable -

These items have been taken into account wherever appropriate.

Instruction Manual: Nor118 User Guide- November 2002 Edition Firmware Version: 2.0.752 The test object is a single channel instrument.

Conditions	<i>Pressure kPa</i>	<i>Temperature °C</i>	<i>Humidity %RH</i>
Reference conditions	101.325	23	50
Measurement conditions	101.76 ±0.05	23.20 ±0.3	35.50 ±1.3

Calibration Dates:

Received date: 14/01/2022 Reviewed date: 19/01/2022

Calibration date: 19/01/2022 Issued date: 19/01/2022

Technicians: (Electronic certificate)

Calibrated by: *Darren Batten Tech JVA*

Reviewed by: *David Egan*

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Certificate of Calibration and Conformance

Continuation of Certificate number: **U39947**

The statements of conformance and observation notes detailed in this certificate are made with reference to the following standards in respect of the calibration of the test object.

Manufactured:	BS EN IEC 61672-1:2003
Periodic Tests:	BS EN IEC 61672-3:2006
Pattern Evaluation:	BS EN IEC 61672-2:2003
Filter Evaluation:	BS EN IEC 61260:1996 Class 1

Conformance:

From markings on the sound level meter or by reference to the manufacturer's published literature it has been determined that the instrument submitted for verification was originally manufactured to the listed standard and similarly that the associated sound calibrator conforms to the BS EN IEC 60942 standard.

Measurement Summary:

Indication at the calibration check frequency - IEC61672-3 Ed.1 #9	Passed
Self-generated noise - IEC 61672-3 Ed.1 #10.2	Passed
Acoustical signal tests of a frequency weighting - IEC 61672-3 Ed.1 #11	Passed
Electrical signal tests of frequency weightings - IEC 61672-3 Ed.1 #12	Passed
Frequency weightings: A Network - IEC 61672-3 Ed.1 #12.3	Passed
Frequency weightings: C Network - IEC 61672-3 Ed.1 #12.3	Passed
Frequency weightings: Z Network - IEC 61672-3 Ed.1 #12.3	Passed
Frequency and time weightings at 1 kHz IEC 61672-3 Ed.1 #13	Passed
Level linearity on the reference level range - IEC 61672-3 Ed.1 #14	Passed
Toneburst response - IEC 61672-3 Ed.1 #16	Passed
Peak C sound level - IEC 61672-3 Ed.1 #17	Passed
Overload indication - IEC 61672-3 Ed.1 #18	Passed
1/1octave: Relative attenuation - IEC 61260, #4.4 & #5.3	Passed
1/3octave: Relative attenuation - IEC 61260, #4.4 & #5.3	Passed

Comments

Correct level with associated calibrator is 114.0dB(A).

Statement of Conformance

The sound level meter submitted has successfully completed the periodic tests of the standard listed for the environmental conditions under which the tests were performed. As public evidence(1) was available, from an independent testing organisation responsible for approving the results of pattern evaluation tests performed in accordance with the manufacturer's standard to demonstrate that the model of sound level meter fully conformed to the requirements of the said standard, the sound level meter submitted for testing conforms to the relevant class of the said standard.

(1 - evidence is held on file at the calibration laboratory)

Filter Calibration

The filter functions have been found to conform, by electrical testing, to the relative attenuation requirement of the standard noted over the range of frequencies shown in the attached test report.

Observations

Decision Rule

The decision rules will be applied in accordance with the procedure as described in BS EN 61672-3:2006.

A PASS or PASSED statement indicates that the instrument conforms with the relevant accuracy requirements of the testing standard AND the expanded measurement uncertainty ($k = 2$ for approximately 95 % coverage probability) is no greater in magnitude than the accuracy requirements defined in BS EN IEC 61260:1996 standard.

This certificate relates only to the items tested above.

**** End of Certificate ****

Measurement Results:

Indication at the calibration check frequency - IEC61672-3 Ed.1 Clause 9

Reference level: 114.0 dB
Reference Range: 130 dB FS
Reference Frequency: 1000 Hz
Reference Calibrator: WSC5 - Nor1251-31824
Reference calibrator level: 114.02
Before calibration:
Environmental corrections: 0.00
Other corrections: -0.15
Notional level: 113.87
Calibrator level before adjustment: 113.9
After calibration:
Environmental corrections: 0.00
Other corrections: -0.15
Notional level: 113.87
Reference calibrator level after calibration: 113.9
Associated Calibrator: Norsonic - 1251 - 29917
Associated calibrator level: 114.16
Initial level check:
Environmental corrections: 0.00
Other corrections: -0.15
Notional level: 114.01
Indicated level: 114.0
Final level statement:
Environmental corrections after calibration: 0.00
Other corrections: -0.15
Notional level: 114.01
Calibrator level after adjustment: 114.0
This value shall be used for adjusting the sound level meter in the future.
Test Passed

Self-generated noise - IEC 61672-3 Ed.1 Clause 10.2

Network	Level (dB)	Comment
A	8.8	Equivalent capacity
C	10.3	Equivalent capacity
Z	16.1	Equivalent capacity

Test Passed

Acoustical signal tests of a frequency weighting - IEC 61672-3 Ed.1 Clause 11

C-Weighted results

Frequency	SLM		Microphone		Case	Refl.	Wind	Screen	Uncert	Lim	Result
	Meas	U	Corr	U	Corr	U	Corr	U	(dB)	(dB)	(dB)
	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
125 Hz	0.1	0.2	0.0	0.1			0.0	0.1	0.2	+/-1.5	-0.1 P
1 kHz	0.0	0.2	0.1	0.1			0.1	0.1	0.3	+/-1.1	0.0 P
4 kHz	-1.0	0.2	1.1	0.2			0.7	0.1	0.3	+/-1.6	0.6 P
8 kHz	-2.8	0.2	3.4	0.2			0.1	0.2	0.4	+2.1/-3.1	0.5 P

The level obtained at 1 kHz was used as reference for the calculations.

This level was: 89.80 dB.

The overall frequency response of the sound level meter, nominal case reflections, typical wind screen response and microphone response has shown to conform with the requirements in IEC 61672-3 for a class 1 sound level meter.

Frequency response test using electrostatic actuator.

Sources for correction data:

Microphone field corrections and uncertainty: Norsonic AS

Case reflections and uncertainty:

Wind screen corrections and uncertainty: Norsonic NTQ-L-T-007 04/01/2010

Test Passed

Electrical signal tests of frequency weightings - IEC 61672-3 Ed.1 Clause 12

A-Weighted results:

Frequency	SLM		Microphone		Case	Refl.	Wind	Screen	Uncert	Lim	Result
	Meas	U	Corr	U	Corr	U	Corr	U	(dB)	(dB)	(dB)
	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
63 Hz	-0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.5	-0.1 P
125 Hz	-0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.5	-0.1 P
250 Hz	-0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.4	-0.1 P
500 Hz	-0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.21	+/-1.4	0.0 P
1 kHz	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.21	+/-1.1	0.1 P
2 kHz	0.0	0.1	0.0	0.1	-0.2	0.1	0.4	0.1	0.21	+/-1.6	0.2 P
4 kHz	-0.1	0.1	-0.2	0.2	0.0	0.1	0.7	0.1	0.27	+/-1.6	0.4 P
8 kHz	0.0	0.1	0.0	0.2	-0.1	0.1	0.1	0.2	0.32	2.1/3.1	-0.1 P
16 kHz	0.0	0.1	0.8	0.3	0.0	0.1	-0.5	0.3	0.45	3.5/17	0.3 P

C-Weighted results:

Frequency	SLM		Microphone		Case	Refl.	Wind	Screen	Uncert	Lim	Result
	Meas	U	Corr	U	Corr	U	Corr	U	(dB)	(dB)	(dB)
	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)
63 Hz	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.5	0.0 P
125 Hz	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.5	0.0 P
250 Hz	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.4	0.0 P
500 Hz	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.21	+/-1.4	0.1 P
1 kHz	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.21	+/-1.1	0.1 P
2 kHz	0.0	0.1	0.0	0.1	-0.2	0.1	0.4	0.1	0.21	+/-1.6	0.2 P
4 kHz	-0.1	0.1	-0.2	0.2	0.0	0.1	0.7	0.1	0.27	+/-1.6	0.4 P
8 kHz	-0.1	0.1	0.0	0.2	-0.1	0.1	0.1	0.2	0.32	2.1/3.1	-0.2 P
16 kHz	0.0	0.1	0.8	0.3	0.0	0.1	-0.5	0.3	0.45	3.5/17	0.3 P

Z-Weighted results:

Frequency	SLM		Microphone		Case	Refl.	Wind	Screen	Uncert	Lim	Result
	Meas	U	Corr	U	Corr	U	Corr	U			

Electrical signal tests of frequency weightings - IEC 61672-3 Ed.1 Clause 12

	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	
63 Hz	-0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.5	-0.1	P
125 Hz	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.5	0.0	P
250 Hz	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.21	+/-1.4	0.0	P
500 Hz	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.21	+/-1.4	0.1	P
1 kHz	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.21	+/-1.1	0.1	P
2 kHz	0.0	0.1	0.0	0.1	-0.2	0.1	0.4	0.1	0.21	+/-1.6	0.2	P
4 kHz	0.0	0.1	-0.2	0.2	0.0	0.1	0.7	0.1	0.27	+/-1.6	0.5	P
8 kHz	0.0	0.1	0.0	0.2	-0.1	0.1	0.1	0.2	0.32	2.1/3.1	-0.1	P
16 kHz	0.1	0.1	0.8	0.3	0.0	0.1	-0.5	0.3	0.45	3.5/17	0.4	P

The actual frequency response of Norsonic / 1225 285614 has been used for the calculations.

The overall frequency response of the sound level meter, nominal case reflections, typical wind screen response and microphone response has shown to conform with the requirements in IEC 61672-3 for a class 1 sound level meter.

The calculated uncertainties are checked against the requirements in the standard.

Sources for correction data:

Microphone response and uncertainty:

Measured response / Settings file

Case reflections and uncertainty:

Norsonic AS.

Wind screen corrections and uncertainty:

Norsonic NTQ-L-T-007 04/01/2010

Test Passed

Frequency weightings: A Network - IEC 61672-3 Ed.1 Clause 12.3

Frequency (Hz)	Ref. (dB)	Meas. (dB)	Uncert. (dB)	Dev. (dB)
63.1	92.0	91.9	0.12	-0.1
125.9	92.0	91.9	0.12	-0.1
251.2	92.0	91.9	0.12	-0.1
501.2	92.0	91.9	0.12	-0.1
1000.0	92.0	92.0	0.12	0.0
1995.3	92.0	92.0	0.12	0.0
3981.1	92.0	91.9	0.12	-0.1
7943.3	92.0	92.0	0.12	0.0
15848.9	92.0	92.0	0.12	0.0

Test Passed

Frequency weightings: C Network - IEC 61672-3 Ed.1 Clause 12.3

Frequency (Hz)	Ref. (dB)	Meas. (dB)	Uncert. (dB)	Dev. (dB)
63.1	92.0	92.0	0.12	0.0
125.9	92.0	92.0	0.12	0.0
251.2	92.0	92.0	0.12	0.0
501.2	92.0	92.0	0.12	0.0
1000.0	92.0	92.0	0.12	0.0
1995.3	92.0	92.0	0.12	0.0
3981.1	92.0	91.9	0.12	-0.1
7943.3	92.0	91.9	0.12	-0.1
15848.9	92.0	92.0	0.12	0.0

Test Passed

Frequency weightings: Z Network - IEC 61672-3 Ed.1 Clause 12.3

Frequency (Hz)	Ref. (dB)	Meas. (dB)	Uncert. (dB)	Dev. (dB)
63.1	92.0	91.9	0.12	-0.1
125.9	92.0	92.0	0.12	0.0
251.2	92.0	92.0	0.12	0.0
501.2	92.0	92.0	0.12	0.0
1000.0	92.0	92.0	0.12	0.0
1995.3	92.0	92.0	0.12	0.0
3981.1	92.0	92.0	0.12	0.0
7943.3	92.0	92.0	0.12	0.0
15848.9	92.0	92.1	0.12	0.1

Test Passed

Frequency and time weightings at 1 kHz IEC 61672-3 Ed.1 Clause 13

Weightings	Ref. (dB)	Measured (dB)	Lim. (dB)	Uncert. (dB)	Dev. (dB)	Result
Time Netw						
Fast A	114.0	114.0	0.4 -0.4	0.12	0.0	P
Fast C	114.0	114.0	0.4 -0.4	0.12	0.0	P
Fast Z	114.0	114.0	0.4 -0.4	0.12	0.0	P
Slow A	114.0	113.9	0.3 -0.3	0.12	-0.1	P
Leq A	114.0	114.0	0.3 -0.3	0.12	0.0	P
SEL A	124.0	124.0	0.3 -0.3	0.12	0.0	P

Test Passed

Level linearity on the reference level range - IEC 61672-3 Ed.1 Clause 14

Ref. (dB)	Measured (dB)	Lim. (dB)	Uncert. (dB)	Dev. (dB)	Result
Measured at 8 kHz					
114.0	114.0	1.1 -1.1	0.12	0.0	P
119.0	119.0	1.1 -1.1	0.12	0.0	P
124.0	124.0	1.1 -1.1	0.12	0.0	P
129.0	129.0	1.1 -1.1	0.12	0.0	P
131.0	131.0	1.1 -1.1	0.12	0.0	P
132.0	132.0	1.1 -1.1	0.12	0.0	P
133.0	133.0	1.1 -1.1	0.12	0.0	P
134.0	134.0	1.1 -1.1	0.12	0.0	P
135.0	135.0	1.1 -1.1	0.12	0.0	P
136.0	136.0	1.1 -1.1	0.12	0.0	P
114.0	114.0	1.1 -1.1	0.12	0.0	P
109.0	109.0	1.1 -1.1	0.12	0.0	P
104.0	104.1	1.1 -1.1	0.12	0.1	P
99.0	99.0	1.1 -1.1	0.12	0.0	P
94.0	94.0	1.1 -1.1	0.12	0.0	P
89.0	89.1	1.1 -1.1	0.12	0.1	P
84.0	84.1	1.1 -1.1	0.12	0.1	P
79.0	79.1	1.1 -1.1	0.12	0.1	P
74.0	74.1	1.1 -1.1	0.12	0.1	P
69.0	69.1	1.1 -1.1	0.12	0.1	P
64.0	64.1	1.1 -1.1	0.12	0.1	P

Level linearity on the reference level range - IEC 61672-3 Ed.1 Clause 14

Ref. (dB)	Measured (dB)	Lim. (dB)	Uncert. (dB)	Dev. (dB)	Result	
59.0	59.1	1.1	-1.1	0.12	0.1	P
54.0	54.1	1.1	-1.1	0.12	0.1	P
49.0	49.1	1.1	-1.1	0.12	0.1	P
44.0	44.1	1.1	-1.1	0.12	0.1	P
39.0	39.1	1.1	-1.1	0.12	0.1	P
34.0	34.1	1.1	-1.1	0.12	0.1	P
30.0	30.1	1.1	-1.1	0.12	0.1	P
29.0	29.2	1.1	-1.1	0.12	0.2	P
28.0	28.2	1.1	-1.1	0.12	0.2	P
27.0	27.3	1.1	-1.1	0.12	0.3	P
26.0	26.3	1.1	-1.1	0.12	0.3	P
25.0	25.3	1.1	-1.1	0.12	0.3	P
24.0	24.4	1.1	-1.1	0.12	0.4	P

Test Passed

Toneburst response - IEC 61672-3 Ed.1 Clause 16

Burst type		Ref.	Measured	Lim.		Uncert.	Dev.	Result
		(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	
Fast	200 mSec	134.0	134.0	0.8	-0.8	0.16	0.0	P
Fast	2.0 mSec	117.0	116.8	1.3	-1.8	0.16	-0.2	P
Fast	0.25 mSec	108.0	107.7	1.3	-3.3	0.16	-0.3	P
Slow	200 mSec	127.6	127.5	0.8	-0.8	0.16	-0.1	P
Slow	2.0 mSec	108.0	107.9	1.3	-3.3	0.16	-0.1	P
SEL	200 mSec	128.0	128.0	0.8	-0.8	0.16	0.0	P
SEL	2.0 mSec	108.0	107.9	1.3	-1.8	0.16	-0.1	P
SEL	0.25 mSec	99.0	98.8	1.3	-3.3	0.16	-0.2	P

Test Passed

Peak C sound level - IEC 61672-3 Ed.1 Clause 17

Pulse Type	Pulse Freq. (Hz)	Ref. RMS (dB)	Ref. Peak (dB)	Measured Value (dB)	Lim. (+/-dB)	Uncert. (dB)	Dev. (dB)	Result
1 cycle	8k	126.0	129.4	129.5	2.4	0.2	0.1	P
Pos 1/2 cycle	500	129.0	131.4	131.3	1.4	0.2	-0.1	P
Neg 1/2 cycle	500	129.0	131.4	131.2	1.4	0.2	-0.2	P

Test Passed

Overload indication - IEC 61672-3 Ed.1 Clause 18

	Measured (dB)	Lim. (+/-dB)	Uncert. (dB)	Result
Level difference of positive and negative pulses:	0.3	1.8	0.16	P
Positive 1/2 cycle 4 kHz. Overload occurred at:	138.7			
Negative 1/2 cycle 4 kHz. Overload occurred at:	138.4			
Test Passed				

1/1octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

Test 1/1 octave filter X=-4 fexact=63.096Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
3.981	44.5	0.0	60.0	P
7.943	65.5	0.0	69.0	P
15.849	86.1	0.0	88.0	P
31.623	108.8	0.0	112.5	P
44.668	126.2	125.0	128.0	P
48.697	129.0	128.7	130.3	P
53.088	129.8	129.4	130.3	P
57.876	129.9	129.6	130.3	P
63.096	129.9	129.7	130.3	P
68.786	129.9	129.6	130.3	P
74.989	129.8	129.4	130.3	P
81.752	129.1	128.7	130.3	P
89.125	126.3	125.0	128.0	P
125.893	107.9	0.0	112.5	P
251.189	80.6	0.0	88.0	P
501.187	62.9	0.0	69.0	P
1000.00	26.8	0.0	60.0	P

Test 1/1 octave filter X=-3 fexact=125.893Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
7.943	48.7	0.0	60.0	P
15.849	66.8	0.0	69.0	P
31.623	86.1	0.0	88.0	P
63.096	109.6	0.0	112.5	P
89.125	126.4	125.0	128.0	P
97.163	129.0	128.7	130.3	P
105.925	129.9	129.4	130.3	P
115.478	129.9	129.6	130.3	P
125.893	129.9	129.7	130.3	P
137.246	129.9	129.6	130.3	P
149.624	129.9	129.4	130.3	P
163.117	129.2	128.7	130.3	P
177.828	126.3	125.0	128.0	P
251.189	105.0	0.0	112.5	P
501.187	30.4	0.0	88.0	P
1000.00	27.9	0.0	69.0	P
1995.26	22.1	0.0	60.0	P

Test 1/1 octave filter X=-2 fexact=251.189Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
15.849	30.0	0.0	60.0	P
31.623	53.0	0.0	69.0	P

1/octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

63.096	78.3	0.0	88.0	P
125.893	107.5	0.0	112.5	P
177.828	126.8	125.0	128.0	P
193.865	129.3	128.7	130.3	P
211.349	129.9	129.4	130.3	P
230.409	129.9	129.6	130.3	P
251.189	129.9	129.7	130.3	P
273.842	129.9	129.6	130.3	P
298.538	129.8	129.4	130.3	P
325.462	129.4	128.7	130.3	P
354.813	126.8	125.0	128.0	P
501.187	47.9	0.0	112.5	P
1000.00	26.2	0.0	88.0	P
1995.26	25.8	0.0	69.0	P
3981.07	25.3	0.0	60.0	P

Test 1/1 octave filter X=-1 fexact=501.187Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
31.623	27.5	0.0	60.0	P
63.096	50.0	0.0	69.0	P
125.893	75.3	0.0	88.0	P
251.189	105.2	0.0	112.5	P
354.813	126.3	125.0	128.0	P
386.812	129.3	128.7	130.3	P
421.697	129.9	129.4	130.3	P
459.727	129.9	129.6	130.3	P
501.187	129.9	129.7	130.3	P
546.387	129.9	129.6	130.3	P
595.662	129.8	129.4	130.3	P
649.382	129.0	128.7	130.3	P
707.946	126.3	125.0	128.0	P
1000.00	107.8	0.0	112.5	P
1995.26	30.2	0.0	88.0	P
3981.07	22.6	0.0	69.0	P
7943.28	22.9	0.0	60.0	P

Test 1/1 octave filter X= 0 fexact=1000.000Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
63.096	28.5	0.0	60.0	P
125.893	50.1	0.0	69.0	P
251.189	75.3	0.0	88.0	P
501.187	105.3	0.0	112.5	P
707.946	126.3	125.0	128.0	P
771.792	129.3	128.7	130.3	P
841.395	129.9	129.4	130.3	P
917.276	129.9	129.6	130.3	P
1000.00	129.9	129.7	130.3	P
1090.18	129.9	129.6	130.3	P
1188.50	129.9	129.4	130.3	P
1295.69	129.0	128.7	130.3	P
1412.54	126.3	125.0	128.0	P
1995.26	107.8	0.0	112.5	P
3981.07	29.7	0.0	88.0	P
7943.28	24.6	0.0	69.0	P
15848.9	24.5	0.0	60.0	P

Test 1/1 octave filter X= 1 fexact=1995.262Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
125.893	30.4	0.0	60.0	P

1/octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

251.189	50.2	0.0	69.0	P
501.187	75.3	0.0	88.0	P
1000.00	105.3	0.0	112.5	P
1412.54	126.3	125.0	128.0	P
1539.93	129.4	128.7	130.3	P
1678.80	129.9	129.4	130.3	P
1830.21	129.9	129.6	130.3	P
1995.26	129.9	129.7	130.3	P
2175.20	129.9	129.6	130.3	P
2371.37	129.8	129.4	130.3	P
2585.24	129.0	128.7	130.3	P
2818.38	126.3	125.0	128.0	P
3981.07	107.8	0.0	112.5	P
7943.28	30.7	0.0	88.0	P
15848.9	27.5	0.0	69.0	P
31622.8	37.9	0.0	60.0	P

Test 1/1 octave filter X= 2 fexact=3981.072Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
251.189	40.1	0.0	60.0	P
501.187	51.0	0.0	69.0	P
1000.00	75.3	0.0	88.0	P
1995.26	105.3	0.0	112.5	P
2818.38	126.3	125.0	128.0	P
3072.56	129.3	128.7	130.3	P
3349.65	129.9	129.4	130.3	P
3651.74	130.0	129.6	130.3	P
3981.07	129.9	129.7	130.3	P
4340.10	129.9	129.6	130.3	P
4731.51	129.9	129.4	130.3	P
5158.22	129.1	128.7	130.3	P
5623.41	126.3	125.0	128.0	P
7943.28	107.9	0.0	112.5	P
15848.9	39.4	0.0	88.0	P
31622.8	53.2	0.0	69.0	P
63095.7	48.0	0.0	60.0	P

Test 1/1 octave filter X= 3 fexact=7943.282Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
501.187	41.6	0.0	60.0	P
1000.00	52.4	0.0	69.0	P
1995.26	75.4	0.0	88.0	P
3981.07	105.3	0.0	112.5	P
5623.41	126.3	125.0	128.0	P
6130.56	129.4	128.7	130.3	P
6683.44	129.9	129.4	130.3	P
7286.18	130.0	129.6	130.3	P
7943.28	130.0	129.7	130.3	P
8659.64	130.0	129.6	130.3	P
9440.61	129.9	129.4	130.3	P
10292.0	129.1	128.7	130.3	P
11220.2	126.4	125.0	128.0	P
15848.9	107.9	0.0	112.5	P
31622.8	57.7	0.0	88.0	P
63095.7	50.2	0.0	69.0	P
125893	41.3	0.0	60.0	P

Test 1/1 octave filter X= 4 fexact=15848.932Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
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1/octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

1000.00	44.6	0.0	60.0	P
1995.26	57.6	0.0	69.0	P
3981.07	80.1	0.0	88.0	P
7943.28	108.7	0.0	112.5	P
11220.2	126.8	125.0	128.0	P
12232.1	129.3	128.7	130.3	P
13335.2	129.9	129.4	130.3	P
14537.8	130.0	129.6	130.3	P
15848.9	130.0	129.7	130.3	P
17278.3	129.9	129.6	130.3	P
18836.5	129.9	129.4	130.3	P
20535.3	130.0	128.7	130.3	P
22387.2	126.5	125.0	128.0	P
31622.8	59.9	0.0	112.5	P
63095.7	57.5	0.0	88.0	P
125893	43.9	0.0	69.0	P
200000	45.3	0.0	60.0	P

Test Passed

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

Test 1/3 octave filter X=-13 fexact=50.119Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
9.295	47.2	0.0	60.0	P
16.413	64.8	0.0	69.0	P
26.634	83.8	0.0	88.0	P
38.720	107.1	0.0	112.5	P
44.668	126.1	125.0	128.0	P
46.088	129.1	128.7	130.3	P
47.472	129.8	129.4	130.3	P
48.817	129.9	129.6	130.3	P
50.119	129.9	129.7	130.3	P
51.456	129.9	129.6	130.3	P
52.913	129.8	129.4	130.3	P
54.502	129.2	128.7	130.3	P
56.234	126.3	125.0	128.0	P
64.872	107.1	0.0	112.5	P
94.310	82.5	0.0	88.0	P
153.045	68.0	0.0	69.0	P
270.238	50.9	0.0	60.0	P

Test 1/3 octave filter X=-12 fexact=63.096Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
11.702	47.3	0.0	60.0	P
20.662	64.5	0.0	69.0	P
33.531	84.7	0.0	88.0	P
48.746	107.1	0.0	112.5	P
56.234	126.1	125.0	128.0	P
58.021	129.1	128.7	130.3	P
59.764	129.8	129.4	130.3	P
61.456	129.9	129.6	130.3	P
63.096	129.9	129.7	130.3	P
64.779	129.9	129.6	130.3	P
66.614	129.9	129.4	130.3	P
68.614	129.2	128.7	130.3	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

70.795	126.3	125.0	128.0	P
81.669	107.0	0.0	112.5	P
118.729	82.0	0.0	88.0	P
192.672	63.4	0.0	69.0	P
340.209	58.0	0.0	60.0	P
Test 1/3 octave filter X=-11 fexact=79.433Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
14.732	47.4	0.0	60.0	P
26.012	64.3	0.0	69.0	P
42.213	82.7	0.0	88.0	P
61.368	107.2	0.0	112.5	P
70.795	126.2	125.0	128.0	P
73.045	129.2	128.7	130.3	P
75.238	129.9	129.4	130.3	P
77.369	129.9	129.6	130.3	P
79.433	129.9	129.7	130.3	P
81.552	129.9	129.6	130.3	P
83.862	129.9	129.4	130.3	P
86.380	129.2	128.7	130.3	P
89.125	126.3	125.0	128.0	P
102.816	106.8	0.0	112.5	P
149.471	80.9	0.0	88.0	P
242.560	58.8	0.0	69.0	P
428.298	25.8	0.0	60.0	P
Test 1/3 octave filter X=-10 fexact=100.000Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
18.546	47.8	0.0	60.0	P
32.748	64.7	0.0	69.0	P
53.143	82.9	0.0	88.0	P
77.257	107.4	0.0	112.5	P
89.125	126.2	125.0	128.0	P
91.958	129.1	128.7	130.3	P
94.719	129.9	129.4	130.3	P
97.402	129.9	129.6	130.3	P
100.000	129.9	129.7	130.3	P
102.667	129.9	129.6	130.3	P
105.575	129.8	129.4	130.3	P
108.746	129.2	128.7	130.3	P
112.202	126.2	125.0	128.0	P
129.437	106.6	0.0	112.5	P
188.173	80.0	0.0	88.0	P
305.365	54.7	0.0	69.0	P
539.195	27.1	0.0	60.0	P
Test 1/3 octave filter X=-9 fexact=125.893Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
23.348	48.3	0.0	60.0	P
41.227	65.2	0.0	69.0	P
66.903	83.3	0.0	88.0	P
97.261	107.5	0.0	112.5	P
112.202	126.3	125.0	128.0	P
115.768	129.1	128.7	130.3	P
119.244	129.9	129.4	130.3	P
122.622	129.9	129.6	130.3	P
125.893	129.9	129.7	130.3	P
129.251	129.9	129.6	130.3	P
132.912	129.9	129.4	130.3	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

136.903	129.2	128.7	130.3	P
141.254	126.3	125.0	128.0	P
162.952	106.3	0.0	112.5	P
236.895	78.4	0.0	88.0	P
384.432	44.0	0.0	69.0	P
678.806	22.4	0.0	60.0	P
Test 1/3 octave filter X=-8 fexact=158.489Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
29.394	33.9	0.0	60.0	P
51.902	55.9	0.0	69.0	P
84.225	78.0	0.0	88.0	P
122.445	105.7	0.0	112.5	P
141.254	126.2	125.0	128.0	P
145.743	129.3	128.7	130.3	P
150.120	129.9	129.4	130.3	P
154.372	129.9	129.6	130.3	P
158.489	129.9	129.7	130.3	P
162.717	129.9	129.6	130.3	P
167.326	129.9	129.4	130.3	P
172.350	129.2	128.7	130.3	P
177.828	126.2	125.0	128.0	P
205.144	108.0	0.0	112.5	P
298.234	83.0	0.0	88.0	P
483.971	27.4	0.0	69.0	P
854.566	24.0	0.0	60.0	P
Test 1/3 octave filter X=-7 fexact=199.526Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
37.004	34.8	0.0	60.0	P
65.340	56.4	0.0	69.0	P
106.034	78.6	0.0	88.0	P
154.149	106.0	0.0	112.5	P
177.828	126.2	125.0	128.0	P
183.480	129.2	128.7	130.3	P
188.989	129.9	129.4	130.3	P
194.342	129.9	129.6	130.3	P
199.526	129.9	129.7	130.3	P
204.848	129.9	129.6	130.3	P
210.651	129.9	129.4	130.3	P
216.976	129.2	128.7	130.3	P
223.872	126.3	125.0	128.0	P
258.262	107.4	0.0	112.5	P
375.454	78.3	0.0	88.0	P
609.284	26.8	0.0	69.0	P
1075.84	20.8	0.0	60.0	P
Test 1/3 octave filter X=-6 fexact=251.189Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
46.586	36.1	0.0	60.0	P
82.258	57.6	0.0	69.0	P
133.488	79.7	0.0	88.0	P
194.062	106.6	0.0	112.5	P
223.872	126.2	125.0	128.0	P
230.987	129.2	128.7	130.3	P
237.923	129.9	129.4	130.3	P
244.662	129.9	129.6	130.3	P
251.189	129.9	129.7	130.3	P
257.889	129.9	129.6	130.3	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

265.193	129.9	129.4	130.3	P
273.157	129.2	128.7	130.3	P
281.838	126.3	125.0	128.0	P
325.132	106.3	0.0	112.5	P
472.669	33.5	0.0	88.0	P
767.043	30.9	0.0	69.0	P
1354.40	19.4	0.0	60.0	P
Test 1/3 octave filter X=-5 fexact=316.228Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
58.648	38.0	0.0	60.0	P
103.557	59.4	0.0	69.0	P
168.052	81.2	0.0	88.0	P
244.309	107.5	0.0	112.5	P
281.838	126.3	125.0	128.0	P
290.796	129.1	128.7	130.3	P
299.528	129.8	129.4	130.3	P
308.012	129.9	129.6	130.3	P
316.228	129.9	129.7	130.3	P
324.663	129.9	129.6	130.3	P
333.859	129.9	129.4	130.3	P
343.884	129.4	128.7	130.3	P
354.813	126.4	125.0	128.0	P
409.317	93.3	0.0	112.5	P
595.055	33.2	0.0	88.0	P
965.650	24.0	0.0	69.0	P
1705.08	19.1	0.0	60.0	P
Test 1/3 octave filter X=-4 fexact=398.107Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
73.834	34.1	0.0	60.0	P
130.371	55.4	0.0	69.0	P
211.565	77.7	0.0	88.0	P
307.567	105.5	0.0	112.5	P
354.813	126.2	125.0	128.0	P
366.090	129.3	128.7	130.3	P
377.083	129.9	129.4	130.3	P
387.764	129.9	129.6	130.3	P
398.107	129.9	129.7	130.3	P
408.726	129.9	129.6	130.3	P
420.303	129.9	129.4	130.3	P
432.924	129.1	128.7	130.3	P
446.684	126.3	125.0	128.0	P
515.300	108.3	0.0	112.5	P
749.129	84.6	0.0	88.0	P
1215.68	54.6	0.0	69.0	P
2146.57	17.8	0.0	60.0	P
Test 1/3 octave filter X=-3 fexact=501.187Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
92.951	35.0	0.0	60.0	P
164.127	55.9	0.0	69.0	P
266.344	78.1	0.0	88.0	P
387.204	105.8	0.0	112.5	P
446.684	126.2	125.0	128.0	P
460.880	129.2	128.7	130.3	P
474.720	129.9	129.4	130.3	P
488.166	129.9	129.6	130.3	P
501.187	129.9	129.7	130.3	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

514.556	129.9	129.6	130.3	P
529.131	129.9	129.4	130.3	P
545.019	129.1	128.7	130.3	P
562.341	126.3	125.0	128.0	P
648.724	107.9	0.0	112.5	P
943.098	82.4	0.0	88.0	P
1530.45	19.9	0.0	69.0	P
2702.38	18.8	0.0	60.0	P
Test 1/3 octave filter X=-2 fexact=630.957Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
117.018	36.0	0.0	60.0	P
206.624	56.7	0.0	69.0	P
335.307	78.8	0.0	88.0	P
487.461	106.2	0.0	112.5	P
562.341	126.2	125.0	128.0	P
580.214	129.2	128.7	130.3	P
597.637	129.9	129.4	130.3	P
614.564	129.9	129.6	130.3	P
630.957	129.9	129.7	130.3	P
647.788	129.9	129.6	130.3	P
666.136	129.9	129.4	130.3	P
686.139	129.2	128.7	130.3	P
707.946	126.3	125.0	128.0	P
816.695	107.2	0.0	112.5	P
1187.29	75.5	0.0	88.0	P
1926.72	21.1	0.0	69.0	P
3402.09	18.8	0.0	60.0	P
Test 1/3 octave filter X=-1 fexact=794.328Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
147.317	37.4	0.0	60.0	P
260.124	58.0	0.0	69.0	P
422.127	79.9	0.0	88.0	P
613.677	106.8	0.0	112.5	P
707.946	126.3	125.0	128.0	P
730.446	129.2	128.7	130.3	P
752.380	129.9	129.4	130.3	P
773.691	129.9	129.6	130.3	P
794.328	130.0	129.7	130.3	P
815.516	129.9	129.6	130.3	P
838.615	129.9	129.4	130.3	P
863.798	129.3	128.7	130.3	P
891.251	126.3	125.0	128.0	P
1028.16	105.9	0.0	112.5	P
1494.71	30.5	0.0	88.0	P
2425.60	21.0	0.0	69.0	P
4282.98	17.9	0.0	60.0	P
Test 1/3 octave filter X= 0 fexact=1000.000Hz class 1				
Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
185.462	39.4	0.0	60.0	P
327.477	60.0	0.0	69.0	P
531.427	81.7	0.0	88.0	P
772.574	107.8	0.0	112.5	P
891.251	126.4	125.0	128.0	P
919.577	129.2	128.7	130.3	P
947.190	129.9	129.4	130.3	P
974.019	129.9	129.6	130.3	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

1000.00	129.9	129.7	130.3	P
1026.67	129.9	129.6	130.3	P
1055.75	129.9	129.4	130.3	P
1087.46	129.4	128.7	130.3	P
1122.02	126.5	125.0	128.0	P
1294.37	85.5	0.0	112.5	P
1881.73	26.2	0.0	88.0	P
3053.65	20.7	0.0	69.0	P
5391.95	20.2	0.0	60.0	P

Test 1/3 octave filter X= 1 fexact=1258.925Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
233.482	37.5	0.0	60.0	P
412.269	56.9	0.0	69.0	P
669.026	78.8	0.0	88.0	P
972.613	106.1	0.0	112.5	P
1122.02	126.3	125.0	128.0	P
1157.68	129.2	128.7	130.3	P
1192.44	129.9	129.4	130.3	P
1226.22	130.0	129.6	130.3	P
1258.93	129.9	129.7	130.3	P
1292.51	130.0	129.6	130.3	P
1329.12	129.9	129.4	130.3	P
1369.03	129.2	128.7	130.3	P
1412.54	126.3	125.0	128.0	P
1629.52	107.3	0.0	112.5	P
2368.96	75.8	0.0	88.0	P
3844.32	21.7	0.0	69.0	P
6788.06	21.3	0.0	60.0	P

Test 1/3 octave filter X= 2 fexact=1584.893Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
293.937	39.1	0.0	60.0	P
519.016	58.2	0.0	69.0	P
842.254	79.9	0.0	88.0	P
1224.45	106.8	0.0	112.5	P
1412.54	126.3	125.0	128.0	P
1457.43	129.2	128.7	130.3	P
1501.20	129.9	129.4	130.3	P
1543.72	129.9	129.6	130.3	P
1584.89	129.9	129.7	130.3	P
1627.17	129.9	129.6	130.3	P
1673.26	129.9	129.4	130.3	P
1723.50	129.3	128.7	130.3	P
1778.28	126.3	125.0	128.0	P
2051.45	106.0	0.0	112.5	P
2982.34	28.5	0.0	88.0	P
4839.71	21.5	0.0	69.0	P
8545.66	21.9	0.0	60.0	P

Test 1/3 octave filter X= 3 fexact=1995.262Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
370.045	41.0	0.0	60.0	P
653.402	60.1	0.0	69.0	P
1060.34	81.6	0.0	88.0	P
1541.49	107.8	0.0	112.5	P
1778.28	126.4	125.0	128.0	P
1834.80	129.2	128.7	130.3	P
1889.89	129.9	129.4	130.3	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

1943.42	129.9	129.6	130.3	P
1995.26	129.9	129.7	130.3	P
2048.49	129.9	129.6	130.3	P
2106.51	129.9	129.4	130.3	P
2169.76	129.4	128.7	130.3	P
2238.72	126.5	125.0	128.0	P
2582.62	86.0	0.0	112.5	P
3754.54	25.6	0.0	88.0	P
6092.84	23.7	0.0	69.0	P
10758.4	22.1	0.0	60.0	P

Test 1/3 octave filter X= 4 fexact=2511.886Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
465.859	40.9	0.0	60.0	P
822.584	57.3	0.0	69.0	P
1334.88	78.9	0.0	88.0	P
1940.62	106.1	0.0	112.5	P
2238.72	126.3	125.0	128.0	P
2309.87	129.2	128.7	130.3	P
2379.23	129.9	129.4	130.3	P
2446.62	129.9	129.6	130.3	P
2511.89	129.9	129.7	130.3	P
2578.89	129.9	129.6	130.3	P
2651.94	129.9	129.4	130.3	P
2731.57	129.2	128.7	130.3	P
2818.38	126.3	125.0	128.0	P
3251.32	107.3	0.0	112.5	P
4726.69	76.0	0.0	88.0	P
7670.43	23.2	0.0	69.0	P
13544.0	23.6	0.0	60.0	P

Test 1/3 octave filter X= 5 fexact=3162.278Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
586.481	42.6	0.0	60.0	P
1035.57	58.7	0.0	69.0	P
1680.52	79.9	0.0	88.0	P
2443.09	106.7	0.0	112.5	P
2818.38	126.2	125.0	128.0	P
2907.96	129.2	128.7	130.3	P
2995.28	129.8	129.4	130.3	P
3080.12	129.9	129.6	130.3	P
3162.28	130.0	129.7	130.3	P
3246.63	129.9	129.6	130.3	P
3338.59	129.9	129.4	130.3	P
3438.84	129.3	128.7	130.3	P
3548.13	126.3	125.0	128.0	P
4093.17	106.0	0.0	112.5	P
5950.55	29.7	0.0	88.0	P
9656.50	25.9	0.0	69.0	P
17050.8	26.5	0.0	60.0	P

Test 1/3 octave filter X= 6 fexact=3981.072Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
738.336	44.7	0.0	60.0	P
1303.71	60.7	0.0	69.0	P
2115.65	81.6	0.0	88.0	P
3075.67	107.8	0.0	112.5	P
3548.13	126.4	125.0	128.0	P
3660.90	129.2	128.7	130.3	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

3770.83	129.9	129.4	130.3	P
3877.64	129.9	129.6	130.3	P
3981.07	129.9	129.7	130.3	P
4087.26	129.9	129.6	130.3	P
4203.03	129.9	129.4	130.3	P
4329.24	129.4	128.7	130.3	P
4466.84	126.5	125.0	128.0	P
5153.00	86.6	0.0	112.5	P
7491.29	32.4	0.0	88.0	P
12156.8	32.1	0.0	69.0	P
21465.7	31.9	0.0	60.0	P

Test 1/3 octave filter X= 7 fexact=5011.872Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
929.510	46.8	0.0	60.0	P
1641.27	58.8	0.0	69.0	P
2663.44	78.8	0.0	88.0	P
3872.04	106.1	0.0	112.5	P
4466.84	126.3	125.0	128.0	P
4608.80	129.2	128.7	130.3	P
4747.20	129.9	129.4	130.3	P
4881.66	130.0	129.6	130.3	P
5011.87	129.9	129.7	130.3	P
5145.56	130.0	129.6	130.3	P
5291.31	129.9	129.4	130.3	P
5450.20	129.2	128.7	130.3	P
5623.41	126.3	125.0	128.0	P
6487.24	107.3	0.0	112.5	P
9430.98	76.3	0.0	88.0	P
15304.5	39.9	0.0	69.0	P
27023.8	48.9	0.0	60.0	P

Test 1/3 octave filter X= 8 fexact=6309.573Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
1170.18	47.5	0.0	60.0	P
2066.24	60.4	0.0	69.0	P
3353.08	79.9	0.0	88.0	P
4874.61	106.7	0.0	112.5	P
5623.41	126.3	125.0	128.0	P
5802.14	129.2	128.7	130.3	P
5976.37	129.9	129.4	130.3	P
6145.64	130.0	129.6	130.3	P
6309.57	129.9	129.7	130.3	P
6477.88	130.0	129.6	130.3	P
6661.36	129.9	129.4	130.3	P
6861.39	129.3	128.7	130.3	P
7079.46	126.3	125.0	128.0	P
8166.95	106.0	0.0	112.5	P
11872.9	31.9	0.0	88.0	P
19267.2	30.4	0.0	69.0	P
34020.9	42.5	0.0	60.0	P

Test 1/3 octave filter X= 9 fexact=7943.282Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
1473.18	49.6	0.0	60.0	P
2601.24	62.3	0.0	69.0	P
4221.27	81.6	0.0	88.0	P
6136.78	107.8	0.0	112.5	P
7079.46	126.4	125.0	128.0	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

7304.46	129.2	128.7	130.3	P
7523.80	129.9	129.4	130.3	P
7736.91	129.9	129.6	130.3	P
7943.28	130.0	129.7	130.3	P
8155.16	129.9	129.6	130.3	P
8386.16	129.9	129.4	130.3	P
8637.98	129.4	128.7	130.3	P
8912.51	126.5	125.0	128.0	P
10281.6	87.2	0.0	112.5	P
14947.1	34.8	0.0	88.0	P
24256.0	55.9	0.0	69.0	P
42829.8	49.0	0.0	60.0	P

Test 1/3 octave filter X= 10 fexact=10000.000Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
1854.62	51.3	0.0	60.0	P
3274.77	62.2	0.0	69.0	P
5314.27	78.9	0.0	88.0	P
7725.74	106.1	0.0	112.5	P
8912.51	126.2	125.0	128.0	P
9195.77	129.3	128.7	130.3	P
9471.90	129.9	129.4	130.3	P
9740.19	129.9	129.6	130.3	P
10000.0	130.0	129.7	130.3	P
10266.7	130.0	129.6	130.3	P
10557.5	129.9	129.4	130.3	P
10874.6	129.2	128.7	130.3	P
11220.2	126.3	125.0	128.0	P
12943.7	107.3	0.0	112.5	P
18817.3	77.3	0.0	88.0	P
30536.5	46.4	0.0	69.0	P
53919.5	46.5	0.0	60.0	P

Test 1/3 octave filter X= 11 fexact=12589.254Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
2334.83	53.1	0.0	60.0	P
4122.69	64.1	0.0	69.0	P
6690.26	79.9	0.0	88.0	P
9726.13	106.7	0.0	112.5	P
11220.2	126.3	125.0	128.0	P
11576.8	129.2	128.7	130.3	P
11924.4	129.9	129.4	130.3	P
12262.2	130.0	129.6	130.3	P
12589.3	129.9	129.7	130.3	P
12925.1	130.0	129.6	130.3	P
13291.2	129.9	129.4	130.3	P
13690.3	129.3	128.7	130.3	P
14125.4	126.3	125.0	128.0	P
16295.2	106.0	0.0	112.5	P
23689.5	37.3	0.0	88.0	P
38443.2	51.1	0.0	69.0	P
67880.6	44.3	0.0	60.0	P

Test 1/3 octave filter X= 12 fexact=15848.932Hz class 1

Nominal f[Hz]	Measured L[dB]	LoLim [dB]	HiLim [dB]	Result [P/F]
2939.37	54.9	0.0	60.0	P
5190.16	66.0	0.0	69.0	P
8422.54	81.5	0.0	88.0	P
12244.5	107.7	0.0	112.5	P

1/3octave: Relative attenuation - IEC 61260, Clause 4.4 & #5.3

14125.4	126.3	125.0	128.0	P
14574.3	129.2	128.7	130.3	P
15012.0	129.9	129.4	130.3	P
15437.2	129.9	129.6	130.3	P
15848.9	130.0	129.7	130.3	P
16271.7	129.9	129.6	130.3	P
16732.6	129.9	129.4	130.3	P
17235.0	129.4	128.7	130.3	P
17782.8	126.4	125.0	128.0	P
20514.4	101.8	0.0	112.5	P
29823.4	47.7	0.0	88.0	P
48397.1	47.8	0.0	69.0	P
85456.6	32.1	0.0	60.0	P

Test 1/3 octave filter X= 13 fexact=19952.623Hz class 1

Nominal	Measured	LoLim	HiLim	Result
f[Hz]	L[dB]	[dB]	[dB]	[P/F]
3700.45	56.5	0.0	60.0	P
6534.02	68.2	0.0	69.0	P
10603.4	84.0	0.0	88.0	P
15414.9	109.6	0.0	112.5	P
17782.8	126.5	125.0	128.0	P
18348.0	129.0	128.7	130.3	P
18898.9	129.8	129.4	130.3	P
19434.2	129.9	129.6	130.3	P
19952.6	129.9	129.7	130.3	P
20484.8	129.9	129.6	130.3	P
21065.1	129.9	129.4	130.3	P
21697.6	129.7	128.7	130.3	P
22387.2	126.3	125.0	128.0	P
25826.2	60.5	0.0	112.5	P
37545.4	55.8	0.0	88.0	P
60928.4	51.6	0.0	69.0	P
107584	24.0	0.0	60.0	P

Test Passed

*** End of results ***