CERTIFICATE OF CALIBRATION
N/A
FOR LARSON DAVIS
PRECISION INTEGRATING SOUND LEVEL METER

Model **831**   Serial No **XXX**
                                                 ID No. **N/A**
With Microphone **377B20**   Serial No. **XXX**
 With Preamplifier **PRM831**   Serial No.**XXX**
                                                 P.O. # **N/A**

Customer: **Odin Metrology, Inc.**
          Thousand Oaks, CA 91320

was tested and met factory specifications at the points tested.
Complies to: ANSI S1.4-1983 (R2006) Type 1;
IEC 61672-2002 Class1; 60651-2001 Type 1

on **31 MAR 2011**   BY   **HAROLD LYNCH**
                                                Service Manager
As received condition: Within Specification.
Re-calibration due on: **31 MAR 2012**

Certified References*

Mfg.	Type	Serial No.	Cal Date	Due Date
B&K	1049	1288946	07 NOV 2011	07 NOV 2012
B&K	2636	1601487	23 MAY 2012	23 MAY 2013
B&K	4226	1774068	15 MAR 2012	15 MAR 2013
B&K	4231	2094472	28 FEB 2012	28 FEB 2013
HP	34401A	MY41031678	30 DEC 2011	30 DEC 2012
HP	3458A	2823A17713	13 JUL 2011	13 JUL 2012

Performed in Compliance with ANSI, NCSL Z-540-1, 1994
and ISO 17025, ISO 9001:2008 Certification NQA No. 11252
*References are traceable to NIST (National Institute of Standards and Technology).

Note: For calibration data see enclosed pages.
The data represent both "as found" and "as left" conditions.

Reference Test Procedure: **ACCT Procedure 831 Version 2.4.**

Temperature	Relative Humidity	Barometric Pressure
23°C	**38**%	**989.68** hPa

Note: This calibration report shall not be reproduced, except in full, without written consent by Odin Metrology, Inc..
Signed:

ODIN METROLOGY, INC.

CALIBRATION OF SOUND & VIBRATION INSTRUMENTS
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PHONE: (805) 375-0830 FAX: (805) 375-0405

Odin Metrology, Inc.

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Calibration data for
Larson Davis Precision Integrating Sound Level Meter
Type 831# XXX, ID# N/A
With Preamplifier PRM831# XXX and Microphone 377B02# XXX
Performed on March 31, 2011
for
Odin Metrology, Inc.

PO#: N/A
Certificate#: N/A
Calibration performed by: HL

Environmental Conditions
Relative humidity: 38%
Ambient temperature: 23°C
Ambient pressure: 989.68 hPa

The following calibration was performed per ACCT Procedure 831 Version 2.4.
The data represent both the **"As Found"** and the **"As Left"** conditions.

Page No.	Test	IEC Section	Result
	Sound Level Meter (IEC 61672 Class 1)		
2	Internal Clock	Reference Only	**See Data**
2	Sensitivity Verification with Acoustic Calibrator	3 § 9	**See Data**
2	Acoustic Frequency Response with Microphone	3 § 11	**Pass**
2	Self-Generated Noise	3 § 10	**See Data**
3	Output Impedance with Shorted Output	2 § 9.18	**Pass**
3	AC Full Scale Output Voltage	Reference Only	**See Data**
3	DC Full Scale Output Voltage	Reference Only	**See Data**
3	Reset	2 § 9.17	**Pass**
3	Overload Indication	3 § 18	**Pass**
4	DC Linearity	Reference Only	**See Data**
4	Peak-C Sound Level	3 § 17	**Pass**
4	Decay Time Constants for Time Weightings Fast and Slow	2 § 9.11	**Pass**
5	Difference in Indication	3 § 13	**Pass**
	Frequency Response	3 § 12	————
5	A-Weighted		**Pass**
6	C-Weighted		**Pass**
7	Z-Weighted		**Pass**
	Single Toneburst Response - Fast Time Weighting	3 § 16	————
8	A-Weighted		**Pass**
8	C-Weighted		**Pass**
8	Z-Weighted		**Pass**
	Single Toneburst Response - Slow Time Weighting	3 § 16	————
9	A-Weighted		**Pass**
9	C-Weighted		**Pass**
9	Z-Weighted		**Pass**
10	SEL Response to Repeated Tonebursts	1 § 5.9	**Pass**
11	Level Linearity	3 § 14, 1 § 5.5.6	**Pass**
	RTA Octave Filter (IEC 61260 Class 0)		
	Level Verification of Filter+SLM	Reference Only	————
13	1/1 Octave		**Pass**
14	1/3 Octave		**Pass**
	Filter Check	Reference Only	————
15	1/1 Octave		**Pass**
16	1/3 Octave		**Pass**
17-64	Relative Attenuation	61260 § 5.3	**Pass**

The expanded uncertainties stated in this document are the maximum expanded uncertainties permitted by IEC 61672-1. Odin Metrology's actual expanded uncertainties are less than or equal to the values stated herein.

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Internal Clock

Date and time are transferred from SLM, then the SLM date and time are set according to Odin Metrology's clock and the date and time are transferred from the SLM a second time. Time zones (with minor simplifications) and DST are obeyed.

Local Date/Time: Date and time according to Odin Metrology's clock (Pacific Daylight Time) at the time of the clock setting

Location: US state or other location for which the SLM clock is set (some time zone simplifications are made)

UTC Offset: UTC offset for the given location

Daylight Saving Time: whether DST is currently observed for the given location

SLM Clock Before Set: readouts of the SLM's system date and time before any changes are made

SLM Clock After Set: readouts of the SLM's system date and time after setting

Local (Pacific Daylight Time)		Location	UTC Offset (Hr:Min)	Daylight Saving Time	SLM Clock Before Set		SLM Clock After Set	
Date	Time				Date	Time	Date	Time
3/31/2011	9:17:26 AM	California	-8:00	Yes	3/25/2010	6:04:12 PM	3/31/2011	9:17:28 AM

Sensitivity Verification with Acoustic Calibrator (IEC 61672-3 § 9)

A sound level calibrator is mounted on the sound level meter and the internal calibration is started. The SLM indication is recorded before and after calibration.

Calibrator Frequency: the frequency of the signal generated by the sound level calibrator

Calibrator SPL: the SPL of the signal generated by the sound level calibrator

SLM SPL Before: SLM indication before internal calibration sequence

SLM SPL After: SLM indication after internal calibration sequence

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Performed with microphone 377B02# XXX, preamplifier PRM831# XXX, and calibrator 4231# 1770857.

Calibrator Frequency (Hz)	Calibrator SPL (dB)	SLM SPL Before (dB)	SLM SPL After (dB)	Uncertainty (dB)
1,000.0	114.0	114.13	114.00	0.40

Acoustic Frequency Response with Microphone (61672-3 § 11)

The acoustical frequency response is tested using a multifunction acoustical calibrator type 4226 in C frequency weighting. If a windscreen is used, these data are to be corrected.

Frequency: the frequency of the signal to the sound level meter (frequency of 4226 multifunction acoustic calibrator)

Data Found: the value the sound level meter actually indicates (this is a pressure measurement)

FF Corr: free-field correction for microphone to be added to displayed SLM (pressure) value

Corrected Response: SLM's reading plus the correction indicated

Nominal Value: what the sound level meter should indicate according to IEC 61672

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Uncertainty: maximum expanded uncertainty of measurement according to IEC with approximately 95% confidence level (coverage factor

Deviation: the difference between the nominal value and the data found

Performed with microphone 377B02# XXX, preamplifier PRM831# XXX, and calibrator 4226# 1774068.

Frequency (Hz)	Data Found (dB C)	FF Corr. (dB)	Corrected Response (dB)	Nominal Value (dB C)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Uncertainty (dB)	Deviation (dB)	Pass/Fail
31.5	110.75	0.00	110.75	110.99	109.49	112.49		-0.24	**Pass**
63.0	113.21	0.00	113.21	113.18	112.18	114.18	0.50	0.03	**Pass**
125.0	113.84	0.00	113.84	113.83	112.83	114.83		0.01	**Pass**
250.0	114.00	0.00	114.00	114.00	113.00	115.00	0.40	0.00	**Pass**
500.0	114.02	0.04	114.06	114.03	113.03	115.03		0.02	**Pass**
1,000.0				Reference					
2,000.0	113.72	0.31	114.03	113.83	112.83	114.83		0.20	**Pass**
4,000.0	112.42	1.00	113.42	113.18	112.18	114.18	0.60	0.24	**Pass**
8,000.0	108.09	3.39	111.48	110.99	108.49	112.49		0.49	**Pass**
12,500.0	101.47	6.77	108.24	107.76	102.76	109.76	1.00	0.48	**Pass**
16,000.0	97.78	8.35	106.13	105.47	89.47	107.97		0.67	**Pass**

Self-Generated Noise (61672-3 § 10)

For A-weighting, the noise is measured with the microphone installed and an acoustic chamber on the microphone which eliminates ambient noise. For C- and Z-weighting, the input is terminated with a shorted dummy microphone of equal capacitance.

Frequency Weighting: the frequency weighting setting on the sound level meter

Typical Noise: the typical self-generated noise level according to the manufacturer

Data Found: the 30-second Leq value the sound level meter indicates

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Frequency Weighting	Typical Noise (dB)	Data Found (dB)	Uncertainty (dB)
A	17.00	15.50	
C	12.00	12.20	0.003
Z	19.00	21.22	

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

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Report# N/A
March 31, 2011

Output Impedance with Shorted Output (61672-2 § 9.18)

When the output on the meter is shorted, the SPL may not change by more than the specified tolerance. This test is not performed at 114.0 dB due to a characteristic of the 831 to turn off with the output shorted (see page A-8 in the 831 reference manual).

Frequency: the frequency of the signal to the sound level meter
Input Level: the level (amplitude) of the signal to the sound level meter
Nominal Value: the value the sound level meter should indicate
Tolerance: the acceptable difference from nominal, including the stated uncertainty, for what the sound level meter should indicate
Data Found: the value the sound level meter actually indicates
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)
Deviation: the difference between the nominal value and the data found

Frequency (kHz)	Input Level (dB)	Nominal Value (dB)	Tolerance (± dB)	Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
1.0	90.0	90.0	0.2	90.01	0.10	0.01	**Pass**

AC Full Scale Output Voltage

The sound level meter is set up to indicate full-scale on the display and the AC output is measured. Input frequency is 1,000 Hz.

SPL Reading: the input to the sound level meter is adjusted so that it indicates this full-scale value
Data Found: the value the sound level meter actually indicates
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

SPL Reading (dB)	Data Found (mV)	Uncertainty (mV)
140.02	2438.61	0.10

DC Full Scale Output Voltage

The sound level meter is set up to indicate full-scale on the display and the DC output is measured. Input frequency is 1,000 Hz.

SPL Reading: the input to the sound level meter is adjusted so that it indicates this full-scale value
Data Found: the value the sound level meter actually indicates
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

SPL Reading (dB)	Data Found (mV)	Uncertainty (mV)
140.02	1198.23	0.10

Reset (IEC 61672-2 § 9.17)

It is verified that the display resets after pressing the reset button on the SLM. The initial input level is FSD.

Before: displayed value before pressing the reset key
After: displayed value after pressing the reset key
Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Before (dB)	After (dB)	Tolerance (< dB)	Uncertainty (dB)	Pass/Fail
140.19	24.91	50.0	0.003	**Pass**

Overload Indication (IEC 61672-3 § 18)

The first Leq indication of overload at a level higher than FSD-1 dB is recorded for both positive- and negative-one-half-cycle signals at 4.0 kHz. The difference between the two levels may not exceed the specified tolerance. +20 dB gain option is used.

Overload Level: input signal level (amplitude) at which the meter was found to overload for the specified input signal type
Difference: difference between the overload levels for the positive and negative half-cycle signal inputs
Tolerance: the acceptable difference, including the stated uncertainty, between positive and negative overload levels according to IEC
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Overload Level (dB)		Difference (dB)	Tolerance (≤ dB)	Uncertainty (dB)	Pass/Fail
Positive	Negative				
117.82	117.81	0.01	1.5	0.3	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

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Report# N/A
March 31, 2011

DC Linearity

The sound level meter is set up to indicate full-scale on the display and the DC-output voltage is recorded in decreasing 10-dB steps.

Rel. Input Level: the level (amplitude) of the signal to the sound level meter relative to the reference of full-scale

Data Found: the measured DC-output from the SLM

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Sensitivity: the calculated sensitivity based on the DC-outputs at the highest and lowest levels indicated

Rel. Input Level (dB)	Data Found (mV)	Uncertainty (mV)	Sensitivity (mV/dB)
0.0	1398.29		
-10.0	1298.28		
-20.0	1198.29		
-30.0	1098.28		
-40.0	998.33	0.40	
-50.0	898.43		
-60.0	798.52		9.94
-70.0	698.64		
-80.0	598.78		
-90.0	498.93		
-100.0	399.10		
-110.0	299.59	0.05	
-120.0	205.28		

Peak-C Sound Level (IEC 61672-3 §17)

The sound level meter's peak-C response to single one-cycle and positive- and negative-going half-cycle sinusoidal signals is measured.

Input Level: the steady-state level (amplitude) of the signal to the sound level meter from which the one- and half-cycle signals are extracted

Cycles in Test Signal: the type of burst used (one period, positive half period, or negative half period)

Frequency: the frequency of the signal to the sound level meter

Nominal Value: what the sound level meter should indicate according to IEC 61672

Tolerance: the acceptable difference from nominal for what the sound level meter should indicate according to IEC 61672

LCpeak Found: the peak-C sound level value indicated on the sound level meter

Data Found: the difference between the peak-C sound level and the steady-state C-weighted sound level as indicated by the sound level

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found; extended: extended by the expanded uncertainty of measurement

Input Level (dB C)	Cycles in Test Signal	Frequency (Hz)	Nominal Value (dB)	Tolerance (± dB)	LCpeak Found (dB)	Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
	One	8,000.00	3.40	2.00	134.69	2.69		-0.71	**Pass**
132.00	Positive ½	500.00	2.40	1.00	134.13	2.13	0.40	-0.27	**Pass**
	Negative ½				134.14	2.14		-0.26	**Pass**

Decay Time Constants for Time Weightings Fast and Slow (IEC 61672-2 § 9.11)

The decay rate of the display value on the sound level meter is measured after a steady 4.0 kHz signal is removed.

Time Weighting: the time weighting setting on the sound level meter

Nominal Rate: the decay rate the sound level meter should exhibit according to IEC 61672

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Measured Rate: the actual decay rate measured on the sound level meter

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found

Time Weighting	Nominal Rate (dB/s)	Tolerance (dB/s)		Measured Rate (dB/s)	Uncertainty (dB/s)	Deviation (dB/s)	Pass/Fail
		Minimum	Maximum				
Fast	N/A	27.00	N/A	34.03	2.00	N/A	**Pass**
Slow	4.35	3.80	4.90	4.24	0.40	-0.11	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Difference in Indication (IEC 61672-3 § 13)

With reference to fast time weighting and A frequency weighting at the SLM reference level indicated, the measurements of all other frequency weighting parameters and all other time weighting parameters may not differ by more than the specified tolerance.

Time Weighting: time weighting setting on the SLM
Frequency Weighting: frequency weighting setting on the SLM
Input Level: the level (amplitude) of the signal to the sound level meter
Nominal Value: the value the sound level meter should indicate according to IEC 61672
Tolerance: the acceptable difference from nominal, including the stated uncertainty, for what the sound level meter should indicate
Data Found: the value the sound level meter actually indicates
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)
Deviation: the difference between the nominal value and the data found

Time Weighting	Frequency Weighting	Input Level (dB)	Nominal Value (dB)	Tolerance (± dB)	Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
	A			———Reference———			———Reference———	
Fast	C			0.2	114.02	0.1	0.02	**Pass**
	Z	114.0			114.01		0.01	**Pass**
	A		114.0		114.02		0.02	**Pass**
Slow	C			0.1	114.02	0.1	0.02	**Pass**
	Z				114.01		0.01	**Pass**

A-Frequency-Weighted Frequency Response (61672-3 § 12)

The SLM's frequency response is recorded by varying the frequency as specified. The reference level is FSD-45 dB at 1.0 kHz. IEC 61672 defines this test from 63 Hz to 16 kHz; "N/A" is reported instead of "Fail" for frequencies outside of this range.

Frequency: the frequency of the signal to the sound level meter
Nominal Value: the value the sound level meter should indicate according to IEC 61672 (this is relative to the reference value at 1.0 kHz)
Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672
Data Found: the value the sound level meter actually indicates
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)
Deviation: the difference between the nominal value and the data found

Frequency (Hz)	Nominal Value (dB)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
10.0	-70.4	N/A	-67.4	-70.07		0.36	**Pass**
12.6	-63.4	N/A	-60.9	-63.49		-0.12	**Pass**
15.8	-56.7	-60.7	-54.7	-56.85		-0.16	**Pass**
20.0	-50.5	-52.5	-48.5	-50.64		-0.19	**Pass**
25.1	-44.7	-46.2	-42.7	-44.89		-0.19	**Pass**
31.6	-39.4	-40.9	-37.9	-39.60		-0.16	**Pass**
39.8	-34.6	-35.6	-33.6	-34.80	0.50	-0.17	**Pass**
50.1	-30.2	-31.2	-29.2	-30.47		-0.24	**Pass**
63.1	-26.2	-27.2	-25.2	-26.41		-0.21	**Pass**
79.4	-22.5	-23.5	-21.5	-22.68		-0.18	**Pass**
100.0	-19.1	-20.1	-18.1	-19.29		-0.15	**Pass**
125.9	-16.1	-17.1	-15.1	-16.26		-0.16	**Pass**
158.5	-13.4	-14.4	-12.4	-13.47		-0.12	**Pass**
199.5	-10.9	-11.9	-9.9	-10.99		-0.12	**Pass**
251.2	-8.6	-9.6	-7.6	-8.75		-0.12	**Pass**
316.2	-6.6	-7.6	-5.6	-6.68		-0.07	**Pass**
398.1	-4.8	-5.8	-3.8	-4.86	0.40	-0.06	**Pass**
501.2	-3.2	-4.2	-2.2	-3.28		-0.05	**Pass**
631.0	-1.9	-2.9	-0.9	-1.94		-0.04	**Pass**
794.3	-0.8	-1.8	0.2	-0.81		0.01	**Pass**
1,000.0	0.0		———Reference———				
1,258.9	0.6	-0.4	1.6	0.59	0.40	0.00	Pass
1,584.9	1.0	0.0	2.0	1.02		0.04	Pass
1,995.3	1.2	0.2	2.2	1.22		0.02	Pass
2,511.9	1.3	0.3	2.3	1.29		0.02	Pass
3,162.3	1.2	0.2	2.2	1.26		0.06	Pass
3,981.1	1.0	0.0	2.0	1.03	0.60	0.06	Pass
5,011.9	0.5	-1.0	2.0	0.60		0.05	Pass
6,309.6	-0.1	-2.1	1.4	-0.07		0.05	Pass
7,943.3	-1.1	-3.6	0.4	-1.05		0.06	Pass
10,000.0	-2.5	-5.5	-0.5	-2.45		0.05	Pass
12,589.3	-4.3	-9.3	-2.3	-4.26		0.06	Pass
15,848.9	-6.6	-22.6	-4.1	-6.44	1.00	0.16	Pass
19,952.6	-9.3	N/A	-6.3	-9.63		-0.31	Pass

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

C-Frequency-Weighted Frequency Response (61672-3 § 12)

The SLM's frequency response is recorded by varying the frequency as specified. The reference level is FSD-45 dB at 1.0 kHz. IEC 61672 defines this test from 63 Hz to 16 kHz; "N/A" is reported instead of "Fail" for frequencies outside of this range.

Frequency: the frequency of the signal to the sound level meter

Nominal Value: the value the sound level meter should indicate according to IEC 61672 (this is relative to the reference value at 1.0 kHz)

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Data Found: the value the sound level meter actually indicates

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found

Frequency (Hz)	Nominal Value (dB)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
10.0	-14.3	N/A	-11.3	-14.58		-0.25	**Pass**
12.6	-11.2	N/A	-8.7	-11.47		-0.22	**Pass**
15.8	-8.5	-12.5	-6.5	-8.71		-0.18	**Pass**
20.0	-6.2	-8.2	-4.2	-6.43		-0.19	**Pass**
25.1	-4.4	-5.9	-2.4	-4.59		-0.19	**Pass**
31.6	-3.0	-4.5	-1.5	-3.17		-0.16	**Pass**
39.8	-2.0	-3.0	-1.0	-2.17	0.50	-0.17	**Pass**
50.1	-1.3	-2.3	-0.3	-1.55		-0.26	**Pass**
63.1	-0.8	-1.8	0.2	-1.03		-0.22	**Pass**
79.4	-0.5	-1.5	0.5	-0.68		-0.17	**Pass**
100.0	-0.3	-1.3	0.7	-0.45		-0.15	**Pass**
125.9	-0.2	-1.2	0.8	-0.32		-0.16	**Pass**
158.5	-0.1	-1.1	0.9	-0.21		-0.12	**Pass**
199.5	0.0	-1.0	1.0	-0.17		-0.14	**Pass**
251.2	0.0	-1.0	1.0	-0.12		-0.12	**Pass**
316.2	0.0	-1.0	1.0	-0.05		-0.07	**Pass**
398.1	0.0	-1.0	1.0	-0.03	0.40	-0.06	**Pass**
501.2	0.0	-1.0	1.0	-0.01		-0.05	**Pass**
631.0	0.0	-1.0	1.0	-0.01		-0.04	**Pass**
794.3	0.0	-1.0	1.0	0.03		0.01	**Pass**
1,000.0	0.0		Reference				
1,258.9	0.0	-1.0	1.0	-0.03	0.40	0.00	**Pass**
1,584.9	-0.1	-1.1	0.9	-0.05		0.04	**Pass**
1,995.3	-0.2	-1.2	0.8	-0.15		0.02	**Pass**
2,511.9	-0.3	-1.3	0.7	-0.27		0.02	**Pass**
3,162.3	-0.5	-1.5	0.5	-0.44		0.06	**Pass**
3,981.1	-0.8	-1.8	0.2	-0.76	0.60	0.06	**Pass**
5,011.9	-1.3	-2.8	0.2	-1.24		0.06	**Pass**
6,309.6	-2.0	-4.0	-0.5	-1.95		0.05	**Pass**
7,943.3	-3.0	-5.5	-1.5	-2.95		0.06	**Pass**
10,000.0	-4.4	-7.4	-2.4	-4.36		0.05	**Pass**
12,589.3	-6.2	-11.2	-4.2	-6.18		0.06	**Pass**
15,848.9	-8.5	-24.5	-6.0	-8.37	1.00	0.16	**Pass**
19,952.6	-11.2	N/A	-8.2	-11.56		-0.31	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Z-Frequency-Weighted Frequency Response (61672-3 § 12)

The SLM's frequency response is recorded by varying the frequency as specified. The reference level is FSD-45 dB at 1.0 kHz. IEC 61672 defines this test from 63 Hz to 16 kHz; "N/A" is reported instead of "Fail" for frequencies outside of this range.

Frequency: the frequency of the signal to the sound level meter

Nominal Value: the value the sound level meter should indicate according to IEC 61672 (this is relative to the reference value at 1.0 kHz)

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Data Found: the value the sound level meter actually indicates

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found

Frequency (Hz)	Nominal Value (dB)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
10.0		N/A	3.0	-0.38		-0.38	**Pass**
12.6		N/A	2.5	-0.36		-0.36	**Pass**
15.8		-4.0	2.0	-0.28		-0.28	**Pass**
20.0		-2.0	2.0	-0.27		-0.27	**Pass**
25.1		-1.5	2.0	-0.25		-0.25	**Pass**
31.6		-1.5	1.5	-0.21		-0.21	**Pass**
39.8		-1.0	1.0	-0.21	0.50	-0.21	**Pass**
50.1		-1.0	1.0	-0.19		-0.19	**Pass**
63.1		-1.0	1.0	-0.24		-0.24	**Pass**
79.4		-1.0	1.0	-0.19		-0.19	**Pass**
100.0		-1.0	1.0	-0.18		-0.18	**Pass**
125.9		-1.0	1.0	-0.17		-0.17	**Pass**
158.5		-1.0	1.0	-0.13		-0.13	**Pass**
199.5		-1.0	1.0	-0.14		-0.14	**Pass**
251.2		-1.0	1.0	-0.12		-0.12	**Pass**
316.2		-1.0	1.0	-0.07		-0.07	**Pass**
398.1	0.0	-1.0	1.0	-0.07	0.40	-0.07	**Pass**
501.2		-1.0	1.0	-0.05		-0.05	**Pass**
631.0		-1.0	1.0	-0.04		-0.04	**Pass**
794.3		-1.0	1.0	0.00		0.00	**Pass**
1,000.0		Reference					
1,258.9		-1.0	1.0	-0.01	0.40	-0.01	**Pass**
1,584.9		-1.0	1.0	0.03		0.03	**Pass**
1,995.3		-1.0	1.0	0.01		0.01	**Pass**
2,511.9		-1.0	1.0	0.01		0.01	**Pass**
3,162.3		-1.0	1.0	0.04		0.04	**Pass**
3,981.1		-1.0	1.0	0.03	0.60	0.03	**Pass**
5,011.9		-1.5	1.5	0.03		0.03	**Pass**
6,309.6		-2.0	1.5	0.04		0.04	**Pass**
7,943.3		-2.5	1.5	0.09		0.09	**Pass**
10,000.0		-3.0	2.0	0.10		0.10	**Pass**
12,589.3		-5.0	2.0	0.06		0.06	**Pass**
15,848.9		-16.0	2.5	0.02	1.00	0.02	**Pass**
19,952.6		N/A	3.0	-0.23		-0.23	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Single Toneburst Response (Fast Time Weighting, A Frequency Weighting) (61672-3 § 16)

The sound level meter's response to single tonebursts at 4.0 kHz is measured. The baseline input level is 3 dB less than full scale.

Toneburst Duration: the length of time each burst lasts
Nominal Value: the value sound level meter should indicate according to IEC 61672
Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672
Data Found: the value the sound level meter actually indicates; equal to $LAFmax(toneburst)-LAF(steady-state)$
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)
Deviation: the difference between the nominal value and the data found

Toneburst Duration (ms)	Nominal Value (dB)	Tolerance (dB)		Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
		Minimum	Maximum				
1,000.00	0.0	-0.5	0.5	-0.04		-0.04	**Pass**
500.00	-0.1	-0.6	0.4	-0.12		-0.02	**Pass**
200.00	-1.0	-1.5	-0.5	-1.09		-0.09	**Pass**
100.00	-2.6	-3.6	-1.6	-2.78		-0.18	**Pass**
50.00	-4.8	-5.8	-3.8	-4.96		-0.16	**Pass**
20.00	-8.3	-9.3	-7.3	-8.40	0.20	-0.10	**Pass**
10.00	-11.1	-12.1	-10.1	-11.53		-0.43	**Pass**
5.00	-14.1	-15.1	-13.1	-14.23		-0.13	**Pass**
2.00	-18.0	-19.5	-17.0	-18.21		-0.21	**Pass**
1.00	-21.0	-23.0	-20.0	-21.21		-0.21	**Pass**
0.50	-24.0	-26.5	-23.0	-24.21		-0.21	**Pass**
0.25	-27.0	-30.0	-26.0	-27.51		-0.51	**Pass**

Single Toneburst Response (Fast Time Weighting, C Frequency Weighting) (61672-3 § 16)

The sound level meter's response to single tonebursts at 4.0 kHz is measured. The baseline input level is 3 dB less than full scale.

Toneburst Duration: the length of time each burst lasts
Nominal Value: the value sound level meter should indicate according to IEC 61672
Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672
Data Found: the value the sound level meter actually indicates; equal to $LCFmax(toneburst)-LCF(steady-state)$
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)
Deviation: the difference between the nominal value and the data found

Toneburst Duration (ms)	Nominal Value (dB)	Tolerance (dB)		Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
		Minimum	Maximum				
1,000.00	0.0	-0.5	0.5	-0.04		-0.04	**Pass**
500.00	-0.1	-0.6	0.4	-0.13		-0.03	**Pass**
200.00	-1.0	-1.5	-0.5	-1.06		-0.06	**Pass**
100.00	-2.6	-3.1	-2.1	-2.70		-0.10	**Pass**
50.00	-4.8	-5.3	-4.3	-5.12		-0.32	**Pass**
20.00	-8.3	-8.8	-7.8	-8.58	0.20	-0.28	**Pass**
10.00	-11.1	-11.6	-10.6	-11.36		-0.26	**Pass**
5.00	-14.1	-14.6	-13.6	-14.47		-0.37	**Pass**
2.00	-18.0	-18.5	-17.5	-18.37		-0.37	**Pass**
1.00	-21.0	-21.5	-20.5	-21.34		-0.34	**Pass**
0.50	-24.0	-24.5	-23.5	-24.24		-0.24	**Pass**
0.25	-27.0	-27.5	-26.5	-27.20		-0.20	**Pass**

Single Toneburst Response (Fast Time Weighting, Z Frequency Weighting) (61672-3 § 16)

The sound level meter's response to single tonebursts at 4.0 kHz is measured. The baseline input level is 3 dB less than full scale.

Toneburst Duration: the length of time each burst lasts
Nominal Value: the value sound level meter should indicate according to IEC 61672
Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672
Data Found: the value the sound level meter actually indicates; equal to $LZFmax(toneburst)-LZF(steady-state)$
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)
Deviation: the difference between the nominal value and the data found

Toneburst Duration (ms)	Nominal Value (dB)	Tolerance (dB)		Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
		Minimum	Maximum				
1,000.00	0.0	-0.5	0.5	-0.01		-0.01	**Pass**
500.00	-0.1	-0.6	0.4	-0.09		0.01	**Pass**
200.00	-1.0	-1.5	-0.5	-1.02		-0.02	**Pass**
100.00	-2.6	-3.1	-2.1	-2.73		-0.13	**Pass**
50.00	-4.8	-5.3	-4.3	-5.05		-0.25	**Pass**
20.00	-8.3	-8.8	-7.8	-8.49	0.20	-0.19	**Pass**
10.00	-11.1	-11.6	-10.6	-11.28		-0.18	**Pass**
5.00	-14.1	-14.6	-13.6	-14.30		-0.20	**Pass**
2.00	-18.0	-18.5	-17.5	-18.28		-0.28	**Pass**
1.00	-21.0	-21.5	-20.5	-21.25		-0.25	**Pass**
0.50	-24.0	-24.5	-23.5	-24.24		-0.24	**Pass**
0.25	-27.0	-27.5	-26.5	-27.19		-0.19	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Single Toneburst Response (Slow Time Weighting, A Frequency Weighting) (61672-3 § 16)

The sound level meter's response to single tonebursts at 4.0 kHz is measured. The baseline input level is 3 dB less than full scale.

Toneburst Duration: the length of time each burst lasts

Nominal Value: the value sound level meter should indicate according to IEC 61672

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Data Found: the value the sound level meter actually indicates; equal to LAFmax(toneburst)-LAF(steady-state)

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found

Toneburst Duration (ms)	Nominal Value (dB)	Tolerance (dB)		Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
		Minimum	Maximum				
1,000.0	-2.0	-2.5	-1.5	-2.09		-0.09	**Pass**
500.0	-4.1	-4.6	-3.6	-4.19		-0.09	**Pass**
200.0	-7.4	-7.9	-6.9	-7.56		-0.16	**Pass**
100.0	-10.2	-10.7	-9.7	-10.36		-0.16	**Pass**
50.0	-13.1	-13.6	-12.6	-13.26	0.20	-0.16	**Pass**
20.0	-17.0	-17.5	-16.5	-17.21		-0.21	**Pass**
10.0	-20.0	-20.5	-19.5	-20.19		-0.19	**Pass**
5.0	-23.0	-23.5	-22.5	-23.17		-0.17	**Pass**
2.0	-27.0	-27.5	-26.5	-27.16		-0.16	**Pass**

Single Toneburst Response (Slow Time Weighting, C Frequency Weighting) (61672-3 § 16)

The sound level meter's response to single tonebursts at 4.0 kHz is measured. The baseline input level is 3 dB less than full scale.

Toneburst Duration: the length of time each burst lasts

Nominal Value: the value sound level meter should indicate according to IEC 61672

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Data Found: the value the sound level meter actually indicates; equal to LCFmax(toneburst)-LCF(steady-state)

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found

Toneburst Duration (ms)	Nominal Value (dB)	Tolerance (dB)		Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
		Minimum	Maximum				
1,000.0	-2.0	-2.5	-1.5	-2.09		-0.09	**Pass**
500.0	-4.1	-4.6	-3.6	-4.19		-0.09	**Pass**
200.0	-7.4	-7.9	-6.9	-7.56		-0.16	**Pass**
100.0	-10.2	-10.7	-9.7	-10.36		-0.16	**Pass**
50.0	-13.1	-13.6	-12.6	-13.26	0.20	-0.16	**Pass**
20.0	-17.0	-17.5	-16.5	-17.21		-0.21	**Pass**
10.0	-20.0	-20.5	-19.5	-20.19		-0.19	**Pass**
5.0	-23.0	-23.5	-22.5	-23.16		-0.16	**Pass**
2.0	-27.0	-27.5	-26.5	-27.13		-0.13	**Pass**

Single Toneburst Response (Slow Time Weighting, Z Frequency Weighting) (61672-3 § 16)

The sound level meter's response to single tonebursts at 4.0 kHz is measured. The baseline input level is 3 dB less than full scale.

Toneburst Duration: the length of time each burst lasts

Nominal Value: the value sound level meter should indicate according to IEC 61672

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Data Found: the value the sound level meter actually indicates; equal to LZFmax(toneburst)-LZF(steady-state)

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found

Toneburst Duration (ms)	Nominal Value (dB)	Tolerance (dB)		Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
		Minimum	Maximum				
1,000.0	-2.0	-2.5	-1.5	-2.06		-0.06	**Pass**
500.0	-4.1	-4.6	-3.6	-4.14		-0.04	**Pass**
200.0	-7.4	-7.9	-6.9	-7.54		-0.14	**Pass**
100.0	-10.2	-10.7	-9.7	-10.34		-0.14	**Pass**
50.0	-13.1	-13.6	-12.6	-13.24	0.20	-0.14	**Pass**
20.0	-17.0	-17.5	-16.5	-17.15		-0.15	**Pass**
10.0	-20.0	-20.5	-19.5	-20.13		-0.13	**Pass**
5.0	-23.0	-23.5	-22.5	-23.14		-0.14	**Pass**
2.0	-27.0	-27.5	-26.5	-27.12		-0.12	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

SEL Response to Repeated Tonebursts (61672-1 § 5.9)

The sound level meter's sound exposure level (SEL) response to repeated tonebursts at 4.0 kHz is measured. The baseline input level is 3

Toneburst Duration: the length of time each burst lasts

Nominal Value: the value the sound level meter should indicate according to IEC 61672

Tolerance: the acceptable range, including the stated uncertainty, for what the sound level meter should indicate according to IEC 61672

Data Found: the value the sound level meter actually indicates; equal to LAE(toneburst)-LAF(steady-state)

Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)

Deviation: the difference between the nominal value and the data found

Toneburst Duration (ms)	Nominal Value (dB)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Uncertainty (dB)	Deviation (dB)	Pass/Fail
1000.0	0.0	-0.5	0.5	-0.04		-0.04	**Pass**
500.0	-3.0	-3.5	-2.5	-2.94		0.06	**Pass**
200.0	-7.0	-7.5	-6.5	-6.80		0.20	**Pass**
100.0	-10.0	-10.5	-9.5	-9.88		0.12	**Pass**
50.0	-13.0	-13.5	-12.5	-12.86		0.14	**Pass**
20.0	-17.0	-17.5	-16.5	-16.87	0.20	0.13	**Pass**
10.0	-20.0	-20.5	-19.5	-19.78		0.22	**Pass**
5.0	-23.0	-23.5	-22.5	-22.63		0.37	**Pass**
2.0	-27.0	-27.5	-26.5	-27.10		-0.10	**Pass**
1.0	-30.0	-30.5	-29.5	-29.93		0.07	**Pass**
0.5	-33.0	-33.5	-32.5	-32.98		0.02	**Pass**
0.25	-36.0	-36.5	-35.5	-35.94		0.06	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Level Linearity (IEC 61672-3 § 14, IEC 61672-1 § 5.5.6)

Level linearity is tested at in A-weighting at 8.0 kHz. Increasing input levels continue up to the first indication of overload. The test is continued with decreasing input levels down to the lower limit or the first indication of underrange.

Input Level: the level (amplitude) of the signal to the sound level meter
Nominal Value: the value the sound level meter should indicate according to IEC 61672
Tolerance: the acceptable difference, including the stated uncertainty, from nominal according to IEC 61672
Data Found: the value the sound level meter actually indicates
Uncertainty: maximum expanded uncertainty of measurement with approximately 95% confidence level (coverage factor k=2)
Deviation: the difference between the nominal value and the data found; differential: current and previous measurement is not allowed to exceed 0.5 dB according to IEC 61672-1 § 5.5.6

Part 1: Increasing Input Levels							
Input Level (dB)	Nominal Value (dB)	Tolerance (± dB)	Data Found (dB)	Uncertainty (dB)	Deviation (dB) Measured	Differential	Pass/Fail
114.0			**Reference 1**				
119.0	119.0		119.02		0.02	N/A	**Pass**
124.0	124.0		124.01		0.01	-0.01	**Pass**
129.0	129.0		129.01		0.01	0.00	**Pass**
134.0	134.0		134.01		0.01	0.00	**Pass**
139.0	139.0		138.98		-0.02	-0.02	**Pass**
140.0	140.0		Overload		N/A	N/A	**N/A**
141.0	141.0						
142.0	142.0						
143.0	143.0						
144.0	144.0						
145.0	145.0						
146.0	146.0						
147.0	147.0						
148.0	148.0	0.8		0.3			
149.0	149.0						
150.0	150.0						
151.0	151.0						
152.0	152.0						
153.0	153.0						
154.0	154.0						
155.0	155.0						
156.0	156.0						
157.0	157.0						
158.0	158.0						
159.0	159.0						
160.0	160.0						
161.0	161.0						

Part 2: Decreasing Input Levels							
Input Level (dB)	Nominal Value (dB)	Tolerance (± dB)	Data Found (dB)	Uncertainty (dB)	Deviation (dB) Measured	Differential	Pass/Fail
139.0			**Reference 2**				
134.0	134.0		134.02		0.02	N/A	**Pass**
129.0	129.0		129.02		0.02	0.00	**Pass**
124.0	124.0		124.02		0.02	0.00	**Pass**
119.0	119.0		119.02		0.02	0.01	**Pass**
114.0	114.0		114.01		0.01	-0.02	**Pass**
109.0	109.0		109.04		0.04	0.04	**Pass**
104.0	104.0		104.04		0.04	0.00	**Pass**
99.0	99.0		99.04		0.04	0.00	**Pass**
94.0	94.0		94.05		0.05	0.01	**Pass**
89.0	89.0		89.02		0.02	-0.03	**Pass**
84.0	84.0		84.02		0.02	0.00	**Pass**
79.0	79.0		79.03		0.03	0.01	**Pass**
74.0	74.0		74.00		0.00	-0.02	**Pass**
69.0	69.0	0.8	69.04	0.3	0.04	0.04	**Pass**
64.0	64.0		64.04		0.04	-0.01	**Pass**
59.0	59.0		59.04		0.04	0.01	**Pass**
54.0	54.0		54.05		0.05	0.01	**Pass**
49.0	49.0		49.02		0.02	-0.03	**Pass**
44.0	44.0		44.02		0.02	0.00	**Pass**
39.0	39.0		39.05		0.05	0.03	**Pass**
34.0	34.0		34.06		0.06	0.01	**Pass**
29.0	29.0		29.15		0.15	0.10	**Pass**
28.0	28.0		28.20		0.20	0.05	**Pass**
27.0	27.0		27.24		0.24	0.04	**Pass**
26.0	26.0		Underrange		N/A	N/A	**N/A**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

A-Weighted Frequency Response

C-Weighted Frequency Response

Z-Weighted Frequency Response

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011
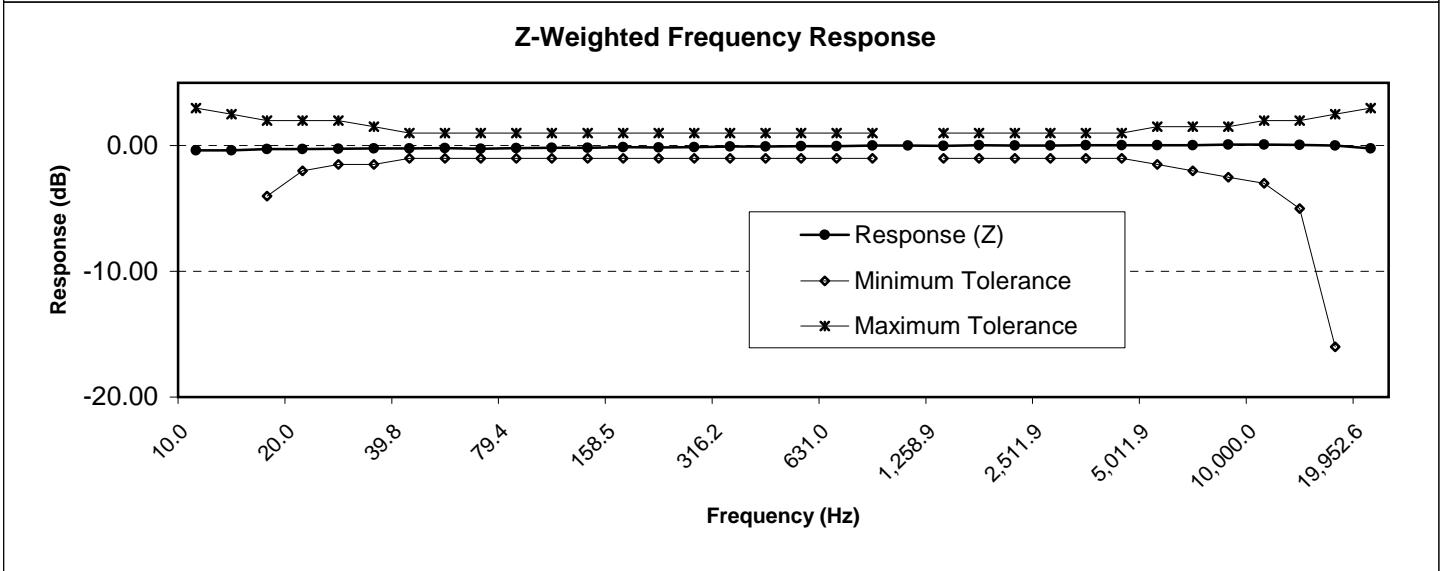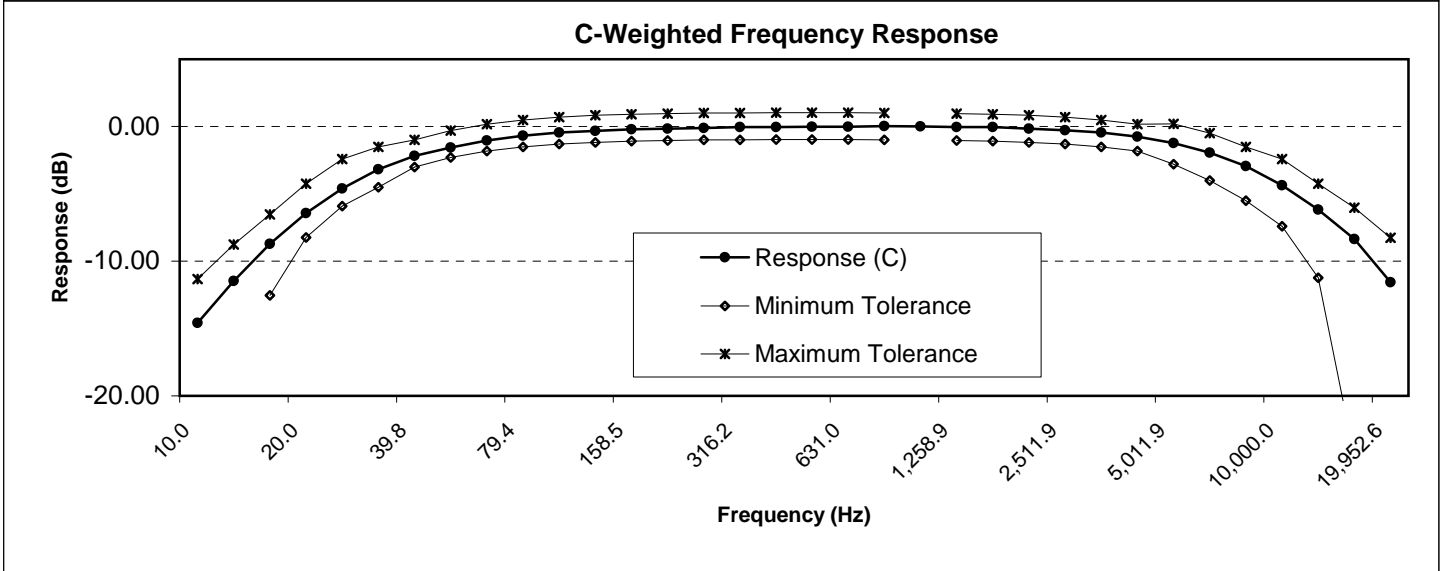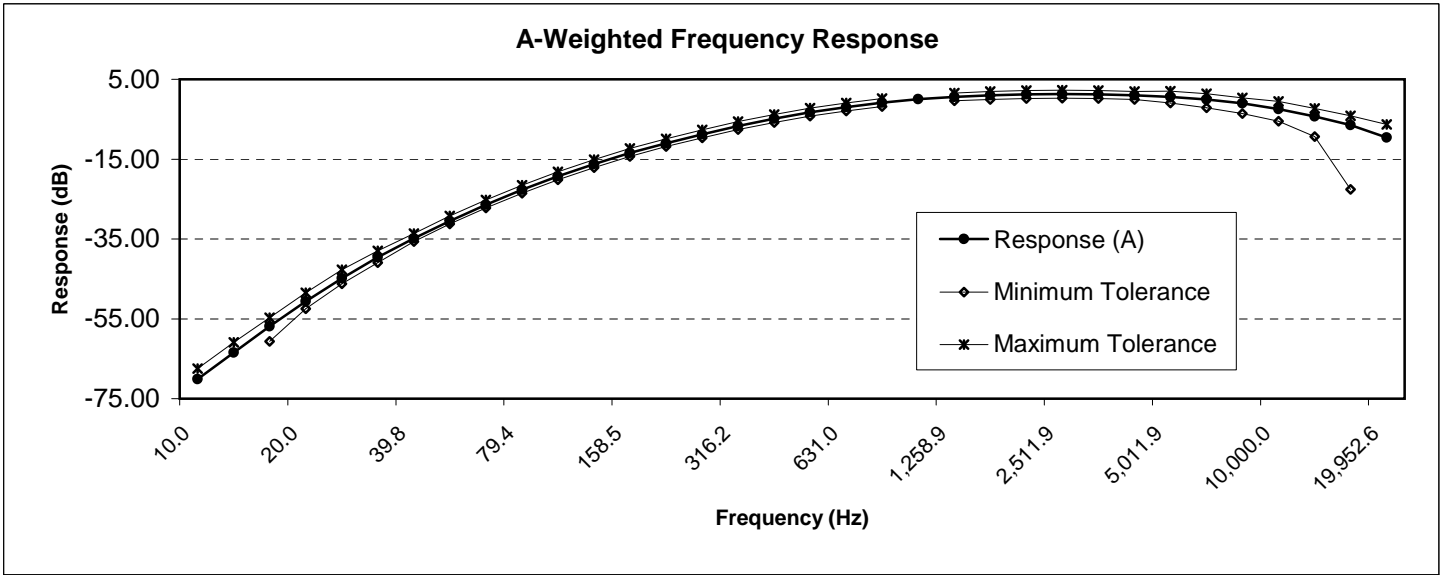
Level Verification of Filter+SLM (1/1 Octave)

Relative to 94 dB at 1,000 Hz, it is verified that for each filter center frequency, if the input frequency matches that of the center frequency, the meter should indicate within the tolerance shown.

Filter Center Frequency: center frequency setting on the filter
Input Frequency: frequency of the input signal to the filter
Tolerance: the acceptable range for what the filter should indicate according to Odin Metrology, Inc.
Data Found: the level the sound level meter indicates

Filter Center Freq. (Hz)	Input Freq. (Hz)	Tolerance (± dB)	Data Found (dB)	Result
7.9	7.9		0.00	**Pass**
15.8	15.8		-0.01	**Pass**
31.6	31.6		0.00	**Pass**
63.1	63.1	0.5	0.00	**Pass**
125.9	125.9		0.00	**Pass**
251.2	251.2		0.00	**Pass**
501.2	501.2		0.00	**Pass**
1,000.0	1,000.0	———Reference———		
1,995.3	1,995.3		0.00	**Pass**
3,981.1	3,981.1	0.5	0.01	**Pass**
7,943.3	7,943.3		0.00	**Pass**
15,848.9	15,848.9		0.00	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Level Verification of Filter+SLM (1/3 Octave)

Relative to 94 dB at 1,000 Hz, it is verified that for each filter center frequency, if the input frequency matches that of the center frequency, the meter should indicate within the tolerance shown.

Filter Center Frequency: center frequency setting on the filter
Input Frequency: frequency of the input signal to the filter
Tolerance: the acceptable range for what the filter should indicate according to Odin Metrology, Inc.
Data Found: the level the sound level meter indicates

Filter Center Freq. (Hz)	Input Freq. (Hz)	Tolerance (± dB)	Data Found (dB)	Result
6.3	6.3		0.03	**Pass**
7.9	7.9		0.01	**Pass**
10.0	10.0		-0.01	**Pass**
12.6	12.6		-0.01	**Pass**
15.8	15.8		-0.01	**Pass**
20.0	20.0		-0.02	**Pass**
25.1	25.1		-0.01	**Pass**
31.6	31.6		0.00	**Pass**
39.8	39.8		-0.01	**Pass**
50.1	50.1		-0.01	**Pass**
63.1	63.1	0.5	-0.01	**Pass**
79.4	79.4		-0.01	**Pass**
100.0	100.0		0.00	**Pass**
125.9	125.9		-0.01	**Pass**
158.5	158.5		0.00	**Pass**
199.5	199.5		-0.01	**Pass**
251.2	251.2		0.00	**Pass**
316.2	316.2		0.00	**Pass**
398.1	398.1		0.00	**Pass**
501.2	501.2		-0.01	**Pass**
631.0	631.0		-0.01	**Pass**
794.3	794.3		-0.01	**Pass**
1,000.0	1,000.0	————Reference————		
1,258.9	1,258.9		-0.01	**Pass**
1,584.9	1,584.9		0.00	**Pass**
1,995.3	1,995.3		-0.01	**Pass**
2,511.9	2,511.9		0.00	**Pass**
3,162.3	3,162.3		0.00	**Pass**
3,981.1	3,981.1		-0.01	**Pass**
5,011.9	5,011.9	0.5	-0.01	**Pass**
6,309.6	6,309.6		-0.01	**Pass**
7,943.3	7,943.3		-0.01	**Pass**
10,000.0	10,000.0		-0.02	**Pass**
12,589.3	12,589.3		-0.03	**Pass**
15,848.9	15,848.9		-0.03	**Pass**
19,952.6	19,952.6		-0.04	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Filter Check (1/1 Octave)

At each center frequency in 1/1 octave step size mode, frequencies equaling the center frequency plus and minus one half octave shall cause the filter to respond with attenuation within the limits stated below.

Filter Center Frequency: center frequency setting on the filter
Input Frequency: the input frequency to the filter calculated as plus and minus one half octave from the center
Tolerance: the acceptable range for what the filter should indicate according to Odin Metrology, Inc.
Data Found: the level the sound level meter indicates

Filter Center Freq. (Hz)	Input Frequency (Hz)		Tolerance (dB)		Data Found (dB)		Result
	-1/2 Octave	+1/2 Octave	Minimum	Maximum	-1/2 Octave	+1/2 Octave	
7.9	5.6	11.2			-3.21	-3.05	**Pass**
15.8	11.2	22.4			-3.19	-3.09	**Pass**
31.6	22.4	44.7			-3.16	-3.12	**Pass**
63.1	44.7	89.1			-3.14	-3.13	**Pass**
125.9	89.1	177.8			-3.14	-3.14	**Pass**
251.2	177.8	354.8	-5.7	-1.2	-3.11	-3.11	**Pass**
501.2	354.8	707.9			-3.12	-3.11	**Pass**
1,000.0	707.9	1,412.5			-3.12	-3.11	**Pass**
1,995.3	1,412.5	2,818.4			-3.13	-3.12	**Pass**
3,981.1	2,818.4	5,623.4			-3.13	-3.12	**Pass**
7,943.3	5,623.4	11,220.2			-3.14	-3.13	**Pass**
15,848.9	11,220.2	22,387.2			-3.04	-3.80	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Filter Check (1/3 Octave)

At each center frequency in 1/3 octave step size mode and 1/3 octave bandwidth, frequencies equaling the center frequency plus and minus one sixth octave shall cause the filter to respond with attenuation within the limits stated below.

Filter Center Frequency: center frequency setting on the filter
Input Frequency: the input frequency to the filter calculated as plus and minus one sixth octave from the center
Tolerance: the acceptable range for what the filter should indicate according to Odin Metrology, Inc.
Data Found: the level the sound level meter indicates

Filter Center Freq. (Hz)	Input Frequency (Hz)		Tolerance (dB)		Data Found (dB)		Result
	-1/6 Octave	+1/6 Octave	Minimum	Maximum	-1/6 Octave	+1/6 Octave	
6.3	5.6	7.1			-3.2	-3.1	**Pass**
7.9	7.1	8.9			-3.0	-2.9	**Pass**
10.0	8.9	11.2			-3.0	-2.9	**Pass**
12.6	11.2	14.1			-3.0	-2.9	**Pass**
15.8	14.1	17.8			-3.0	-2.9	**Pass**
20.0	17.8	22.4			-3.0	-2.9	**Pass**
25.1	22.4	28.2			-3.0	-2.9	**Pass**
31.6	28.2	35.5			-3.0	-3.0	**Pass**
39.8	35.5	44.7			-3.0	-2.9	**Pass**
50.1	44.7	56.2			-3.0	-2.9	**Pass**
63.1	56.2	70.8			-3.0	-2.9	**Pass**
79.4	70.8	89.1			-3.0	-3.0	**Pass**
100.0	89.1	112.2			-3.0	-2.9	**Pass**
125.9	112.2	141.3			-3.0	-2.9	**Pass**
158.5	141.3	177.8			-3.0	-3.0	**Pass**
199.5	177.8	223.9			-3.0	-2.9	**Pass**
251.2	223.9	281.8			-3.0	-3.0	**Pass**
316.2	281.8	354.8	-5.7	-1.2	-3.0	-3.0	**Pass**
398.1	354.8	446.7			-3.0	-2.9	**Pass**
501.2	446.7	562.3			-3.0	-2.9	**Pass**
631.0	562.3	707.9			-3.0	-2.9	**Pass**
794.3	707.9	891.3			-3.0	-3.0	**Pass**
1,000.0	891.3	1,122.0			-3.0	-2.9	**Pass**
1,258.9	1,122.0	1,412.5			-3.0	-2.9	**Pass**
1,584.9	1,412.5	1,778.3			-3.0	-3.0	**Pass**
1,995.3	1,778.3	2,238.7			-3.0	-2.9	**Pass**
2,511.9	2,238.7	2,818.4			-3.0	-3.0	**Pass**
3,162.3	2,818.4	3,548.1			-3.0	-3.0	**Pass**
3,981.1	3,548.1	4,466.8			-3.0	-2.9	**Pass**
5,011.9	4,466.8	5,623.4			-3.0	-2.9	**Pass**
6,309.6	5,623.4	7,079.5			-3.0	-2.9	**Pass**
7,943.3	7,079.5	8,912.5			-3.0	-3.0	**Pass**
10,000.0	8,912.5	11,220.2			-3.0	-3.0	**Pass**
12,589.3	11,220.2	14,125.4			-3.0	-3.0	**Pass**
15,848.9	14,125.4	17,782.8			-2.9	-3.1	**Pass**
19,952.6	17,782.8	22,387.2			-2.8	-3.4	**Pass**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
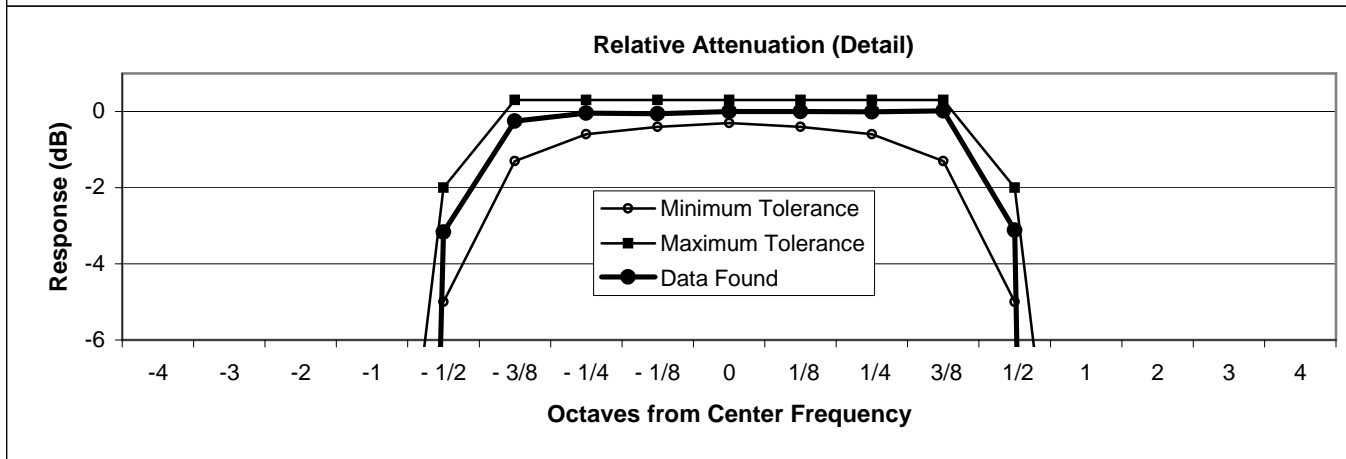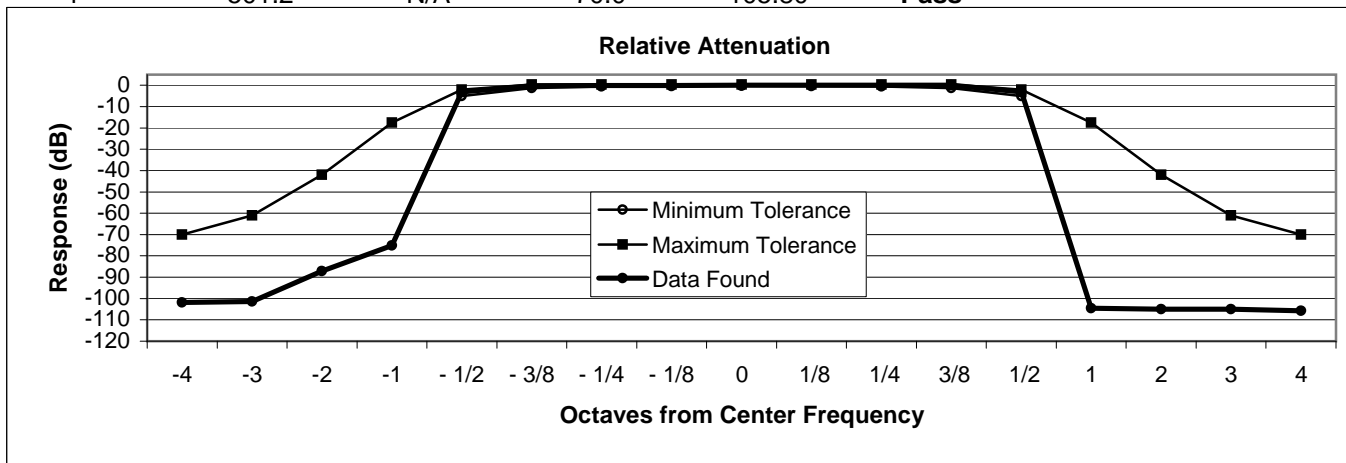Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/1 Octave - 8 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	0.5	N/A	-70.0	-96.52	**Pass**
-3	1.0	N/A	-61.0	-95.08	**Pass**
-2	2.0	N/A	-42.0	-80.83	**Pass**
-1	4.0	N/A	-17.5	-75.55	**Pass**
- 1/2	5.6	-5.0	-2.0	-3.26	**Pass**
- 3/8	6.1	-1.3	0.3	-0.29	**Pass**
- 1/4	6.7	-0.6	0.3	-0.05	**Pass**
- 1/8	7.3	-0.4	0.3	-0.02	**Pass**
0	7.9	-0.3	0.3	0.00	**Pass**
1/8	8.7	-0.4	0.3	0.02	**Pass**
1/4	9.4	-0.6	0.3	0.06	**Pass**
3/8	10.3	-1.3	0.3	0.09	**Pass**
1/2	11.2	-5.0	-2.0	-3.01	**Pass**
1	15.8	N/A	-17.5	-104.73	**Pass**
2	31.6	N/A	-42.0	-104.41	**Pass**
3	63.1	N/A	-61.0	-104.61	**Pass**
4	125.9	N/A	-70.0	-106.35	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
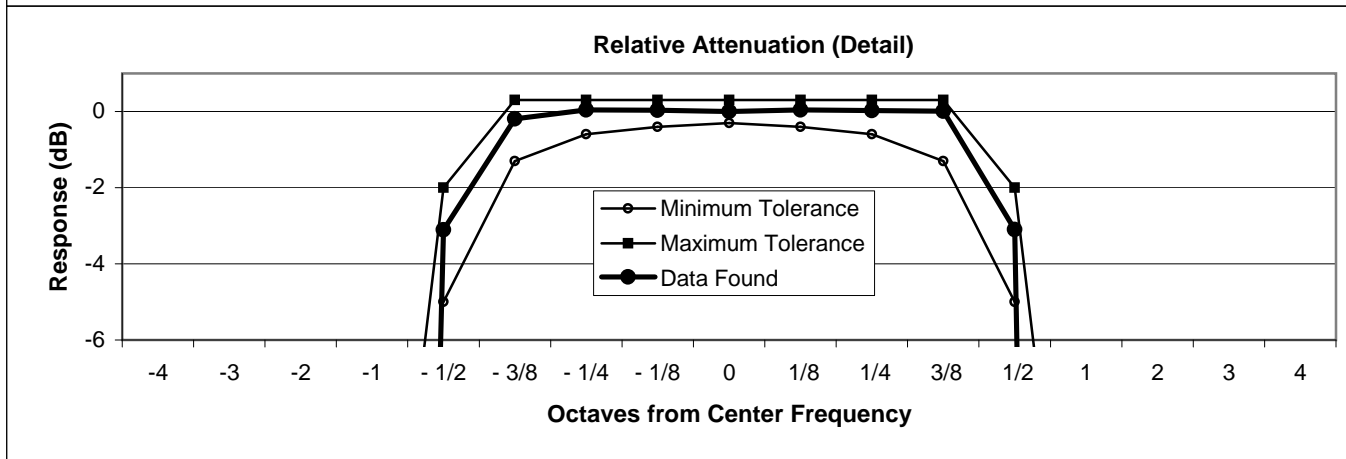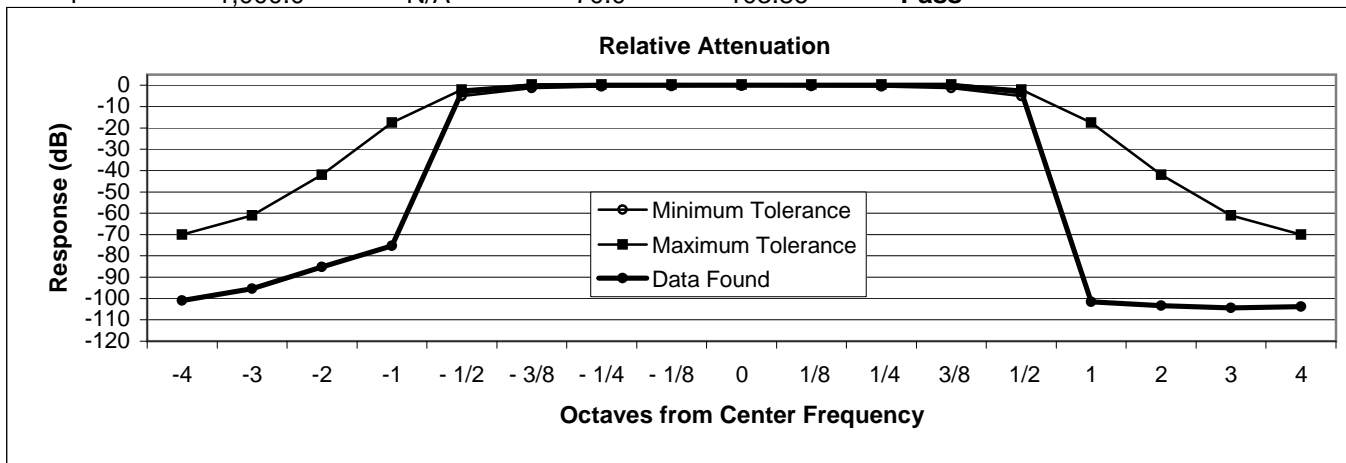Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/1 Octave - 16 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB)		Data Found (dB)	Pass/Fail
		Minimum	Maximum		
-4	1.0	N/A	-70.0	-101.70	**Pass**
-3	2.0	N/A	-61.0	-100.94	**Pass**
-2	4.0	N/A	-42.0	-85.98	**Pass**
-1	7.9	N/A	-17.5	-75.33	**Pass**
- 1/2	11.2	-5.0	-2.0	-3.20	**Pass**
- 3/8	12.2	-1.3	0.3	-0.26	**Pass**
- 1/4	13.3	-0.6	0.3	-0.04	**Pass**
- 1/8	14.5	-0.4	0.3	-0.01	**Pass**
0	15.8	-0.3	0.3	0.00	**Pass**
1/8	17.3	-0.4	0.3	0.00	**Pass**
1/4	18.8	-0.6	0.3	0.03	**Pass**
3/8	20.5	-1.3	0.3	0.04	**Pass**
1/2	22.4	-5.0	-2.0	-3.09	**Pass**
1	31.6	N/A	-17.5	-105.38	**Pass**
2	63.1	N/A	-42.0	-105.37	**Pass**
3	125.9	N/A	-61.0	-106.39	**Pass**
4	251.2	N/A	-70.0	-105.59	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
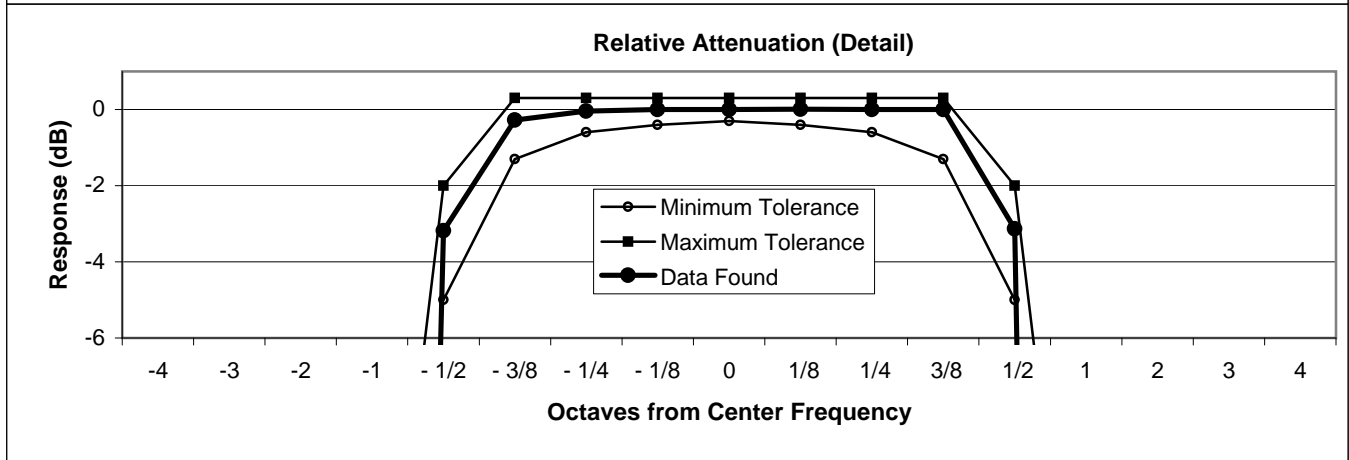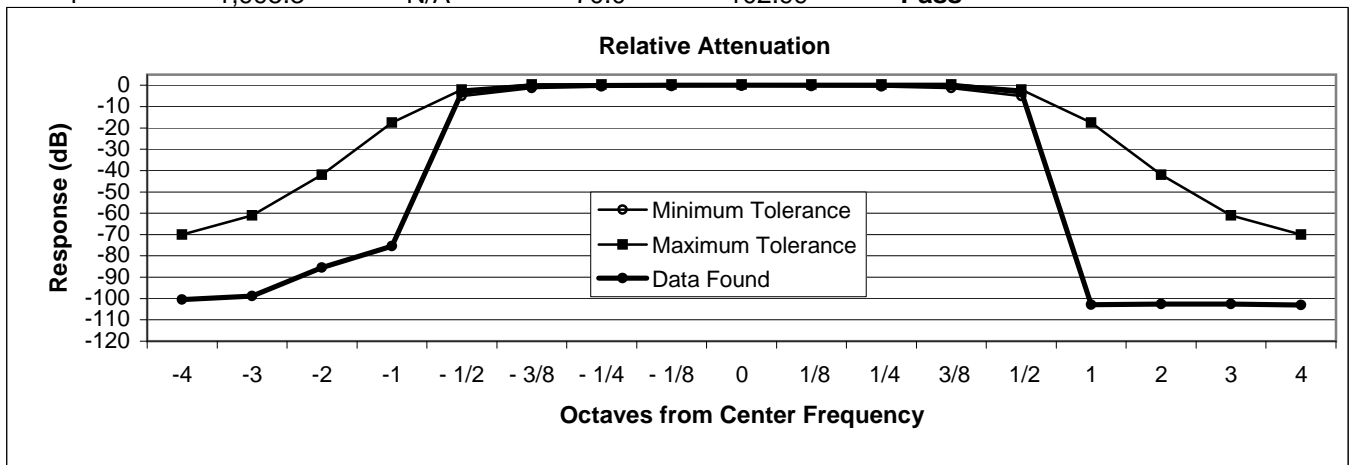Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/1 Octave - 31.5 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	2.0	N/A	-70.0	-101.79	**Pass**
-3	4.0	N/A	-61.0	-101.35	**Pass**
-2	7.9	N/A	-42.0	-87.12	**Pass**
-1	15.8	N/A	-17.5	-75.14	**Pass**
- 1/2	22.4	-5.0	-2.0	-3.17	**Pass**
- 3/8	24.4	-1.3	0.3	-0.25	**Pass**
- 1/4	26.6	-0.6	0.3	-0.04	**Pass**
- 1/8	29.0	-0.4	0.3	-0.06	**Pass**
0	31.6	-0.3	0.3	0.00	**Pass**
1/8	34.5	-0.4	0.3	0.00	**Pass**
1/4	37.6	-0.6	0.3	-0.01	**Pass**
3/8	41.0	-1.3	0.3	0.02	**Pass**
1/2	44.7	-5.0	-2.0	-3.12	**Pass**
1	63.1	N/A	-17.5	-104.56	**Pass**
2	125.9	N/A	-42.0	-104.93	**Pass**
3	251.2	N/A	-61.0	-104.98	**Pass**
4	501.2	N/A	-70.0	-105.80	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
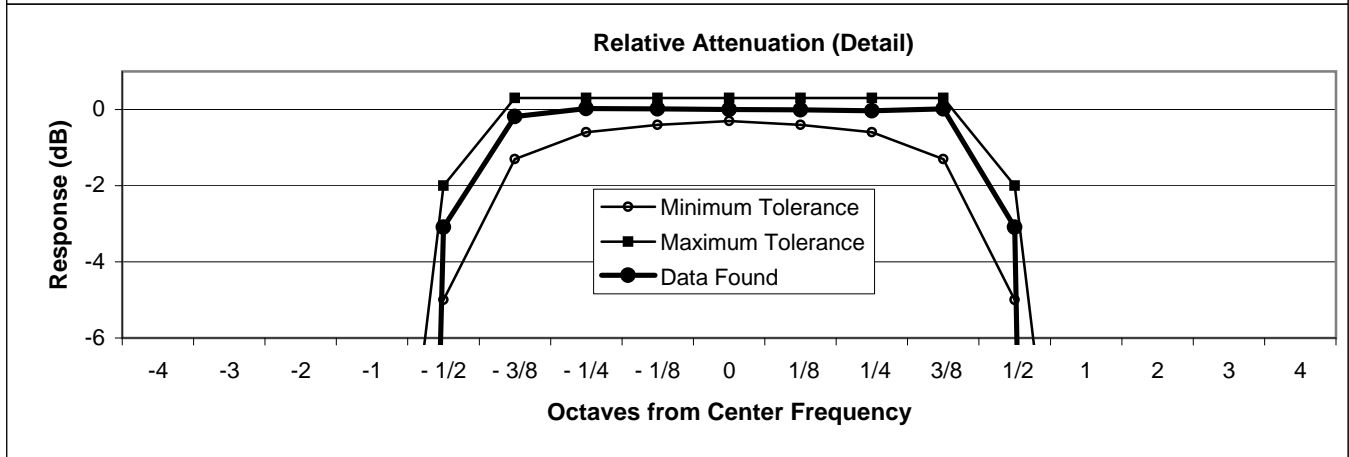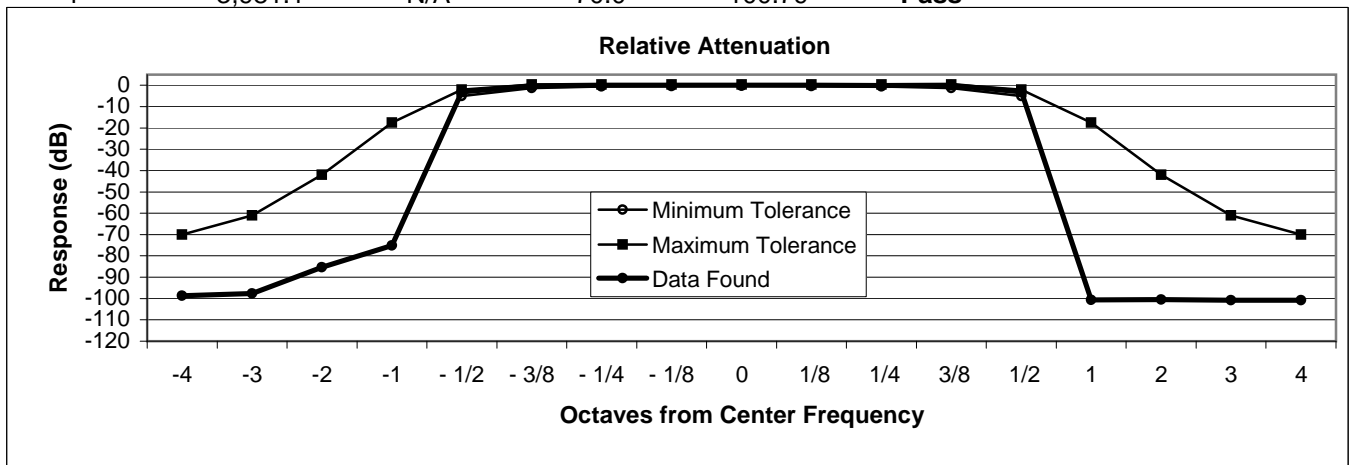
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	4.0	N/A	-70.0	-100.89	**Pass**
-3	7.9	N/A	-61.0	-95.33	**Pass**
-2	15.8	N/A	-42.0	-85.24	**Pass**
-1	31.6	N/A	-17.5	-75.29	**Pass**
- 1/2	44.7	-5.0	-2.0	-3.11	**Pass**
- 3/8	48.7	-1.3	0.3	-0.20	**Pass**
- 1/4	53.1	-0.6	0.3	0.04	**Pass**
- 1/8	57.9	-0.4	0.3	0.03	**Pass**
0	63.1	-0.3	0.3	0.00	**Pass**
1/8	68.8	-0.4	0.3	0.04	**Pass**
1/4	75.0	-0.6	0.3	0.03	**Pass**
3/8	81.8	-1.3	0.3	0.01	**Pass**
1/2	89.1	-5.0	-2.0	-3.10	**Pass**
1	125.9	N/A	-17.5	-101.61	**Pass**
2	251.2	N/A	-42.0	-103.34	**Pass**
3	501.2	N/A	-61.0	-104.44	**Pass**
4	1,000.0	N/A	-70.0	-103.86	**Pass**

The table title is **1/1 Octave - 63 Hz**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
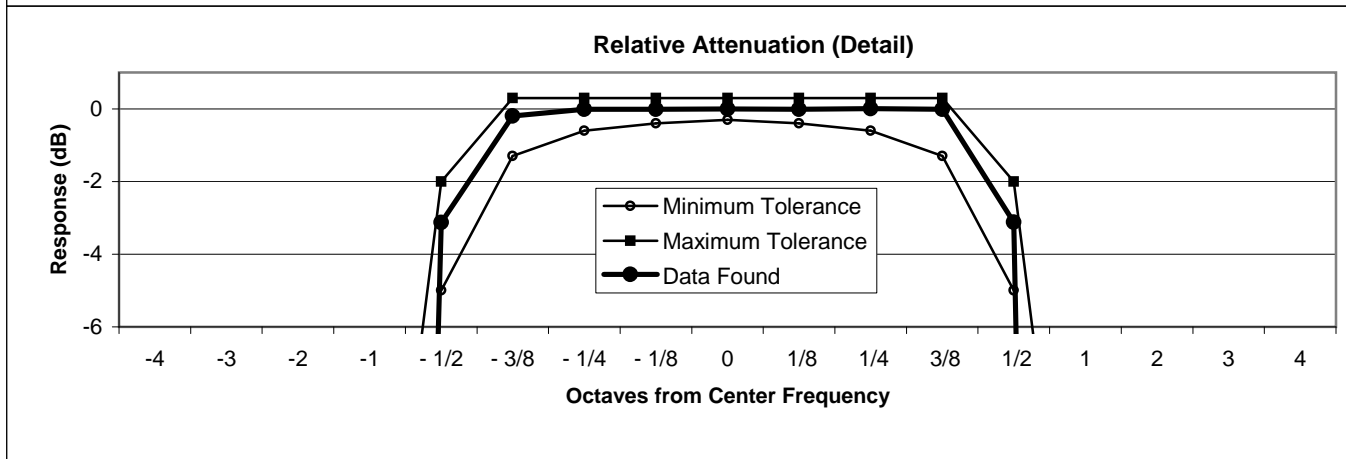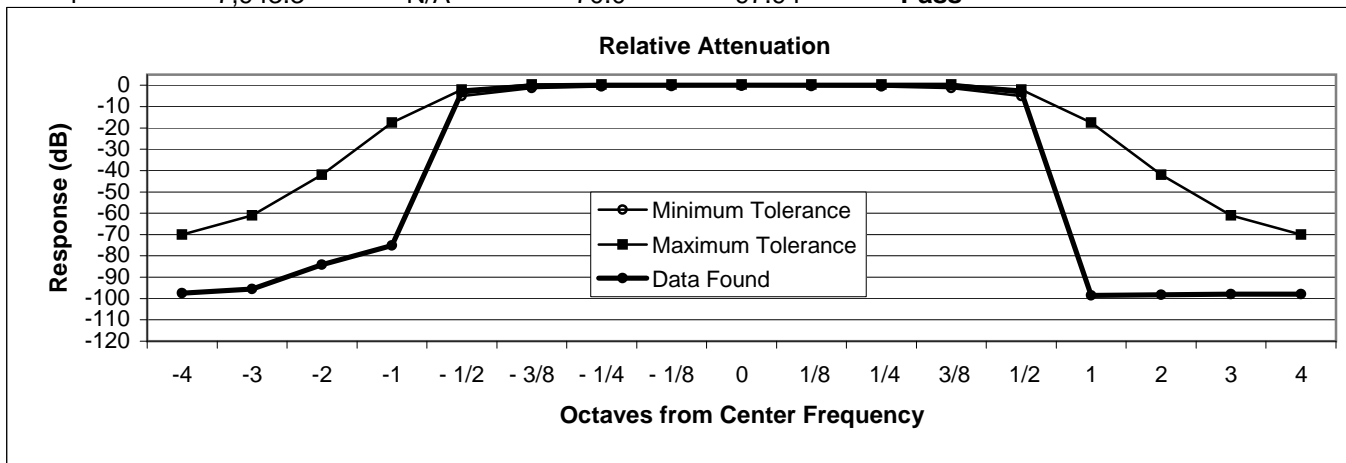Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/1 Octave - 125 Hz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	7.9	N/A	-70.0	-100.53	**Pass**
-3	15.8	N/A	-61.0	-98.87	**Pass**
-2	31.6	N/A	-42.0	-85.54	**Pass**
-1	63.1	N/A	-17.5	-75.43	**Pass**
- 1/2	89.1	-5.0	-2.0	-3.18	**Pass**
- 3/8	97.2	-1.3	0.3	-0.28	**Pass**
- 1/4	105.9	-0.6	0.3	-0.04	**Pass**
- 1/8	115.5	-0.4	0.3	0.00	**Pass**
0	125.9	-0.3	0.3	0.00	**Pass**
1/8	137.2	-0.4	0.3	0.01	**Pass**
1/4	149.6	-0.6	0.3	0.00	**Pass**
3/8	163.1	-1.3	0.3	0.00	**Pass**
1/2	177.8	-5.0	-2.0	-3.13	**Pass**
1	251.2	N/A	-17.5	-102.85	**Pass**
2	501.2	N/A	-42.0	-102.63	**Pass**
3	1,000.0	N/A	-61.0	-102.54	**Pass**
4	1,995.3	N/A	-70.0	-102.99	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency

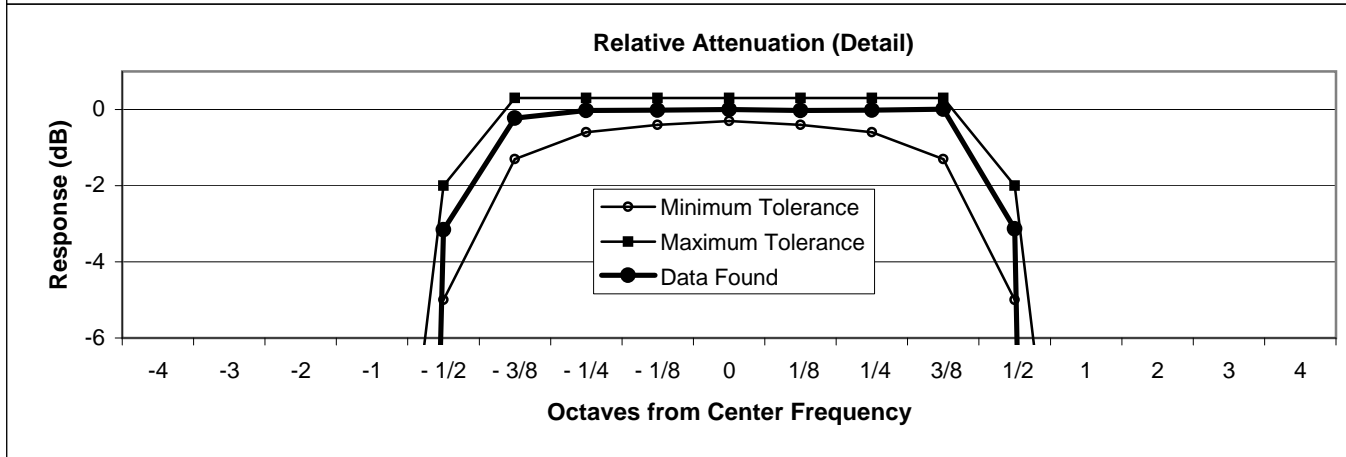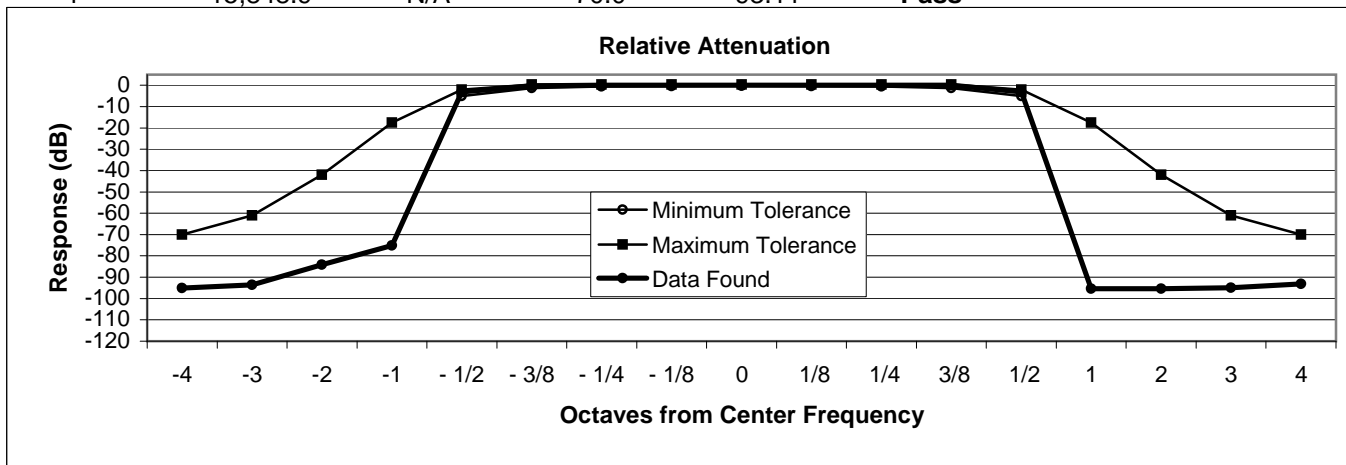

Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

1/1 Octave - 250 Hz

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Pass/Fail
-4	15.8	N/A	-70.0	-98.65	**Pass**
-3	31.6	N/A	-61.0	-97.69	**Pass**
-2	63.1	N/A	-42.0	-85.26	**Pass**
-1	125.9	N/A	-17.5	-75.09	**Pass**
- 1/2	177.8	-5.0	-2.0	-3.09	**Pass**
- 3/8	193.9	-1.3	0.3	-0.18	**Pass**
- 1/4	211.3	-0.6	0.3	0.03	**Pass**
- 1/8	230.4	-0.4	0.3	0.01	**Pass**
0	251.2	-0.3	0.3	0.00	**Pass**
1/8	273.8	-0.4	0.3	-0.01	**Pass**
1/4	298.5	-0.6	0.3	-0.03	**Pass**
3/8	325.5	-1.3	0.3	0.02	**Pass**
1/2	354.8	-5.0	-2.0	-3.09	**Pass**
1	501.2	N/A	-17.5	-100.61	**Pass**
2	1,000.0	N/A	-42.0	-100.48	**Pass**
3	1,995.3	N/A	-61.0	-100.78	**Pass**
4	3,981.1	N/A	-70.0	-100.79	**Pass**

Relative Attenuation
Response (dB)
0
-10
-20
-30
-40
-50
-60
-70
-80
-90
-100
-110
-120
Minimum Tolerance
Maximum Tolerance
Data Found
-4
-3
-2
-1
- 1/2
- 3/8
- 1/4
- 1/8
0
1/8
1/4
3/8
1/2
1
2
3
4
Octaves from Center Frequency

Relative Attenuation (Detail)
Response (dB)
0
-2
-4
-6
Minimum Tolerance
Maximum Tolerance
Data Found
-4
-3
-2
-1
- 1/2
- 3/8
- 1/4
- 1/8
0
1/8
1/4
3/8
1/2
1
2
3
4
Octaves from Center Frequency

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
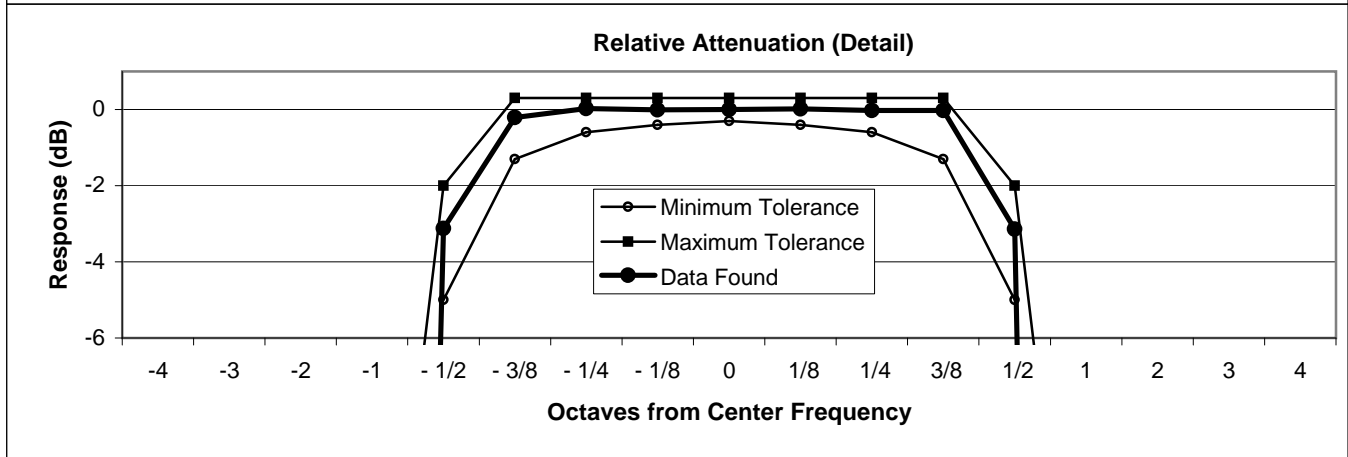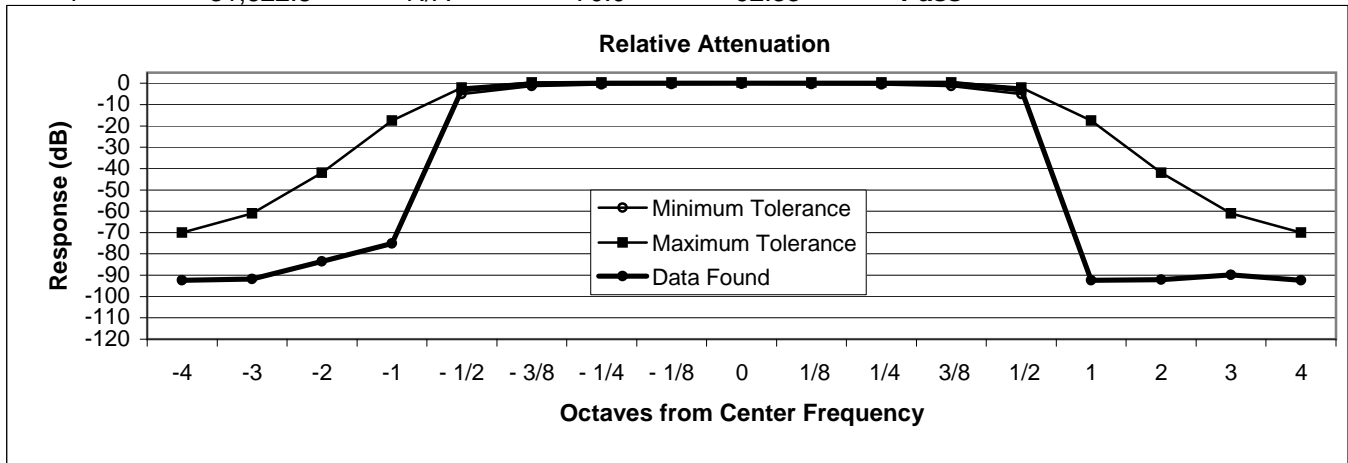
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

		1/1 Octave - 500 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	31.6	N/A	-70.0	-97.47	**Pass**
-3	63.1	N/A	-61.0	-95.55	**Pass**
-2	125.9	N/A	-42.0	-84.16	**Pass**
-1	251.2	N/A	-17.5	-75.08	**Pass**
- 1/2	354.8	-5.0	-2.0	-3.13	**Pass**
- 3/8	386.8	-1.3	0.3	-0.20	**Pass**
- 1/4	421.7	-0.6	0.3	-0.01	**Pass**
- 1/8	459.7	-0.4	0.3	-0.01	**Pass**
0	501.2	-0.3	0.3	0.00	**Pass**
1/8	546.4	-0.4	0.3	-0.01	**Pass**
1/4	595.7	-0.6	0.3	0.01	**Pass**
3/8	649.4	-1.3	0.3	-0.01	**Pass**
1/2	707.9	-5.0	-2.0	-3.12	**Pass**
1	1,000.0	N/A	-17.5	-98.58	**Pass**
2	1,995.3	N/A	-42.0	-98.18	**Pass**
3	3,981.1	N/A	-61.0	-97.91	**Pass**
4	7,943.3	N/A	-70.0	-97.94	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
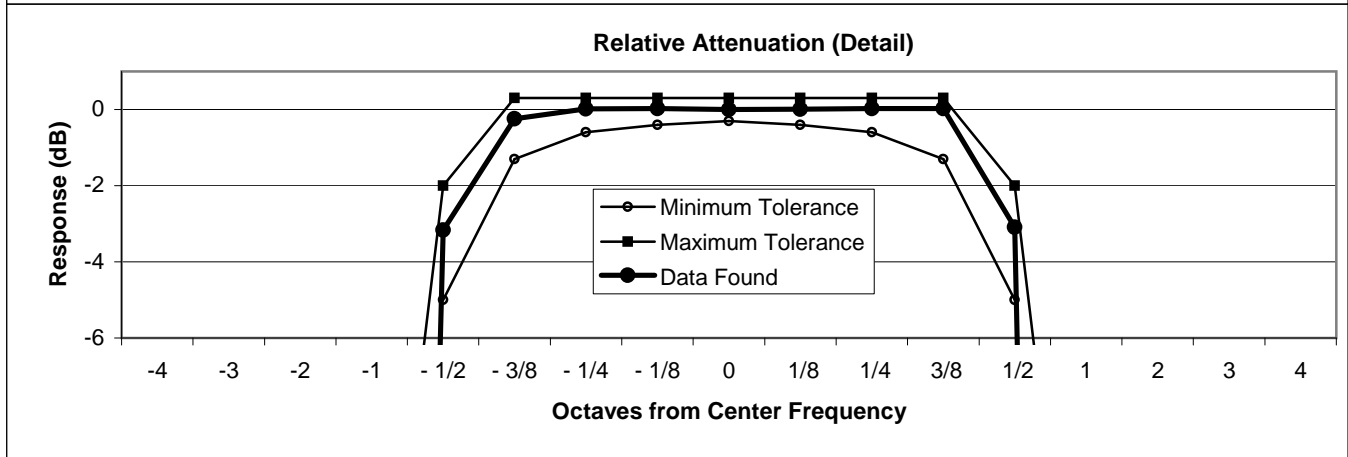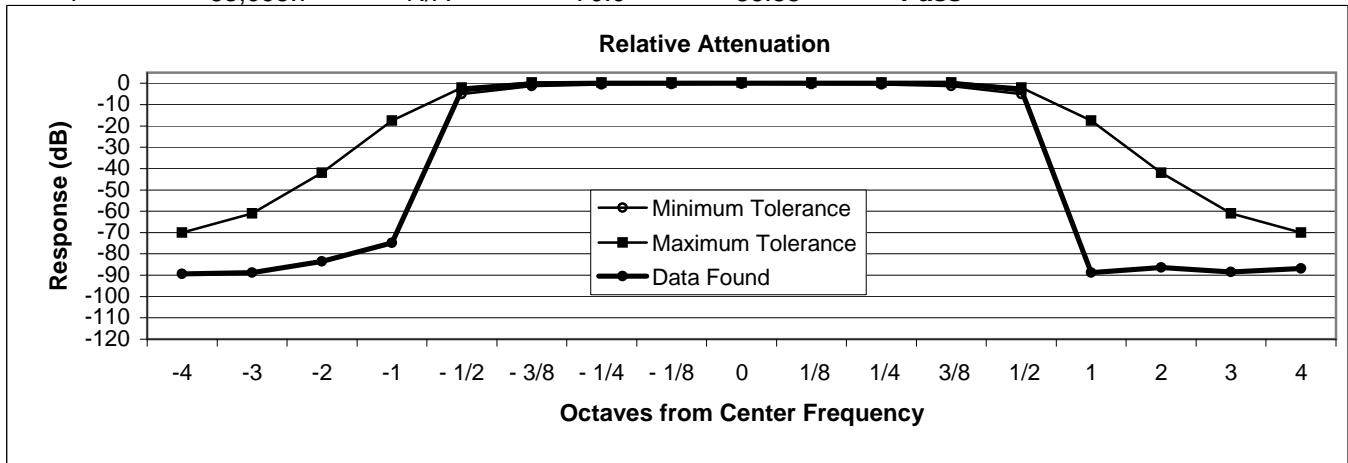Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	63.1	N/A	-70.0	-95.15	**Pass**
-3	125.9	N/A	-61.0	-93.66	**Pass**
-2	251.2	N/A	-42.0	-84.18	**Pass**
-1	501.2	N/A	-17.5	-75.11	**Pass**
- 1/2	707.9	-5.0	-2.0	-3.16	**Pass**
- 3/8	771.8	-1.3	0.3	-0.23	**Pass**
- 1/4	841.4	-0.6	0.3	-0.03	**Pass**
- 1/8	917.3	-0.4	0.3	-0.02	**Pass**
0	1,000.0	-0.3	0.3	0.00	**Pass**
1/8	1,090.2	-0.4	0.3	-0.03	**Pass**
1/4	1,188.5	-0.6	0.3	-0.02	**Pass**
3/8	1,295.7	-1.3	0.3	0.01	**Pass**
1/2	1,412.5	-5.0	-2.0	-3.14	**Pass**
1	1,995.3	N/A	-17.5	-95.35	**Pass**
2	3,981.1	N/A	-42.0	-95.35	**Pass**
3	7,943.3	N/A	-61.0	-94.99	**Pass**
4	15,848.9	N/A	-70.0	-93.11	**Pass**

The table title is **1/1 Octave - 1 kHz**.

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
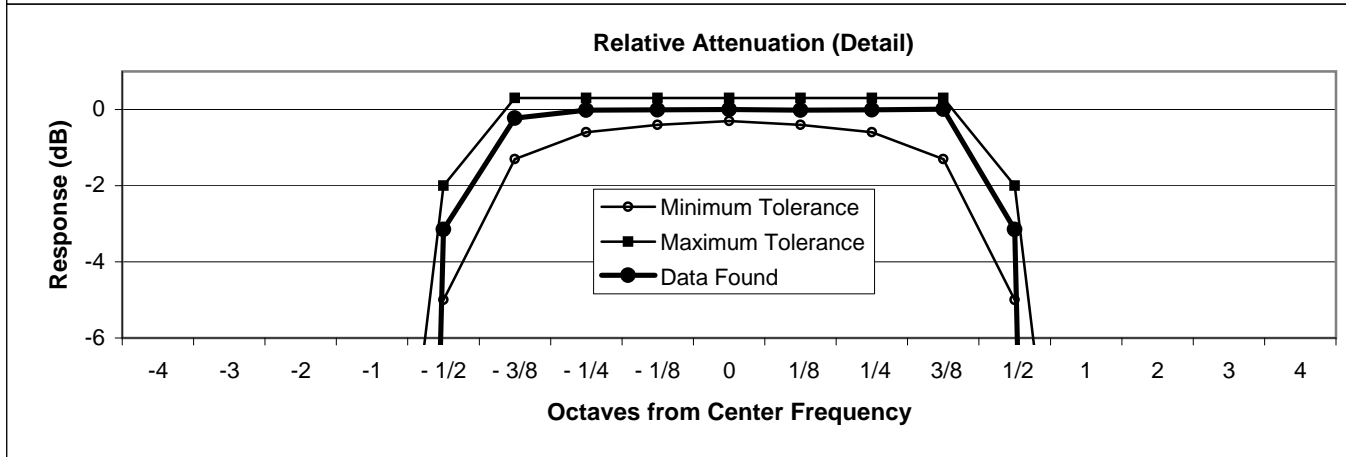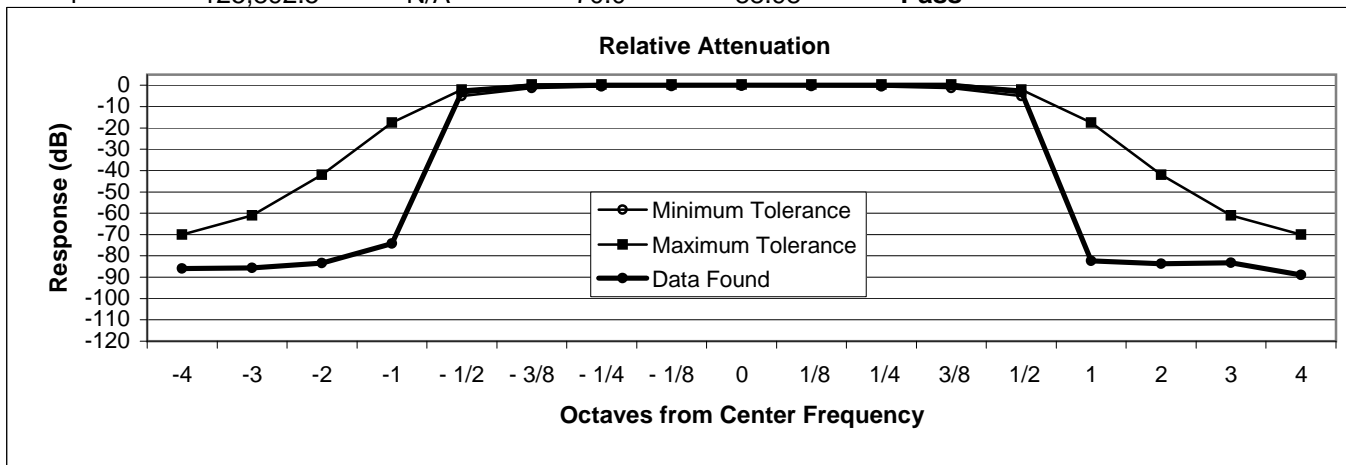Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/1 Octave - 2 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB)		Data Found (dB)	Pass/Fail
		Minimum	Maximum		
-4	125.9	N/A	-70.0	-92.44	**Pass**
-3	251.2	N/A	-61.0	-91.80	**Pass**
-2	501.2	N/A	-42.0	-83.48	**Pass**
-1	1,000.0	N/A	-17.5	-75.07	**Pass**
- 1/2	1,412.5	-5.0	-2.0	-3.13	**Pass**
- 3/8	1,539.9	-1.3	0.3	-0.21	**Pass**
- 1/4	1,678.8	-0.6	0.3	0.03	**Pass**
- 1/8	1,830.2	-0.4	0.3	-0.01	**Pass**
0	1,995.3	-0.3	0.3	0.00	**Pass**
1/8	2,175.2	-0.4	0.3	0.02	**Pass**
1/4	2,371.4	-0.6	0.3	-0.03	**Pass**
3/8	2,585.2	-1.3	0.3	-0.02	**Pass**
1/2	2,818.4	-5.0	-2.0	-3.14	**Pass**
1	3,981.1	N/A	-17.5	-92.43	**Pass**
2	7,943.3	N/A	-42.0	-92.14	**Pass**
3	15,848.9	N/A	-61.0	-89.88	**Pass**
4	31,622.8	N/A	-70.0	-92.33	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
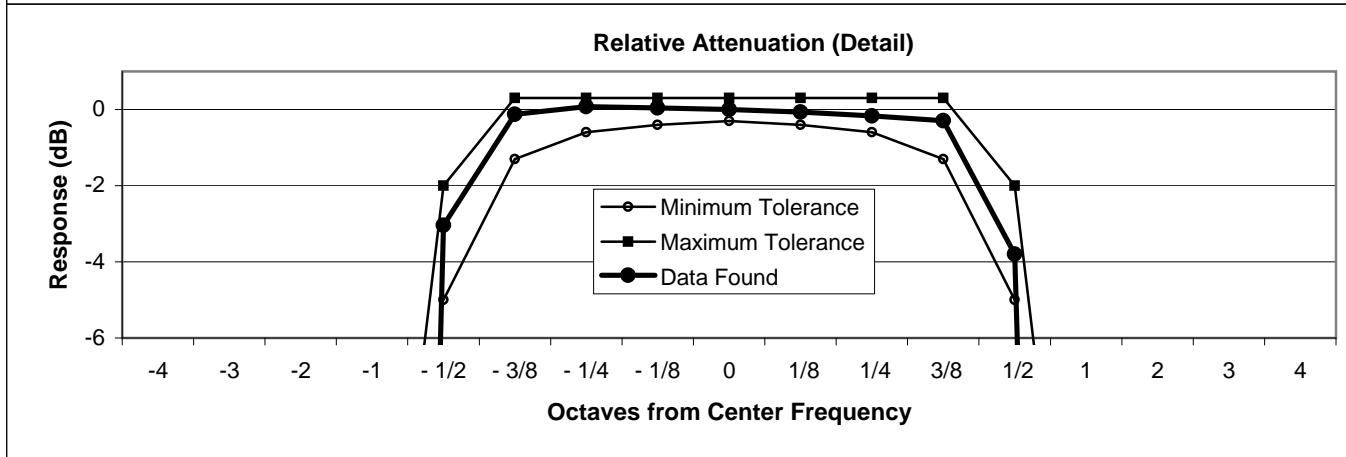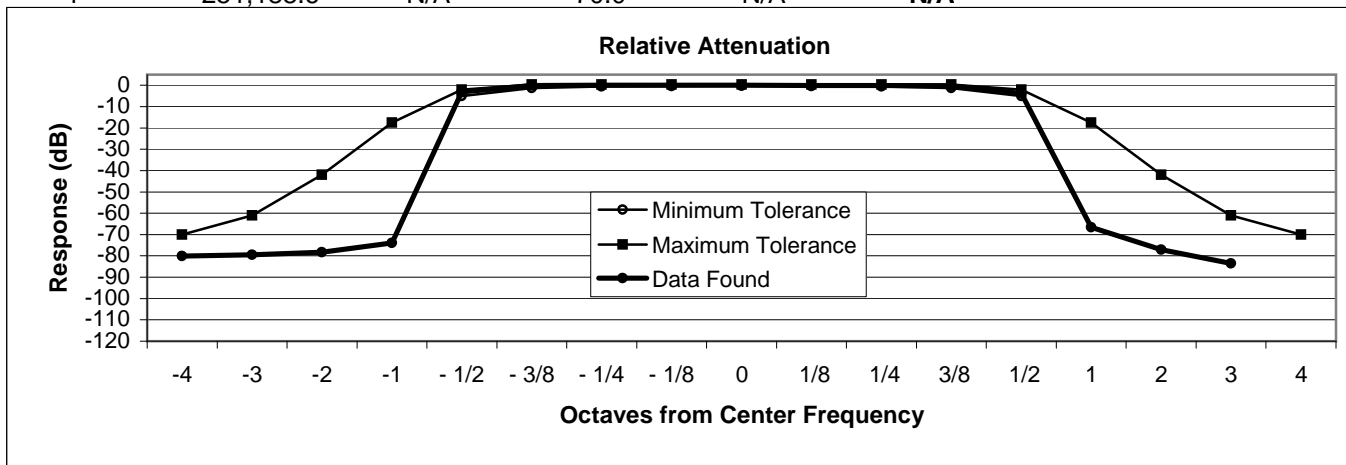Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	251.2	N/A	-70.0	-89.44	**Pass**
-3	501.2	N/A	-61.0	-88.84	**Pass**
-2	1,000.0	N/A	-42.0	-83.48	**Pass**
-1	1,995.3	N/A	-17.5	-74.78	**Pass**
- 1/2	2,818.4	-5.0	-2.0	-3.17	**Pass**
- 3/8	3,072.6	-1.3	0.3	-0.24	**Pass**
- 1/4	3,349.7	-0.6	0.3	0.01	**Pass**
- 1/8	3,651.7	-0.4	0.3	0.03	**Pass**
0	3,981.1	-0.3	0.3	0.00	**Pass**
1/8	4,340.1	-0.4	0.3	0.01	**Pass**
1/4	4,731.5	-0.6	0.3	0.03	**Pass**
3/8	5,158.2	-1.3	0.3	0.03	**Pass**
1/2	5,623.4	-5.0	-2.0	-3.09	**Pass**
1	7,943.3	N/A	-17.5	-88.76	**Pass**
2	15,848.9	N/A	-42.0	-86.35	**Pass**
3	31,622.8	N/A	-61.0	-88.54	**Pass**
4	63,095.7	N/A	-70.0	-86.88	**Pass**

<div align="center">1/1 Octave - 4 kHz</div>

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
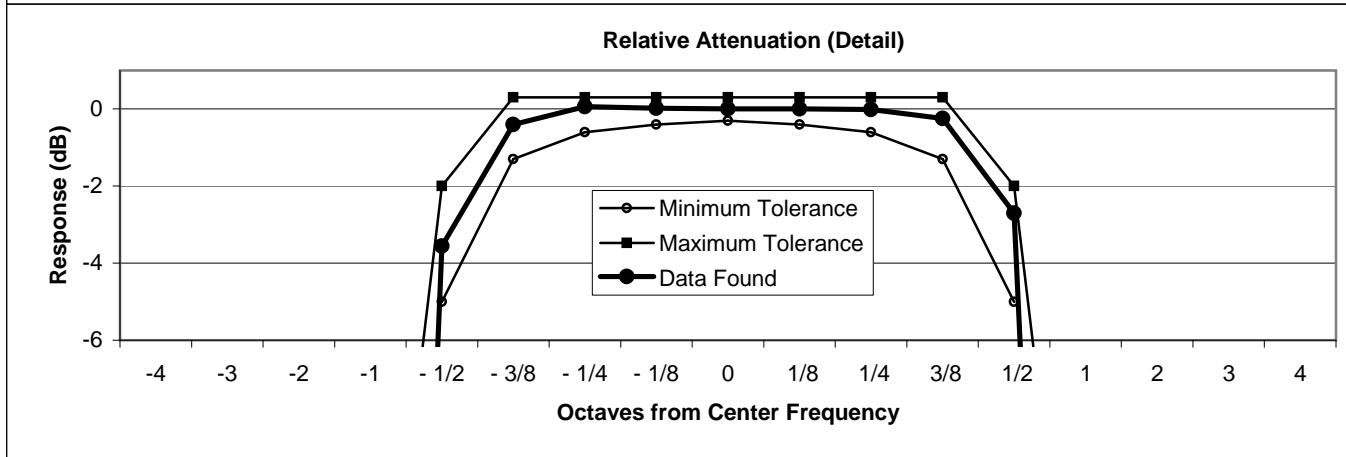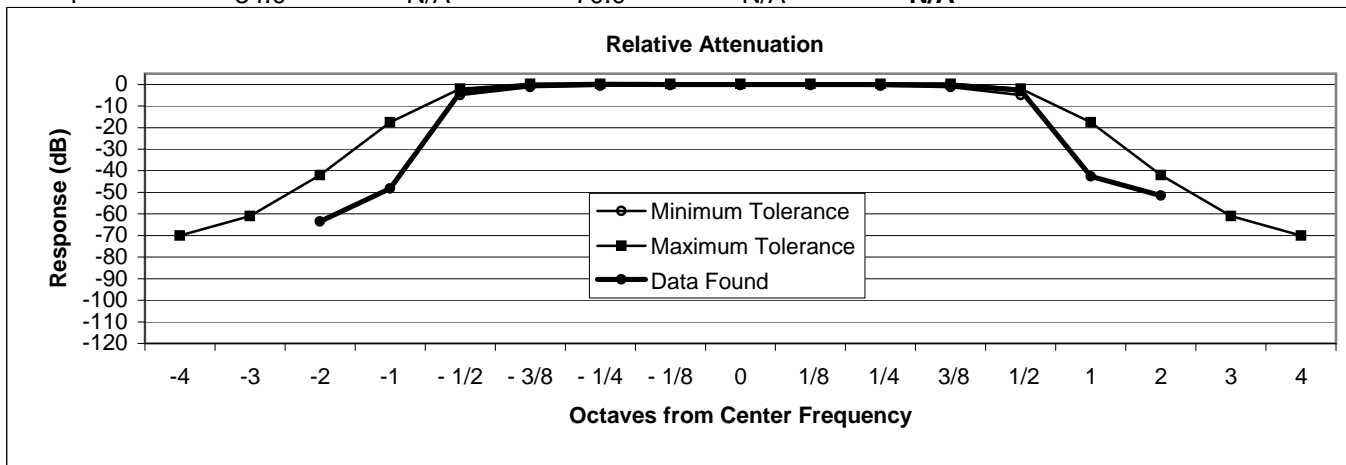Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/1 Octave - 8 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	501.2	N/A	-70.0	-85.95	**Pass**
-3	1,000.0	N/A	-61.0	-85.70	**Pass**
-2	1,995.3	N/A	-42.0	-83.40	**Pass**
-1	3,981.1	N/A	-17.5	-74.20	**Pass**
- 1/2	5,623.4	-5.0	-2.0	-3.15	**Pass**
- 3/8	6,130.6	-1.3	0.3	-0.22	**Pass**
- 1/4	6,683.4	-0.6	0.3	-0.02	**Pass**
- 1/8	7,286.2	-0.4	0.3	-0.01	**Pass**
0	7,943.3	-0.3	0.3	0.00	**Pass**
1/8	8,659.6	-0.4	0.3	-0.02	**Pass**
1/4	9,440.6	-0.6	0.3	-0.01	**Pass**
3/8	10,292.0	-1.3	0.3	0.00	**Pass**
1/2	11,220.2	-5.0	-2.0	-3.15	**Pass**
1	15,848.9	N/A	-17.5	-82.31	**Pass**
2	31,622.8	N/A	-42.0	-83.64	**Pass**
3	63,095.7	N/A	-61.0	-83.26	**Pass**
4	125,892.5	N/A	-70.0	-88.98	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.
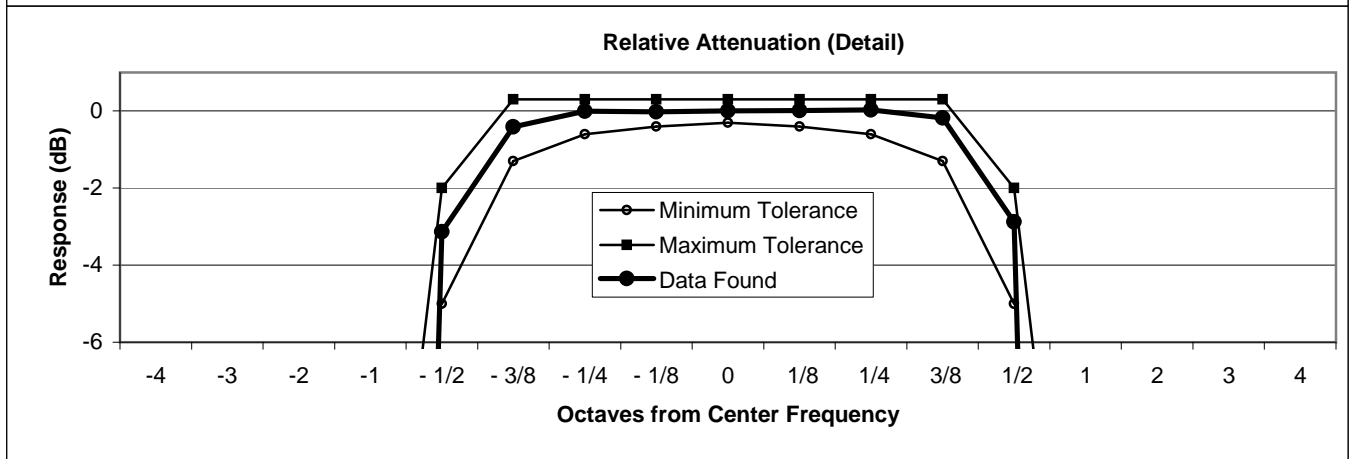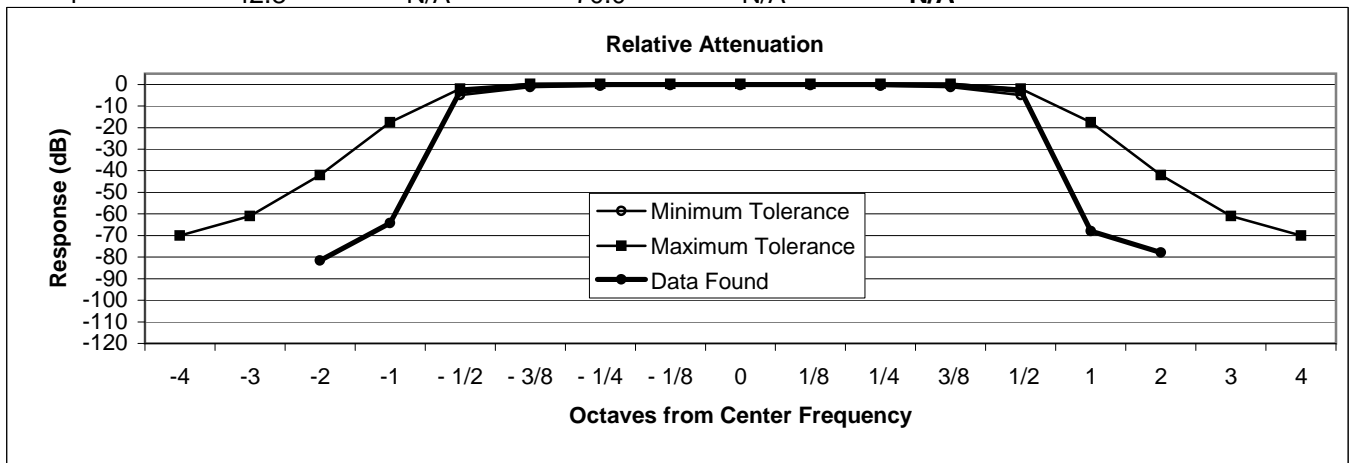
Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/1 Octave - 16 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	1,000.0	N/A	-70.0	-80.02	**Pass**
-3	1,995.3	N/A	-61.0	-79.56	**Pass**
-2	3,981.1	N/A	-42.0	-78.35	**Pass**
-1	7,943.3	N/A	-17.5	-73.86	**Pass**
- 1/2	11,220.2	-5.0	-2.0	-3.04	**Pass**
- 3/8	12,232.1	-1.3	0.3	-0.13	**Pass**
- 1/4	13,335.2	-0.6	0.3	0.08	**Pass**
- 1/8	14,537.8	-0.4	0.3	0.04	**Pass**
0	15,848.9	-0.3	0.3	0.00	**Pass**
1/8	17,278.3	-0.4	0.3	-0.06	**Pass**
1/4	18,836.5	-0.6	0.3	-0.17	**Pass**
3/8	20,535.3	-1.3	0.3	-0.30	**Pass**
1/2	22,387.2	-5.0	-2.0	-3.80	**Pass**
1	31,622.8	N/A	-17.5	-66.61	**Pass**
2	63,095.7	N/A	-42.0	-77.04	**Pass**
3	125,892.5	N/A	-61.0	-83.59	**Pass**
4	251,188.6	N/A	-70.0	N/A	**N/A**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
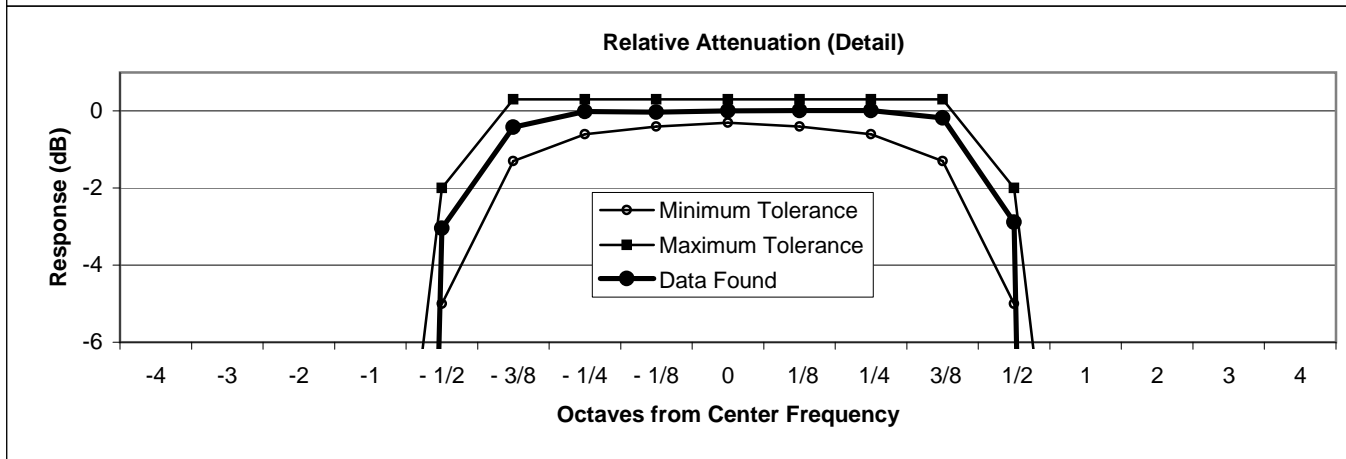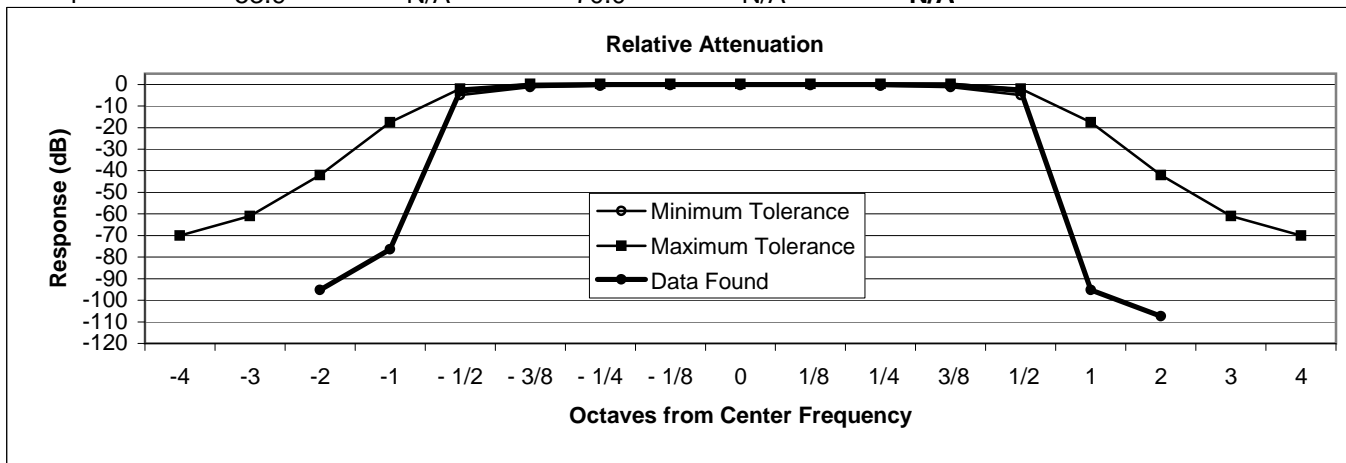
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

		1/3 Octave - 6.3 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	1.2	N/A	-70.0	N/A	**N/A**
-3	2.1	N/A	-61.0	N/A	**N/A**
-2	3.4	N/A	-42.0	-63.51	**Pass**
-1	4.9	N/A	-17.5	-48.27	**Pass**
- 1/2	5.6	-5.0	-2.0	-3.56	**Pass**
- 3/8	5.8	-1.3	0.3	-0.40	**Pass**
- 1/4	6.0	-0.6	0.3	0.06	**Pass**
- 1/8	6.1	-0.4	0.3	0.02	**Pass**
0	6.3	-0.3	0.3	0.01	**Pass**
1/8	6.5	-0.4	0.3	0.00	**Pass**
1/4	6.7	-0.6	0.3	-0.01	**Pass**
3/8	6.9	-1.3	0.3	-0.24	**Pass**
1/2	7.1	-5.0	-2.0	-2.70	**Pass**
1	8.2	N/A	-17.5	-42.64	**Pass**
2	11.9	N/A	-42.0	-51.43	**Pass**
3	19.3	N/A	-61.0	N/A	**N/A**
4	34.0	N/A	-70.0	N/A	**N/A**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
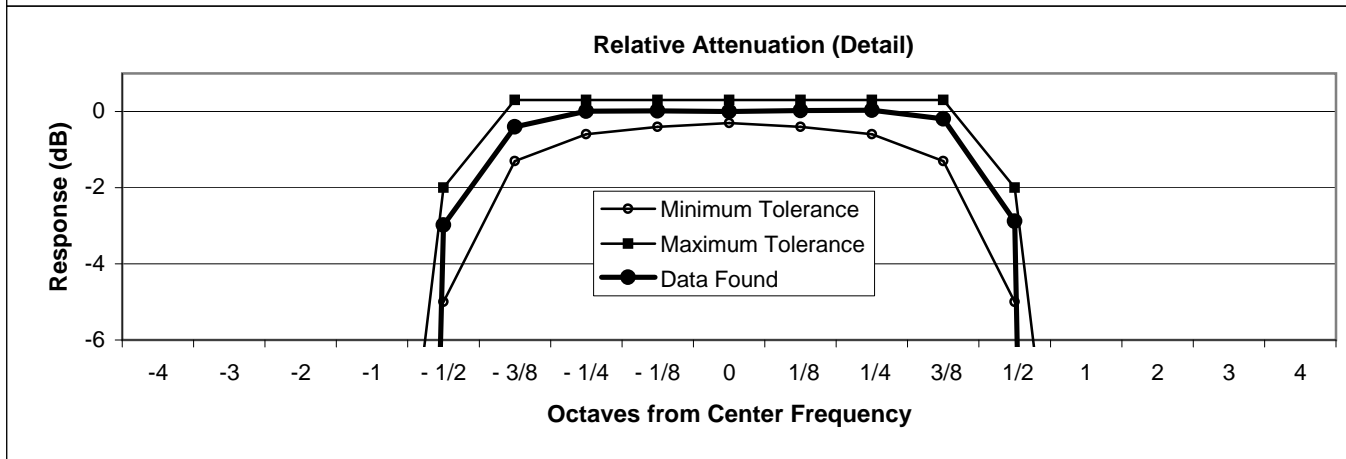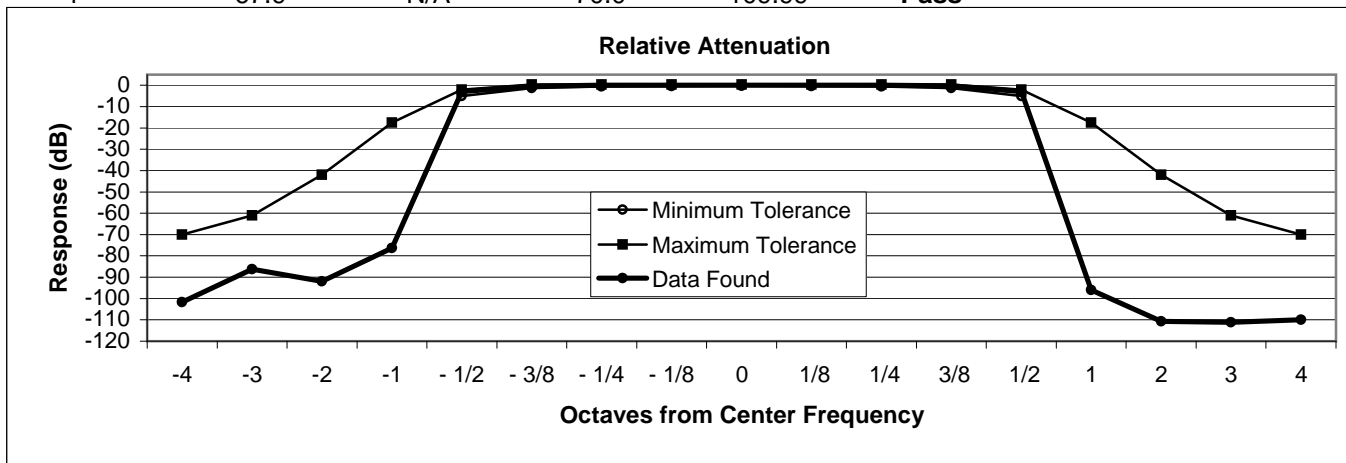Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 8 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	1.5	N/A	-70.0	N/A	**N/A**
-3	2.6	N/A	-61.0	N/A	**N/A**
-2	4.2	N/A	-42.0	-81.64	**Pass**
-1	6.1	N/A	-17.5	-64.30	**Pass**
- 1/2	7.1	-5.0	-2.0	-3.14	**Pass**
- 3/8	7.3	-1.3	0.3	-0.41	**Pass**
- 1/4	7.5	-0.6	0.3	-0.01	**Pass**
- 1/8	7.7	-0.4	0.3	-0.02	**Pass**
0	7.9	-0.3	0.3	0.00	**Pass**
1/8	8.2	-0.4	0.3	0.02	**Pass**
1/4	8.4	-0.6	0.3	0.03	**Pass**
3/8	8.6	-1.3	0.3	-0.18	**Pass**
1/2	8.9	-5.0	-2.0	-2.88	**Pass**
1	10.3	N/A	-17.5	-67.91	**Pass**
2	14.9	N/A	-42.0	-77.89	**Pass**
3	24.3	N/A	-61.0	N/A	**N/A**
4	42.8	N/A	-70.0	N/A	**N/A**

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
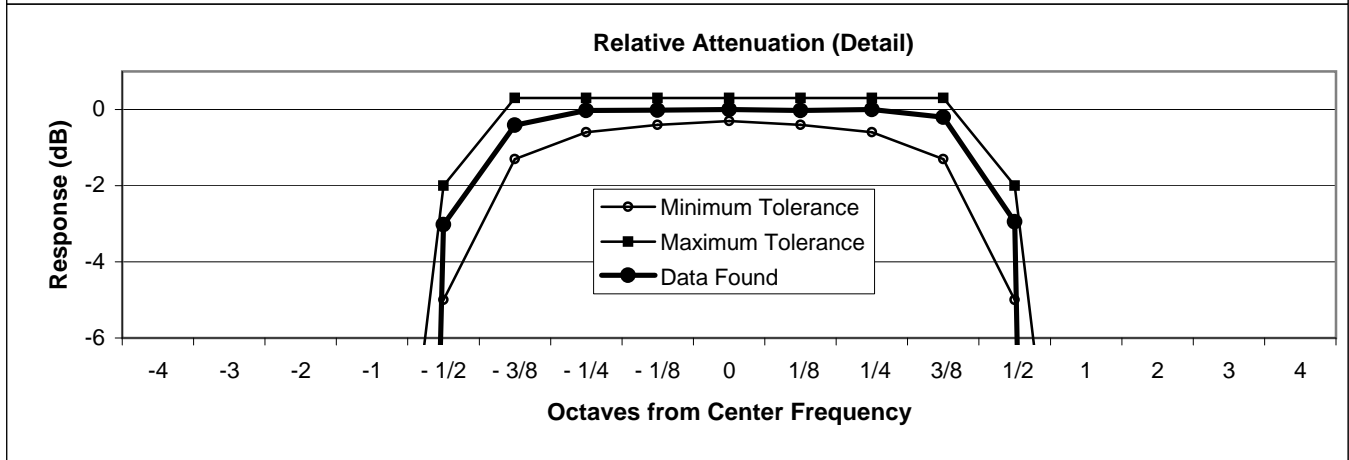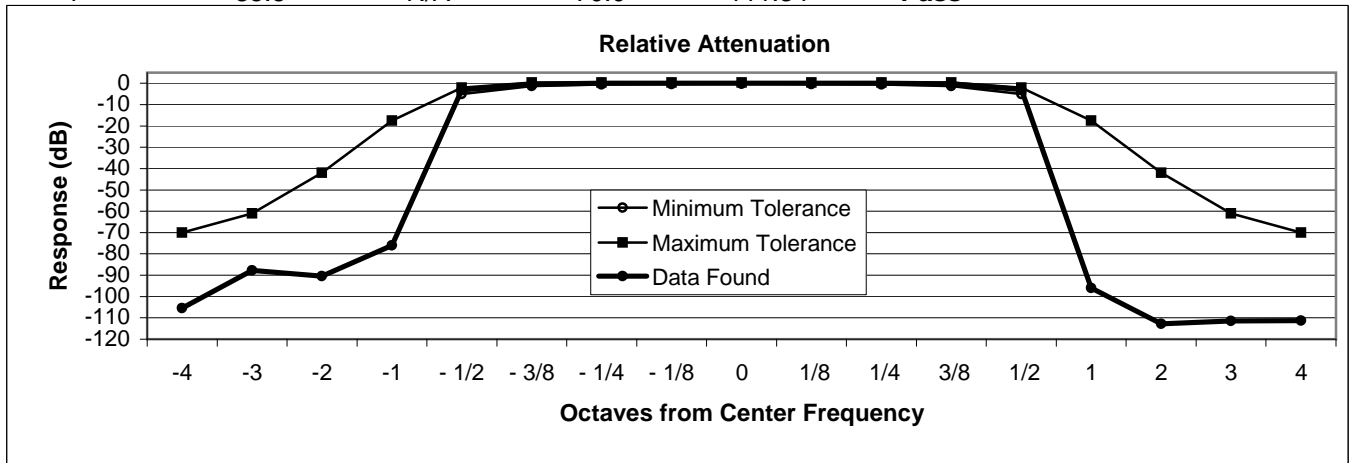Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 10 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	1.9	N/A	-70.0	N/A	**N/A**
-3	3.3	N/A	-61.0	N/A	**N/A**
-2	5.3	N/A	-42.0	-95.28	**Pass**
-1	7.7	N/A	-17.5	-76.47	**Pass**
- 1/2	8.9	-5.0	-2.0	-3.04	**Pass**
- 3/8	9.2	-1.3	0.3	-0.42	**Pass**
- 1/4	9.5	-0.6	0.3	-0.01	**Pass**
- 1/8	9.7	-0.4	0.3	-0.03	**Pass**
0	10.0	-0.3	0.3	0.00	**Pass**
1/8	10.3	-0.4	0.3	0.01	**Pass**
1/4	10.6	-0.6	0.3	0.01	**Pass**
3/8	10.9	-1.3	0.3	-0.18	**Pass**
1/2	11.2	-5.0	-2.0	-2.88	**Pass**
1	12.9	N/A	-17.5	-95.29	**Pass**
2	18.8	N/A	-42.0	-107.32	**Pass**
3	30.5	N/A	-61.0	N/A	**N/A**
4	53.9	N/A	-70.0	N/A	**N/A**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
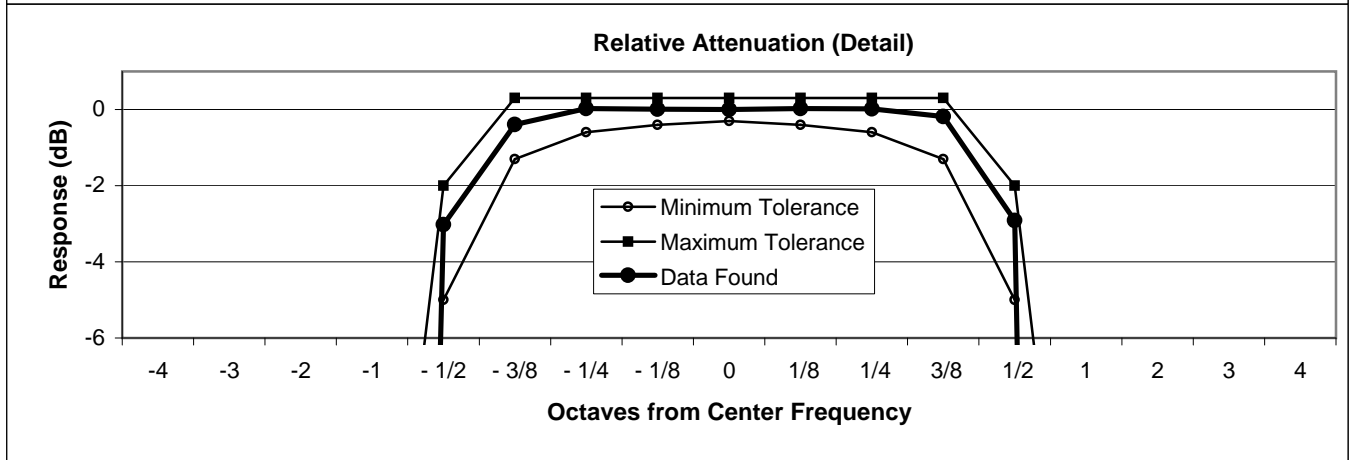Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 12.5 Hz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	2.3	N/A	-70.0	-101.63	**Pass**
-3	4.1	N/A	-61.0	-86.29	**Pass**
-2	6.7	N/A	-42.0	-91.97	**Pass**
-1	9.7	N/A	-17.5	-76.29	**Pass**
- 1/2	11.2	-5.0	-2.0	-2.99	**Pass**
- 3/8	11.6	-1.3	0.3	-0.41	**Pass**
- 1/4	11.9	-0.6	0.3	0.01	**Pass**
- 1/8	12.3	-0.4	0.3	0.02	**Pass**
0	12.6	-0.3	0.3	0.00	**Pass**
1/8	12.9	-0.4	0.3	0.02	**Pass**
1/4	13.3	-0.6	0.3	0.04	**Pass**
3/8	13.7	-1.3	0.3	-0.19	**Pass**
1/2	14.1	-5.0	-2.0	-2.88	**Pass**
1	16.3	N/A	-17.5	-96.06	**Pass**
2	23.7	N/A	-42.0	-110.71	**Pass**
3	38.4	N/A	-61.0	-111.09	**Pass**
4	67.9	N/A	-70.0	-109.99	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
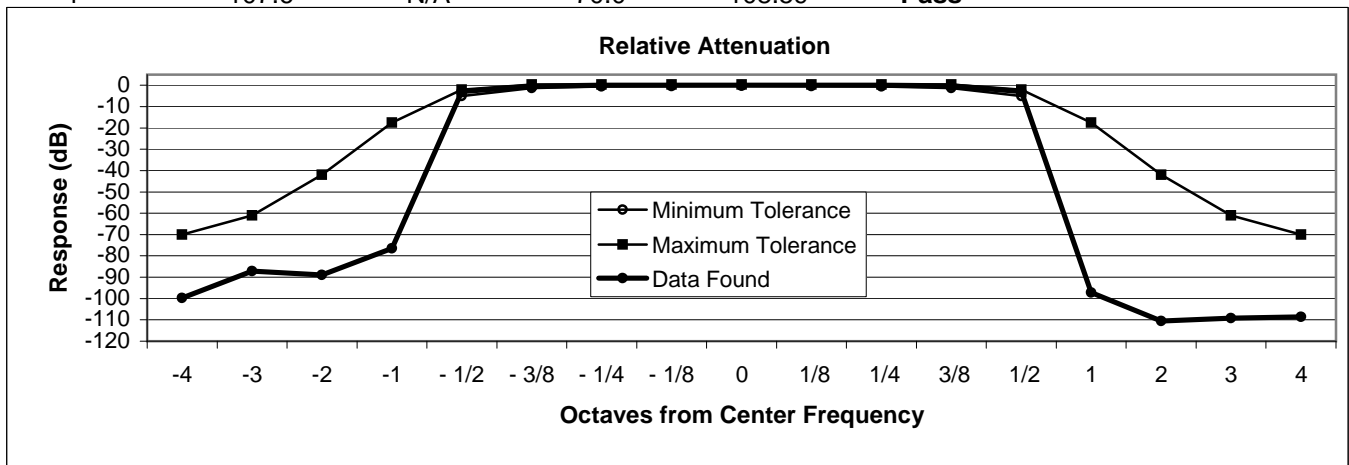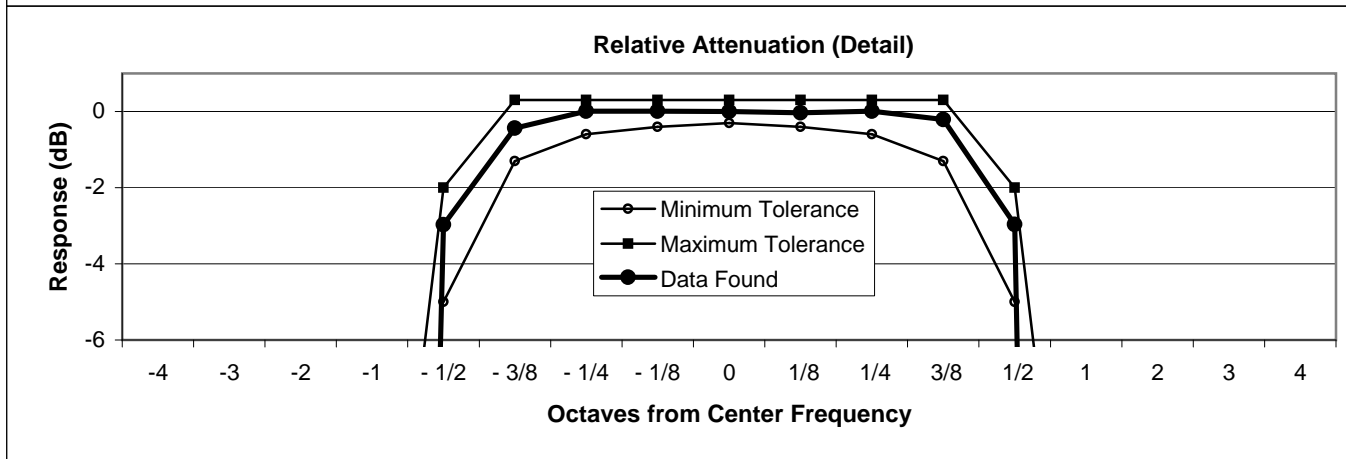
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

1/3 Octave - 16 Hz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	2.9	N/A	-70.0	-105.48	**Pass**
-3	5.2	N/A	-61.0	-87.71	**Pass**
-2	8.4	N/A	-42.0	-90.46	**Pass**
-1	12.2	N/A	-17.5	-76.11	**Pass**
- 1/2	14.1	-5.0	-2.0	-3.03	**Pass**
- 3/8	14.6	-1.3	0.3	-0.42	**Pass**
- 1/4	15.0	-0.6	0.3	-0.02	**Pass**
- 1/8	15.4	-0.4	0.3	-0.01	**Pass**
0	15.8	-0.3	0.3	0.00	**Pass**
1/8	16.3	-0.4	0.3	-0.02	**Pass**
1/4	16.7	-0.6	0.3	0.00	**Pass**
3/8	17.2	-1.3	0.3	-0.20	**Pass**
1/2	17.8	-5.0	-2.0	-2.95	**Pass**
1	20.5	N/A	-17.5	-95.94	**Pass**
2	29.8	N/A	-42.0	-112.79	**Pass**
3	48.4	N/A	-61.0	-111.49	**Pass**
4	85.5	N/A	-70.0	-111.34	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
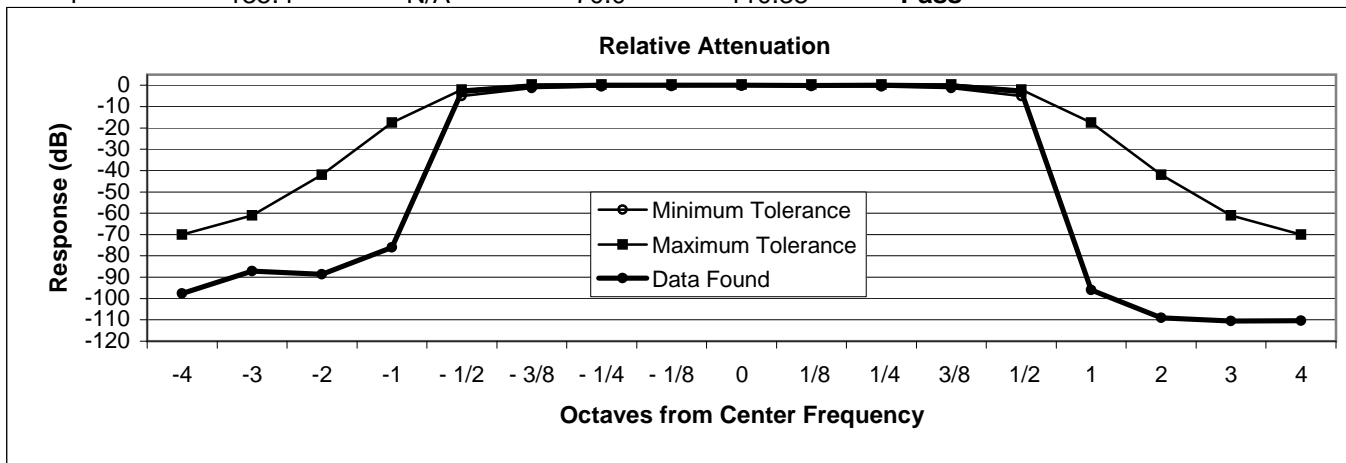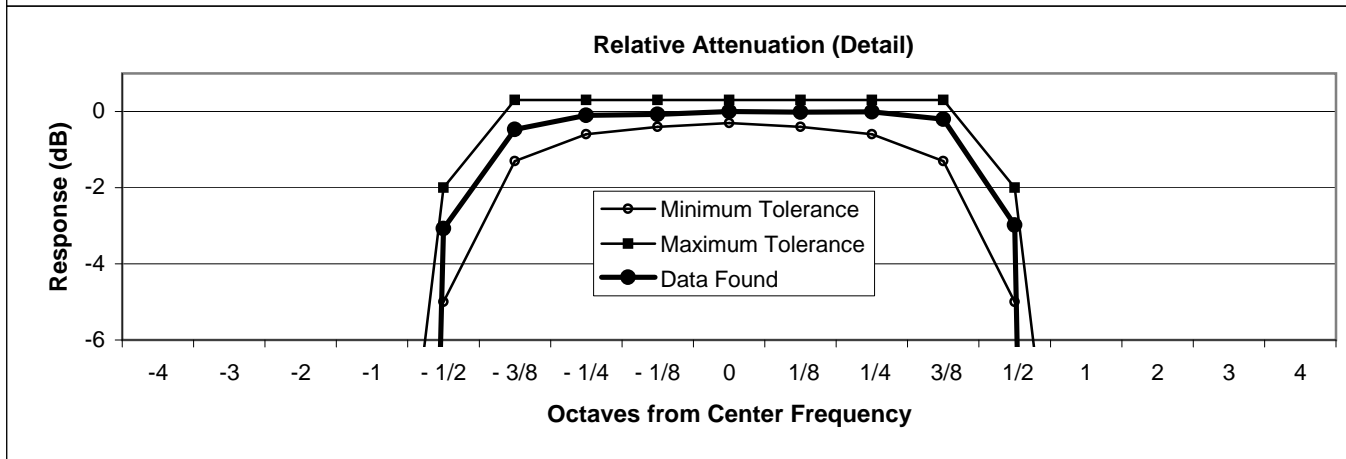Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 20 Hz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	3.7	N/A	-70.0	-99.75	**Pass**
-3	6.5	N/A	-61.0	-87.07	**Pass**
-2	10.6	N/A	-42.0	-88.90	**Pass**
-1	15.4	N/A	-17.5	-76.44	**Pass**
- 1/2	17.8	-5.0	-2.0	-3.02	**Pass**
- 3/8	18.3	-1.3	0.3	-0.40	**Pass**
- 1/4	18.9	-0.6	0.3	0.03	**Pass**
- 1/8	19.4	-0.4	0.3	0.01	**Pass**
0	20.0	-0.3	0.3	0.00	**Pass**
1/8	20.5	-0.4	0.3	0.02	**Pass**
1/4	21.1	-0.6	0.3	0.02	**Pass**
3/8	21.7	-1.3	0.3	-0.18	**Pass**
1/2	22.4	-5.0	-2.0	-2.91	**Pass**
1	25.8	N/A	-17.5	-97.12	**Pass**
2	37.5	N/A	-42.0	-110.60	**Pass**
3	60.9	N/A	-61.0	-109.19	**Pass**
4	107.6	N/A	-70.0	-108.59	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
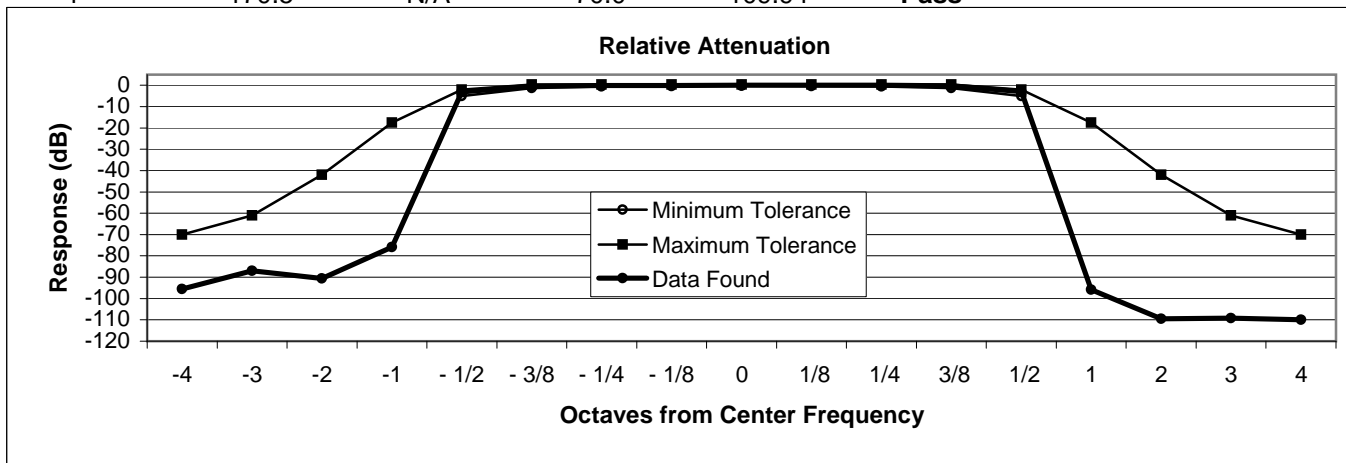Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 25 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	4.7	N/A	-70.0	-97.57	**Pass**
-3	8.2	N/A	-61.0	-87.19	**Pass**
-2	13.3	N/A	-42.0	-88.71	**Pass**
-1	19.4	N/A	-17.5	-76.03	**Pass**
- 1/2	22.4	-5.0	-2.0	-2.98	**Pass**
- 3/8	23.1	-1.3	0.3	-0.44	**Pass**
- 1/4	23.8	-0.6	0.3	0.01	**Pass**
- 1/8	24.5	-0.4	0.3	0.01	**Pass**
0	25.1	-0.3	0.3	0.00	**Pass**
1/8	25.8	-0.4	0.3	-0.03	**Pass**
1/4	26.5	-0.6	0.3	0.00	**Pass**
3/8	27.3	-1.3	0.3	-0.21	**Pass**
1/2	28.2	-5.0	-2.0	-2.97	**Pass**
1	32.5	N/A	-17.5	-95.98	**Pass**
2	47.3	N/A	-42.0	-109.06	**Pass**
3	76.7	N/A	-61.0	-110.60	**Pass**
4	135.4	N/A	-70.0	-110.38	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
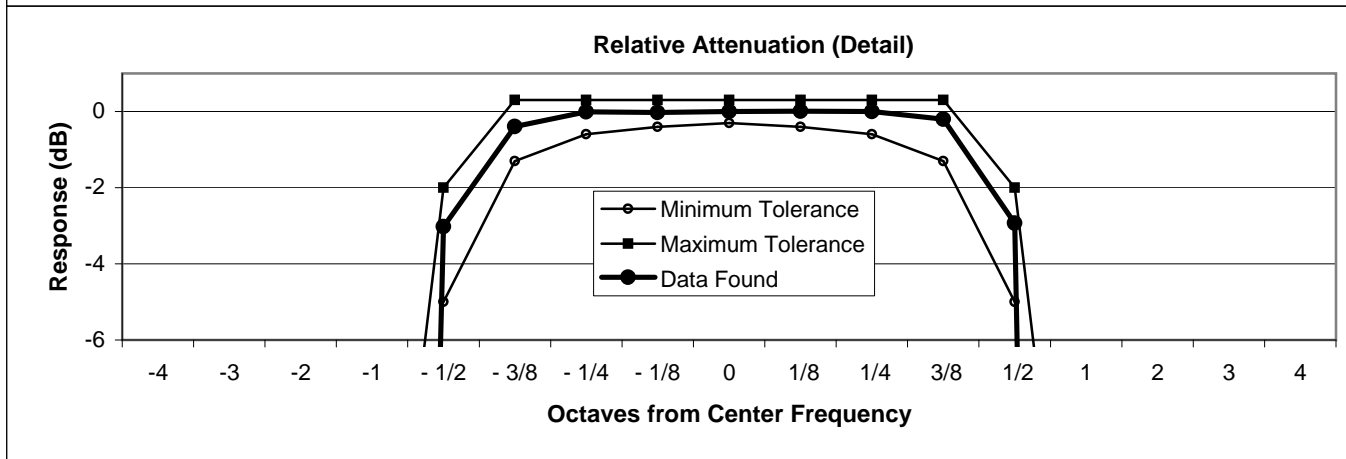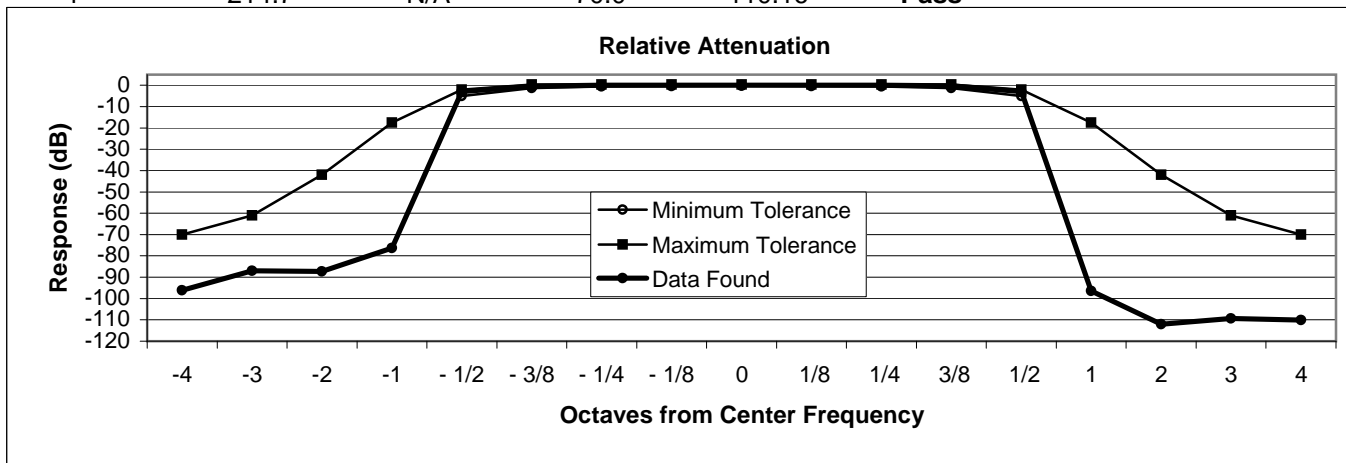
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

		1/3 Octave - 31.5 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	5.9	N/A	-70.0	-95.60	**Pass**
-3	10.4	N/A	-61.0	-86.97	**Pass**
-2	16.8	N/A	-42.0	-90.62	**Pass**
-1	24.4	N/A	-17.5	-75.90	**Pass**
- 1/2	28.2	-5.0	-2.0	-3.08	**Pass**
- 3/8	29.1	-1.3	0.3	-0.47	**Pass**
- 1/4	30.0	-0.6	0.3	-0.10	**Pass**
- 1/8	30.8	-0.4	0.3	-0.08	**Pass**
0	31.6	-0.3	0.3	0.00	**Pass**
1/8	32.5	-0.4	0.3	-0.02	**Pass**
1/4	33.4	-0.6	0.3	-0.01	**Pass**
3/8	34.4	-1.3	0.3	-0.20	**Pass**
1/2	35.5	-5.0	-2.0	-2.98	**Pass**
1	40.9	N/A	-17.5	-95.82	**Pass**
2	59.5	N/A	-42.0	-109.54	**Pass**
3	96.6	N/A	-61.0	-109.27	**Pass**
4	170.5	N/A	-70.0	-109.94	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
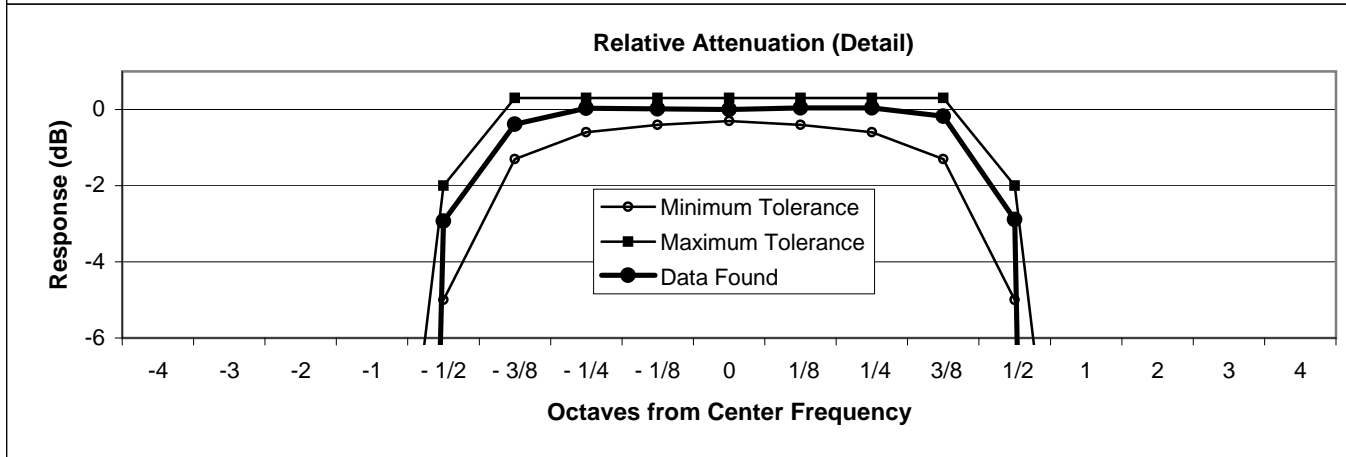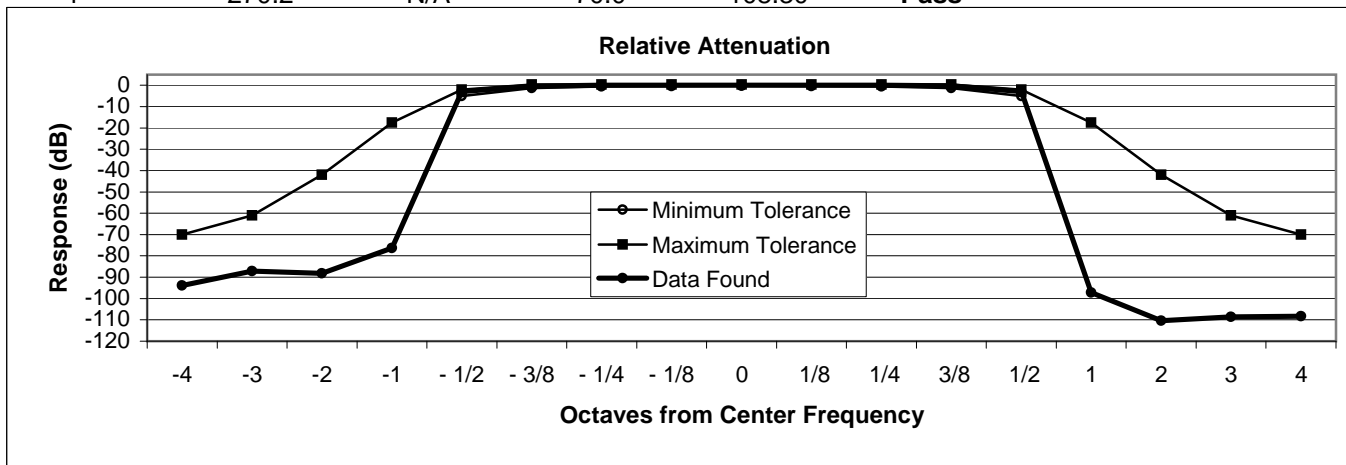Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Pass/Fail
-4	7.4	N/A	-70.0	-96.14	**Pass**
-3	13.0	N/A	-61.0	-86.93	**Pass**
-2	21.2	N/A	-42.0	-87.27	**Pass**
-1	30.8	N/A	-17.5	-76.28	**Pass**
- 1/2	35.5	-5.0	-2.0	-3.02	**Pass**
- 3/8	36.6	-1.3	0.3	-0.40	**Pass**
- 1/4	37.7	-0.6	0.3	-0.01	**Pass**
- 1/8	38.8	-0.4	0.3	-0.03	**Pass**
0	39.8	-0.3	0.3	0.00	**Pass**
1/8	40.9	-0.4	0.3	0.01	**Pass**
1/4	42.0	-0.6	0.3	0.00	**Pass**
3/8	43.3	-1.3	0.3	-0.20	**Pass**
1/2	44.7	-5.0	-2.0	-2.93	**Pass**
1	51.5	N/A	-17.5	-96.48	**Pass**
2	74.9	N/A	-42.0	-112.09	**Pass**
3	121.6	N/A	-61.0	-109.41	**Pass**
4	214.7	N/A	-70.0	-110.16	**Pass**

The table title is: **1/3 Octave - 40 Hz**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
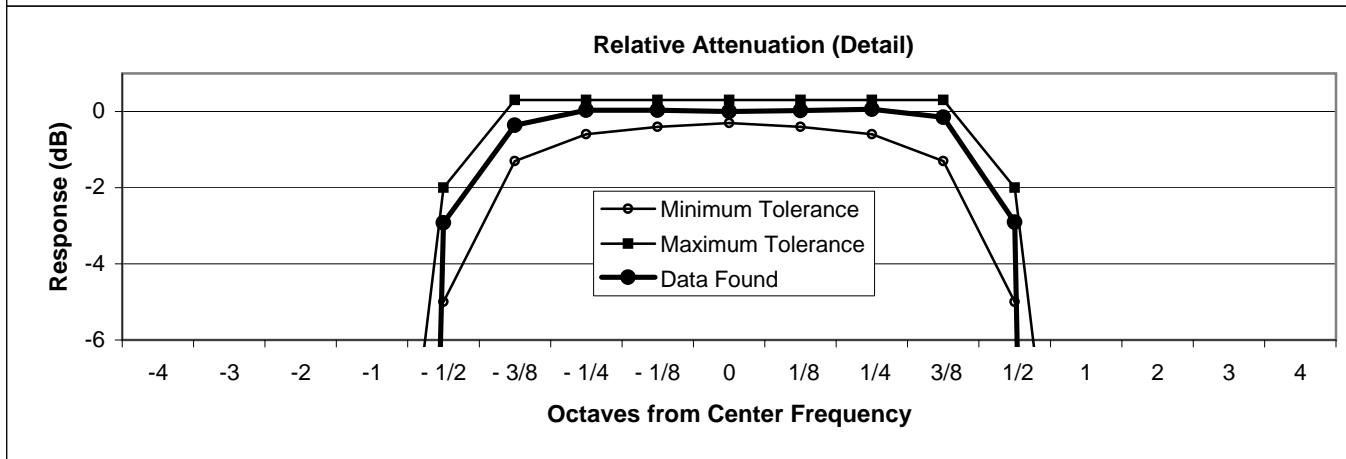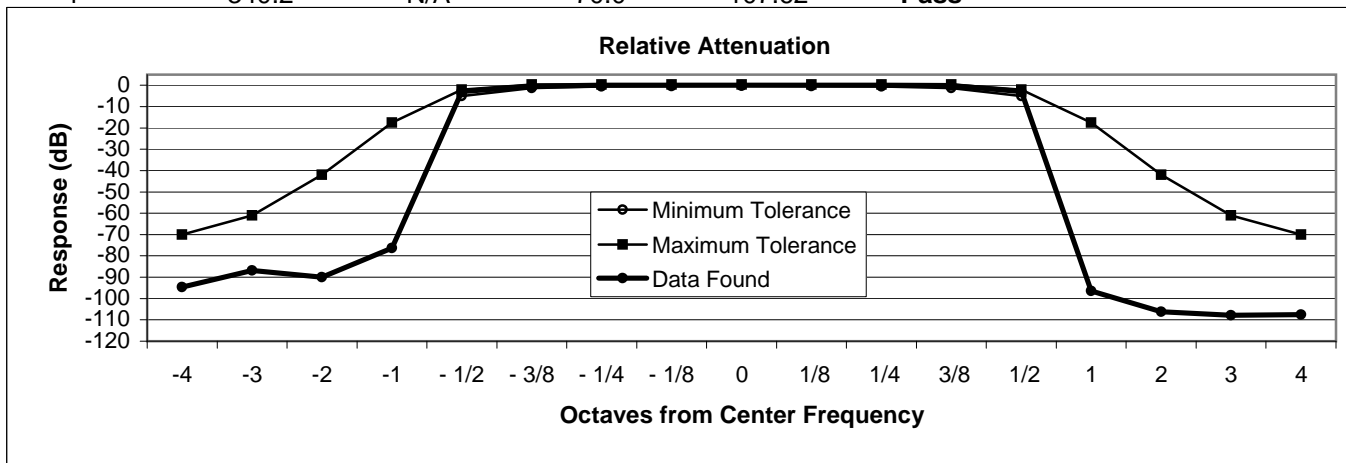Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 50 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	9.3	N/A	-70.0	-93.91	**Pass**
-3	16.4	N/A	-61.0	-87.12	**Pass**
-2	26.6	N/A	-42.0	-88.15	**Pass**
-1	38.7	N/A	-17.5	-76.37	**Pass**
- 1/2	44.7	-5.0	-2.0	-2.94	**Pass**
- 3/8	46.1	-1.3	0.3	-0.39	**Pass**
- 1/4	47.5	-0.6	0.3	0.04	**Pass**
- 1/8	48.8	-0.4	0.3	0.02	**Pass**
0	50.1	-0.3	0.3	0.00	**Pass**
1/8	51.5	-0.4	0.3	0.04	**Pass**
1/4	52.9	-0.6	0.3	0.04	**Pass**
3/8	54.5	-1.3	0.3	-0.18	**Pass**
1/2	56.2	-5.0	-2.0	-2.89	**Pass**
1	64.9	N/A	-17.5	-97.21	**Pass**
2	94.3	N/A	-42.0	-110.45	**Pass**
3	153.0	N/A	-61.0	-108.66	**Pass**
4	270.2	N/A	-70.0	-108.30	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
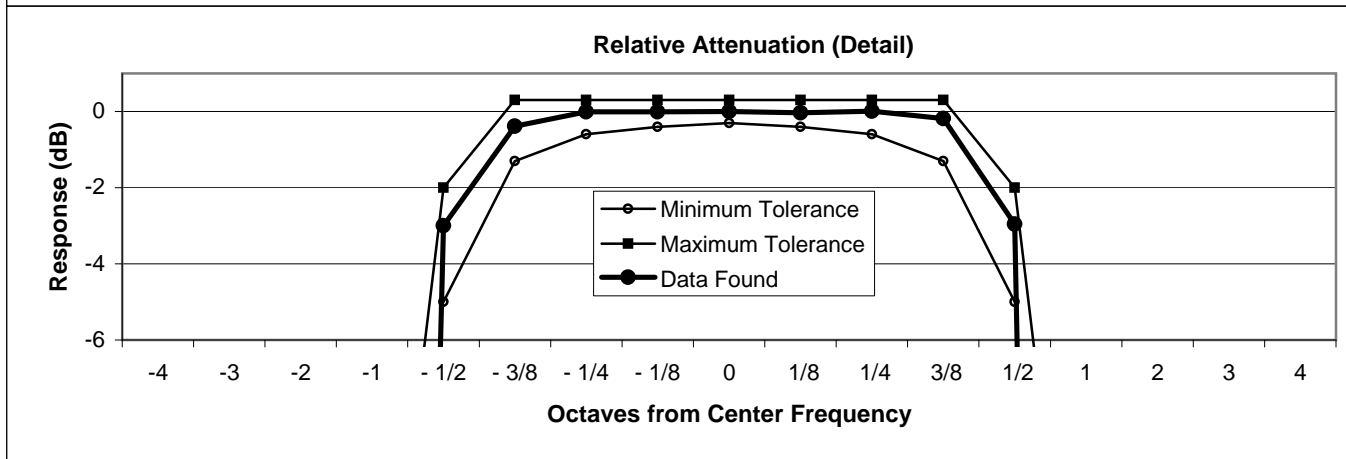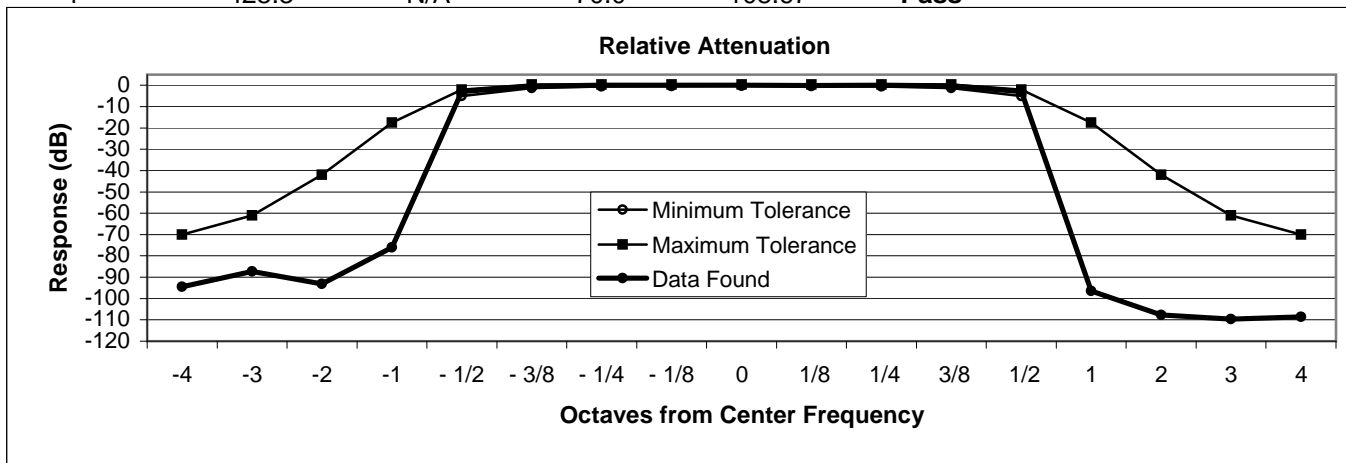Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 63 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	11.7	N/A	-70.0	-94.57	**Pass**
-3	20.7	N/A	-61.0	-86.79	**Pass**
-2	33.5	N/A	-42.0	-89.92	**Pass**
-1	48.7	N/A	-17.5	-76.31	**Pass**
- 1/2	56.2	-5.0	-2.0	-2.93	**Pass**
- 3/8	58.0	-1.3	0.3	-0.36	**Pass**
- 1/4	59.8	-0.6	0.3	0.03	**Pass**
- 1/8	61.5	-0.4	0.3	0.04	**Pass**
0	63.1	-0.3	0.3	0.00	**Pass**
1/8	64.8	-0.4	0.3	0.03	**Pass**
1/4	66.6	-0.6	0.3	0.05	**Pass**
3/8	68.6	-1.3	0.3	-0.15	**Pass**
1/2	70.8	-5.0	-2.0	-2.91	**Pass**
1	81.7	N/A	-17.5	-96.47	**Pass**
2	118.7	N/A	-42.0	-106.17	**Pass**
3	192.7	N/A	-61.0	-107.88	**Pass**
4	340.2	N/A	-70.0	-107.62	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
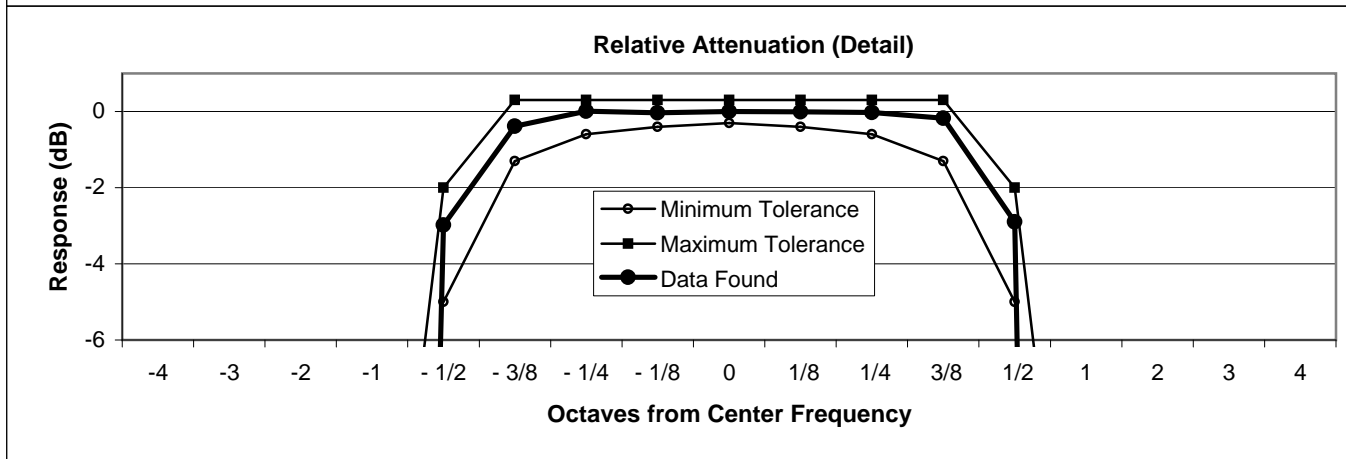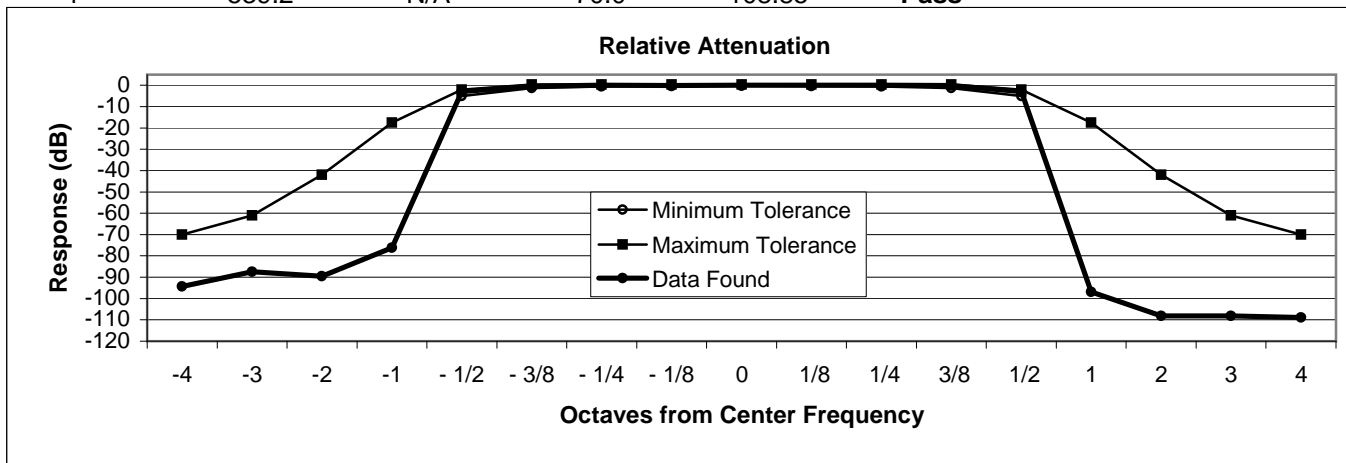Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 80 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	14.7	N/A	-70.0	-94.54	**Pass**
-3	26.0	N/A	-61.0	-87.33	**Pass**
-2	42.2	N/A	-42.0	-93.07	**Pass**
-1	61.4	N/A	-17.5	-76.06	**Pass**
- 1/2	70.8	-5.0	-2.0	-3.00	**Pass**
- 3/8	73.0	-1.3	0.3	-0.39	**Pass**
- 1/4	75.2	-0.6	0.3	-0.01	**Pass**
- 1/8	77.4	-0.4	0.3	-0.01	**Pass**
0	79.4	-0.3	0.3	0.00	**Pass**
1/8	81.6	-0.4	0.3	-0.03	**Pass**
1/4	83.9	-0.6	0.3	0.01	**Pass**
3/8	86.4	-1.3	0.3	-0.18	**Pass**
1/2	89.1	-5.0	-2.0	-2.96	**Pass**
1	102.8	N/A	-17.5	-96.48	**Pass**
2	149.5	N/A	-42.0	-107.64	**Pass**
3	242.6	N/A	-61.0	-109.69	**Pass**
4	428.3	N/A	-70.0	-108.67	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
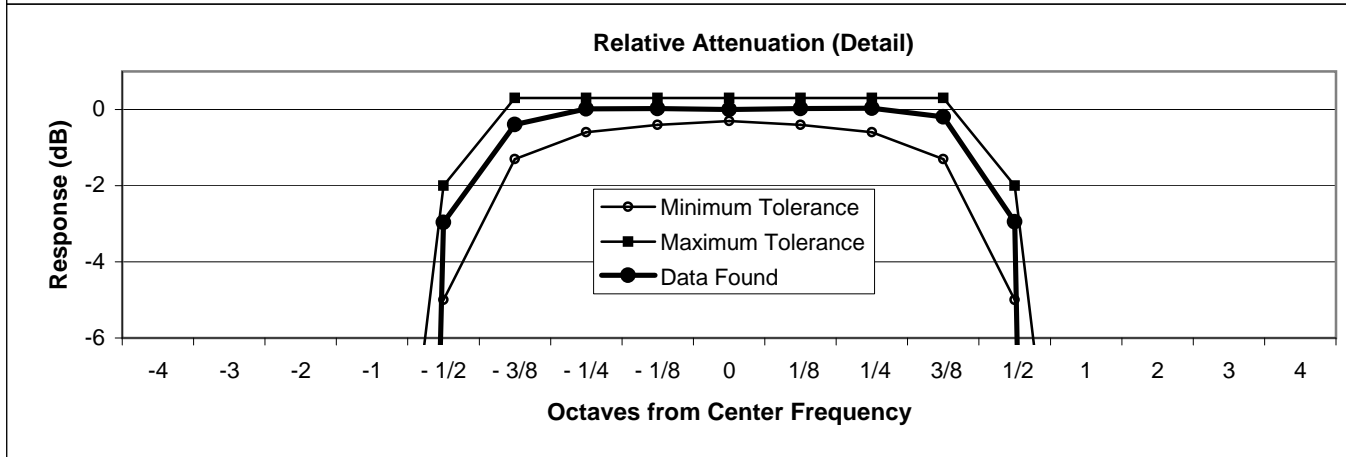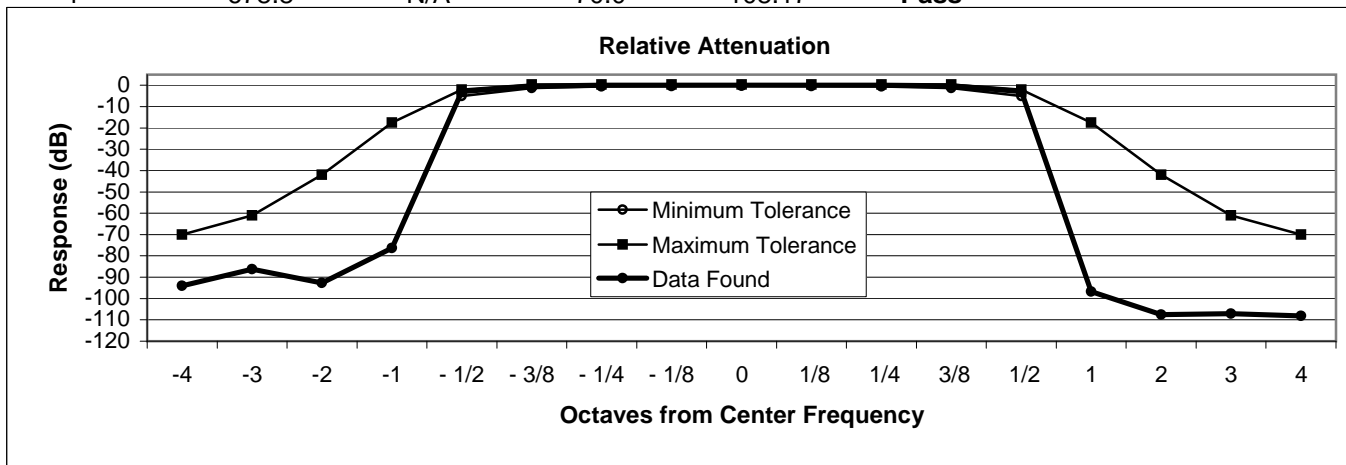Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 100 Hz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	18.5	N/A	-70.0	-94.33	**Pass**
-3	32.7	N/A	-61.0	-87.45	**Pass**
-2	53.1	N/A	-42.0	-89.58	**Pass**
-1	77.3	N/A	-17.5	-76.20	**Pass**
- 1/2	89.1	-5.0	-2.0	-2.98	**Pass**
- 3/8	92.0	-1.3	0.3	-0.39	**Pass**
- 1/4	94.7	-0.6	0.3	0.01	**Pass**
- 1/8	97.4	-0.4	0.3	-0.03	**Pass**
0	100.0	-0.3	0.3	0.00	**Pass**
1/8	102.7	-0.4	0.3	-0.01	**Pass**
1/4	105.6	-0.6	0.3	-0.02	**Pass**
3/8	108.7	-1.3	0.3	-0.17	**Pass**
1/2	112.2	-5.0	-2.0	-2.90	**Pass**
1	129.4	N/A	-17.5	-96.87	**Pass**
2	188.2	N/A	-42.0	-108.20	**Pass**
3	305.4	N/A	-61.0	-108.09	**Pass**
4	539.2	N/A	-70.0	-108.85	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
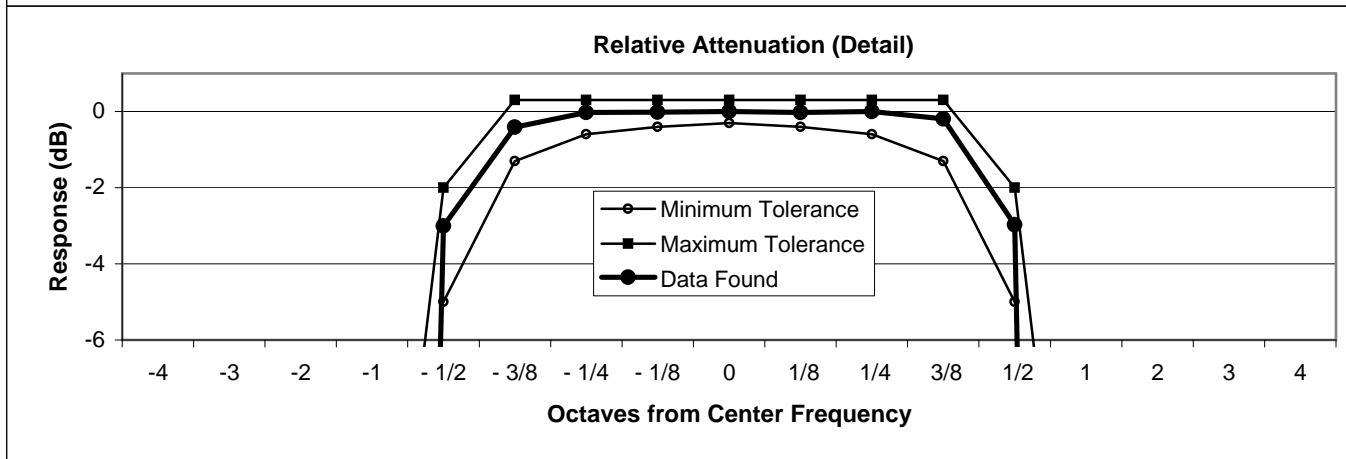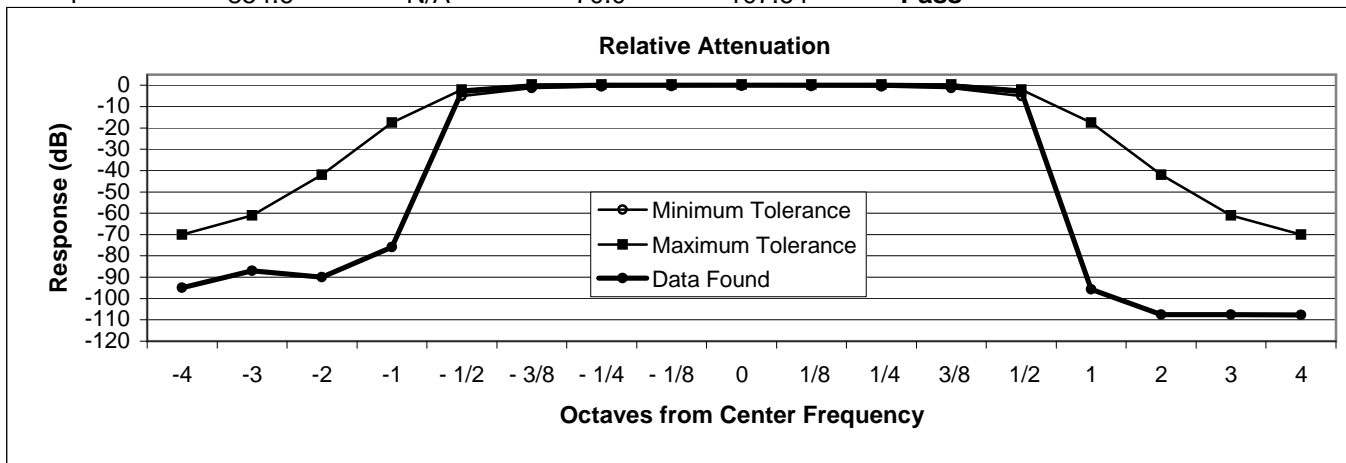
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

1/3 Octave - 125 Hz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	23.3	N/A	-70.0	-94.03	**Pass**
-3	41.2	N/A	-61.0	-86.17	**Pass**
-2	66.9	N/A	-42.0	-92.62	**Pass**
-1	97.3	N/A	-17.5	-76.27	**Pass**
- 1/2	112.2	-5.0	-2.0	-2.96	**Pass**
- 3/8	115.8	-1.3	0.3	-0.40	**Pass**
- 1/4	119.2	-0.6	0.3	0.02	**Pass**
- 1/8	122.6	-0.4	0.3	0.02	**Pass**
0	125.9	-0.3	0.3	0.00	**Pass**
1/8	129.3	-0.4	0.3	0.02	**Pass**
1/4	132.9	-0.6	0.3	0.04	**Pass**
3/8	136.9	-1.3	0.3	-0.19	**Pass**
1/2	141.3	-5.0	-2.0	-2.95	**Pass**
1	163.0	N/A	-17.5	-96.81	**Pass**
2	236.9	N/A	-42.0	-107.49	**Pass**
3	384.4	N/A	-61.0	-107.11	**Pass**
4	678.8	N/A	-70.0	-108.17	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.
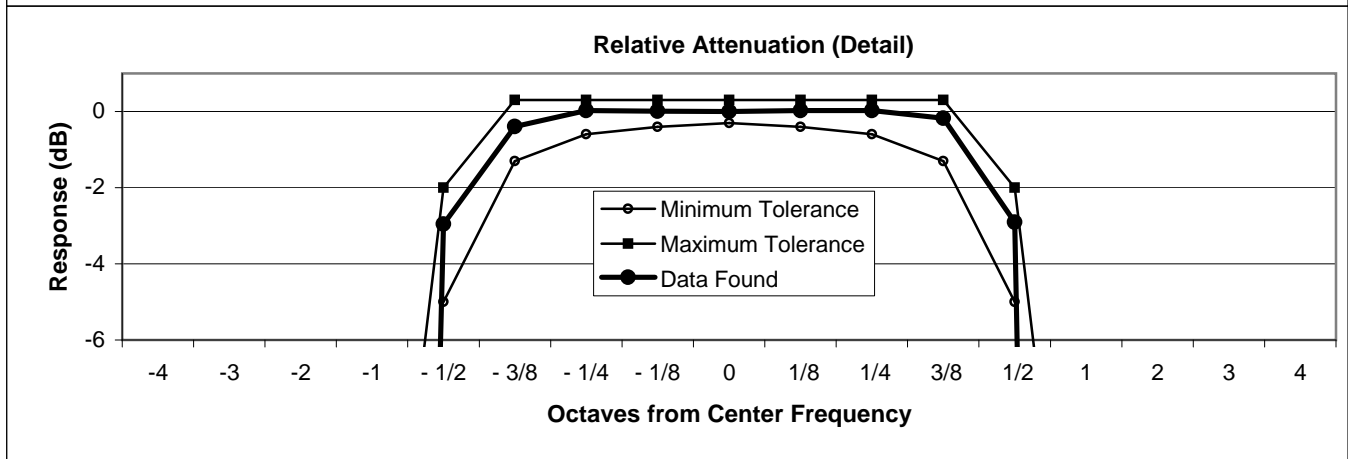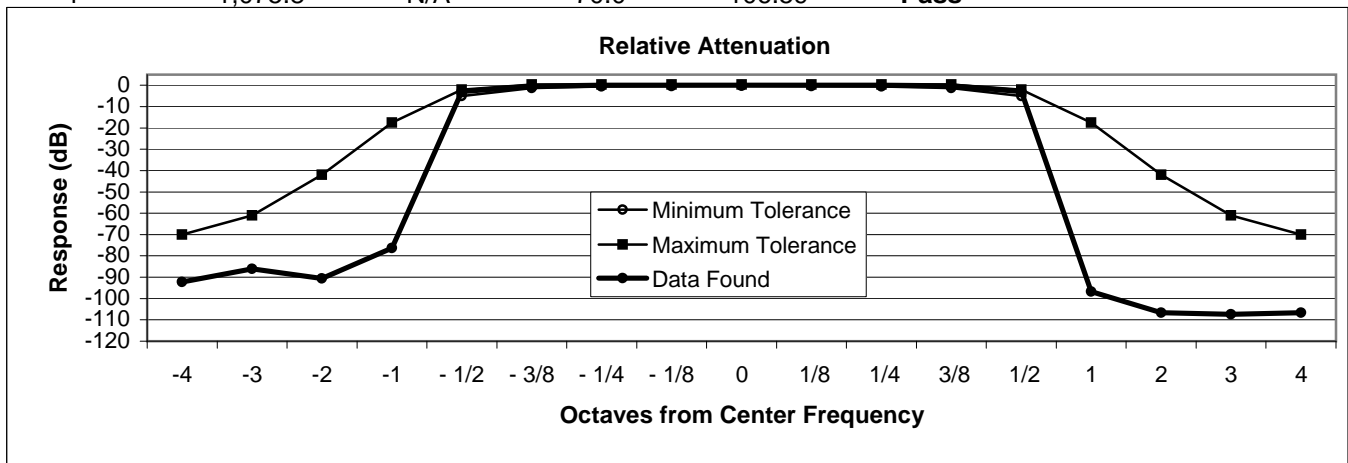
Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 160 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	29.4	N/A	-70.0	-94.99	**Pass**
-3	51.9	N/A	-61.0	-86.94	**Pass**
-2	84.2	N/A	-42.0	-90.02	**Pass**
-1	122.4	N/A	-17.5	-75.89	**Pass**
- 1/2	141.3	-5.0	-2.0	-3.01	**Pass**
- 3/8	145.7	-1.3	0.3	-0.41	**Pass**
- 1/4	150.1	-0.6	0.3	-0.02	**Pass**
- 1/8	154.4	-0.4	0.3	-0.01	**Pass**
0	158.5	-0.3	0.3	0.00	**Pass**
1/8	162.7	-0.4	0.3	-0.02	**Pass**
1/4	167.3	-0.6	0.3	0.00	**Pass**
3/8	172.4	-1.3	0.3	-0.20	**Pass**
1/2	177.8	-5.0	-2.0	-2.97	**Pass**
1	205.1	N/A	-17.5	-95.71	**Pass**
2	298.2	N/A	-42.0	-107.62	**Pass**
3	484.0	N/A	-61.0	-107.60	**Pass**
4	854.6	N/A	-70.0	-107.64	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
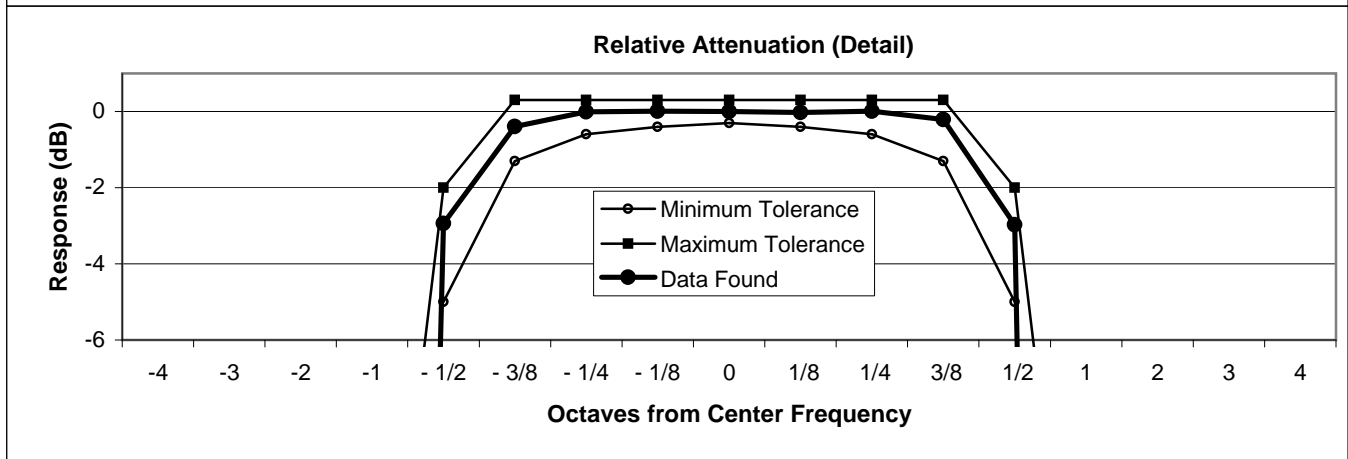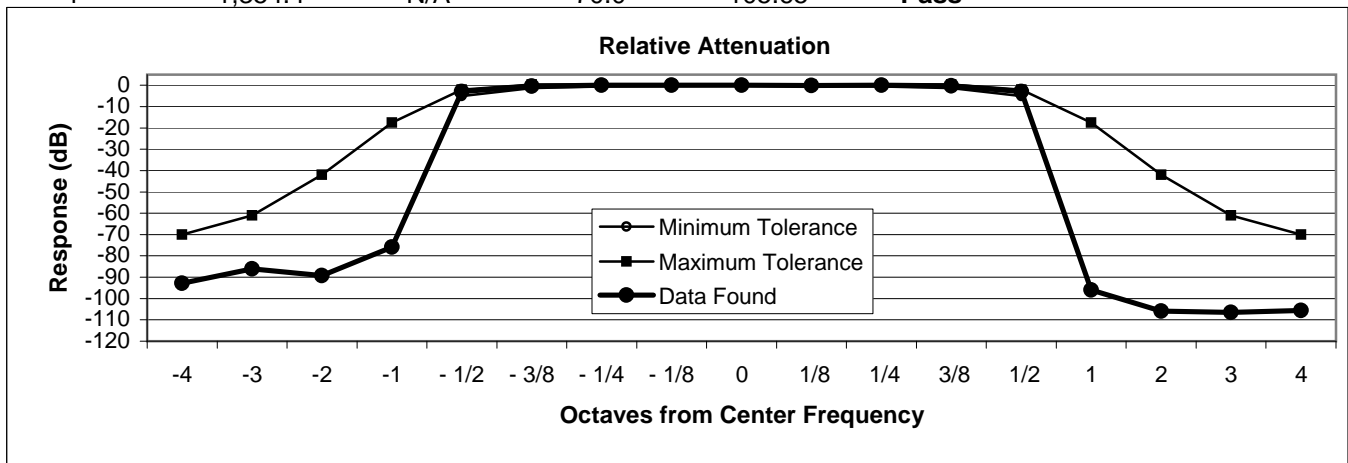Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 200 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	37.0	N/A	-70.0	-92.28	**Pass**
-3	65.3	N/A	-61.0	-86.04	**Pass**
-2	106.0	N/A	-42.0	-90.61	**Pass**
-1	154.1	N/A	-17.5	-76.30	**Pass**
- 1/2	177.8	-5.0	-2.0	-2.96	**Pass**
- 3/8	183.5	-1.3	0.3	-0.39	**Pass**
- 1/4	189.0	-0.6	0.3	0.02	**Pass**
- 1/8	194.3	-0.4	0.3	0.01	**Pass**
0	199.5	-0.3	0.3	0.00	**Pass**
1/8	204.8	-0.4	0.3	0.03	**Pass**
1/4	210.7	-0.6	0.3	0.02	**Pass**
3/8	217.0	-1.3	0.3	-0.18	**Pass**
1/2	223.9	-5.0	-2.0	-2.90	**Pass**
1	258.3	N/A	-17.5	-96.69	**Pass**
2	375.5	N/A	-42.0	-106.64	**Pass**
3	609.3	N/A	-61.0	-107.38	**Pass**
4	1,075.8	N/A	-70.0	-106.59	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
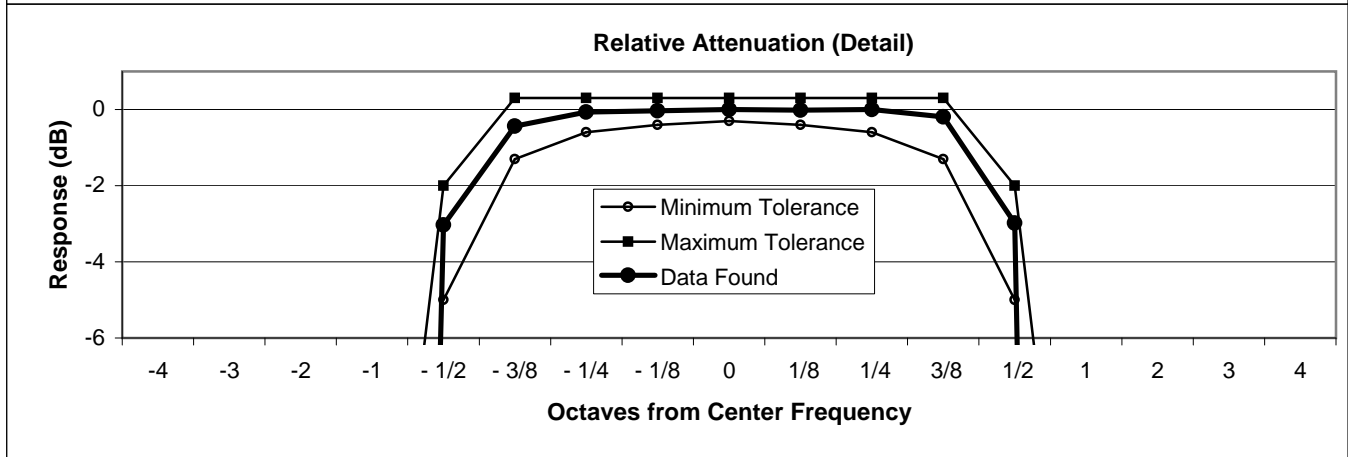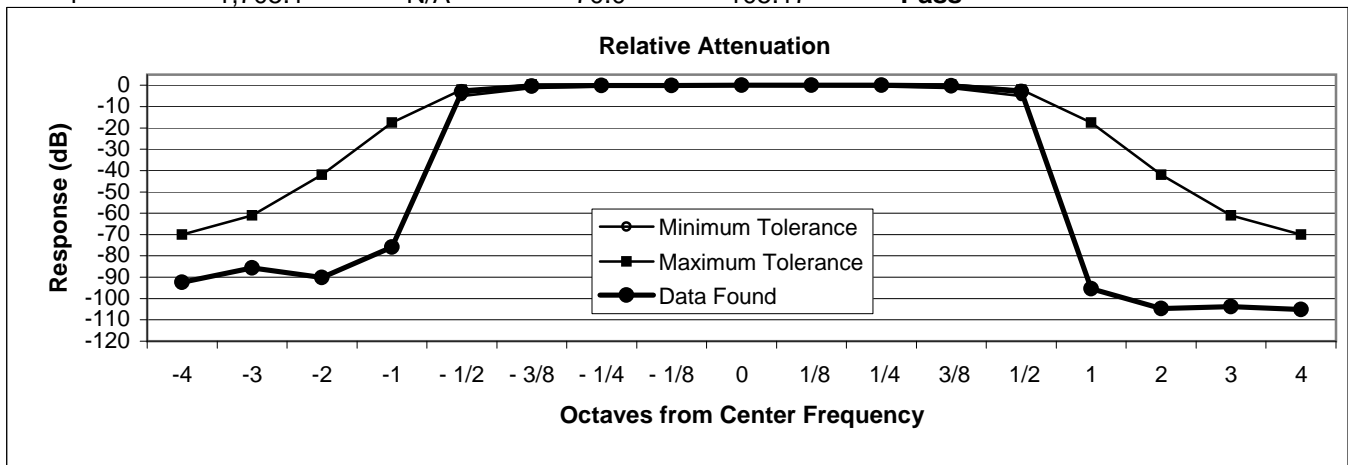Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 250 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	46.6	N/A	-70.0	-92.84	**Pass**
-3	82.3	N/A	-61.0	-86.10	**Pass**
-2	133.5	N/A	-42.0	-89.30	**Pass**
-1	194.1	N/A	-17.5	-75.92	**Pass**
- 1/2	223.9	-5.0	-2.0	-2.94	**Pass**
- 3/8	231.0	-1.3	0.3	-0.39	**Pass**
- 1/4	237.9	-0.6	0.3	-0.01	**Pass**
- 1/8	244.7	-0.4	0.3	0.01	**Pass**
0	251.2	-0.3	0.3	0.00	**Pass**
1/8	257.9	-0.4	0.3	-0.03	**Pass**
1/4	265.2	-0.6	0.3	0.01	**Pass**
3/8	273.2	-1.3	0.3	-0.21	**Pass**
1/2	281.8	-5.0	-2.0	-2.97	**Pass**
1	325.1	N/A	-17.5	-96.03	**Pass**
2	472.7	N/A	-42.0	-105.93	**Pass**
3	767.0	N/A	-61.0	-106.56	**Pass**
4	1,354.4	N/A	-70.0	-105.65	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
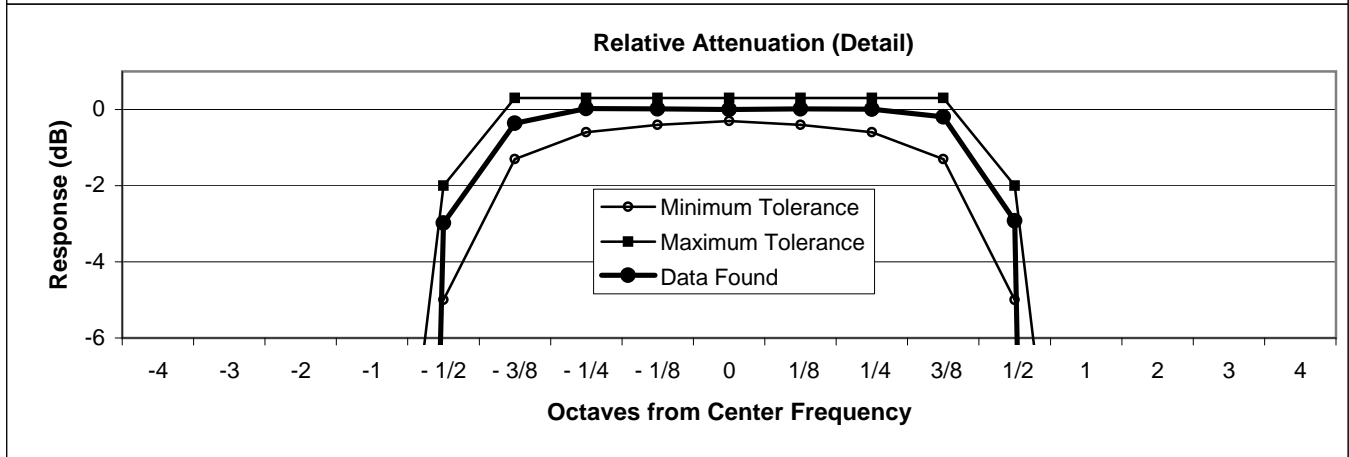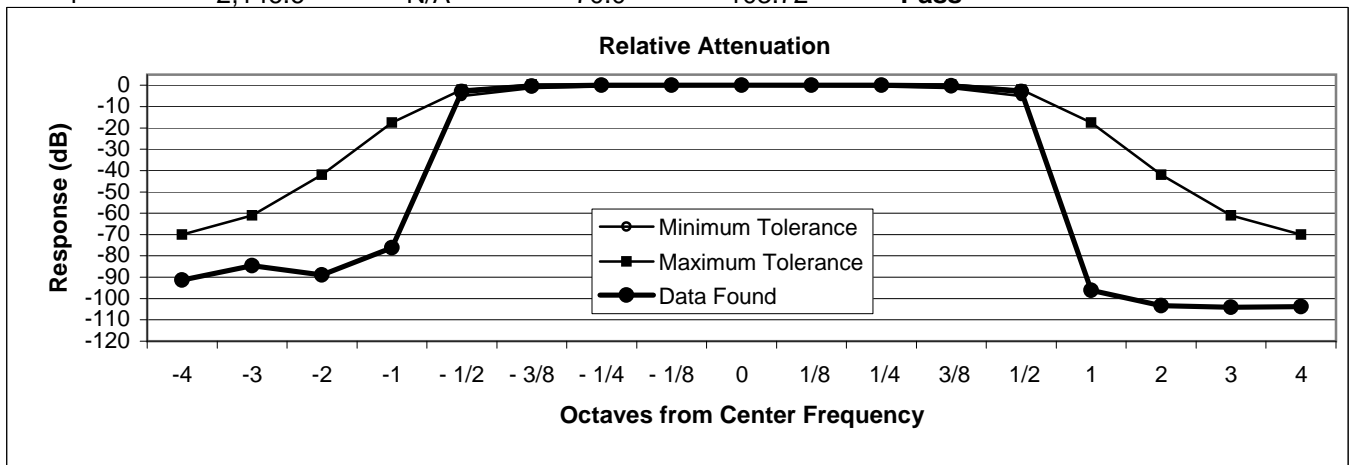Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 315 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	58.6	N/A	-70.0	-92.44	**Pass**
-3	103.6	N/A	-61.0	-85.66	**Pass**
-2	168.1	N/A	-42.0	-90.09	**Pass**
-1	244.3	N/A	-17.5	-75.87	**Pass**
- 1/2	281.8	-5.0	-2.0	-3.04	**Pass**
- 3/8	290.8	-1.3	0.3	-0.43	**Pass**
- 1/4	299.5	-0.6	0.3	-0.06	**Pass**
- 1/8	308.0	-0.4	0.3	-0.04	**Pass**
0	316.2	-0.3	0.3	0.00	**Pass**
1/8	324.7	-0.4	0.3	-0.02	**Pass**
1/4	333.9	-0.6	0.3	0.00	**Pass**
3/8	343.9	-1.3	0.3	-0.20	**Pass**
1/2	354.8	-5.0	-2.0	-2.98	**Pass**
1	409.3	N/A	-17.5	-95.45	**Pass**
2	595.1	N/A	-42.0	-104.71	**Pass**
3	965.6	N/A	-61.0	-103.87	**Pass**
4	1,705.1	N/A	-70.0	-105.17	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
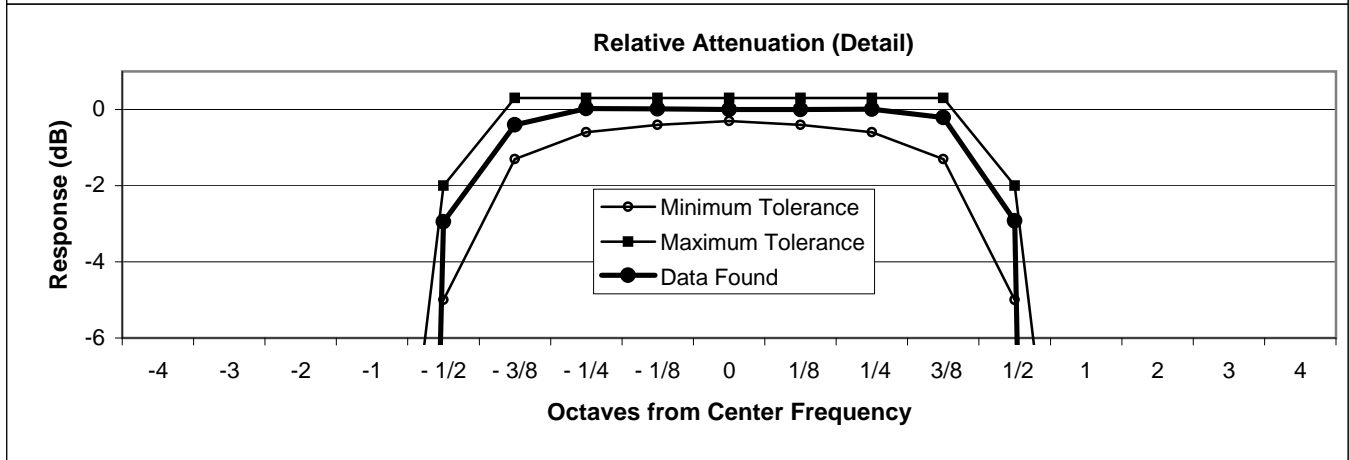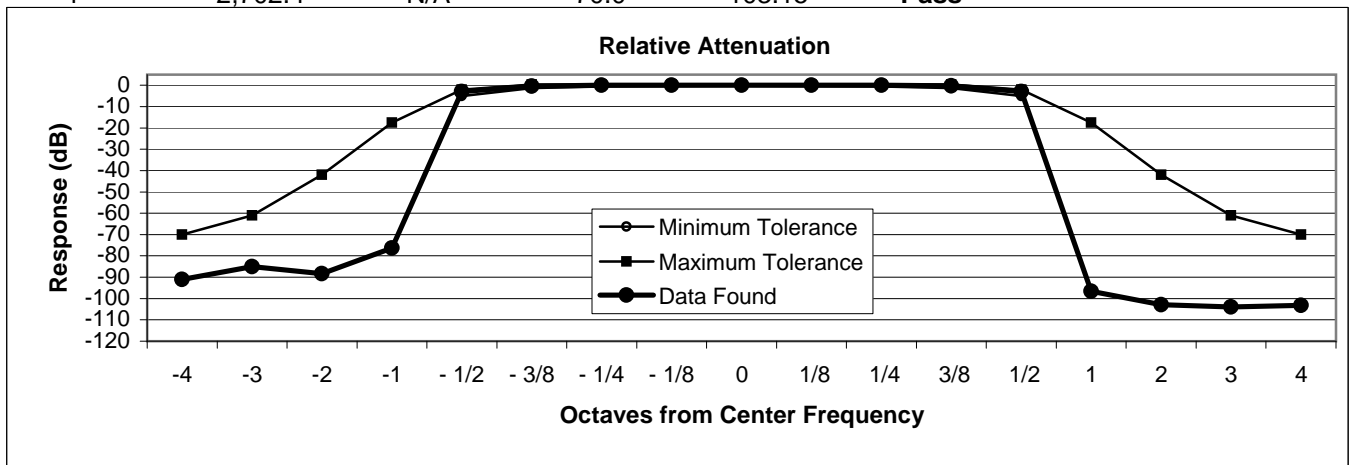Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 400 Hz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB)		Data Found (dB)	Pass/Fail
		Minimum	Maximum		
-4	73.8	N/A	-70.0	-91.32	**Pass**
-3	130.4	N/A	-61.0	-84.63	**Pass**
-2	211.6	N/A	-42.0	-88.89	**Pass**
-1	307.6	N/A	-17.5	-76.19	**Pass**
- 1/2	354.8	-5.0	-2.0	-2.98	**Pass**
- 3/8	366.1	-1.3	0.3	-0.36	**Pass**
- 1/4	377.1	-0.6	0.3	0.03	**Pass**
- 1/8	387.8	-0.4	0.3	0.02	**Pass**
0	398.1	-0.3	0.3	0.00	**Pass**
1/8	408.7	-0.4	0.3	0.01	**Pass**
1/4	420.3	-0.6	0.3	0.01	**Pass**
3/8	432.9	-1.3	0.3	-0.19	**Pass**
1/2	446.7	-5.0	-2.0	-2.92	**Pass**
1	515.3	N/A	-17.5	-96.16	**Pass**
2	749.1	N/A	-42.0	-103.36	**Pass**
3	1,215.7	N/A	-61.0	-104.14	**Pass**
4	2,146.6	N/A	-70.0	-103.72	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
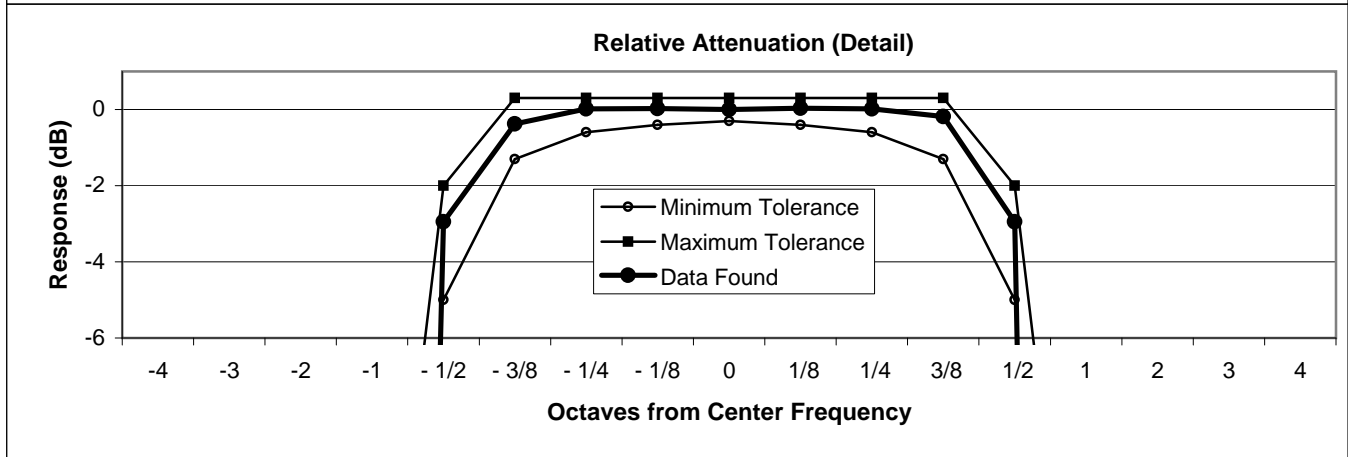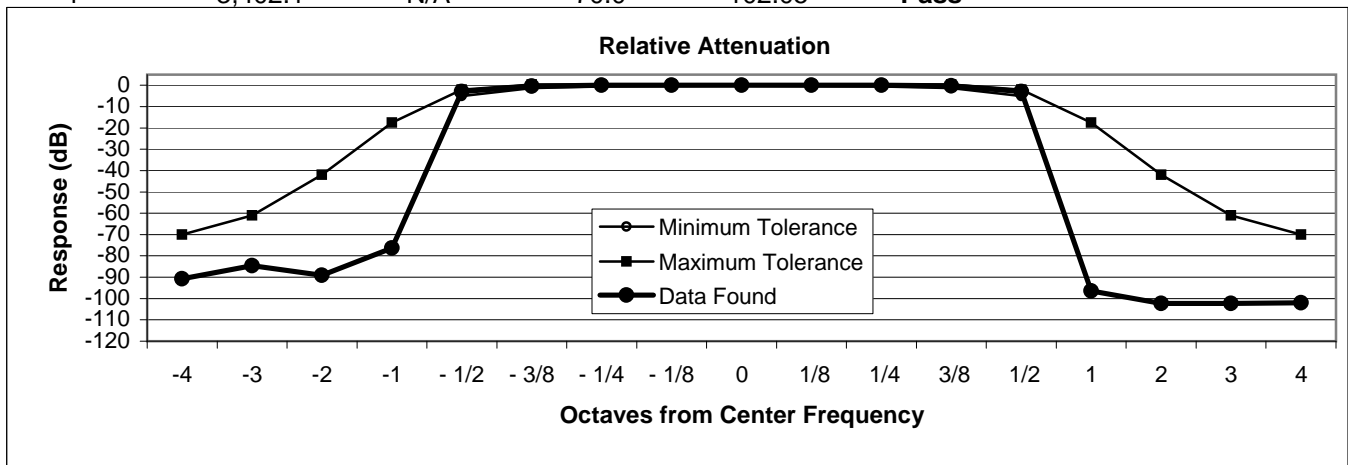Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	93.0	N/A	-70.0	-91.11	**Pass**
-3	164.1	N/A	-61.0	-85.07	**Pass**
-2	266.3	N/A	-42.0	-88.41	**Pass**
-1	387.2	N/A	-17.5	-76.34	**Pass**
- 1/2	446.7	-5.0	-2.0	-2.95	**Pass**
- 3/8	460.9	-1.3	0.3	-0.40	**Pass**
- 1/4	474.7	-0.6	0.3	0.02	**Pass**
- 1/8	488.2	-0.4	0.3	0.01	**Pass**
0	501.2	-0.3	0.3	0.00	**Pass**
1/8	514.6	-0.4	0.3	0.00	**Pass**
1/4	529.1	-0.6	0.3	0.01	**Pass**
3/8	545.0	-1.3	0.3	-0.21	**Pass**
1/2	562.3	-5.0	-2.0	-2.92	**Pass**
1	648.7	N/A	-17.5	-96.57	**Pass**
2	943.1	N/A	-42.0	-102.93	**Pass**
3	1,530.5	N/A	-61.0	-103.91	**Pass**
4	2,702.4	N/A	-70.0	-103.15	**Pass**

1/3 Octave - 500 Hz

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
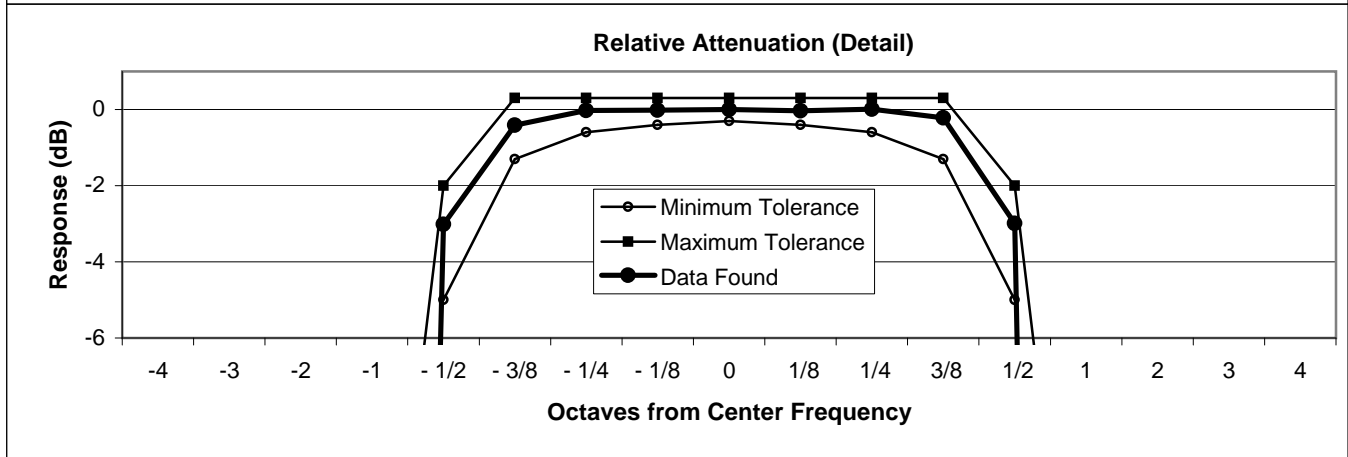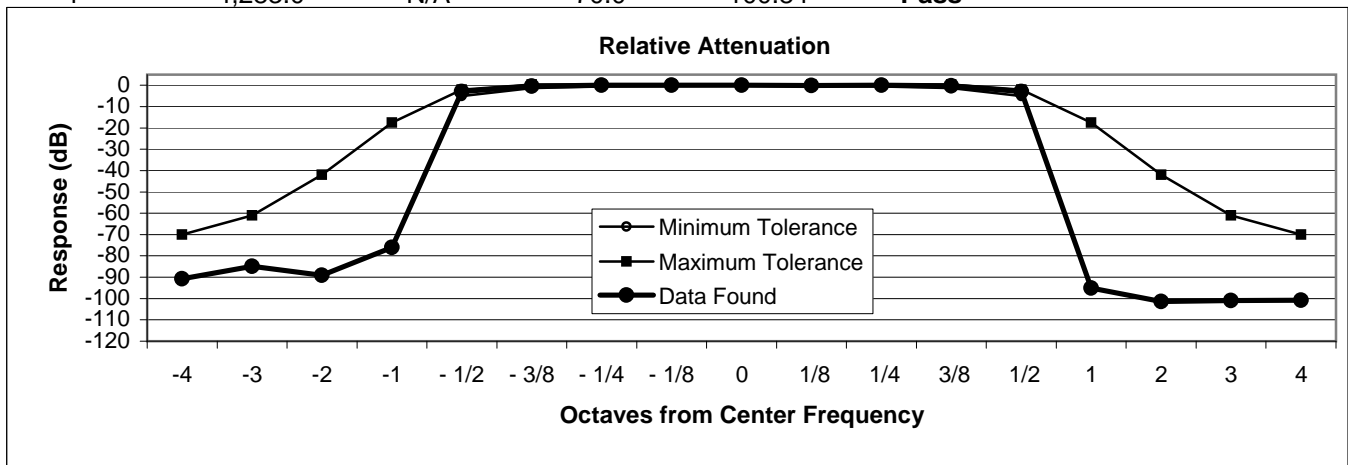Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 630 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	117.0	N/A	-70.0	-90.81	**Pass**
-3	206.6	N/A	-61.0	-84.62	**Pass**
-2	335.3	N/A	-42.0	-89.07	**Pass**
-1	487.5	N/A	-17.5	-76.32	**Pass**
- 1/2	562.3	-5.0	-2.0	-2.95	**Pass**
- 3/8	580.2	-1.3	0.3	-0.38	**Pass**
- 1/4	597.6	-0.6	0.3	0.02	**Pass**
- 1/8	614.6	-0.4	0.3	0.03	**Pass**
0	631.0	-0.3	0.3	0.00	**Pass**
1/8	647.8	-0.4	0.3	0.03	**Pass**
1/4	666.1	-0.6	0.3	0.01	**Pass**
3/8	686.1	-1.3	0.3	-0.19	**Pass**
1/2	707.9	-5.0	-2.0	-2.95	**Pass**
1	816.7	N/A	-17.5	-96.41	**Pass**
2	1,187.3	N/A	-42.0	-102.23	**Pass**
3	1,926.7	N/A	-61.0	-102.23	**Pass**
4	3,402.1	N/A	-70.0	-102.05	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
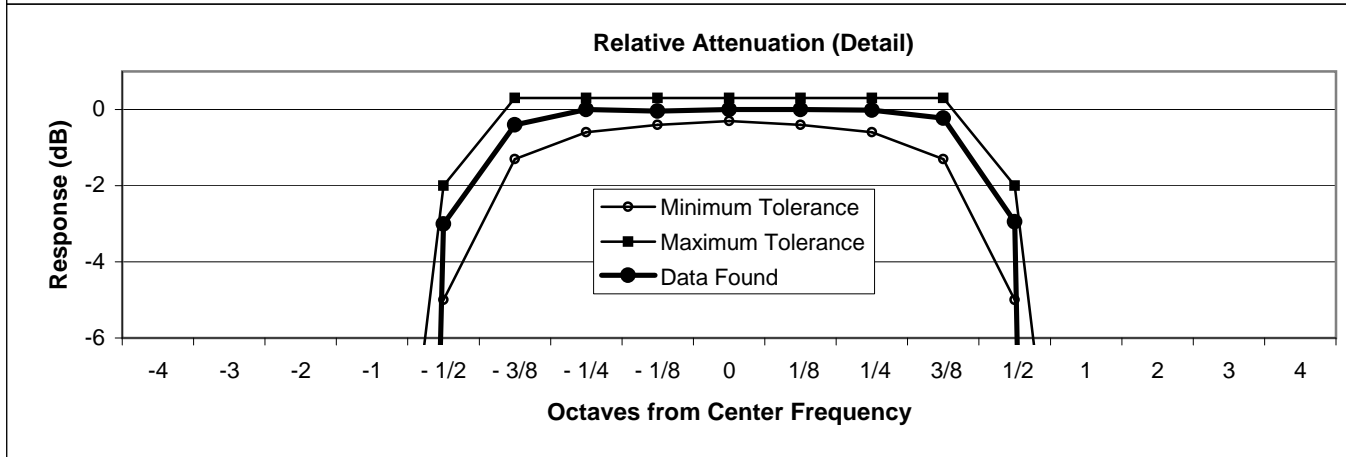
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

		1/3 Octave - 800 Hz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB)		Data Found (dB)	Pass/Fail
		Minimum	Maximum		
-4	147.3	N/A	-70.0	-90.79	**Pass**
-3	260.1	N/A	-61.0	-84.92	**Pass**
-2	422.1	N/A	-42.0	-89.11	**Pass**
-1	613.7	N/A	-17.5	-76.05	**Pass**
- 1/2	707.9	-5.0	-2.0	-3.02	**Pass**
- 3/8	730.4	-1.3	0.3	-0.41	**Pass**
- 1/4	752.4	-0.6	0.3	-0.02	**Pass**
- 1/8	773.7	-0.4	0.3	-0.02	**Pass**
0	794.3	-0.3	0.3	0.00	**Pass**
1/8	815.5	-0.4	0.3	-0.03	**Pass**
1/4	838.6	-0.6	0.3	0.01	**Pass**
3/8	863.8	-1.3	0.3	-0.22	**Pass**
1/2	891.3	-5.0	-2.0	-2.99	**Pass**
1	1,028.2	N/A	-17.5	-95.07	**Pass**
2	1,494.7	N/A	-42.0	-101.46	**Pass**
3	2,425.6	N/A	-61.0	-100.99	**Pass**
4	4,283.0	N/A	-70.0	-100.84	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
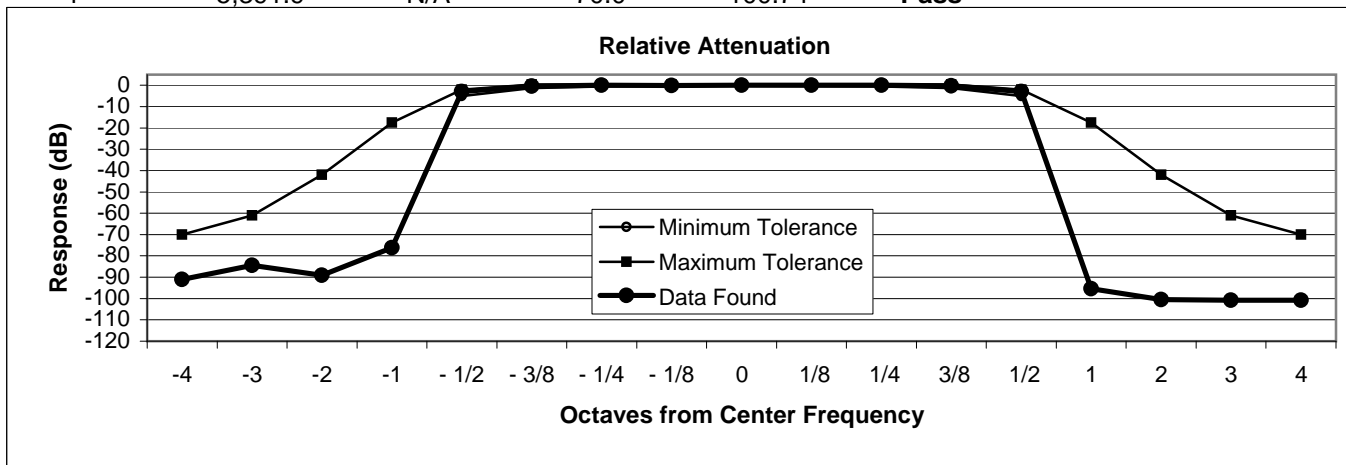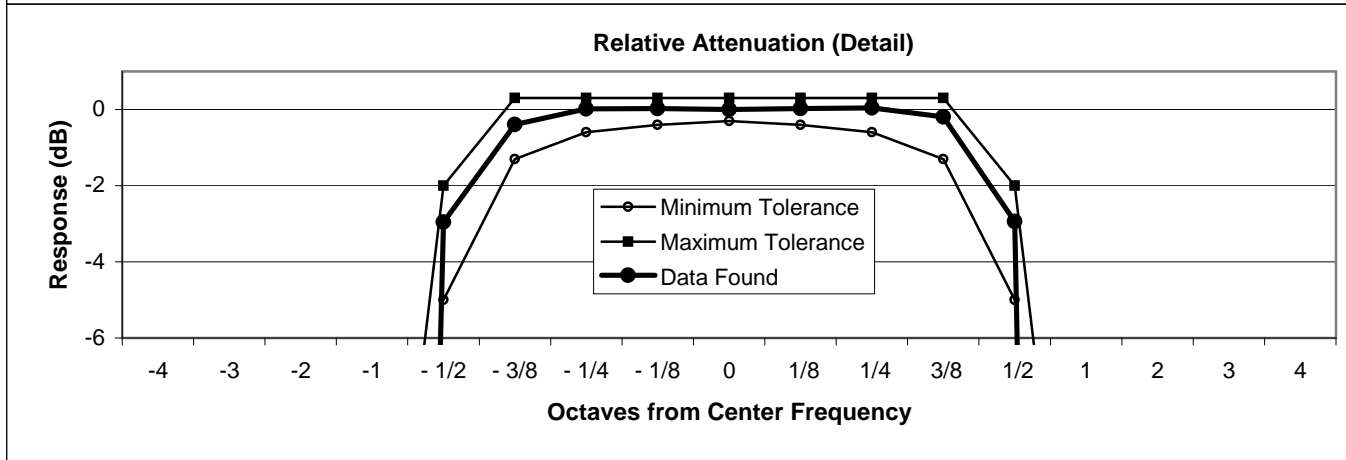
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

		1/3 Octave - 1 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	185.5	N/A	-70.0	-91.04	**Pass**
-3	327.5	N/A	-61.0	-84.39	**Pass**
-2	531.4	N/A	-42.0	-89.02	**Pass**
-1	772.6	N/A	-17.5	-76.23	**Pass**
- 1/2	891.3	-5.0	-2.0	-3.01	**Pass**
- 3/8	919.6	-1.3	0.3	-0.41	**Pass**
- 1/4	947.2	-0.6	0.3	0.00	**Pass**
- 1/8	974.0	-0.4	0.3	-0.04	**Pass**
0	1,000.0	-0.3	0.3	0.00	**Pass**
1/8	1,026.7	-0.4	0.3	0.00	**Pass**
1/4	1,055.8	-0.6	0.3	-0.02	**Pass**
3/8	1,087.5	-1.3	0.3	-0.23	**Pass**
1/2	1,122.0	-5.0	-2.0	-2.95	**Pass**
1	1,294.4	N/A	-17.5	-95.33	**Pass**
2	1,881.7	N/A	-42.0	-100.43	**Pass**
3	3,053.7	N/A	-61.0	-100.75	**Pass**
4	5,391.9	N/A	-70.0	-100.74	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
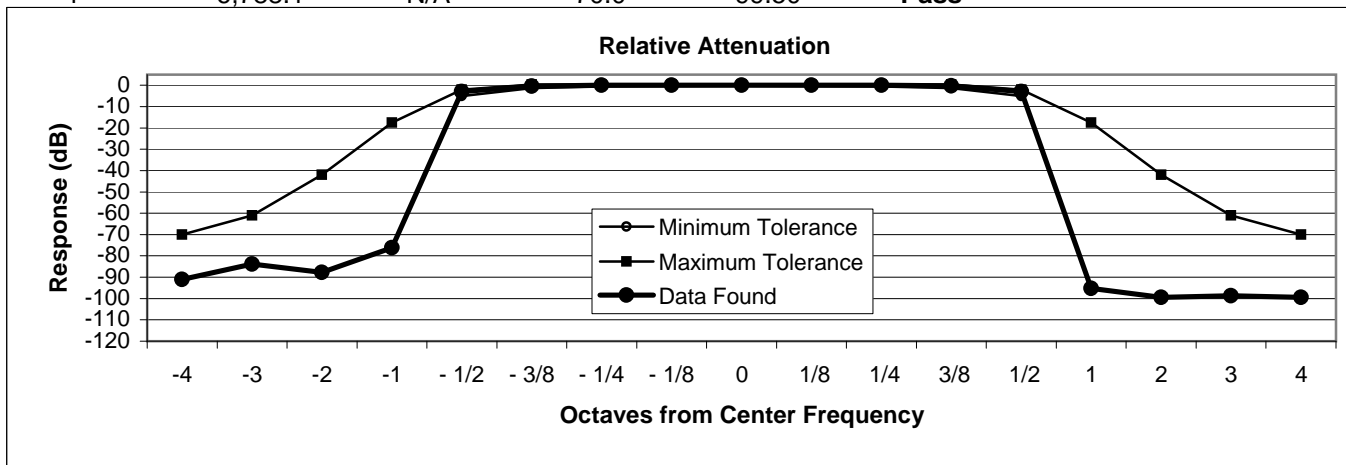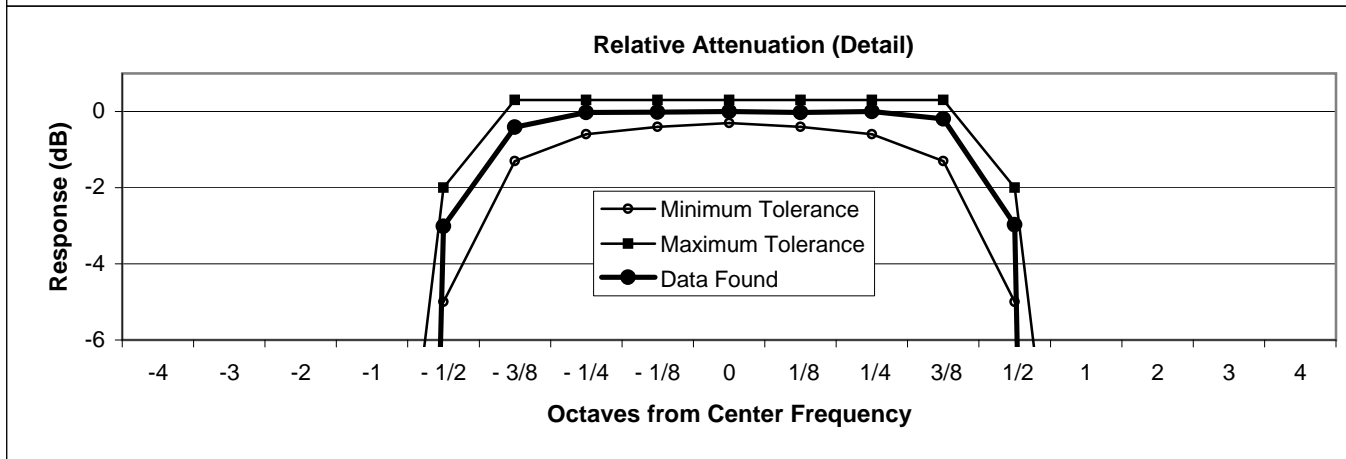Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 1.25 kHz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	233.5	N/A	-70.0	-91.00	**Pass**
-3	412.3	N/A	-61.0	-83.82	**Pass**
-2	669.0	N/A	-42.0	-87.77	**Pass**
-1	972.6	N/A	-17.5	-76.20	**Pass**
- 1/2	1,122.0	-5.0	-2.0	-2.96	**Pass**
- 3/8	1,157.7	-1.3	0.3	-0.40	**Pass**
- 1/4	1,192.4	-0.6	0.3	0.02	**Pass**
- 1/8	1,226.2	-0.4	0.3	0.02	**Pass**
0	1,258.9	-0.3	0.3	0.00	**Pass**
1/8	1,292.5	-0.4	0.3	0.02	**Pass**
1/4	1,329.1	-0.6	0.3	0.04	**Pass**
3/8	1,369.0	-1.3	0.3	-0.19	**Pass**
1/2	1,412.5	-5.0	-2.0	-2.94	**Pass**
1	1,629.5	N/A	-17.5	-95.25	**Pass**
2	2,369.0	N/A	-42.0	-99.44	**Pass**
3	3,844.3	N/A	-61.0	-98.74	**Pass**
4	6,788.1	N/A	-70.0	-99.50	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
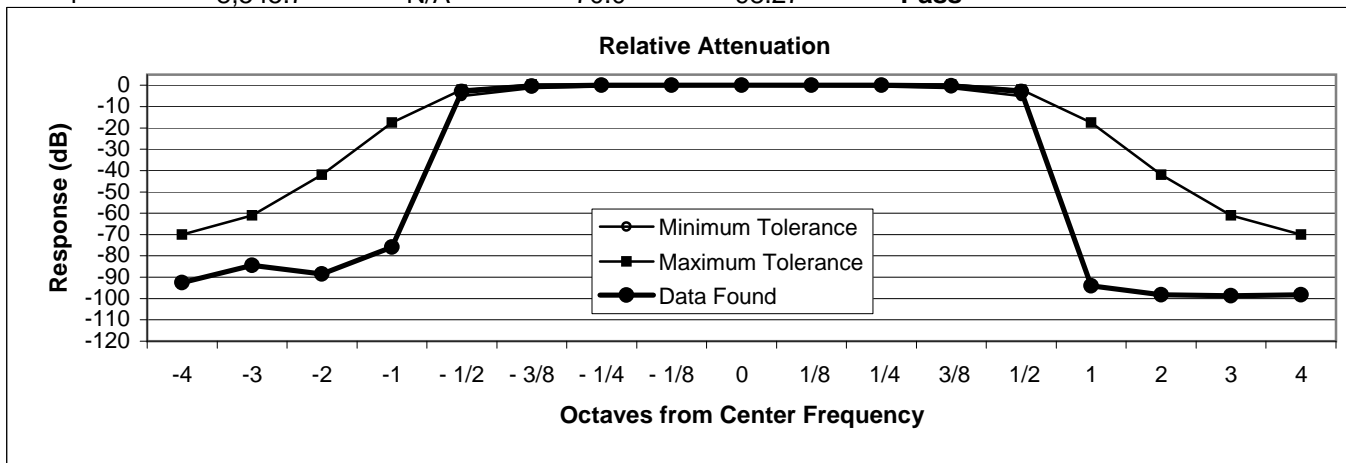Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Pass/Fail
-4	293.9	N/A	-70.0	-92.49	**Pass**
-3	519.0	N/A	-61.0	-84.44	**Pass**
-2	842.3	N/A	-42.0	-88.46	**Pass**
-1	1,224.4	N/A	-17.5	-75.92	**Pass**
- 1/2	1,412.5	-5.0	-2.0	-3.01	**Pass**
- 3/8	1,457.4	-1.3	0.3	-0.41	**Pass**
- 1/4	1,501.2	-0.6	0.3	-0.03	**Pass**
- 1/8	1,543.7	-0.4	0.3	-0.02	**Pass**
0	1,584.9	-0.3	0.3	0.00	**Pass**
1/8	1,627.2	-0.4	0.3	-0.02	**Pass**
1/4	1,673.3	-0.6	0.3	0.00	**Pass**
3/8	1,723.5	-1.3	0.3	-0.20	**Pass**
1/2	1,778.3	-5.0	-2.0	-2.97	**Pass**
1	2,051.4	N/A	-17.5	-94.04	**Pass**
2	2,982.3	N/A	-42.0	-98.22	**Pass**
3	4,839.7	N/A	-61.0	-98.63	**Pass**
4	8,545.7	N/A	-70.0	-98.27	**Pass**

The table title is **1/3 Octave - 1.6 kHz**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
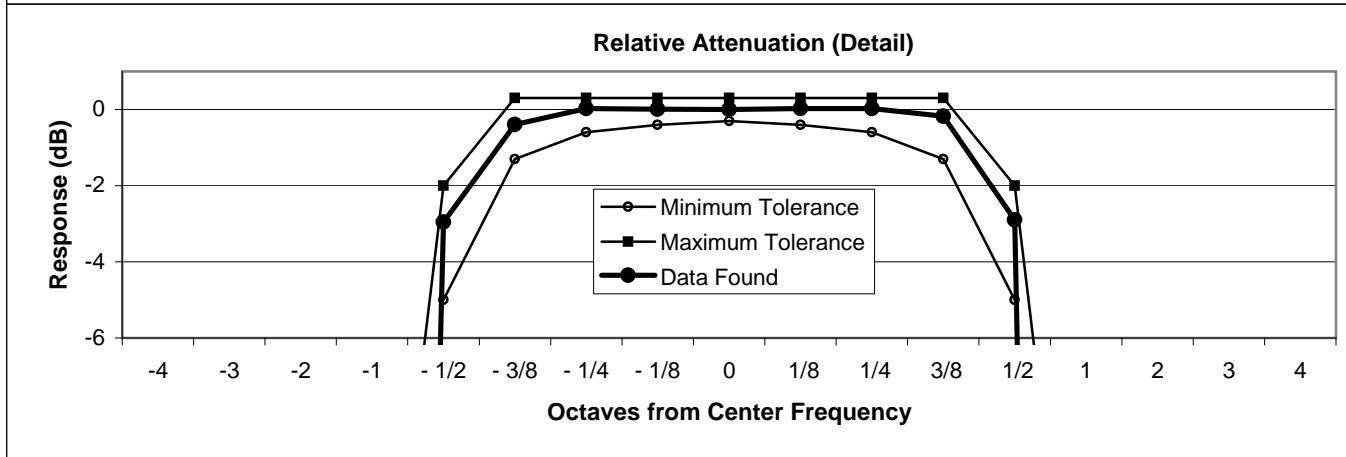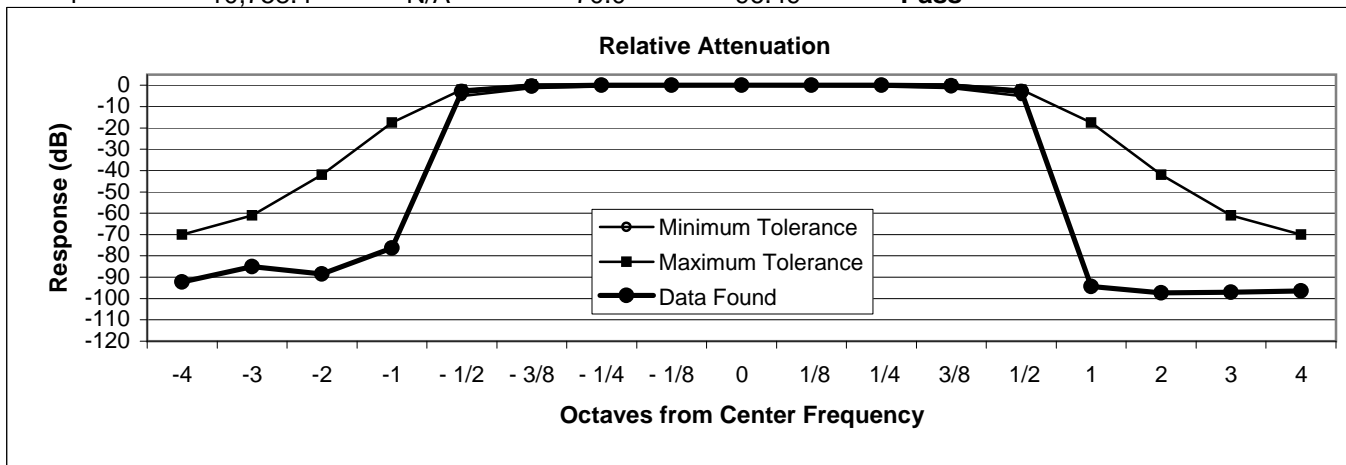Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 2 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	370.0	N/A	-70.0	-92.25	**Pass**
-3	653.4	N/A	-61.0	-85.00	**Pass**
-2	1,060.3	N/A	-42.0	-88.48	**Pass**
-1	1,541.5	N/A	-17.5	-76.27	**Pass**
- 1/2	1,778.3	-5.0	-2.0	-2.96	**Pass**
- 3/8	1,834.8	-1.3	0.3	-0.39	**Pass**
- 1/4	1,889.9	-0.6	0.3	0.02	**Pass**
- 1/8	1,943.4	-0.4	0.3	0.01	**Pass**
0	1,995.3	-0.3	0.3	0.00	**Pass**
1/8	2,048.5	-0.4	0.3	0.03	**Pass**
1/4	2,106.5	-0.6	0.3	0.02	**Pass**
3/8	2,169.8	-1.3	0.3	-0.18	**Pass**
1/2	2,238.7	-5.0	-2.0	-2.90	**Pass**
1	2,582.6	N/A	-17.5	-94.41	**Pass**
2	3,754.5	N/A	-42.0	-97.37	**Pass**
3	6,092.8	N/A	-61.0	-97.03	**Pass**
4	10,758.4	N/A	-70.0	-96.49	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
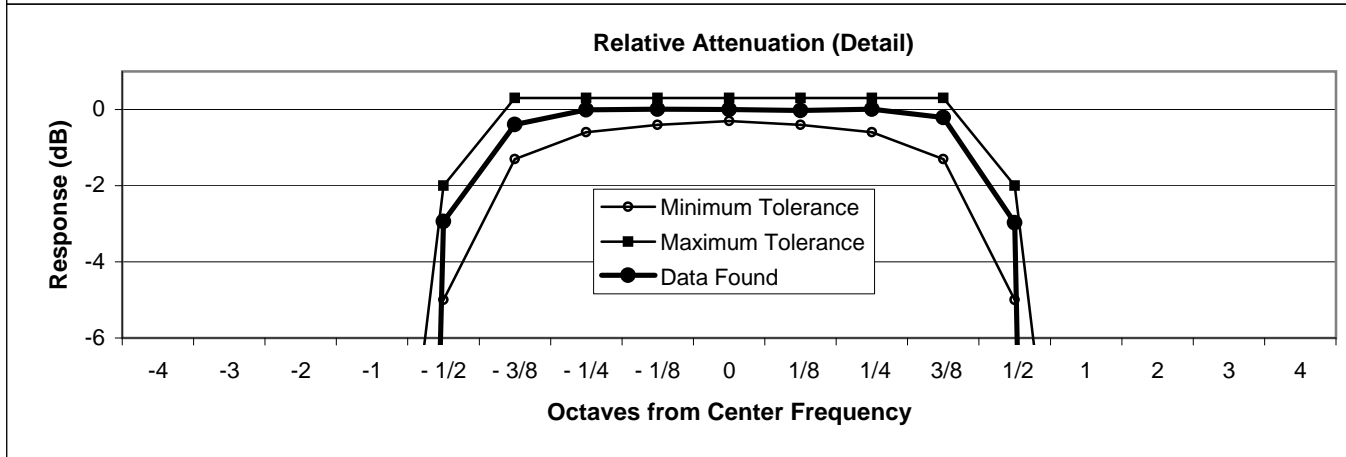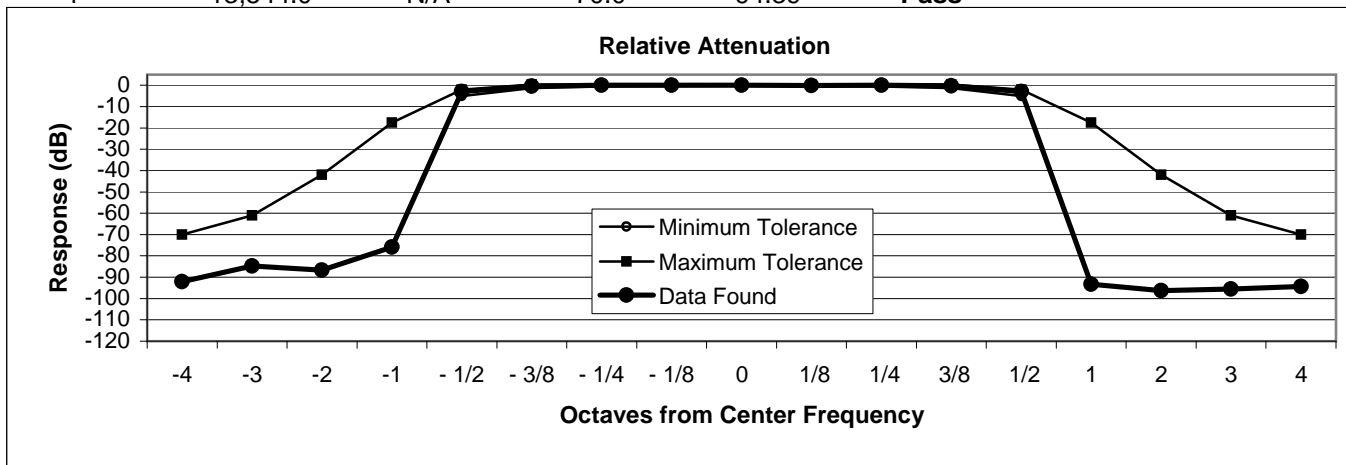
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

		1/3 Octave - 2.5 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	465.9	N/A	-70.0	-92.15	**Pass**
-3	822.6	N/A	-61.0	-84.75	**Pass**
-2	1,334.9	N/A	-42.0	-86.71	**Pass**
-1	1,940.6	N/A	-17.5	-75.92	**Pass**
- 1/2	2,238.7	-5.0	-2.0	-2.94	**Pass**
- 3/8	2,309.9	-1.3	0.3	-0.39	**Pass**
- 1/4	2,379.2	-0.6	0.3	-0.01	**Pass**
- 1/8	2,446.6	-0.4	0.3	0.01	**Pass**
0	2,511.9	-0.3	0.3	0.00	**Pass**
1/8	2,578.9	-0.4	0.3	-0.03	**Pass**
1/4	2,651.9	-0.6	0.3	0.01	**Pass**
3/8	2,731.6	-1.3	0.3	-0.21	**Pass**
1/2	2,818.4	-5.0	-2.0	-2.97	**Pass**
1	3,251.3	N/A	-17.5	-93.25	**Pass**
2	4,726.7	N/A	-42.0	-96.27	**Pass**
3	7,670.4	N/A	-61.0	-95.52	**Pass**
4	13,544.0	N/A	-70.0	-94.39	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
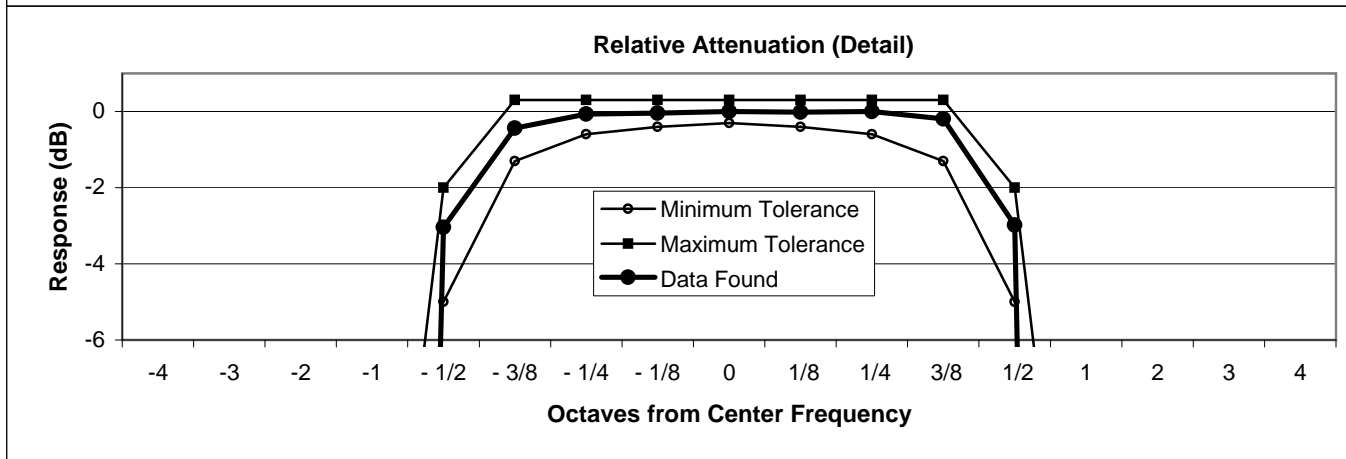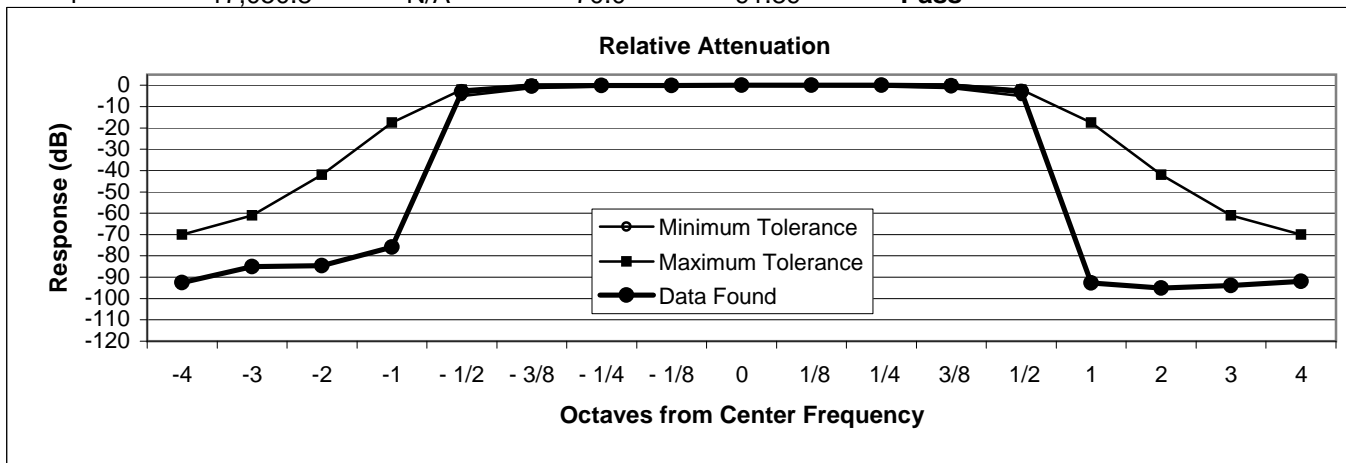Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 3.15 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	586.5	N/A	-70.0	-92.54	**Pass**
-3	1,035.6	N/A	-61.0	-85.02	**Pass**
-2	1,680.5	N/A	-42.0	-84.66	**Pass**
-1	2,443.1	N/A	-17.5	-75.83	**Pass**
- 1/2	2,818.4	-5.0	-2.0	-3.04	**Pass**
- 3/8	2,908.0	-1.3	0.3	-0.44	**Pass**
- 1/4	2,995.3	-0.6	0.3	-0.07	**Pass**
- 1/8	3,080.1	-0.4	0.3	-0.04	**Pass**
0	3,162.3	-0.3	0.3	0.00	**Pass**
1/8	3,246.6	-0.4	0.3	-0.02	**Pass**
1/4	3,338.6	-0.6	0.3	0.00	**Pass**
3/8	3,438.8	-1.3	0.3	-0.20	**Pass**
1/2	3,548.1	-5.0	-2.0	-2.99	**Pass**
1	4,093.2	N/A	-17.5	-92.66	**Pass**
2	5,950.5	N/A	-42.0	-95.11	**Pass**
3	9,656.5	N/A	-61.0	-93.83	**Pass**
4	17,050.8	N/A	-70.0	-91.89	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
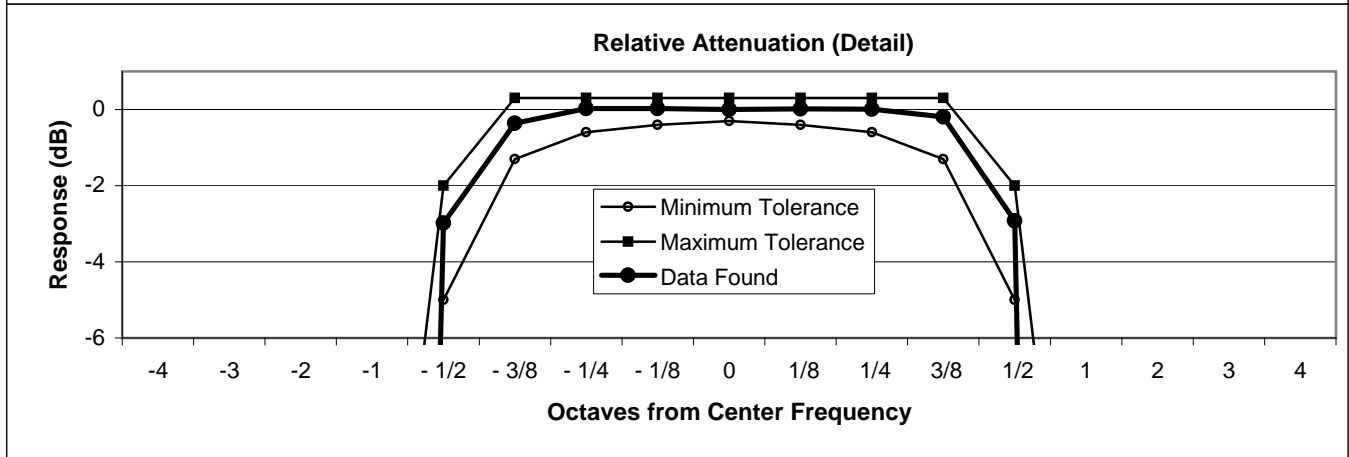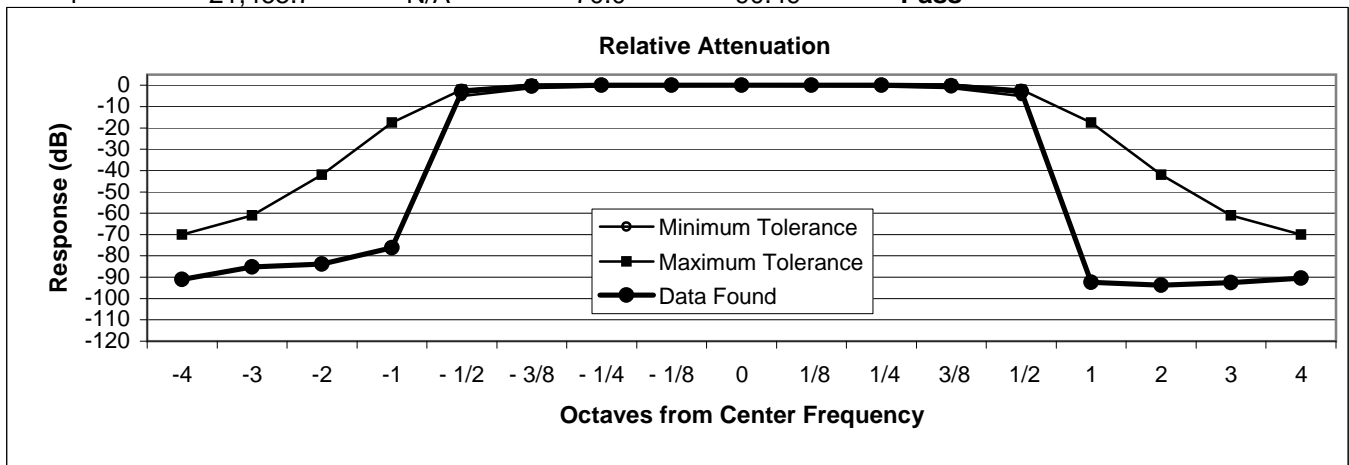Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 4 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	738.3	N/A	-70.0	-91.08	**Pass**
-3	1,303.7	N/A	-61.0	-85.23	**Pass**
-2	2,115.6	N/A	-42.0	-83.88	**Pass**
-1	3,075.7	N/A	-17.5	-76.13	**Pass**
- 1/2	3,548.1	-5.0	-2.0	-2.98	**Pass**
- 3/8	3,660.9	-1.3	0.3	-0.36	**Pass**
- 1/4	3,770.8	-0.6	0.3	0.03	**Pass**
- 1/8	3,877.6	-0.4	0.3	0.02	**Pass**
0	3,981.1	-0.3	0.3	0.00	**Pass**
1/8	4,087.3	-0.4	0.3	0.01	**Pass**
1/4	4,203.0	-0.6	0.3	0.01	**Pass**
3/8	4,329.2	-1.3	0.3	-0.19	**Pass**
1/2	4,466.8	-5.0	-2.0	-2.92	**Pass**
1	5,153.0	N/A	-17.5	-92.35	**Pass**
2	7,491.3	N/A	-42.0	-93.78	**Pass**
3	12,156.8	N/A	-61.0	-92.60	**Pass**
4	21,465.7	N/A	-70.0	-90.49	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
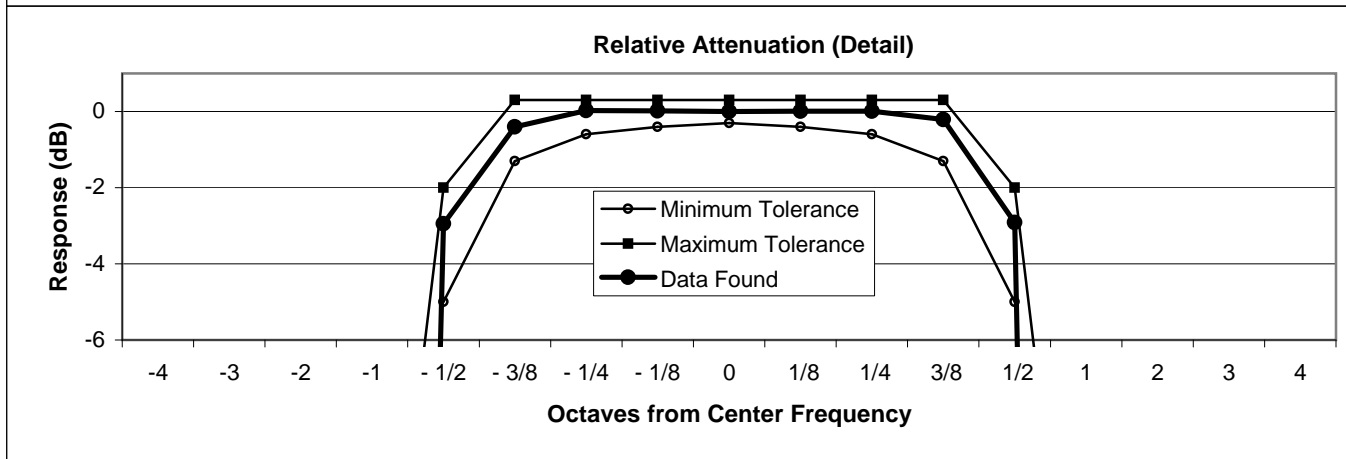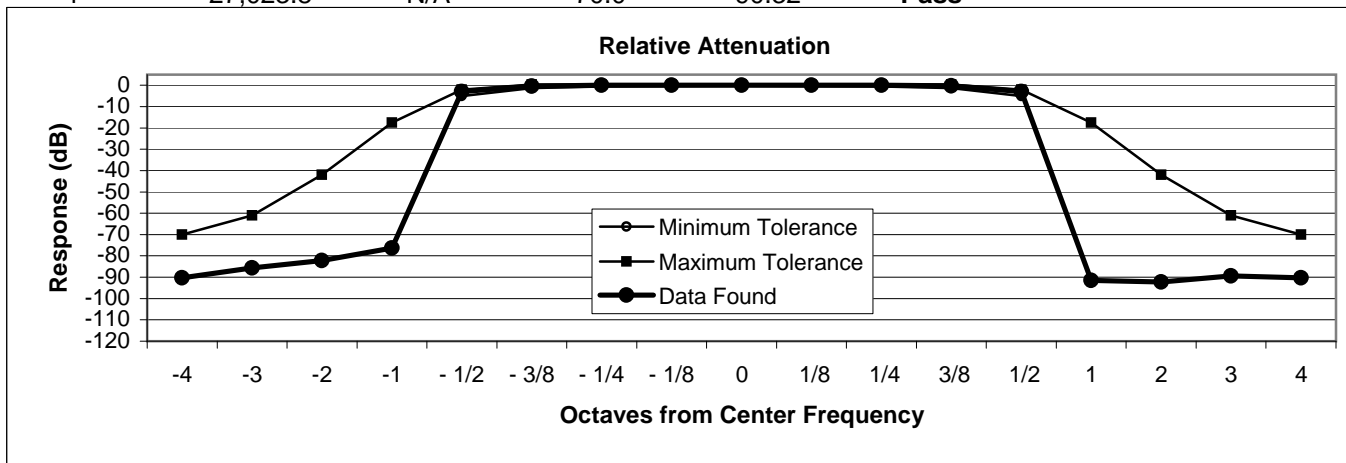Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 5 kHz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB)		Data Found (dB)	Pass/Fail
		Minimum	Maximum		
-4	929.5	N/A	-70.0	-90.32	**Pass**
-3	1,641.3	N/A	-61.0	-85.60	**Pass**
-2	2,663.4	N/A	-42.0	-82.18	**Pass**
-1	3,872.0	N/A	-17.5	-76.27	**Pass**
- 1/2	4,466.8	-5.0	-2.0	-2.95	**Pass**
- 3/8	4,608.8	-1.3	0.3	-0.41	**Pass**
- 1/4	4,747.2	-0.6	0.3	0.02	**Pass**
- 1/8	4,881.7	-0.4	0.3	0.01	**Pass**
0	5,011.9	-0.3	0.3	0.00	**Pass**
1/8	5,145.6	-0.4	0.3	0.01	**Pass**
1/4	5,291.3	-0.6	0.3	0.01	**Pass**
3/8	5,450.2	-1.3	0.3	-0.21	**Pass**
1/2	5,623.4	-5.0	-2.0	-2.92	**Pass**
1	6,487.2	N/A	-17.5	-91.52	**Pass**
2	9,431.0	N/A	-42.0	-92.17	**Pass**
3	15,304.5	N/A	-61.0	-89.42	**Pass**
4	27,023.8	N/A	-70.0	-90.32	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
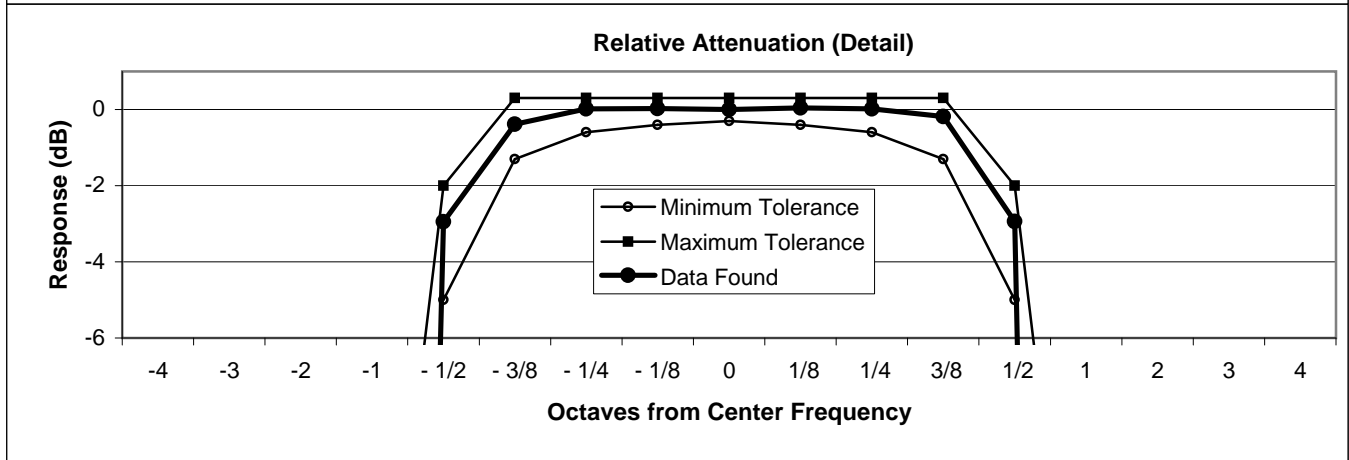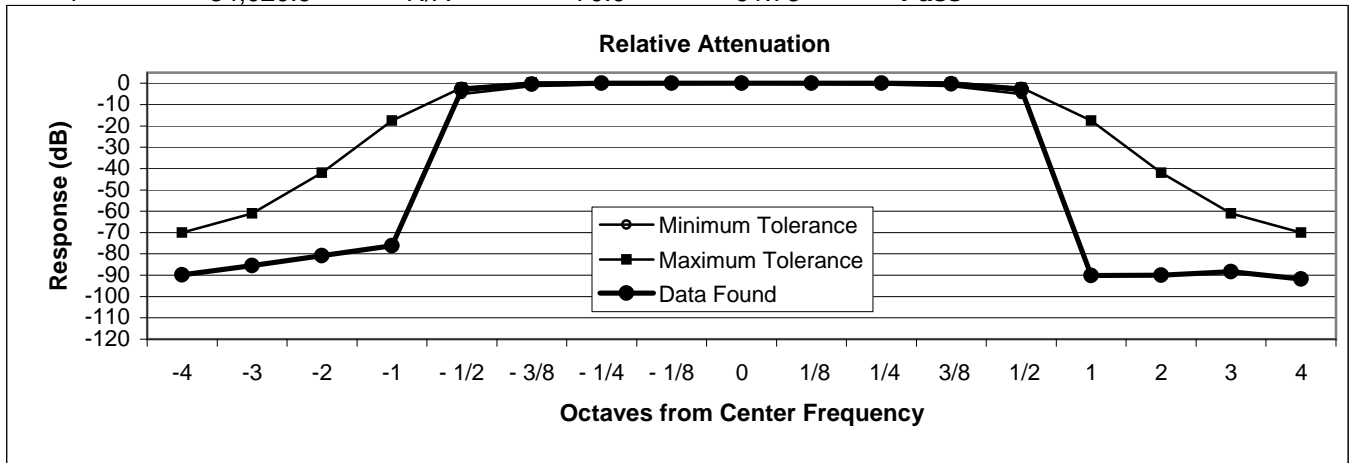Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 6 kHz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	1,170.2	N/A	-70.0	-89.79	**Pass**
-3	2,066.2	N/A	-61.0	-85.44	**Pass**
-2	3,353.1	N/A	-42.0	-80.85	**Pass**
-1	4,874.6	N/A	-17.5	-76.20	**Pass**
- 1/2	5,623.4	-5.0	-2.0	-2.95	**Pass**
- 3/8	5,802.1	-1.3	0.3	-0.38	**Pass**
- 1/4	5,976.4	-0.6	0.3	0.02	**Pass**
- 1/8	6,145.6	-0.4	0.3	0.03	**Pass**
0	6,309.6	-0.3	0.3	0.00	**Pass**
1/8	6,477.9	-0.4	0.3	0.05	**Pass**
1/4	6,661.4	-0.6	0.3	0.02	**Pass**
3/8	6,861.4	-1.3	0.3	-0.18	**Pass**
1/2	7,079.5	-5.0	-2.0	-2.94	**Pass**
1	8,166.9	N/A	-17.5	-90.11	**Pass**
2	11,872.9	N/A	-42.0	-90.03	**Pass**
3	19,267.2	N/A	-61.0	-88.40	**Pass**
4	34,020.9	N/A	-70.0	-91.73	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
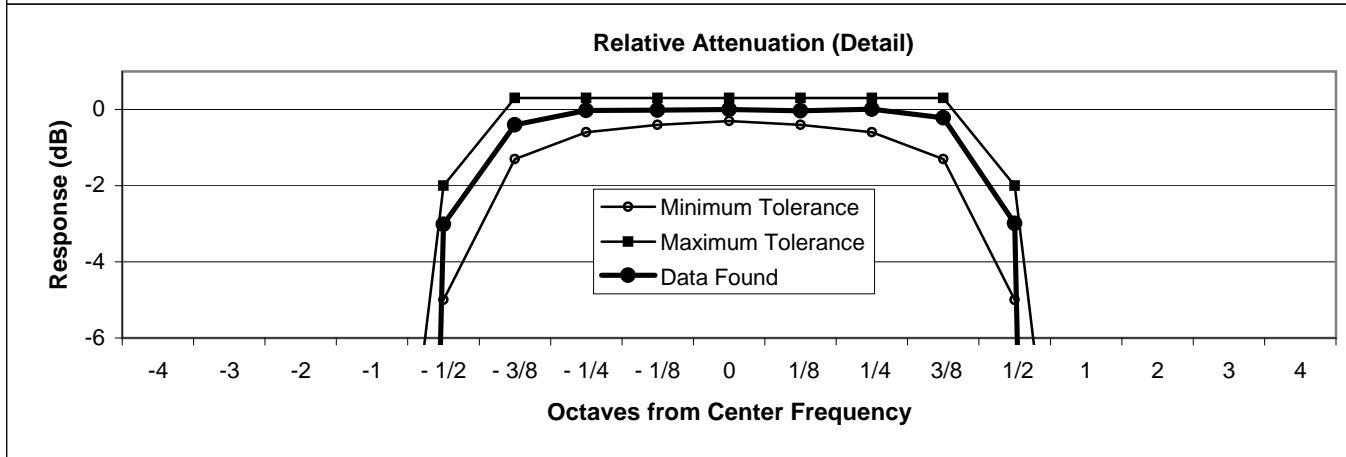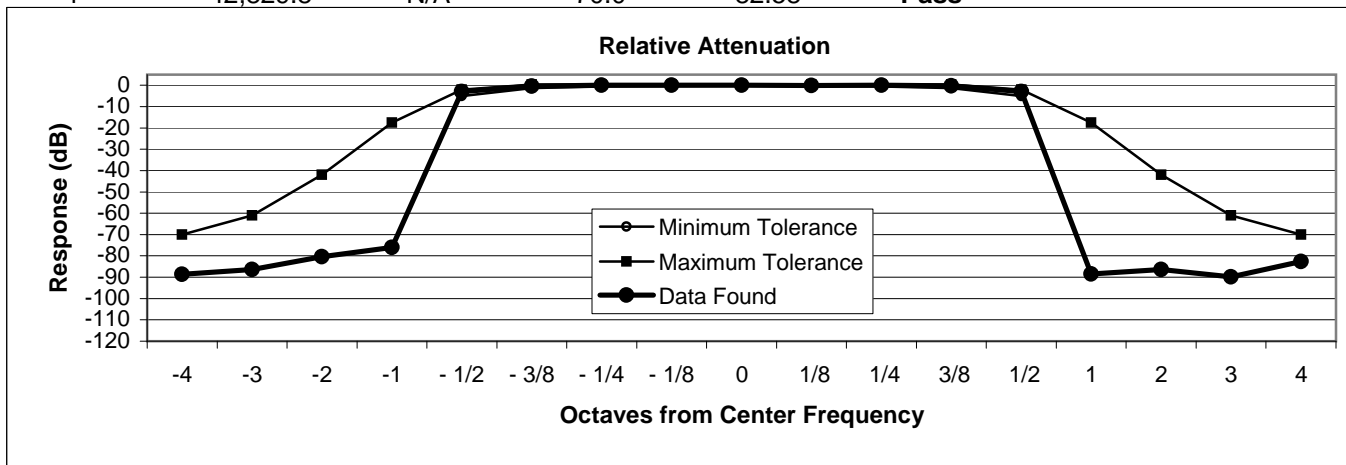Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 8 kHz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	1,473.2	N/A	-70.0	-88.66	**Pass**
-3	2,601.2	N/A	-61.0	-86.41	**Pass**
-2	4,221.3	N/A	-42.0	-80.32	**Pass**
-1	6,136.8	N/A	-17.5	-75.96	**Pass**
- 1/2	7,079.5	-5.0	-2.0	-3.02	**Pass**
- 3/8	7,304.5	-1.3	0.3	-0.41	**Pass**
- 1/4	7,523.8	-0.6	0.3	-0.02	**Pass**
- 1/8	7,736.9	-0.4	0.3	-0.02	**Pass**
0	7,943.3	-0.3	0.3	0.00	**Pass**
1/8	8,155.2	-0.4	0.3	-0.03	**Pass**
1/4	8,386.2	-0.6	0.3	0.01	**Pass**
3/8	8,638.0	-1.3	0.3	-0.22	**Pass**
1/2	8,912.5	-5.0	-2.0	-2.99	**Pass**
1	10,281.6	N/A	-17.5	-88.47	**Pass**
2	14,947.1	N/A	-42.0	-86.35	**Pass**
3	24,256.0	N/A	-61.0	-89.79	**Pass**
4	42,829.8	N/A	-70.0	-82.58	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
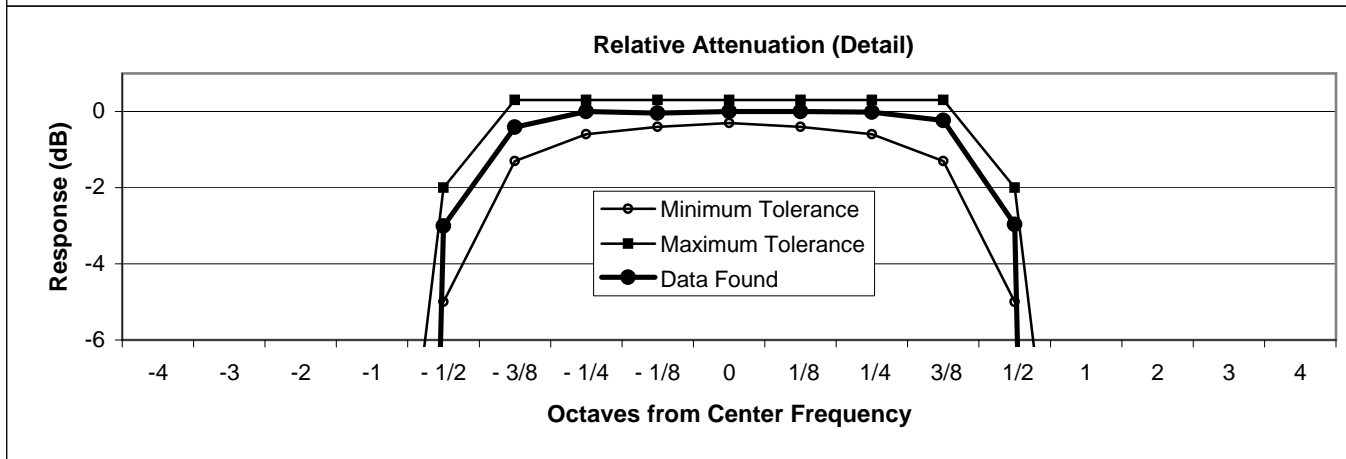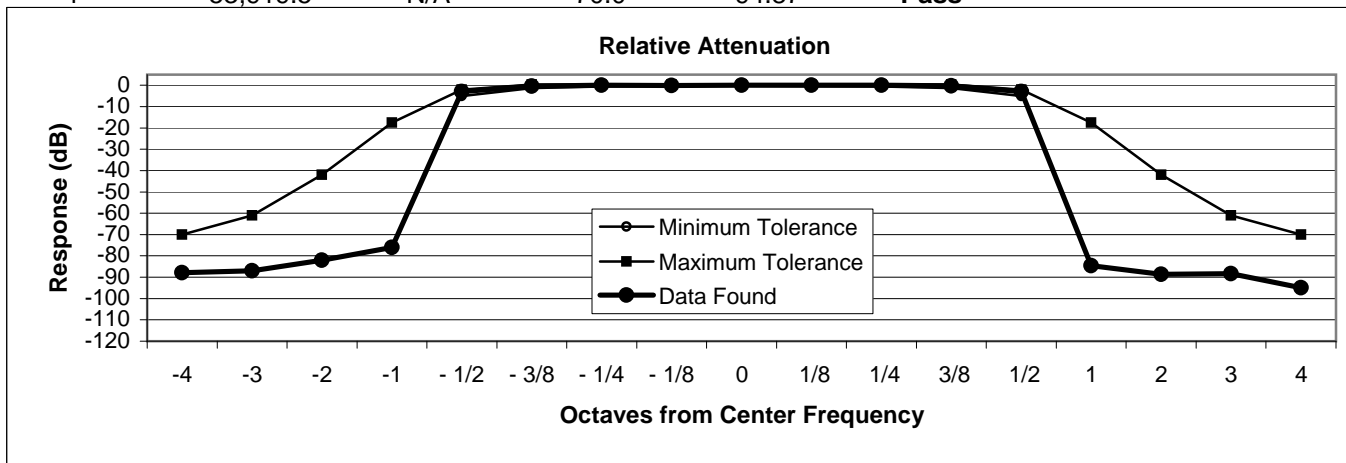Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

		1/3 Octave - 10 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	1,854.6	N/A	-70.0	-87.96	**Pass**
-3	3,274.8	N/A	-61.0	-87.00	**Pass**
-2	5,314.3	N/A	-42.0	-82.04	**Pass**
-1	7,725.7	N/A	-17.5	-75.96	**Pass**
- 1/2	8,912.5	-5.0	-2.0	-3.01	**Pass**
- 3/8	9,195.8	-1.3	0.3	-0.41	**Pass**
- 1/4	9,471.9	-0.6	0.3	0.00	**Pass**
- 1/8	9,740.2	-0.4	0.3	-0.04	**Pass**
0	10,000.0	-0.3	0.3	0.00	**Pass**
1/8	10,266.7	-0.4	0.3	0.00	**Pass**
1/4	10,557.5	-0.6	0.3	-0.02	**Pass**
3/8	10,874.6	-1.3	0.3	-0.23	**Pass**
1/2	11,220.2	-5.0	-2.0	-2.97	**Pass**
1	12,943.7	N/A	-17.5	-84.66	**Pass**
2	18,817.3	N/A	-42.0	-88.70	**Pass**
3	30,536.5	N/A	-61.0	-88.27	**Pass**
4	53,919.5	N/A	-70.0	-94.87	**Pass**

Relative Attenuation

Response (dB) vs Octaves from Center Frequency
Legend: Minimum Tolerance, Maximum Tolerance, Data Found

Relative Attenuation (Detail)

Response (dB) vs Octaves from Center Frequency
Legend: Minimum Tolerance, Maximum Tolerance, Data Found

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
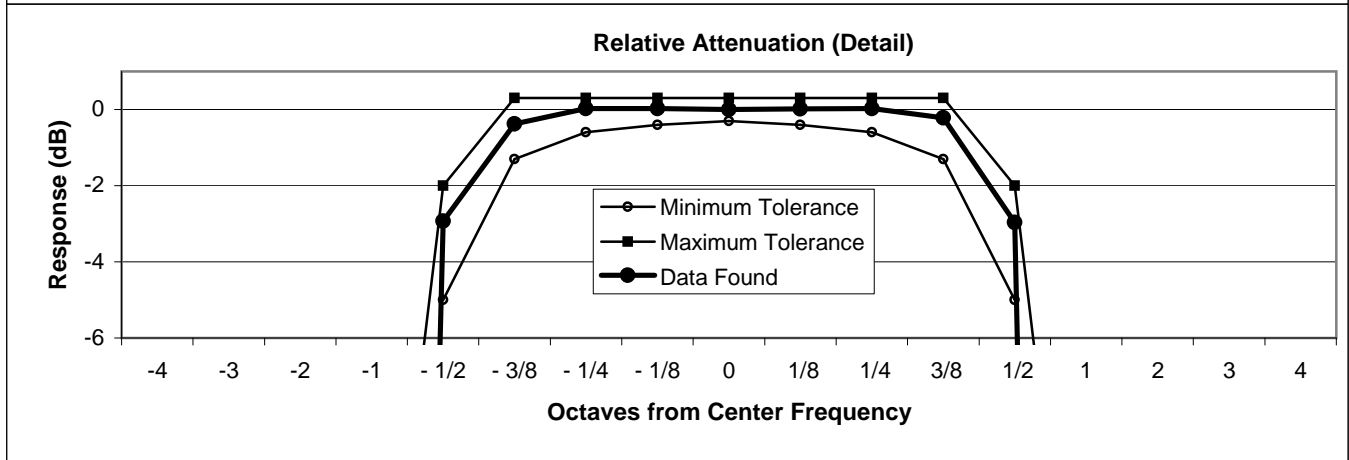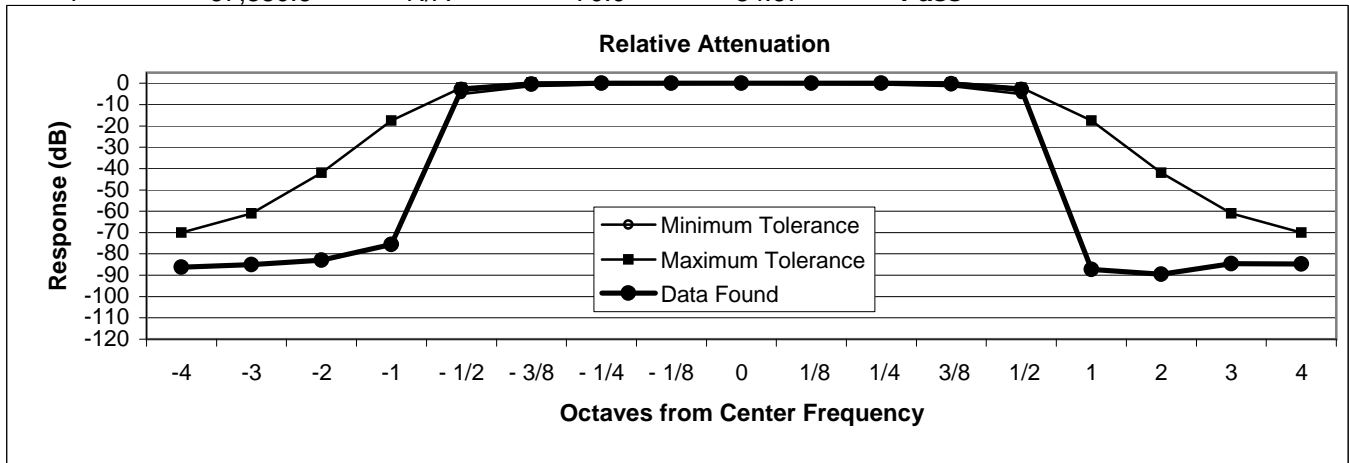Input Frequency: the input frequency to the filter
Tolerance: the acceptable range for what the filter should indicate according to IEC 61260
Data Found: the level the sound level meter indicates

1/3 Octave - 12.5 kHz					
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB)		Data Found (dB)	Pass/Fail
		Minimum	Maximum		
-4	2,334.8	N/A	-70.0	-86.22	**Pass**
-3	4,122.7	N/A	-61.0	-84.98	**Pass**
-2	6,690.3	N/A	-42.0	-82.96	**Pass**
-1	9,726.1	N/A	-17.5	-75.64	**Pass**
- 1/2	11,220.2	-5.0	-2.0	-2.94	**Pass**
- 3/8	11,576.8	-1.3	0.3	-0.38	**Pass**
- 1/4	11,924.4	-0.6	0.3	0.03	**Pass**
- 1/8	12,262.2	-0.4	0.3	0.03	**Pass**
0	12,589.3	-0.3	0.3	0.00	**Pass**
1/8	12,925.1	-0.4	0.3	0.01	**Pass**
1/4	13,291.2	-0.6	0.3	0.02	**Pass**
3/8	13,690.3	-1.3	0.3	-0.22	**Pass**
1/2	14,125.4	-5.0	-2.0	-2.97	**Pass**
1	16,295.2	N/A	-17.5	-87.23	**Pass**
2	23,689.5	N/A	-42.0	-89.49	**Pass**
3	38,443.2	N/A	-61.0	-84.53	**Pass**
4	67,880.6	N/A	-70.0	-84.67	**Pass**

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency
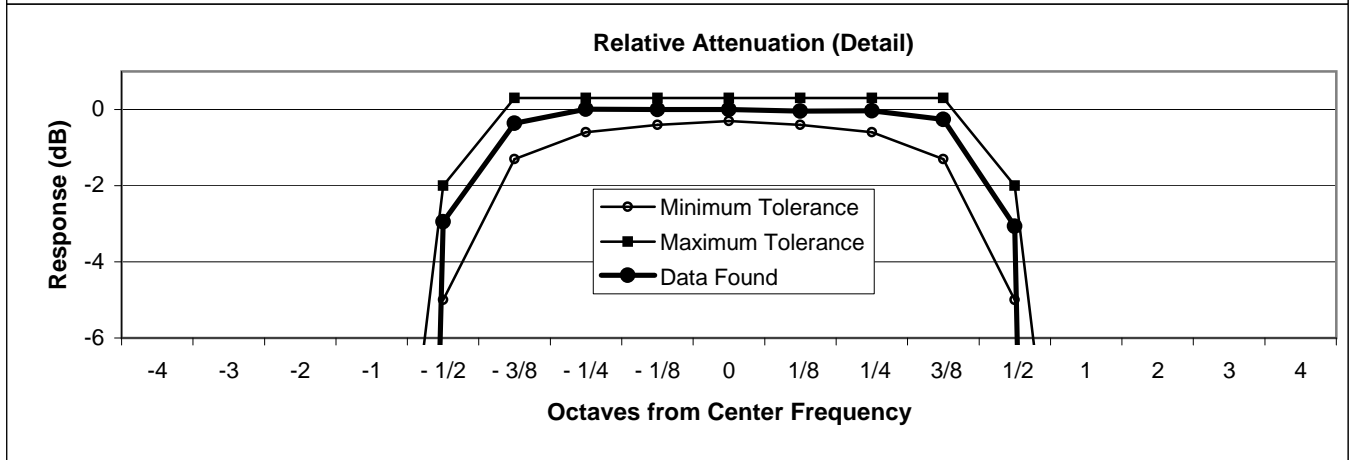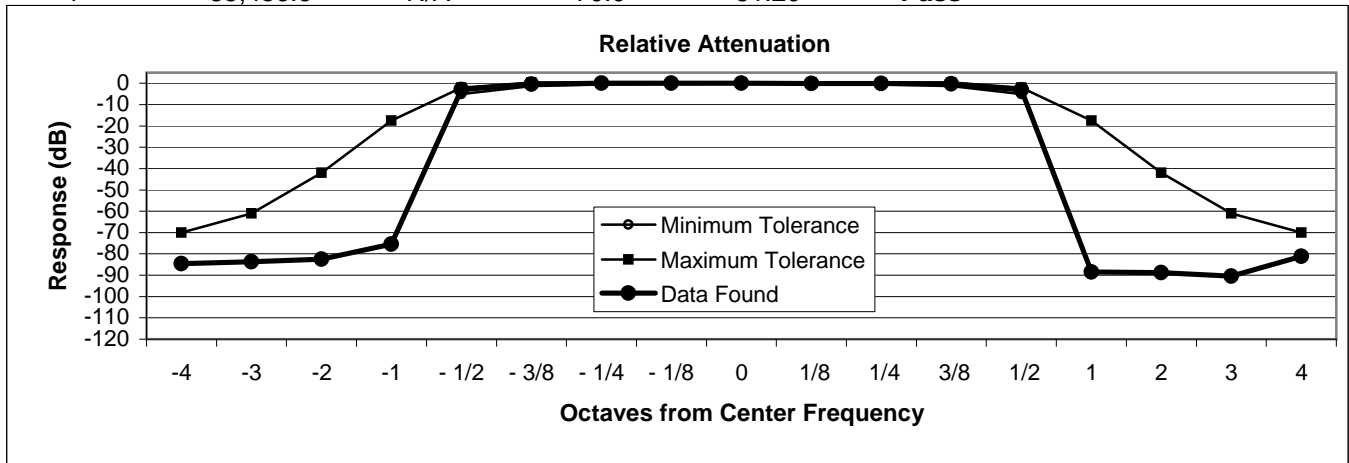
Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Tolerance (dB) Maximum	Data Found (dB)	Pass/Fail
-4	2,939.4	N/A	-70.0	-84.65	**Pass**
-3	5,190.2	N/A	-61.0	-83.71	**Pass**
-2	8,422.5	N/A	-42.0	-82.56	**Pass**
-1	12,244.5	N/A	-17.5	-75.44	**Pass**
- 1/2	14,125.4	-5.0	-2.0	-2.95	**Pass**
- 3/8	14,574.3	-1.3	0.3	-0.36	**Pass**
- 1/4	15,012.0	-0.6	0.3	0.01	**Pass**
- 1/8	15,437.2	-0.4	0.3	0.00	**Pass**
0	15,848.9	-0.3	0.3	0.00	**Pass**
1/8	16,271.7	-0.4	0.3	-0.04	**Pass**
1/4	16,732.6	-0.6	0.3	-0.04	**Pass**
3/8	17,235.0	-1.3	0.3	-0.26	**Pass**
1/2	17,782.8	-5.0	-2.0	-3.07	**Pass**
1	20,514.4	N/A	-17.5	-88.45	**Pass**
2	29,823.4	N/A	-42.0	-88.73	**Pass**
3	48,397.1	N/A	-61.0	-90.41	**Pass**
4	85,456.6	N/A	-70.0	-81.20	**Pass**

1/3 Octave - 16 kHz

Relative Attenuation

Relative Attenuation (Detail)

Calibration Data for
831# XXX
ID# N/A

Odin Metrology, Inc.

Odin Metrology, Inc.
Report# N/A
March 31, 2011

Relative Attenuation (IEC 61260 § 5.3)

The attenuation of the filter at the given frequencies shall be within the stated tolerance. The frequencies are calculated as octaves from the center frequency. The factors defined by IEC 61260 (Table 1) are: ±4, ±3, ±2, ±1, ±1/2, ±3/8, ±1/4, ±1/8 and 0.

Octaves from Center Frequency: the difference, in octaves, between the selected center frequency and the current input frequency

Input Frequency: the input frequency to the filter

Tolerance: the acceptable range for what the filter should indicate according to IEC 61260

Data Found: the level the sound level meter indicates

		1/3 Octave - 20 kHz			
Octaves from Center Freq.	Input Freq. (Hz)	Tolerance (dB) Minimum	Maximum	Data Found (dB)	Pass/Fail
-4	3,700.4	N/A	-70.0	-80.95	**Pass**
-3	6,534.0	N/A	-61.0	-83.51	**Pass**
-2	10,603.4	N/A	-42.0	-84.57	**Pass**
-1	15,414.9	N/A	-17.5	-75.56	**Pass**
- 1/2	17,782.8	-5.0	-2.0	-2.81	**Pass**
- 3/8	18,348.0	-1.3	0.3	-0.26	**Pass**
- 1/4	18,898.9	-0.6	0.3	0.11	**Pass**
- 1/8	19,434.2	-0.4	0.3	0.05	**Pass**
0	19,952.6	-0.3	0.3	0.00	**Pass**
1/8	20,484.8	-0.4	0.3	-0.02	**Pass**
1/4	21,065.1	-0.6	0.3	-0.08	**Pass**
3/8	21,697.6	-1.3	0.3	-0.38	**Pass**
1/2	22,387.2	-5.0	-2.0	-3.33	**Pass**
1	25,826.2	N/A	-17.5	-88.04	**Pass**
2	37,545.4	N/A	-42.0	-86.59	**Pass**
3	60,928.4	N/A	-61.0	-79.80	**Pass**
4	107,583.5	N/A	-70.0	-77.84	**Pass**

Relative Attenuation

Relative Attenuation (Detail)