



INDUSTRIAL HYGIENE MONITORING REPORT – Accommodation facilities

S2 2024

Baffinland Iron Mines corp.

**Mary River Mine and Milne Port inlet
(Nunavut)**

December 2024

File # : HDS-9048-2



**Hudon Desbiens St-Germain
Environnement inc.**

640, rue Saint-Paul Ouest, Bureau 100

Montréal (Québec) H3C 1L9

Tél.: (514) 398-0553 Fax: (514) 398-0554

info@hdsenv.com www.hdsenv.com

TABLE OF CONTENT

Page

1	INTRODUCTION	1
1.1	Mandate and Objectives	1
1.2	Scope and Approach	1
1.3	Study Limitations.....	1
2	SITES DESCRIPTIONS & OPERATING CONDITIONS.....	2
2.1	Sites descriptions.....	2
2.2	Conditions during surveys.....	2
3	GUIDELINE VALUES.....	3
3.1	Indoor noise	3
3.2	Whole-body vibration	3
4	METHODOLOGY	5
4.1	Sampling strategy	5
4.2	Indoor noise	5
4.3	Whole-body vibration	5
5	RESULTS.....	7
5.1	Indoor noise	7
5.2	Whole-body vibration	9
6	CONCLUSIONS AND RECOMMENDATIONS.....	11
6.1	Noise	11
6.2	Whole-body vibration	11
	REFERENCES.....	12

TABLES

Page

Table 1. Sampling strategy.....	6
Table 2. Results – Indoor noise levels in accommodation facilities.....	8
Table 3. Results – Whole-body vibration levels in accommodation facilities	10

APPENDICES

Appendix A – Study Limitations

Appendix B – Calibration certificates

Appendix C – Session reports, indoor noise levels

Appendix D – Session reports, whole-body vibration levels

PREPARED FOR

BAFFINLAND IRON MINES CORPORATION

360 Oakville Place Drive, Suite 300
Oakville, Ontario, Canada, L6H 6K8

Sean Lee
Health, Safety & Security Superintendent

Blaine Taylor
Health, Safety & Security Superintendent

Wayne LeDrew
Sr. Health and Safety Coordinator

Peter Hennebury
Health and Safety Coordinator

PREPARED BY

HUDON DESBIENS ST-GERMAIN ENVIRONNEMENT INC.

640, rue Saint-Paul ouest, bureau 100
Montreal (Quebec) H3C 1L9

Jean-Paul Ballot, Eng. & ROH
Registered Occupational Hygienist

jpballet@hdsenv.com



Henintsoa Rakotomalala, Eng.
Occupational Hygiene Professional

hrakotomalala@hdsenv.com

1 INTRODUCTION

1.1 Mandate and Objectives

The services of Hudon Desbiens St-Germain Environnement inc. (HDS Environnement) were selected by Baffinland Iron Mines Corporation (herein referred to as BIM) to survey various physical contaminants in accommodation facilities at the Mary River Mine and the Milne inlet Port, two sites located in the Qikiqtani Region (Baffin Island; Nunavut).

This study was carried out at the request of Wayne LeDrew, Sr. Health & Security Coordinator of BIM as part of the 2024 industrial hygiene monitoring program.

1.2 Scope and Approach

The scope of the study included the following:

- Mary River Mine site (MRM):
 - Sailivik camp (SC): indoor noise and whole-body vibration levels,
 - Mine site complex (MSC): indoor noise and whole-body vibration levels.
- Milne inlet Port site (MP):
 - Port Site complex (PSC) camp and 380-person camp: indoor noise and whole-body vibration levels.

The present report includes, but is not limited to, a brief description of the implemented strategy, sampling methodology, results, conclusions and relevant recommendations.

1.3 Study Limitations

The conclusions and recommendations included in this report are based upon professional opinions expressed within the context of the mandate given to HDS Environment by Baffinland Iron Mines. HDS Environment accepts no responsibility for any use that is made of this report in any other context or by any other party, unless being expressly informed prior to such use and having explicitly agreed to the use of this report by others.

This study only reflects the observations and measurements made during the sampling campaign. HDS Environnement declines all responsibility for any variation in environmental conditions and the potential impacts on the conclusions of this study (detailed study limitation in Appendix A).

2 SITES DESCRIPTIONS & OPERATING CONDITIONS

2.1 Sites descriptions

BIM operates two (2) sites in the Qikiqtani Region: the MRM site and the MP site. The crushed ore produced throughout the year by the mining operations at MRM is transported to MP by a fleet of Off-Highway Trucks (OHTs), where it is stockpiled until the sea lane is opened for a few weeks, at the end of the summer.

This study was conducted at different workers' accommodations, between August and September 2024, during shipping season.

2.2 Conditions during surveys

SC, MSC and PSC are composed of modular prefabricated structures, while the 380-man camp is made of soft-wall structures. Rooms are standardised across each facility. During the study, all facilities were open to guests except for MSC (these facilities were used for a short period of time in 2024, however no guests were registered during the survey).

The indoor noise and whole-body vibration levels measured in accommodation facilities include contributions from various indoor sources (HVAC systems, opening/closing doors, cleaning, etc.) as well as outdoor sources (idling vehicles, machinery operations, etc.).

Except for the vacancy of the wing A of the 380-person camp, the various surveys in accommodations and offices were overall considered representative of regular operating, ventilation and occupancy conditions (please refer to section 5, *Results* for details).

3 GUIDELINE VALUES

3.1 Indoor noise

Based on information collected during the mandate, the Nunavut Impact Review Board (NIRB) established a 75-dBA threshold for the average noise exposure of workers during rest periods. This limit is based on the 85-dBA exposure threshold established by the Mine Health and Safety Act R-125-95 for an 8-hr work shift (Part IX and Schedule 5).

Additional research allowed to pinpoint the World Health Organization (WHO) *Guidelines for Community Noise*¹ which recommends an 8-hr L_{Aeq} ² of 30 dBA during night-time, inside a bedroom (continuous noises). This guideline is designed to minimize sleep disturbance for “sensitive groups [...] including shift workers [...] and other individuals who have difficulty sleeping”.

Thus, to take into account the requirements of NIRB as well as the ALARA (As Low As Reasonably Achievable) safety principle, we will therefore consider in this study a 8-hr L_{Aeq} comfort threshold of 30 dBA and a 8-hr L_{Aeq} exposure limit (EL) of 75 dBA to assess workers' exposure to indoor noise levels during rest periods.

3.2 Whole-body vibration

Based on information collected during the mandate, due to the absence of a vibration exposure threshold in the *Mine Health and Safety Act* R-125-95, the NIRB refers to the daily exposure limits defined by the European Physical Agents Vibration Directive 2002/44/EC.

For workers exposed to whole-body vibration, this directive defines an action limit (AL) of 0.5 m/s² and an EL of 1.15 m/s², both standardized to an 8-hr reference period.

Additional research allowed to pinpoint a 5-part standard from the International Organization for Standardization (ISO) on human exposure to mechanical vibrations. In appendix C of part 1 of the standard³, it is stated that “fifty percent of alert, fit persons can just detect a weighted vibration with a peak magnitude of 0.015 m/s² [...] with a range of response [that] may extend from about 0.01 m/s² to 0.02 m/s² peak”.

¹ *Guidelines for community noise*, World Health Organization, Geneva, Switzerland (1999).

² 8h- L_{Aeq} is the energy average equivalent level of A-weighted sound over eight (8) hours.

³ ISO 2631-1:1997 *Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration – Part 1: General requirements*

In part 2⁴ of the same standard, it is also stated that “*experience showed in numerous countries that residents expressed complaints linked to vibrations in residential buildings when the magnitude of vibrations are slightly above the perception threshold defined in part 1, appendix C*”.⁵

Thus, to take into account the requirements of NIRB as well as the ALARA safety principle, we will therefore consider in this study a comfort threshold of 0.015 m/s² (peak exposure), an 8-hr AL of 0.5 m/s² and an 8-hr EL of 1.15 m/s² to assess workers’ exposure to whole-body vibration levels during rest periods.

It should be noted that the AL should be considered as a threshold for increased vigilance in order to prevent reaching the EL.

⁴ ISO 2631-2:2003 *Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 2: Vibration in buildings (1 Hz to 80 Hz)*

⁵ Free translation from the French version of ISO 2631-2:2003

4 METHODOLOGY

4.1 Sampling strategy

The sampling strategy was initially established by BIM representatives prior to the industrial hygiene campaign and adjusted on the field by the HDS representative based on availability of vacant or unoccupied rooms. The final sampling strategy is presented in table 1 below.

4.2 Indoor noise

Indoor noise levels were measured with a class 1 sound level meter (SLM) from Larson Davis, Spartan™ 821 (S/N 001009). The SLM was calibrated prior to sampling using an adapted acoustic calibrator (from Larson Davis, model Cal200) and the calibration drift was checked post-sampling with the same calibrator. These instruments were calibrated to manufacturer's specifications less than one (1) year prior to fieldwork (calibration certificates available in Appendix B).

Sound levels were logged at regular intervals (continuous readings integrated with a Q3 bisection factor, no integration threshold, SLOW response and a 40-110 range).

The SLM were set on a tripod in the center of the room.

Average noise levels (L_{avg}) measured in the present study were considered representative of equivalent average noise levels time-weighted over an 8-hr period ($8h-L_{Aeq}$) and were thus directly compared to the comfort threshold and the 8-hr EL considered in the present study.

4.3 Whole-body vibration

Whole-body vibration levels were measured with a HVM200 from Larson Davis, equipped with a seat pad triaxial accelerometer SEN027. These instruments were calibrated to manufacturer's specifications less than one (1) year prior to fieldwork (calibration certificates available in Appendix B).

The HVM200 was set on "Whole-body Mode" for proper frequency weighting and measurements were logged at 1-min intervals during sampling, unless stated otherwise.

Seat pads were positioned on the floor or on a bedside table, approximately in the center of targeted rooms.

Average accelerations (A_{eq} or A_{rms}) measured during the present study were considered representative of equivalent average accelerations time-weighted on an 8-hr reference period and were thus directly compared to the 8-hr AL and the 8-hr EL considered in the present study.



TABLE 1
SAMPLING STRATEGY - Accommodations facilities
Indoor noise and whole-body vibration - S2 2024
Baffinland Iron Mines - Mary River Mine and Milne Port Sites (Nunavut)

Date	Location			Indoor Noise	Whole-body vibration
Mary River Mine					
2024-08-22	Sailiviik camp	Room D1-16	(vacant)	1	1
2024-08-23	MSC camp	Room AC-4 [NS]	(vacant)	1	1
Milne Inlet Port					
2024-08-26	380-person camp	Room D8	(vacant)	1	1
2024-08-28	PSC camp	Room BD-16	(vacant)	1	1

Remarks: Measurements taken during day shift, unless specified otherwise.
Whole-body vibrations samples are taken with Larson Davis HVM200 with triaxial accelerometer in seatpad (Whole Body)

5 RESULTS

5.1 Indoor noise

The indoor noise levels collected in accommodation facilities are compiled in table 2 below. The session reports are presented in Appendix C.

The notable facts are as follow:

- all the indoor noise measurements respect the 75-dBA exposure level considered by the NIRB:
 - MRM: average noise level ranged from 27 to 34 dBA.
 - MP: average noise levels ranged from 32 to 43 dBA.
- the comfort threshold of 30 dBA considered in this study was exceeded at each sampling station:
 - MRM, Sailiivik Camp, 85% of the measurement is above the comfort threshold; exceedances are evenly spread during the sampling period.
 - MRM, MSC, < 1% of measurement is above the comfort threshold (vacant facility).
 - MP, 380-person camp, 100% of measurement is above the comfort threshold; exceedances are evenly spread during the sampling period.
 - MP, PSC, ~30% of measurement is above the comfort threshold; exceedances are evenly spread during the sampling period.

The maximum level of 43 dBA was measured in the 380-person camp on August 26th, 2024 (Room D-8).



TABLE 2
RESULTS - Accommodation facilities
Indoor noise levels - S2 2024
Baffinland Iron Mines - Mary River and Milne Port Sites (Nunavut)

<i>Starting Date</i>	<i>Location</i>	<i>Instrument</i>	<i>Sampling duration</i>	<i>Leq¹ (dBA)</i>	<i>Remarks</i>
Comfort threshold² (dBA)				30	
Exposure Level³ (dBA)				75	
Mary River Mine					
2024-08-22	Sailliivik Camp - Room D1-16	Spartan 821 S/N 30013	from 4 h 48 to 18 h 56	33,9	Vacant Room Regular conditions
2024-08-23	Mary River Site complex - Room AC-4	Spartan 821 S/N 30013	from 14 h 58 to 6 h 21	27,0	Vacant Room Regular conditions
Milne Port					
2024-08-28	Port site complex - Room BD-16	Spartan 821 S/N 30013	from 5 h 11 to 20 h 05	32,3	Vacant Room Regular condition
2024-08-26 to 2024-08-27	380-person camp - Room D-8	Spartan 821 S/N 30013	from 7 h 19 to 4 h 29	42,7	Vacant Room Regular conditions

General remarks:

Measurements were taken with a Larson Davis SoundExpert 821 sound level meter (Q3 bisection factor, no integration threshold).
Measurements were taken in vacant rooms.

Notes :

¹ Leq: equivalent noise level averaged over sampling time.

² Comfort threshold defined in the World Health Organization *Guidelines for Community Noise* and designed to minimize sleep disturbances for shift workers.

³ Exposure level considered by the Nunavut Impact Review Board (NIRB) for exposure to noise during resting time.

5.2 Whole-body vibration

The vibration levels measured in accommodation facilities are compiled in table 3 below. The session reports are presented in Appendix D.

The notable facts are as follow:

- all the whole-body vibration measurements respect the limits of 0.5 m/s^2 and 1.15 m/s^2 considered by the NIRB:
 - MRM: average vibration levels range from 0,002 to 0,003 m/s^2 .
 - MP: average vibration levels range from 0,003 to 0,004 m/s^2 .
- the comfort threshold (peak exposure) of 0.015 m/s^2 considered in this study was exceeded at each sampling station:
 - SC: exceedances represent ~4% of the sampling time (evenly spread during the sampling period).
 - MSC: exceedances represent < 1% of the sampling time (vacant facility).
 - 380-person camp: exceedances represent 20% of sampling time during day shift and 27% of sampling time during night shift (75% of the exceedances are during shift changes, between 3 a.m. and 9 a.m. and between 3 p.m. and 9 p.m.).
 - PSC: exceedances represent 11% of the sampling time (80% of the exceedances are before 9 a.m. and after 3 p.m.).

TABLE 3
RESULTS - Accommodation facilities
Whole-body vibrations - S2 2024
Baffinland Iron Mines - Mary River and Milne Port Sites (Nunavut)

Starting Date	Location	Sampling duration	A_{eq}^1 (m/s^2)	A_{peak}^2 (m/s^2)	Remarks
Comfort threshold (m/s^2) (peak) ³			-	0,015	
8-hr action limit (m/s^2) ⁴			0,5	-	
8-hr exposure level (m/s^2) ⁵			1,15	-	
Mary River Mine					
2024-08-22	Sailiivik Camp - Room D1-16	from 4 h 49 to 17 h 48	0,002	0,084	Vacant Room Regular conditions Comfort threshold exceeded for ~4% of sampling time
2024-08-23	Mine site complex - Room AC-4	from 14 h 58 to 6 h 21	0,002	0,281	Vacant Room Regular conditions Comfort threshold exceeded for ~1% during sampling time
Milne Port					
2024-08-26	380-person camp - Room D-8	from 7 h 19 to 7 h 26 (+ 1 day)	0,004	0,211	Vacant Room Regular conditions Comfort threshold exceeded for ~20% of sampling time during DS and ~27% of sampling time during NS
2024-08-28	Port site complex - Room BD-16	from 5 h 11 to 20 h 05	0,004	0,230	Vacant Room Regular conditions Comfort threshold exceeded for ~11% of sampling time

General remarks:

All samples are taken with Larson Davis HVM200 with triaxial accelerometer in seatpad (Whole Body Vibration mode).

Notes :

¹ A_{eq} or A_{rms} : the frequency-weighted, time-weighted acceleration sum over the sampling period.

² A_{peak} : the frequency-weighted, peak acceleration sum measured during the sampling period.

³ Comfort threshold defined by the 5-part standard ISO 2631 1:1997 (peak measurement)

⁴ 8-hr Action limit considered by the Nunavut Impact Review Board (NIRB) for exposure to whole-body vibrations during resting time.

⁵ 8-hr Exposure limit considered by the Nunavut Impact Review Board (NIRB) for exposure to whole-body vibrations during resting time.

6 CONCLUSIONS AND RECOMMENDATIONS

The services of HDS Environnement were retained by BIM to survey noise and vibration levels in accommodation facilities of the Mary River Mine and Milne Inlet sites, located in the Qikiqtani Region (Baffin Island; Nunavut).

The surveys took place in August 2024 (see table 1 for sampling strategy). Overall, based on the data collected on site, the survey results were deemed representative of regular operating, ventilation and occupancy conditions expected at this time of year, except for MSC and the wing A of the 380-person camp, which were both vacant.

Conclusions and recommendations based on the collected data are presented below.

6.1 Noise

All the indoor noise measurements taken in the accommodations respect the exposure limit of 75 dBA considered by the NIRB for exposure to noise during rest.

The comfort threshold of 30 dBA considered in this study was exceeded in all the facilities. Overall, the exceedances are evenly spread during the sampling periods.

Based on elements above, HDS Environnement recommends:

- further documenting indoor noise levels in the accommodation facilities, especially for night shift workers during peak activity.
- identifying stationary sources of constant noise above 30 dBA in accommodation facilities.

6.2 Whole-body vibration

All the whole-body vibration measurements taken in the accommodations respect the limits of 0.5 m/s^2 and 1.15 m/s^2 considered by the NIRB for exposure to whole-body vibration during rest.

The comfort threshold of 0.015 m/s^2 considered in this study was exceeded in all the facilities. More than 75% of the exceedances in PSC and in the 380-person camp are during shift changes (3 a.m. to 9 a.m. and 3 p.m. to 9 p.m.).

Based on elements above, HDS Environnement recommends:

- further documenting whole-body vibration levels with a HVM200 in the accommodation facilities, especially during peak activity.
- identifying stationary sources of whole-body vibrations above 0.015 m/s^2 in accommodation facilities.

REFERENCES

- *Mine Health and Safety Act (mine health and safety regulations)* R-125-95.
- *Safety Act (occupational health and safety regulations)* R-003-2016;
- *Canada Occupational Health and Safety Regulations*, SOR/86-304
- American Conference of Governmental Industrial Hygienists, *TLVs and BEIs booklet*, 2024 edition.
- World Health Organization, *Guidelines for community noise*, 1999.
- ISO 2631 1:1997 *Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration – Part 1: General requirements*.
- ISO 2631-2:2003 *Mechanical vibration and shock — Evaluation of human exposure to whole-body vibration — Part 2: Vibration in buildings (1 Hz to 80 Hz)*.



APPENDIX A

Study limitations

LIMITATIONS AND DISCLAIMER OF LIABILITY

This report (hereinafter the "Report") was prepared by Hudon Desbiens St-Germain Environnement inc. (hereinafter "HDS Environnement") at the request and for the sole benefit of the client for whom it is directly intended (hereinafter the "Client").

The use of the Report and its content by a third party is subject to the prior written authorization of HDS Environnement. In the event of use of the Report without the authorization of HDS Environnement, this third party undertakes to use it at its own risk and assumes full responsibility. Likewise, it expressly releases HDS Environnement from any liability resulting, directly or indirectly, from the elements, information, conclusions and/or recommendations contained in the Report. HDS Environnement has no obligation towards this third party and may under no circumstances be held liable for losses, fines, penalties, costs, damages and/or prejudices, of any nature whatsoever, suffered by this third party which would result, directly or indirectly, from the use of the Report, including in particular any decision-making process used by this third party on the basis of the information, recommendations and/or conclusions contained in the Report.

Without limiting the generality of the foregoing or certain specific considerations described later in this Report, the scope of the mandate entrusted to HDS Environnement is defined by the service offer emitted on August 1st, 2024, and its subsequent modifications, as accepted by the Client (hereinafter the "Mandate").

The purpose of the Report is to provide an overview of the premises specifically covered by the Mandate, on the dates indicated in the Report, according to the scope of the Mandate, and of the findings, comments, conclusions and/or recommendations arising of this Mandate. The interpretations provided in the Report consider the laws, regulations, standards, policies, directives and best practices listed in the Report and considered while carrying out the works related to the Mandate. Accordingly, the interpretations provided in the report are of a technical nature only and do not constitute legal advice.

The work described in the Report is based on information expressly brought to the attention of HDS Environnement prior to said work, either by the Client or following diligent and reasonable research. HDS Environnement cannot be held responsible for any erroneous or missing information during the execution of said work.

Similarly, the interpretations provided in the Report are based on the results obtained within the framework of the Mandate, following specific analyzes carried out on samples taken at determined depths and at given locations, while carrying out the works related to the Mandate. These interpretations may not reflect actual variations in concentrations of materials or substances outside the scope of work of the Mandate. HDS Environnement can in no way be held responsible for these possible variations, as well as for any loss, fine, penalty, damage and/or prejudice, of any nature whatsoever, resulting directly or indirectly from them.



APPENDIX B

Calibration certificates

Calibration Certificate

Certificate Number 2024004309

Customer:

The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215, United States

Model Number	HVM200	Procedure Number	D0001.8391
Serial Number	0001785	Technician	Tina Brezinski
Test Results	Pass	Calibration Date	20 Mar 2024
Initial Condition	Found / Left	Calibration Due	20 Mar 2025
Description	Larson Davis Model HVM200	Temperature	73.7 °C ± 0.01 °C
		Humidity	23.4 %RH ± 0.5 %RH
		Static Pressure	991.4 kPa ± 0.03 kPa

Evaluation Method Tested electrically using ADSIT.99 test fixture. Data reported in m/s² with equivalent sensor sensitivity of 1 mV/m/s².

Compliance Standards Compliant to Manufacturer Specifications and the following standards:
ISO 8041-1:2017 IEC 61260:2014
ISO 8041-2:2021 ANSI S1.11
ANSI S2.70

The Modal Shop certifies that the instrument described above meets or exceeds all specifications as stated in the referenced procedure (unless otherwise noted). It has been calibrated using measurement standards traceable to the SI through the National Institute of Standards and Technology (NIST), or other national measurement institutes.

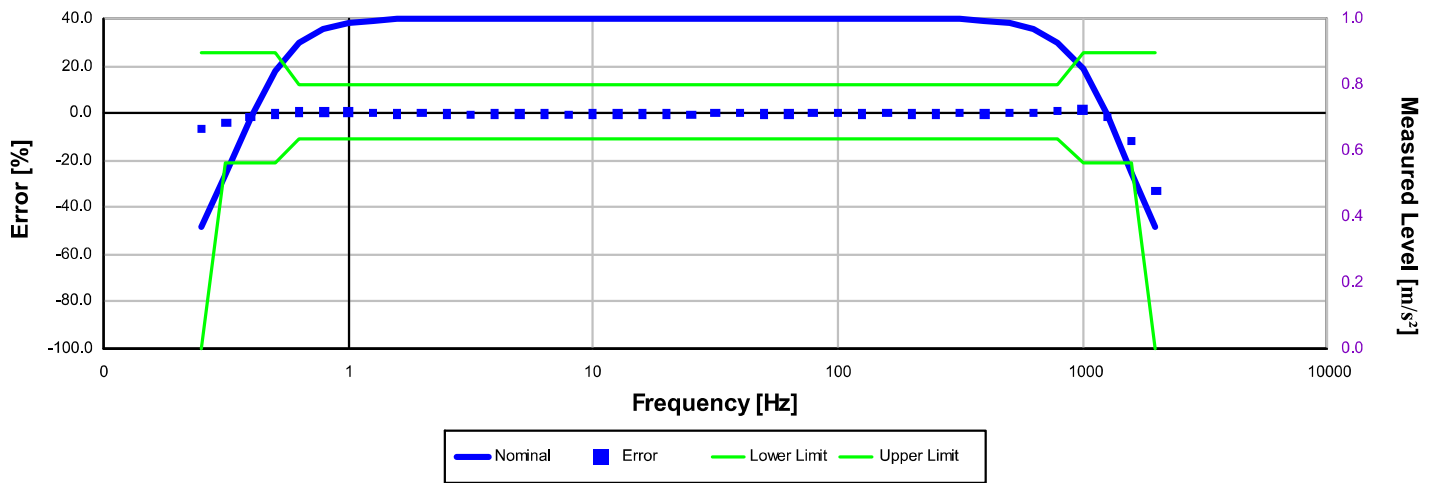
This calibration is a direct comparison of the unit under test to the listed reference standards and did not involve any sampling plans to complete. No allowance has been made for the instability of the test device due to use, time, etc. Such allowances will be made by the customer as needed.

The uncertainties were computed in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). A coverage factor of approximately 2 sigma (k=2) has been applied to the standard uncertainty to express the expanded uncertainty at approximately 95% confidence level.

This report may not be reproduced, except in full, unless permission for the publication of an approved abstract is obtained in writing from the organization issuing this report.

Standards Used			
Description	Cal Date	Cal Due	Cal Standard
SRS DS360 Ultra Low Distortion Generator	04/19/2023	04/19/2024	TMS123270

X-Axis, Fb-weighting

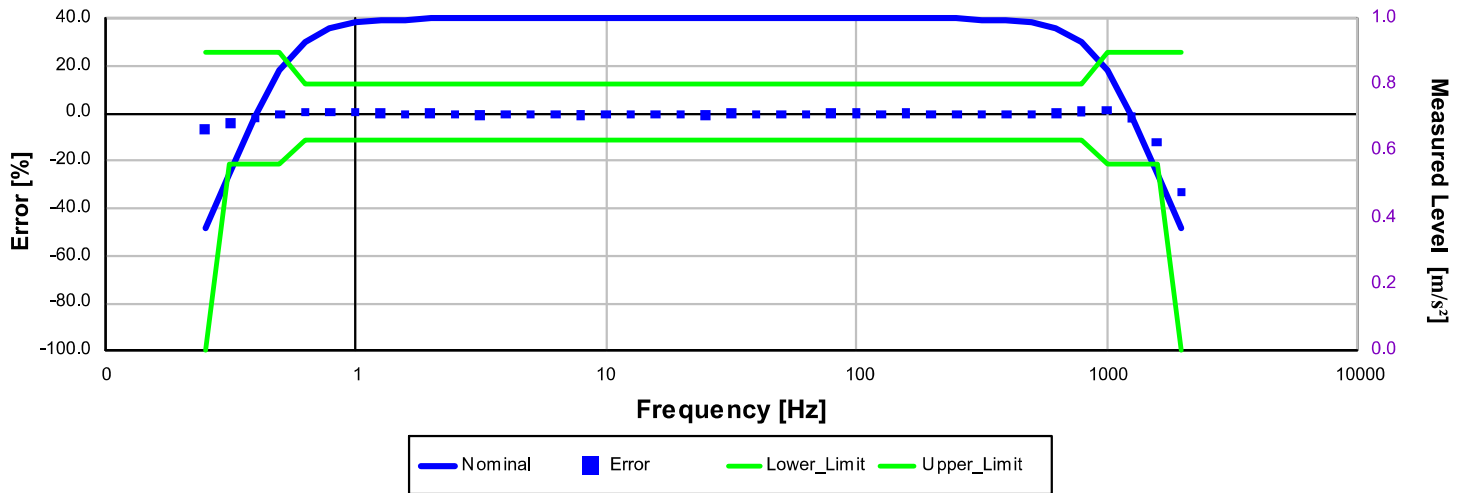


Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.25	0.3427	-6.59	-100	26	1.70	Pass
0.32	0.5090	-3.97	-21	26	1.70	Pass
0.40	0.6913	-1.76	-21	26	1.70	Pass
0.50	0.8423	-0.13	-21	26	1.70	Pass
0.63	0.9324	0.48	-11	12	1.70	Pass
0.79	0.9743	0.51	-11	12	1.70	Pass
1.00	0.9931	0.58	-11	12	1.70	Pass
1.26	0.9964	0.15	-11	12	1.70	Pass
1.58	0.9943	-0.37	-11	12	1.70	Pass
2.00	0.9989	-0.03	-11	12	1.70	Pass
2.51	0.9963	-0.34	-11	12	1.70	Pass
3.16	0.9926	-0.73	-11	12	1.70	Pass
3.98	0.9964	-0.35	-11	12	1.70	Pass
5.01	0.9959	-0.41	-11	12	1.70	Pass
6.31	0.9960	-0.40	-11	12	1.70	Pass
7.94	0.9941	-0.59	-11	12	1.70	Pass
10.00	0.9987	-0.13	-11	12	1.70	Pass
12.59	0.9963	-0.37	-11	12	1.70	Pass
15.85	0.9964	-0.36	-11	12	1.70	Pass
19.95	0.9965	-0.35	-11	12	1.70	Pass
25.12	0.9949	-0.51	-11	12	1.70	Pass
31.62	1.0003	0.03	-11	12	1.70	Pass
39.81	0.9991	-0.09	-11	12	1.70	Pass
50.12	0.9968	-0.32	-11	12	1.70	Pass
63.10	0.9974	-0.26	-11	12	1.70	Pass
79.43	1.0002	0.02	-11	12	1.70	Pass
100.00	1.0001	0.01	-11	12	1.70	Pass
125.89	0.9976	-0.23	-11	12	1.70	Pass
158.49	1.0000	0.01	-11	12	1.70	Pass
199.53	0.9971	-0.26	-11	12	1.70	Pass
251.19	0.9958	-0.34	-11	12	1.70	Pass
316.23	0.9973	-0.07	-11	12	1.70	Pass
398.11	0.9933	-0.17	-11	12	1.70	Pass
501.19	0.9868	-0.09	-11	12	1.70	Pass
630.96	0.9714	0.15	-11	12	1.70	Pass
794.33	0.9392	1.09	-11	12	1.70	Pass

Frequency [Hz]	Test Result [m/s²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
1,000.00	0.8575	1.40	-21	26	1.70	Pass
1,258.90	0.6960	-1.57	-21	26	1.70	Pass
1,584.90	0.4700	-11.92	-21	26	1.70	Pass
1,995.30	0.2477	-33.04	-100	26	1.70	Pass
-- End of measurement results--						

Y-Axis, Fb-weighting

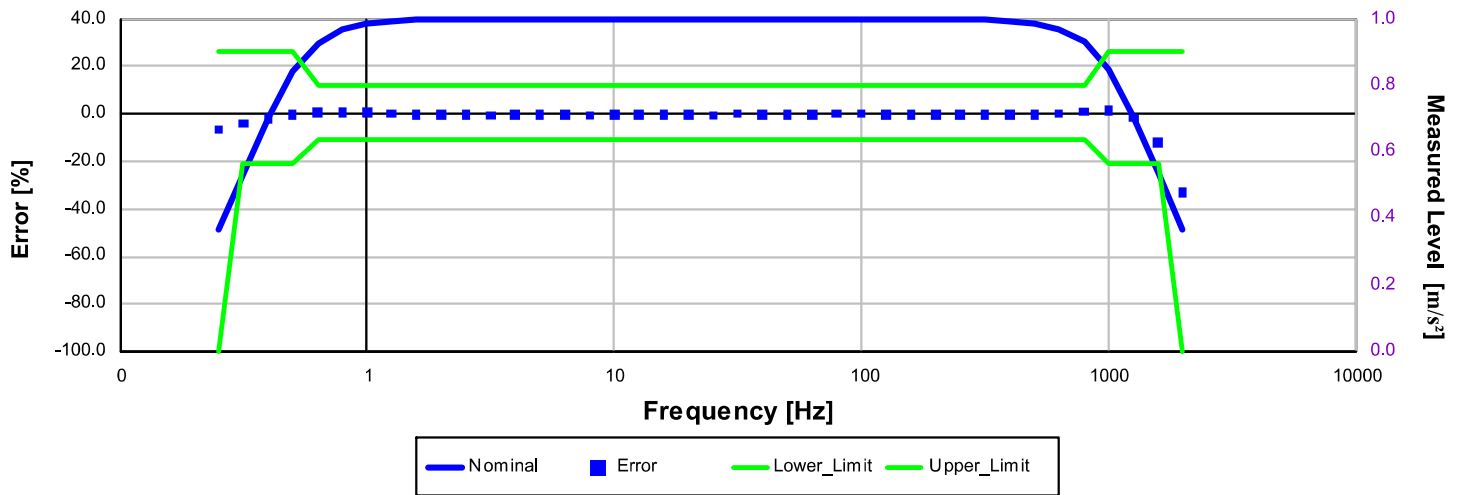


Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.25	0.3426	-6.63	-100	26	1.70	Pass
0.32	0.5088	-4.00	-21	26	1.70	Pass
0.40	0.6911	-1.79	-21	26	1.70	Pass
0.50	0.8422	-0.15	-21	26	1.70	Pass
0.63	0.9322	0.47	-11	12	1.70	Pass
0.79	0.9742	0.50	-11	12	1.70	Pass
1.00	0.9930	0.57	-11	12	1.70	Pass
1.26	0.9963	0.14	-11	12	1.70	Pass
1.58	0.9943	-0.37	-11	12	1.70	Pass
2.00	0.9989	-0.03	-11	12	1.70	Pass
2.51	0.9963	-0.34	-11	12	1.70	Pass
3.16	0.9925	-0.74	-11	12	1.70	Pass
3.98	0.9964	-0.35	-11	12	1.70	Pass
5.01	0.9959	-0.41	-11	12	1.70	Pass
6.31	0.9960	-0.40	-11	12	1.70	Pass
7.94	0.9941	-0.59	-11	12	1.70	Pass
10.00	0.9987	-0.13	-11	12	1.70	Pass
12.59	0.9963	-0.37	-11	12	1.70	Pass
15.85	0.9964	-0.36	-11	12	1.70	Pass
19.95	0.9965	-0.35	-11	12	1.70	Pass
25.12	0.9949	-0.51	-11	12	1.70	Pass
31.62	1.0004	0.04	-11	12	1.70	Pass
39.81	0.9991	-0.09	-11	12	1.70	Pass
50.12	0.9968	-0.32	-11	12	1.70	Pass
63.10	0.9975	-0.25	-11	12	1.70	Pass
79.43	1.0002	0.02	-11	12	1.70	Pass
100.00	1.0001	0.01	-11	12	1.70	Pass
125.89	0.9976	-0.23	-11	12	1.70	Pass
158.49	0.9999	0.00	-11	12	1.70	Pass
199.53	0.9970	-0.27	-11	12	1.70	Pass
251.19	0.9958	-0.34	-11	12	1.70	Pass
316.23	0.9972	-0.08	-11	12	1.70	Pass
398.11	0.9933	-0.17	-11	12	1.70	Pass
501.19	0.9867	-0.10	-11	12	1.70	Pass
630.96	0.9712	0.14	-11	12	1.70	Pass
794.33	0.9390	1.07	-11	12	1.70	Pass

Frequency [Hz]	Test Result [m/s²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
1,000.00	0.8573	1.37	-21	26	1.70	Pass
1,258.90	0.6957	-1.62	-21	26	1.70	Pass
1,584.90	0.4696	-12.00	-21	26	1.70	Pass
1,995.30	0.2474	-33.13	-100	26	1.70	Pass
-- End of measurement results--						

Z-Axis, Fb-weighting



Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

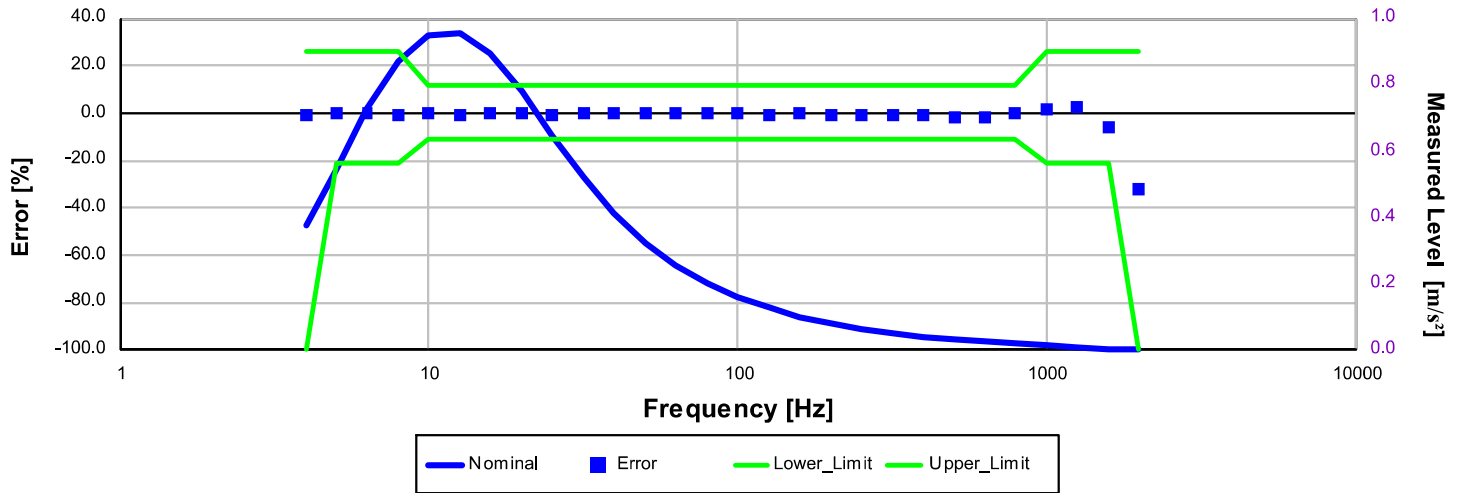
Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.25	0.3427	-6.60	-100	26	1.70	Pass
0.32	0.5089	-3.97	-21	26	1.70	Pass
0.40	0.6913	-1.77	-21	26	1.70	Pass
0.50	0.8423	-0.13	-21	26	1.70	Pass
0.63	0.9324	0.48	-11	12	1.70	Pass
0.79	0.9743	0.51	-11	12	1.70	Pass
1.00	0.9931	0.57	-11	12	1.70	Pass
1.26	0.9964	0.15	-11	12	1.70	Pass
1.58	0.9943	-0.37	-11	12	1.70	Pass
2.00	0.9989	-0.03	-11	12	1.70	Pass
2.51	0.9963	-0.34	-11	12	1.70	Pass
3.16	0.9926	-0.73	-11	12	1.70	Pass
3.98	0.9964	-0.35	-11	12	1.70	Pass
5.01	0.9959	-0.41	-11	12	1.70	Pass
6.31	0.9960	-0.40	-11	12	1.70	Pass
7.94	0.9941	-0.59	-11	12	1.70	Pass
10.00	0.9987	-0.13	-11	12	1.70	Pass
12.59	0.9963	-0.37	-11	12	1.70	Pass
15.85	0.9964	-0.36	-11	12	1.70	Pass
19.95	0.9965	-0.35	-11	12	1.70	Pass
25.12	0.9949	-0.51	-11	12	1.70	Pass
31.62	1.0003	0.03	-11	12	1.70	Pass
39.81	0.9991	-0.09	-11	12	1.70	Pass
50.12	0.9968	-0.32	-11	12	1.70	Pass
63.10	0.9974	-0.26	-11	12	1.70	Pass
79.43	1.0002	0.02	-11	12	1.70	Pass
100.00	1.0001	0.01	-11	12	1.70	Pass
125.89	0.9976	-0.23	-11	12	1.70	Pass
158.49	0.9999	0.00	-11	12	1.70	Pass
199.53	0.9970	-0.27	-11	12	1.70	Pass
251.19	0.9958	-0.34	-11	12	1.70	Pass
316.23	0.9972	-0.08	-11	12	1.70	Pass
398.11	0.9933	-0.17	-11	12	1.70	Pass
501.19	0.9867	-0.10	-11	12	1.70	Pass
630.96	0.9713	0.14	-11	12	1.70	Pass
794.33	0.9391	1.07	-11	12	1.70	Pass
1,000.00	0.8573	1.38	-21	26	1.70	Pass

The Modal Shop
10310 AeroHub Boulevard
Cincinnati, OH 45215, United States

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
1,258.90	0.6958	-1.60	-21	26	1.70	Pass
1,584.90	0.4697	-11.98	-21	26	1.70	Pass
1,995.30	0.2475	-33.10	-100	26	1.70	Pass

-- End of measurement results--

X-Axis, Wh-weighting

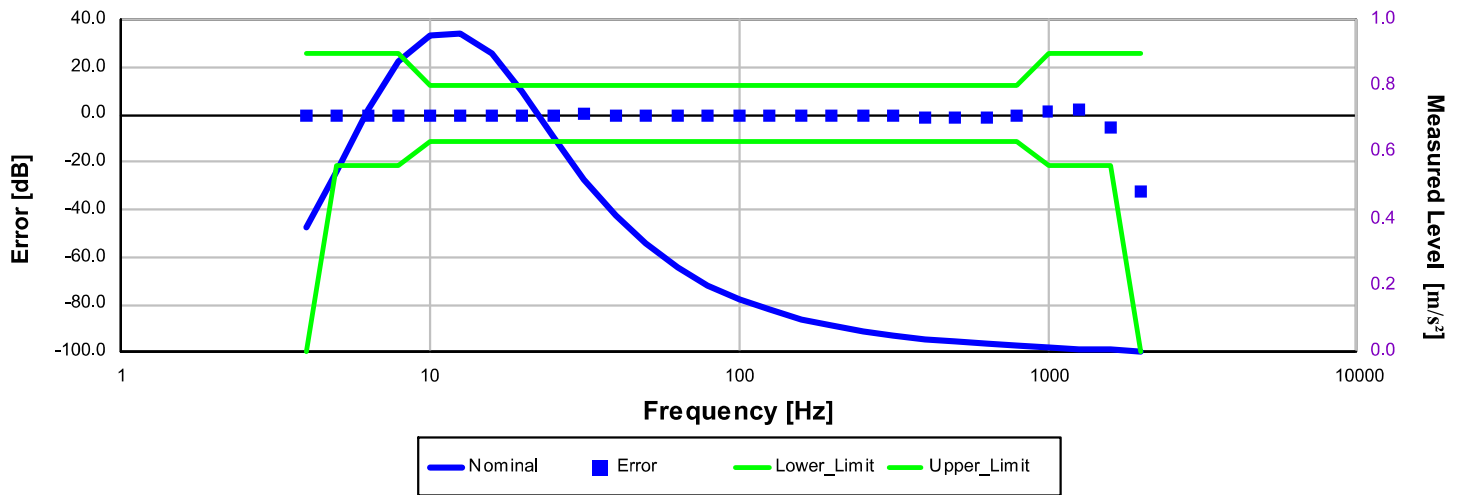


Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
3.98	0.3731	-0.62	-100	26	1.70	Pass
5.01	0.5434	-0.29	-21	26	1.70	Pass
6.31	0.7248	-0.33	-21	26	1.70	Pass
7.94	0.8686	-0.51	-21	26	1.70	Pass
10.00	0.9499	-0.15	-11	12	1.70	Pass
12.59	0.9523	-0.56	-11	12	1.70	Pass
15.85	0.8936	-0.24	-11	12	1.70	Pass
19.95	0.7808	-0.15	-11	12	1.70	Pass
25.12	0.6438	-0.50	-11	12	1.70	Pass
31.62	0.5200	0.15	-11	12	1.70	Pass
39.81	0.4105	-0.14	-11	12	1.70	Pass
50.12	0.3235	-0.28	-11	12	1.70	Pass
63.10	0.2553	-0.28	-11	12	1.70	Pass
79.43	0.2025	0.06	-11	12	1.70	Pass
100.00	0.1601	-0.03	-11	12	1.70	Pass
125.89	0.1264	-0.43	-11	12	1.70	Pass
158.49	0.1005	-0.16	-11	12	1.70	Pass
199.53	0.0795	-0.50	-11	12	1.70	Pass
251.19	0.0629	-0.70	-11	12	1.70	Pass
316.23	0.0499	-0.65	-11	12	1.70	Pass
398.11	0.0394	-1.00	-11	12	1.70	Pass
501.19	0.0310	-1.27	-11	12	1.70	Pass
630.96	0.0241	-1.32	-11	12	1.70	Pass
794.33	0.0186	-0.24	-11	12	1.70	Pass
1,000.00	0.0137	1.59	-21	26	1.70	Pass
1,258.90	0.0091	2.28	-21	26	1.70	Pass
1,584.90	0.0051	-5.61	-21	26	1.70	Pass
1,995.30	0.0020	-32.18	-100	26	1.70	Pass

-- End of measurement results--

Y-Axis, Wh-weighting

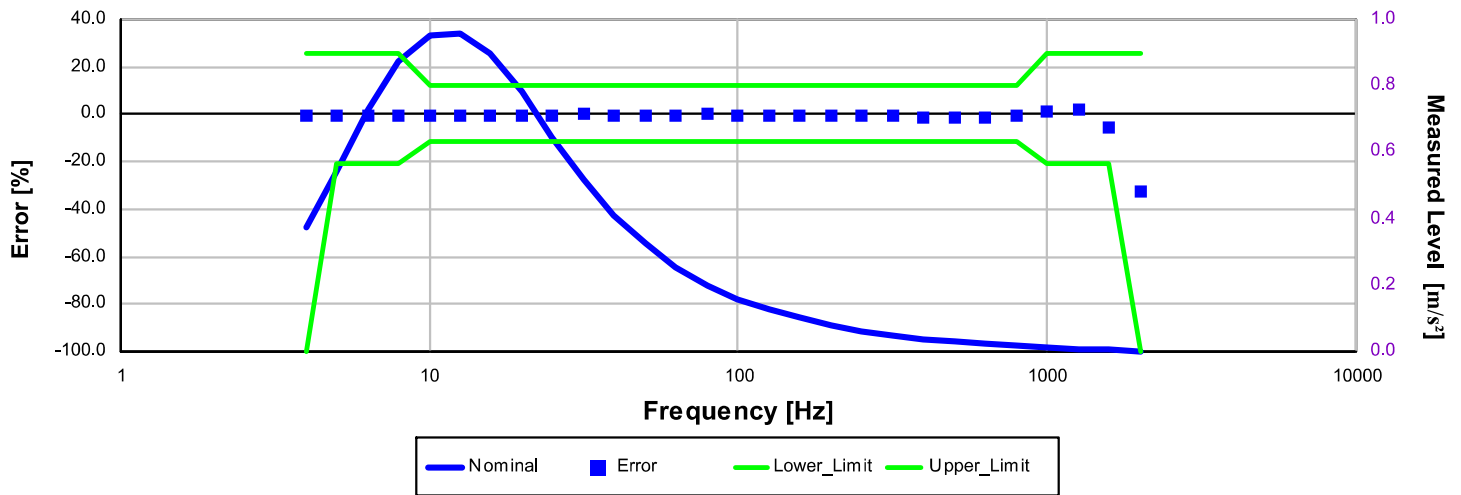


Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
3.98	0.3731	-0.62	-100	26	1.70	Pass
5.01	0.5434	-0.29	-21	26	1.70	Pass
6.31	0.7248	-0.33	-21	26	1.70	Pass
7.94	0.8686	-0.51	-21	26	1.70	Pass
10.00	0.9499	-0.16	-11	12	1.70	Pass
12.59	0.9523	-0.56	-11	12	1.70	Pass
15.85	0.8936	-0.25	-11	12	1.70	Pass
19.95	0.7808	-0.15	-11	12	1.70	Pass
25.12	0.6438	-0.50	-11	12	1.70	Pass
31.62	0.5200	0.15	-11	12	1.70	Pass
39.81	0.4105	-0.14	-11	12	1.70	Pass
50.12	0.3235	-0.28	-11	12	1.70	Pass
63.10	0.2553	-0.29	-11	12	1.70	Pass
79.43	0.2025	0.06	-11	12	1.70	Pass
100.00	0.1601	-0.03	-11	12	1.70	Pass
125.89	0.1264	-0.44	-11	12	1.70	Pass
158.49	0.1005	-0.16	-11	12	1.70	Pass
199.53	0.0795	-0.50	-11	12	1.70	Pass
251.19	0.0629	-0.71	-11	12	1.70	Pass
316.23	0.0499	-0.65	-11	12	1.70	Pass
398.11	0.0394	-1.01	-11	12	1.70	Pass
501.19	0.0310	-1.28	-11	12	1.70	Pass
630.96	0.0241	-1.34	-11	12	1.70	Pass
794.33	0.0186	-0.26	-11	12	1.70	Pass
1,000.00	0.0137	1.56	-21	26	1.70	Pass
1,258.90	0.0091	2.23	-21	26	1.70	Pass
1,584.90	0.0051	-5.69	-21	26	1.70	Pass
1,995.30	0.0020	-32.26	-100	26	1.70	Pass

-- End of measurement results--

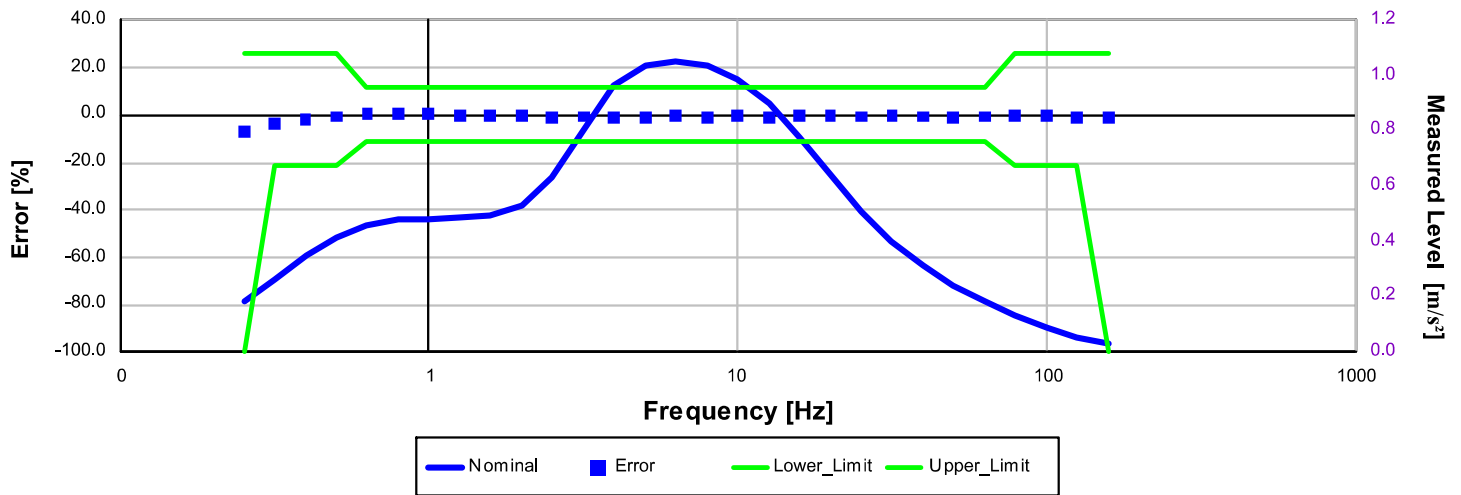
Z-Axis, Wh-weighting



Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
3.98	0.3731	-0.62	-100	26	1.70	Pass
5.01	0.5434	-0.29	-21	26	1.70	Pass
6.31	0.7248	-0.33	-21	26	1.70	Pass
7.94	0.8686	-0.52	-21	26	1.70	Pass
10.00	0.9499	-0.16	-11	12	1.70	Pass
12.59	0.9523	-0.56	-11	12	1.70	Pass
15.85	0.8936	-0.24	-11	12	1.70	Pass
19.95	0.7808	-0.15	-11	12	1.70	Pass
25.12	0.6438	-0.50	-11	12	1.70	Pass
31.62	0.5200	0.15	-11	12	1.70	Pass
39.81	0.4105	-0.14	-11	12	1.70	Pass
50.12	0.3235	-0.28	-11	12	1.70	Pass
63.10	0.2553	-0.28	-11	12	1.70	Pass
79.43	0.2025	0.06	-11	12	1.70	Pass
100.00	0.1601	-0.04	-11	12	1.70	Pass
125.89	0.1264	-0.44	-11	12	1.70	Pass
158.49	0.1005	-0.16	-11	12	1.70	Pass
199.53	0.0795	-0.50	-11	12	1.70	Pass
251.19	0.0629	-0.71	-11	12	1.70	Pass
316.23	0.0499	-0.65	-11	12	1.70	Pass
398.11	0.0394	-1.01	-11	12	1.70	Pass
501.19	0.0310	-1.28	-11	12	1.70	Pass
630.96	0.0241	-1.33	-11	12	1.70	Pass
794.33	0.0186	-0.25	-11	12	1.70	Pass
1,000.00	0.0137	1.57	-21	26	1.70	Pass
1,258.90	0.0091	2.25	-21	26	1.70	Pass
1,584.90	0.0051	-5.67	-21	26	1.70	Pass
1,995.30	0.0020	-32.23	-100	26	1.70	Pass
-- End of measurement results--						

X-Axis, Wk-weighting

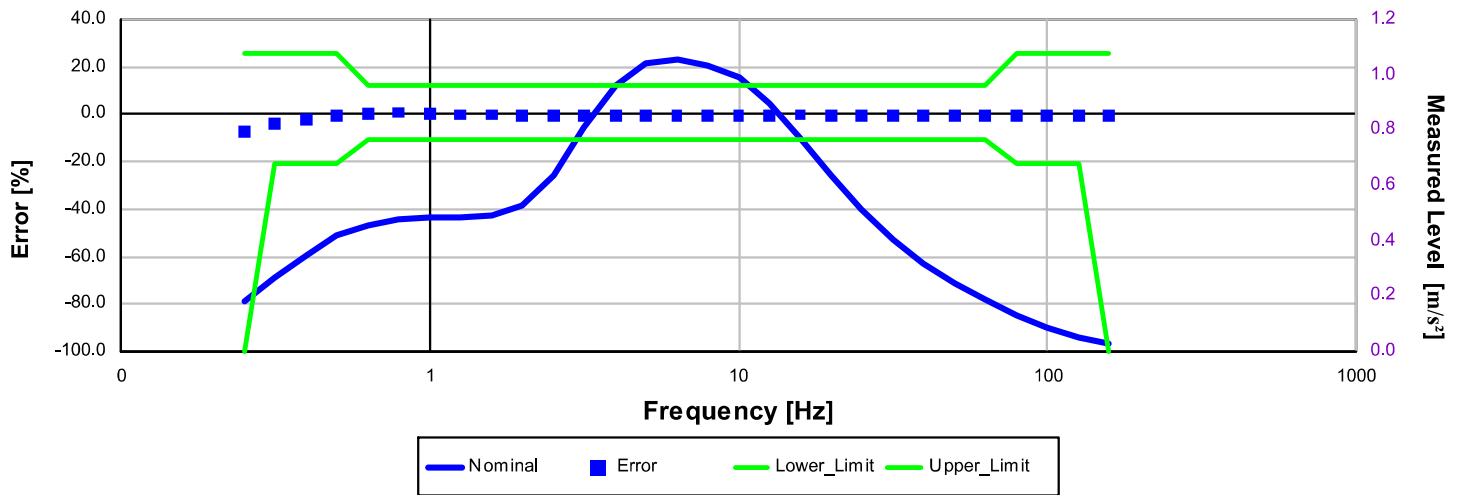


Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.25	0.1707	-6.83	-100	26	1.70	Pass
0.32	0.2546	-3.70	-21	26	1.70	Pass
0.40	0.3434	-1.99	-21	26	1.70	Pass
0.50	0.4167	-0.51	-21	26	1.70	Pass
0.63	0.4616	0.60	-11	12	1.70	Pass
0.79	0.4804	0.77	-11	12	1.70	Pass
1.00	0.4850	0.53	-11	12	1.70	Pass
1.26	0.4846	0.01	-11	12	1.70	Pass
1.58	0.4934	-0.02	-11	12	1.70	Pass
2.00	0.5293	-0.28	-11	12	1.70	Pass
2.51	0.6292	-0.68	-11	12	1.70	Pass
3.16	0.8026	-0.56	-11	12	1.70	Pass
3.98	0.9590	-0.60	-11	12	1.70	Pass
5.01	1.0324	-0.63	-11	12	1.70	Pass
6.31	1.0492	-0.45	-11	12	1.70	Pass
7.94	1.0291	-0.76	-11	12	1.70	Pass
10.00	0.9845	-0.39	-11	12	1.70	Pass
12.59	0.8921	-0.75	-11	12	1.70	Pass
15.85	0.7736	-0.08	-11	12	1.70	Pass
19.95	0.6349	-0.38	-11	12	1.70	Pass
25.12	0.5076	-0.52	-11	12	1.70	Pass
31.62	0.4014	-0.43	-11	12	1.70	Pass
39.81	0.3145	-0.46	-11	12	1.70	Pass
50.12	0.2436	-0.59	-11	12	1.70	Pass
63.10	0.1848	-0.51	-11	12	1.70	Pass
79.43	0.1336	-0.25	-21	26	1.70	Pass
100.00	0.0885	-0.31	-21	26	1.70	Pass
125.89	0.0528	-0.67	-21	26	1.70	Pass
158.49	0.0291	-0.58	-100	26	1.70	Pass

-- End of measurement results--

Y-Axis, Wk-weighting

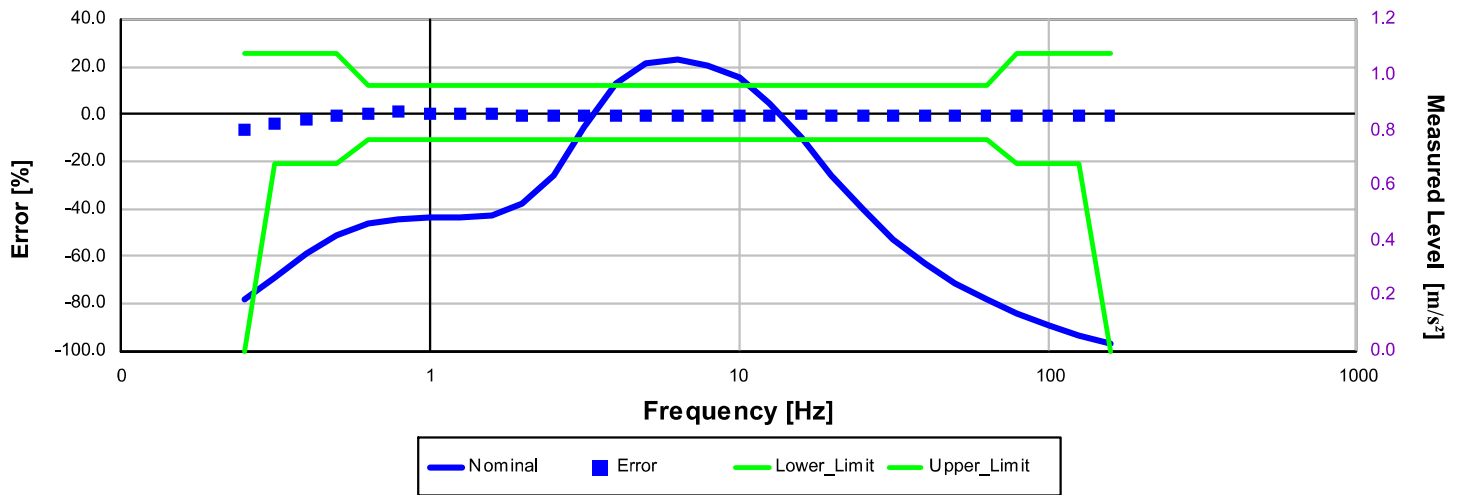


Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.25	0.1706	-6.85	-100	26	1.70	Pass
0.32	0.2546	-3.72	-21	26	1.70	Pass
0.40	0.3433	-2.01	-21	26	1.70	Pass
0.50	0.4166	-0.53	-21	26	1.70	Pass
0.63	0.4615	0.58	-11	12	1.70	Pass
0.79	0.4803	0.76	-11	12	1.70	Pass
1.00	0.4850	0.52	-11	12	1.70	Pass
1.26	0.4846	0.00	-11	12	1.70	Pass
1.58	0.4934	-0.03	-11	12	1.70	Pass
2.00	0.5293	-0.29	-11	12	1.70	Pass
2.51	0.6292	-0.68	-11	12	1.70	Pass
3.16	0.8026	-0.56	-11	12	1.70	Pass
3.98	0.9590	-0.60	-11	12	1.70	Pass
5.01	1.0325	-0.63	-11	12	1.70	Pass
6.31	1.0492	-0.45	-11	12	1.70	Pass
7.94	1.0291	-0.76	-11	12	1.70	Pass
10.00	0.9845	-0.39	-11	12	1.70	Pass
12.59	0.8921	-0.75	-11	12	1.70	Pass
15.85	0.7737	-0.08	-11	12	1.70	Pass
19.95	0.6349	-0.38	-11	12	1.70	Pass
25.12	0.5076	-0.52	-11	12	1.70	Pass
31.62	0.4014	-0.43	-11	12	1.70	Pass
39.81	0.3145	-0.46	-11	12	1.70	Pass
50.12	0.2436	-0.59	-11	12	1.70	Pass
63.10	0.1848	-0.51	-11	12	1.70	Pass
79.43	0.1336	-0.24	-21	26	1.70	Pass
100.00	0.0885	-0.31	-21	26	1.70	Pass
125.89	0.0528	-0.67	-21	26	1.70	Pass
158.49	0.0291	-0.58	-100	26	1.70	Pass

-- End of measurement results--

Z-Axis, Wk-weighting

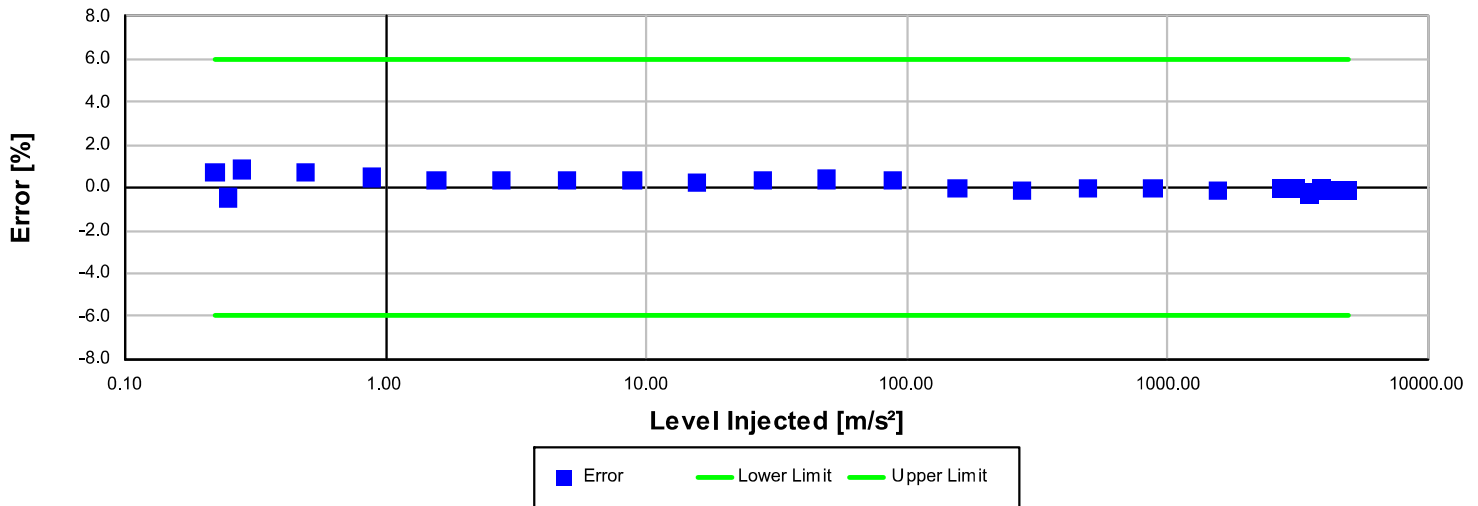


Electrical signal test of frequency weighting performed according to ISO 8041-1:2017 12.11.3 and ISO 8042-1:2021 12.11.3

Frequency [Hz]	Test Result [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.25	0.1707	-6.83	-100	26	1.70	Pass
0.32	0.2546	-3.70	-21	26	1.70	Pass
0.40	0.3434	-1.99	-21	26	1.70	Pass
0.50	0.4167	-0.51	-21	26	1.70	Pass
0.63	0.4616	0.60	-11	12	1.70	Pass
0.79	0.4804	0.77	-11	12	1.70	Pass
1.00	0.4850	0.53	-11	12	1.70	Pass
1.26	0.4846	0.01	-11	12	1.70	Pass
1.58	0.4934	-0.02	-11	12	1.70	Pass
2.00	0.5293	-0.29	-11	12	1.70	Pass
2.51	0.6292	-0.68	-11	12	1.70	Pass
3.16	0.8026	-0.56	-11	12	1.70	Pass
3.98	0.9590	-0.60	-11	12	1.70	Pass
5.01	1.0324	-0.63	-11	12	1.70	Pass
6.31	1.0492	-0.45	-11	12	1.70	Pass
7.94	1.0291	-0.76	-11	12	1.70	Pass
10.00	0.9845	-0.40	-11	12	1.70	Pass
12.59	0.8921	-0.75	-11	12	1.70	Pass
15.85	0.7736	-0.08	-11	12	1.70	Pass
19.95	0.6349	-0.38	-11	12	1.70	Pass
25.12	0.5076	-0.52	-11	12	1.70	Pass
31.62	0.4014	-0.43	-11	12	1.70	Pass
39.81	0.3145	-0.46	-11	12	1.70	Pass
50.12	0.2436	-0.59	-11	12	1.70	Pass
63.10	0.1848	-0.51	-11	12	1.70	Pass
79.43	0.1336	-0.25	-21	26	1.70	Pass
100.00	0.0885	-0.31	-21	26	1.70	Pass
125.89	0.0528	-0.67	-21	26	1.70	Pass
158.49	0.0291	-0.58	-100	26	1.70	Pass

-- End of measurement results--

X-Axis Log Linearity at 79.43 Hz

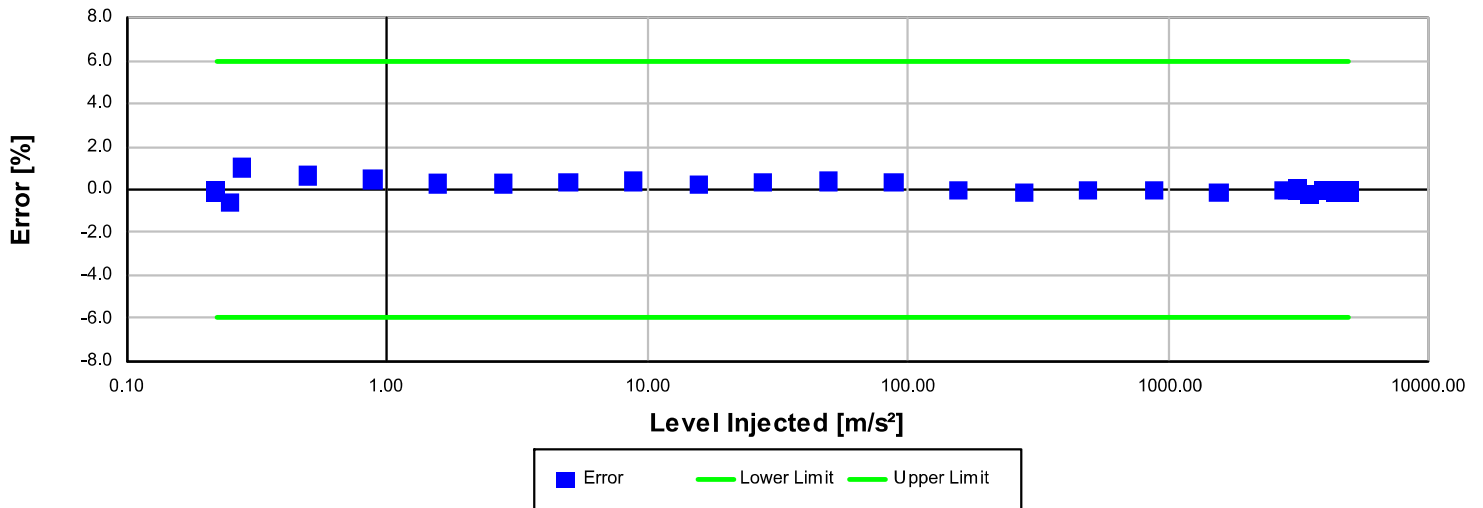


Broadband level linearity performed according to ISO 8041-1:2017 12.10.1 and ISO 8042-1:2021 12.10.1 with Fb-weighting

Level [m/s ²]	Measured [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.2205	0.2220	0.68	-6.00	6.00	1.70	Pass
0.2474	0.2462	-0.45	-6.00	6.00	2.00	Pass
0.2775	0.2799	0.85	-6.00	6.00	1.90	Pass
0.4935	0.4972	0.73	-6.00	6.00	1.70	Pass
0.8776	0.8818	0.48	-6.00	6.00	1.70	Pass
1.5607	1.5655	0.31	-6.00	6.00	1.70	Pass
2.7753	2.7847	0.34	-6.00	6.00	1.70	Pass
4.9353	4.9511	0.32	-6.00	6.00	1.70	Pass
8.7763	8.8080	0.36	-6.00	6.00	1.70	Pass
15.6068	15.6458	0.25	-6.00	6.00	1.70	Pass
27.7532	27.8458	0.33	-6.00	6.00	1.70	Pass
49.3530	49.5428	0.38	-6.00	6.00	1.70	Pass
87.7633	88.0385	0.31	-6.00	6.00	1.70	Pass
156.0677	155.9659	-0.07	-6.00	6.00	1.70	Pass
277.5321	277.1370	-0.14	-6.00	6.00	1.70	Pass
493.5295	493.3925	-0.03	-6.00	6.00	1.70	Pass
877.6334	877.2739	-0.04	-6.00	6.00	1.70	Pass
1,560.6774	1,558.4269	-0.14	-6.00	6.00	1.70	Pass
2,775.3206	2,774.0648	-0.05	-6.00	6.00	1.70	Pass
3,113.9609	3,113.7195	-0.01	-6.00	6.00	1.70	Pass
3,493.9216	3,484.9848	-0.26	-6.00	6.00	1.70	Pass
3,920.2445	3,917.4145	-0.07	-6.00	6.00	1.70	Pass
4,398.5867	4,393.9730	-0.10	-6.00	6.00	1.70	Pass
4,935.2954	4,930.0543	-0.11	-6.00	6.00	1.70	Pass

-- End of measurement results--

Y-Axis Log Linearity at 79.43 Hz

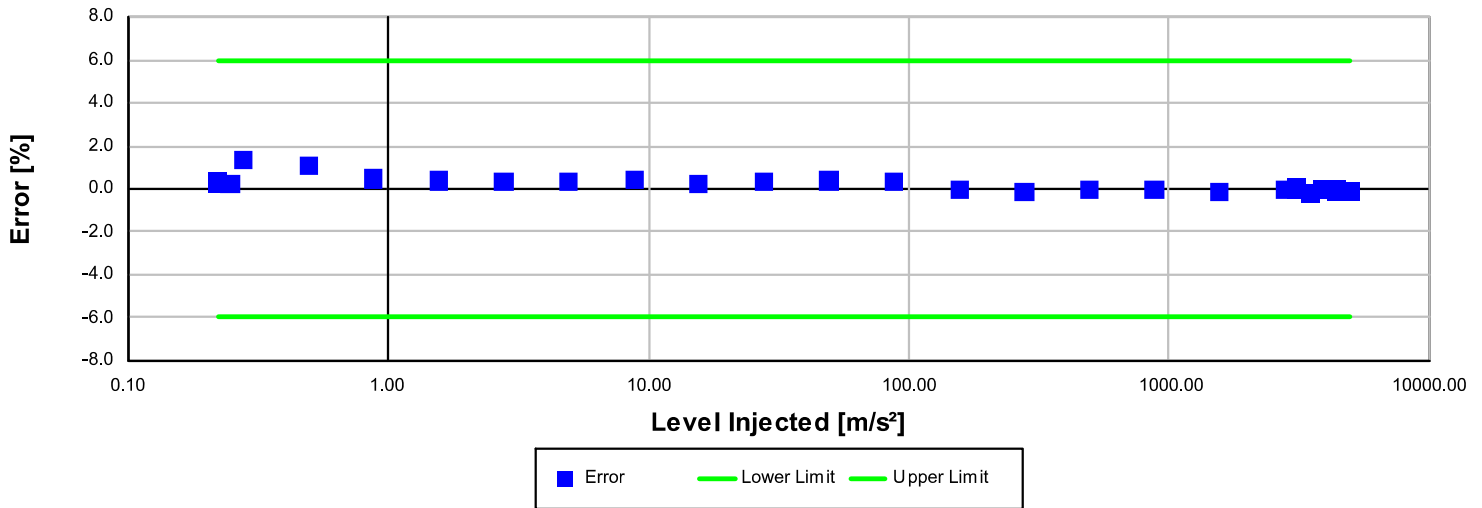


Broadband level linearity performed according to ISO 8041-1:2017 12.10.1 and ISO 8042-1:2021 12.10.1 with Fb-weighting

Level [m/s ²]	Measured [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.2204	0.2203	-0.08	-6.00	6.00	1.70	Pass
0.2473	0.2459	-0.58	-6.00	6.00	2.00	Pass
0.2775	0.2804	1.02	-6.00	6.00	1.90	Pass
0.4935	0.4968	0.67	-6.00	6.00	1.70	Pass
0.8776	0.8817	0.47	-6.00	6.00	1.70	Pass
1.5606	1.5652	0.29	-6.00	6.00	1.70	Pass
2.7752	2.7832	0.29	-6.00	6.00	1.70	Pass
4.9351	4.9523	0.35	-6.00	6.00	1.70	Pass
8.7760	8.8084	0.37	-6.00	6.00	1.70	Pass
15.6063	15.6451	0.25	-6.00	6.00	1.70	Pass
27.7523	27.8454	0.34	-6.00	6.00	1.70	Pass
49.3513	49.5394	0.38	-6.00	6.00	1.70	Pass
87.7605	88.0343	0.31	-6.00	6.00	1.70	Pass
156.0626	155.9618	-0.06	-6.00	6.00	1.70	Pass
277.5229	277.1284	-0.14	-6.00	6.00	1.70	Pass
493.5133	493.3795	-0.03	-6.00	6.00	1.70	Pass
877.6045	877.2459	-0.04	-6.00	6.00	1.70	Pass
1,560.6260	1,558.3705	-0.14	-6.00	6.00	1.70	Pass
2,775.2291	2,773.9768	-0.05	-6.00	6.00	1.70	Pass
3,113.8583	3,113.6344	-0.01	-6.00	6.00	1.70	Pass
3,493.8065	3,484.9195	-0.25	-6.00	6.00	1.70	Pass
3,920.1153	3,917.3391	-0.07	-6.00	6.00	1.70	Pass
4,398.4417	4,393.8887	-0.10	-6.00	6.00	1.70	Pass
4,935.1328	4,930.0008	-0.10	-6.00	6.00	1.70	Pass

-- End of measurement results--

Z-Axis Log Linearity at 79.43 Hz

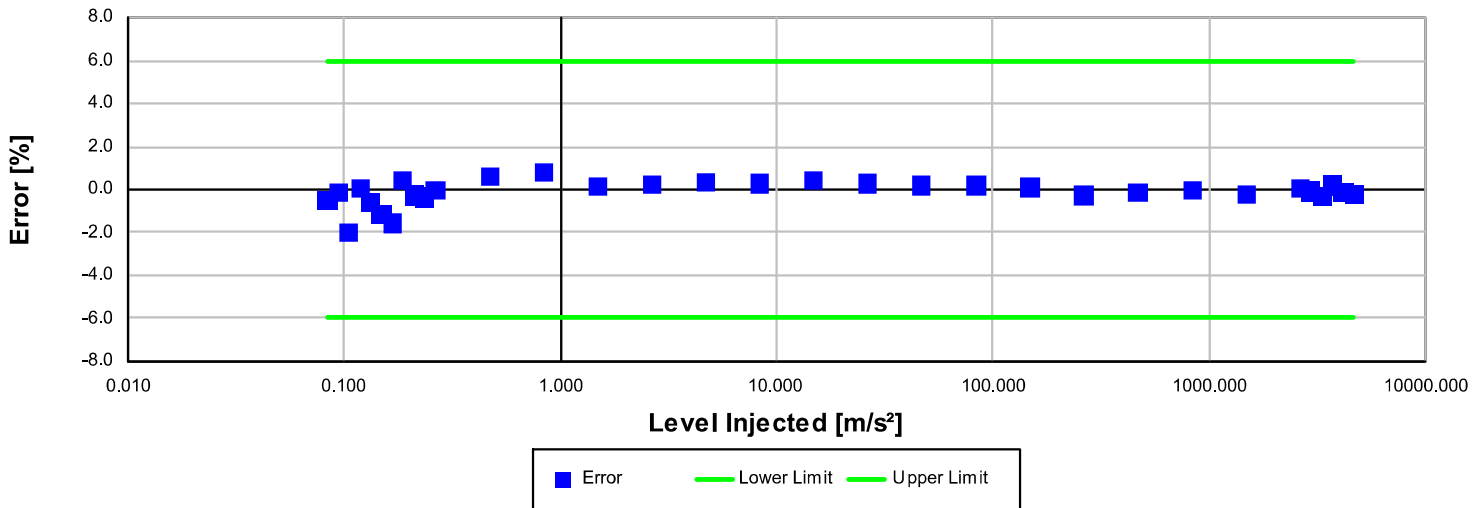


Broadband level linearity performed according to ISO 8041-1:2017 12.10.1 and ISO 8042-1:2021 12.10.1 with Fb-weighting

Level [m/s ²]	Measured [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.2204	0.2211	0.29	-6.00	6.00	1.70	Pass
0.2473	0.2480	0.25	-6.00	6.00	2.00	Pass
0.2775	0.2812	1.33	-6.00	6.00	1.90	Pass
0.4935	0.4987	1.06	-6.00	6.00	1.70	Pass
0.8776	0.8816	0.46	-6.00	6.00	1.70	Pass
1.5606	1.5664	0.37	-6.00	6.00	1.70	Pass
2.7752	2.7840	0.31	-6.00	6.00	1.70	Pass
4.9351	4.9502	0.31	-6.00	6.00	1.70	Pass
8.7761	8.8115	0.40	-6.00	6.00	1.70	Pass
15.6063	15.6461	0.25	-6.00	6.00	1.70	Pass
27.7524	27.8443	0.33	-6.00	6.00	1.70	Pass
49.3515	49.5374	0.38	-6.00	6.00	1.70	Pass
87.7607	88.0337	0.31	-6.00	6.00	1.70	Pass
156.0631	155.9603	-0.07	-6.00	6.00	1.70	Pass
277.5238	277.1285	-0.14	-6.00	6.00	1.70	Pass
493.5149	493.3754	-0.03	-6.00	6.00	1.70	Pass
877.6074	877.2411	-0.04	-6.00	6.00	1.70	Pass
1,560.6311	1,558.3764	-0.14	-6.00	6.00	1.70	Pass
2,775.2382	2,773.9479	-0.05	-6.00	6.00	1.70	Pass
3,113.8685	3,113.5895	-0.01	-6.00	6.00	1.70	Pass
3,493.8179	3,484.8660	-0.26	-6.00	6.00	1.70	Pass
3,920.1281	3,917.2750	-0.07	-6.00	6.00	1.70	Pass
4,398.4561	4,393.8027	-0.11	-6.00	6.00	1.70	Pass
4,935.1489	4,929.8156	-0.11	-6.00	6.00	1.70	Pass

-- End of measurement results--

X-Axis Log Linearity at 12.59 Hz

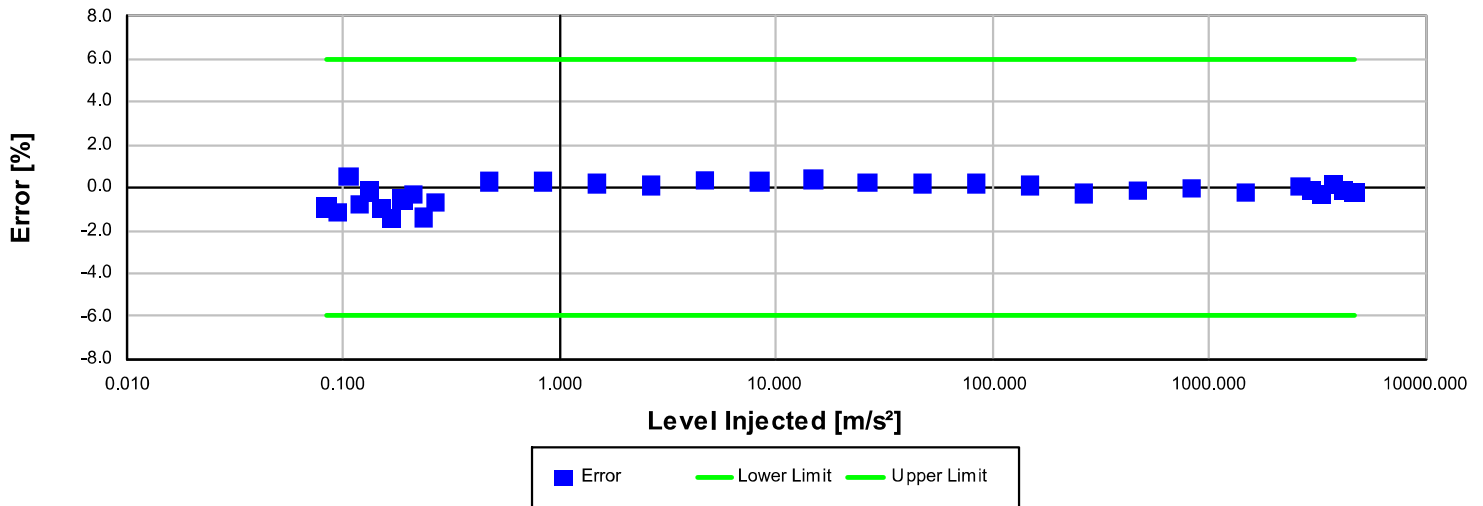


Broadband level linearity with Wh-weighting

Level [m/s ²]	Measured [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.0836	0.0832	-0.54	-6.00	6.00	1.70	Pass
0.0938	0.0937	-0.11	-6.00	6.00	2.70	Pass
0.1053	0.1032	-2.00	-6.00	6.00	2.50	Pass
0.1181	0.1182	0.03	-6.00	6.00	2.30	Pass
0.1325	0.1318	-0.57	-6.00	6.00	2.00	Pass
0.1487	0.1469	-1.20	-6.00	6.00	2.10	Pass
0.1669	0.1642	-1.59	-6.00	6.00	2.10	Pass
0.1872	0.1880	0.41	-6.00	6.00	2.10	Pass
0.2101	0.2095	-0.27	-6.00	6.00	2.00	Pass
0.2357	0.2348	-0.37	-6.00	6.00	1.90	Pass
0.2645	0.2644	-0.02	-6.00	6.00	1.90	Pass
0.4703	0.4730	0.58	-6.00	6.00	1.70	Pass
0.8363	0.8430	0.80	-6.00	6.00	1.80	Pass
1.4871	1.4887	0.11	-6.00	6.00	1.70	Pass
2.6446	2.6504	0.22	-6.00	6.00	1.70	Pass
4.7028	4.7177	0.32	-6.00	6.00	1.70	Pass
8.3629	8.3862	0.28	-6.00	6.00	1.70	Pass
14.8715	14.9327	0.41	-6.00	6.00	1.70	Pass
26.4457	26.5170	0.27	-6.00	6.00	1.70	Pass
47.0278	47.1210	0.20	-6.00	6.00	1.80	Pass
83.6285	83.7924	0.20	-6.00	6.00	1.80	Pass
148.7149	148.8593	0.10	-6.00	6.00	1.70	Pass
264.4566	263.7359	-0.27	-6.00	6.00	1.70	Pass
470.2777	469.6161	-0.14	-6.00	6.00	1.70	Pass
836.2851	835.8341	-0.05	-6.00	6.00	1.70	Pass
1,487.1486	1,483.7389	-0.23	-6.00	6.00	1.80	Pass
2,644.5658	2,645.5137	0.04	-6.00	6.00	1.70	Pass
2,967.2516	2,964.4438	-0.09	-6.00	6.00	1.70	Pass
3,329.3110	3,318.7145	-0.32	-6.00	6.00	1.70	Pass
3,735.5484	3,742.0199	0.17	-6.00	6.00	1.70	Pass
4,191.3543	4,186.2668	-0.12	-6.00	6.00	1.70	Pass
4,702.7769	4,691.9691	-0.23	-6.00	6.00	1.70	Pass

-- End of measurement results--

Y-Axis Log Linearity at 12.59 Hz

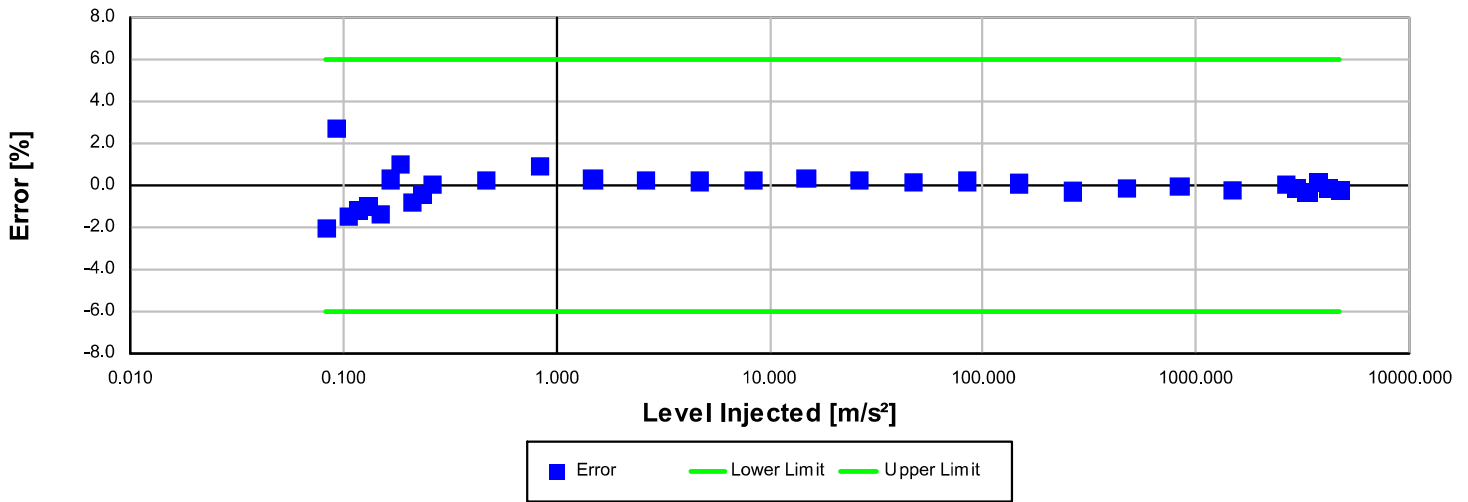


Broadband level linearity with Wh-weighting

Level [m/s²]	Measured [m/s²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.0836	0.0829	-0.91	-6.00	6.00	1.70	Pass
0.0938	0.0927	-1.17	-6.00	6.00	2.70	Pass
0.1053	0.1058	0.50	-6.00	6.00	2.50	Pass
0.1181	0.1172	-0.80	-6.00	6.00	2.30	Pass
0.1325	0.1323	-0.16	-6.00	6.00	2.00	Pass
0.1487	0.1473	-0.96	-6.00	6.00	2.10	Pass
0.1669	0.1644	-1.47	-6.00	6.00	2.10	Pass
0.1872	0.1862	-0.54	-6.00	6.00	2.10	Pass
0.2101	0.2095	-0.29	-6.00	6.00	2.00	Pass
0.2357	0.2324	-1.39	-6.00	6.00	1.90	Pass
0.2644	0.2626	-0.70	-6.00	6.00	1.90	Pass
0.4703	0.4717	0.31	-6.00	6.00	1.70	Pass
0.8363	0.8386	0.28	-6.00	6.00	1.80	Pass
1.4871	1.4899	0.19	-6.00	6.00	1.70	Pass
2.6445	2.6474	0.11	-6.00	6.00	1.70	Pass
4.7026	4.7183	0.33	-6.00	6.00	1.70	Pass
8.3625	8.3873	0.30	-6.00	6.00	1.70	Pass
14.8709	14.9294	0.39	-6.00	6.00	1.70	Pass
26.4446	26.5169	0.27	-6.00	6.00	1.70	Pass
47.0258	47.1187	0.20	-6.00	6.00	1.80	Pass
83.6251	83.7834	0.19	-6.00	6.00	1.80	Pass
148.7087	148.8509	0.10	-6.00	6.00	1.70	Pass
264.4457	263.7231	-0.27	-6.00	6.00	1.70	Pass
470.2583	469.5973	-0.14	-6.00	6.00	1.70	Pass
836.2507	835.8025	-0.05	-6.00	6.00	1.70	Pass
1,487.0873	1,483.6573	-0.23	-6.00	6.00	1.80	Pass
2,644.4568	2,645.4088	0.04	-6.00	6.00	1.70	Pass
2,967.1293	2,964.3148	-0.09	-6.00	6.00	1.70	Pass
3,329.1738	3,318.5875	-0.32	-6.00	6.00	1.70	Pass
3,735.3945	3,741.8293	0.17	-6.00	6.00	1.70	Pass
4,191.1815	4,186.1359	-0.12	-6.00	6.00	1.70	Pass
4,702.5830	4,691.8430	-0.23	-6.00	6.00	1.70	Pass

-- End of measurement results--

Z-Axis Log Linearity at 12.59 Hz



Broadband level linearity with Wh-weighting

Level [m/s ²]	Measured [m/s ²]	Error [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
0.0836	0.0819	-2.05	-6.00	6.00	1.70	Pass
0.0938	0.0964	2.71	-6.00	6.00	2.70	Pass
0.1053	0.1037	-1.48	-6.00	6.00	2.50	Pass
0.1181	0.1168	-1.16	-6.00	6.00	2.30	Pass
0.1325	0.1312	-0.97	-6.00	6.00	2.00	Pass
0.1487	0.1467	-1.37	-6.00	6.00	2.10	Pass
0.1669	0.1673	0.29	-6.00	6.00	2.10	Pass
0.1872	0.1891	0.98	-6.00	6.00	2.10	Pass
0.2101	0.2084	-0.78	-6.00	6.00	2.00	Pass
0.2357	0.2348	-0.39	-6.00	6.00	1.90	Pass
0.2644	0.2647	0.08	-6.00	6.00	1.90	Pass
0.4703	0.4714	0.25	-6.00	6.00	1.70	Pass
0.8363	0.8442	0.95	-6.00	6.00	1.80	Pass
1.4871	1.4914	0.29	-6.00	6.00	1.70	Pass
2.6445	2.6502	0.22	-6.00	6.00	1.70	Pass
4.7026	4.7118	0.20	-6.00	6.00	1.70	Pass
8.3625	8.3843	0.26	-6.00	6.00	1.70	Pass
14.8709	14.9267	0.38	-6.00	6.00	1.70	Pass
26.4446	26.5162	0.27	-6.00	6.00	1.70	Pass
47.0258	47.1137	0.19	-6.00	6.00	1.80	Pass
83.6251	83.7872	0.19	-6.00	6.00	1.80	Pass
148.7088	148.8540	0.10	-6.00	6.00	1.70	Pass
264.4457	263.7252	-0.27	-6.00	6.00	1.70	Pass
470.2584	469.5968	-0.14	-6.00	6.00	1.70	Pass
836.2508	835.7900	-0.06	-6.00	6.00	1.70	Pass
1,487.0876	1,483.6675	-0.23	-6.00	6.00	1.80	Pass
2,644.4573	2,645.3799	0.03	-6.00	6.00	1.70	Pass
2,967.1299	2,964.3166	-0.09	-6.00	6.00	1.70	Pass
3,329.1745	3,318.5480	-0.32	-6.00	6.00	1.70	Pass
3,735.3952	3,741.8359	0.17	-6.00	6.00	1.70	Pass
4,191.1824	4,186.0781	-0.12	-6.00	6.00	1.70	Pass
4,702.5840	4,691.7547	-0.23	-6.00	6.00	1.70	Pass

-- End of measurement results--

Overload Detector

Overload indication performed according to ISO 8041-1:2017 12.14 and ISO 8042-1:2021 12.14 with Fb-weighting

Measurement	Nominal [m/s ²]	Test Result [m/s ²]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
X-Axis: Negative	4,931.68	4,931.68	-15.00	15.00	2.00	Pass
X-Axis: Positive	4,931.68	5,046.56	-15.00	15.00	2.00	Pass
Y-Axis: Negative	4,931.68	4,988.79	-15.00	15.00	2.00	Pass
Y-Axis: Positive	4,931.68	4,931.68	-15.00	15.00	2.00	Pass
Z-Axis: Negative	4,931.68	5,046.56	-15.00	15.00	2.00	Pass
Z-Axis: Positive	4,931.68	4,931.68	-15.00	15.00	2.00	Pass

-- End of measurement results--

Overload Comparison

Overload indication performed according to ISO 8041-1:2017 12.14 and ISO 8041-2:2021 12.16 with Fb-weighting

Measurement	Test Result [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
X-Axis	-2.28	-15.00	15.00	2.30	Pass
Y-Axis	1.16	-15.00	15.00	2.30	Pass
Z-Axis	2.33	-15.00	15.00	2.30	Pass

-- End of measurement results--

Cross-talk (Fb-weighting)

Cross-talk performed according to ISO 8041-1:2017 12.8 and ISO 8041-2:2021 12.8

Injected : Read	Test Result [%]	Upper Limit [%]	Expanded Uncertainty [%]	Result
X-Axis : Y-Axis	0.001	0.50	1.70	Pass
X-Axis : Z-Axis	0.002	0.50	1.70	Pass
Y-Axis : X-Axis	0.001	0.50	1.70	Pass
Y-Axis : Z-Axis	0.001	0.50	1.70	Pass
Z-Axis : X-Axis	0.001	0.50	1.70	Pass
Z-Axis : Y-Axis	0.001	0.50	1.70	Pass

-- End of measurement results--

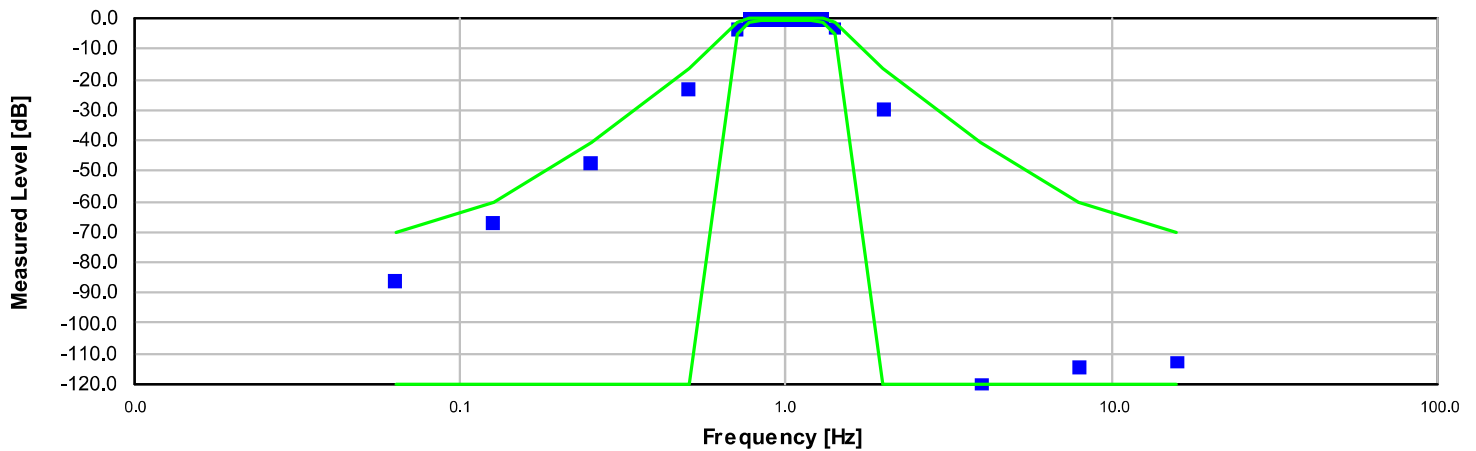
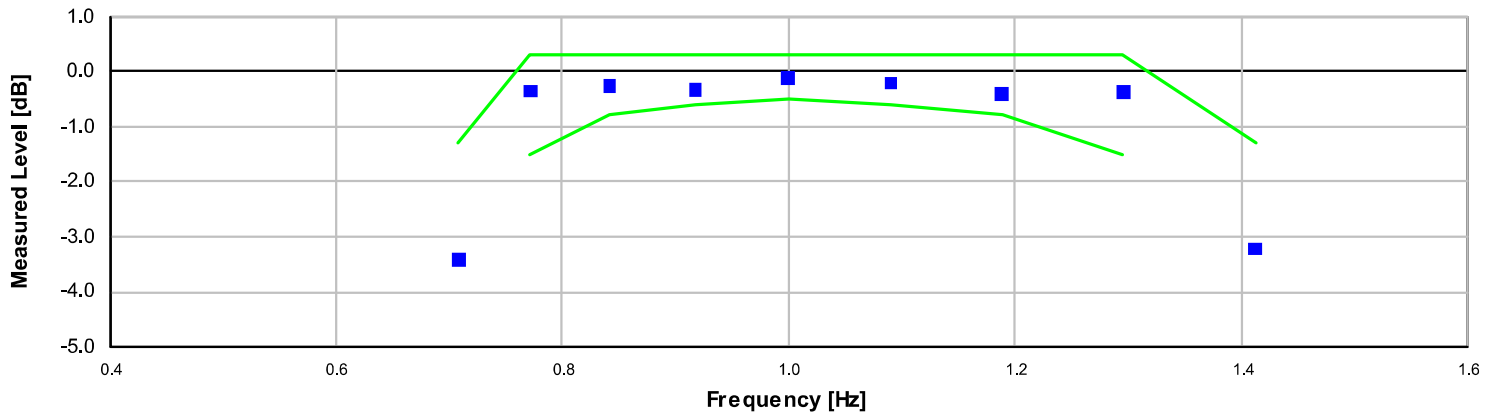
Combined Output (Fb-weighting)

Combined Output performed according to ISO 8041-1:2017 12.16 and ISO 8041-2:2021 12.16

Measurement	Test Result [m/s ²]	Lower Limit [m/s ²]	Upper Limit [m/s ²]	Expanded Uncertainty [m/s ²]	Result
<i>Calculated</i>	1,702.81	1,654.70	1,757.05	25.00	Pass
<i>Inverted, X-Axis</i>	1,704.10	1,668.75	1,736.87	25.00	Pass
<i>Inverted, Y-Axis</i>	1,702.16	1,668.75	1,736.87	25.00	Pass
<i>Inverted, Z-Axis</i>	1,701.07	1,668.75	1,736.87	25.00	Pass

-- End of measurement results--

X-Axis 1/1 Octave Filter: 1.0 Hz

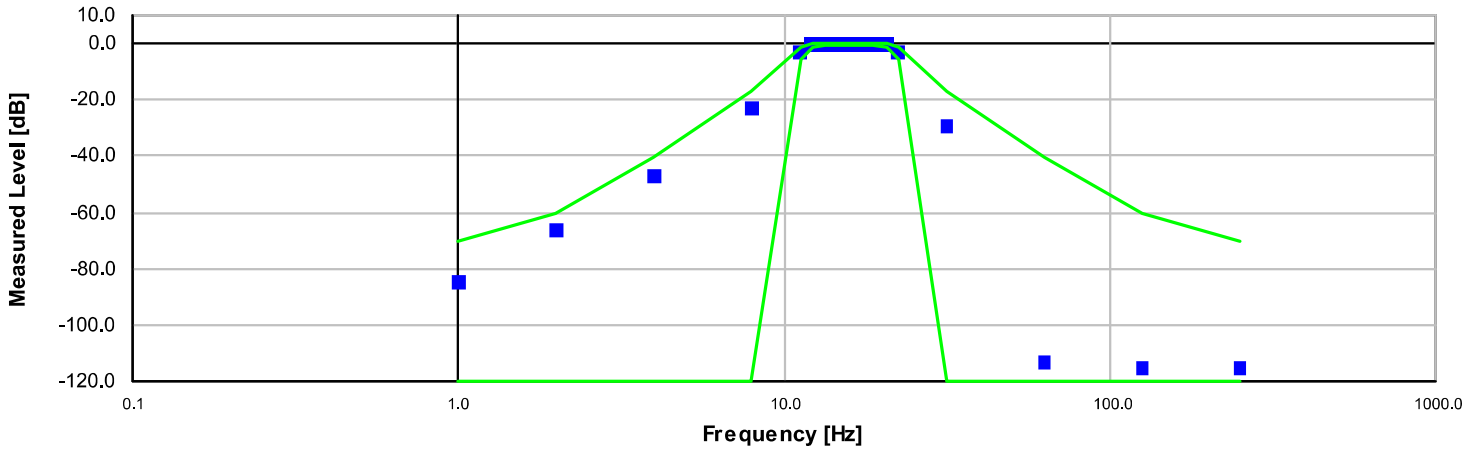
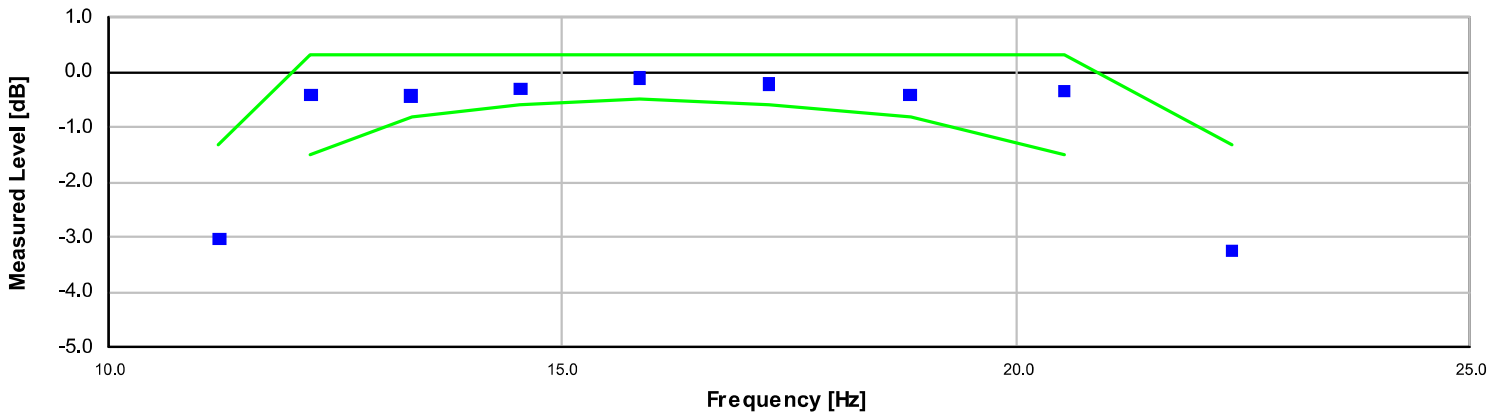


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0.06	-86.03	-inf	-70.10	0.25	Pass
0.13	-67.13	-inf	-60.10	0.20	Pass
0.25	-47.42	-inf	-40.60	0.18	Pass
0.50	-23.21	-inf	-16.70	0.18	Pass
0.71	-3.42	-5.40	-1.30	0.16	Pass
0.77	-0.35	-1.50	0.30	0.17	Pass
0.84	-0.27	-0.80	0.30	0.17	Pass
0.92	-0.32	-0.60	0.30	0.15	Pass
1.00	-0.11	-0.50	0.30	0.15	Pass
1.09	-0.20	-0.60	0.30	0.15	Pass
1.19	-0.41	-0.80	0.30	0.15	Pass
1.30	-0.36	-1.50	0.30	0.15	Pass
1.41	-3.22	-5.40	-1.30	0.20	Pass
2.00	-29.73	-inf	-16.70	0.23	Pass
3.98	-121.37	-inf	-40.60	3.40	Pass
7.94	-114.63	-inf	-60.10	4.10	Pass
15.85	-112.74	-inf	-70.10	3.40	Pass

-- End of measurement results--

X-Axis 1/1 Octave Filter: 16.0 Hz

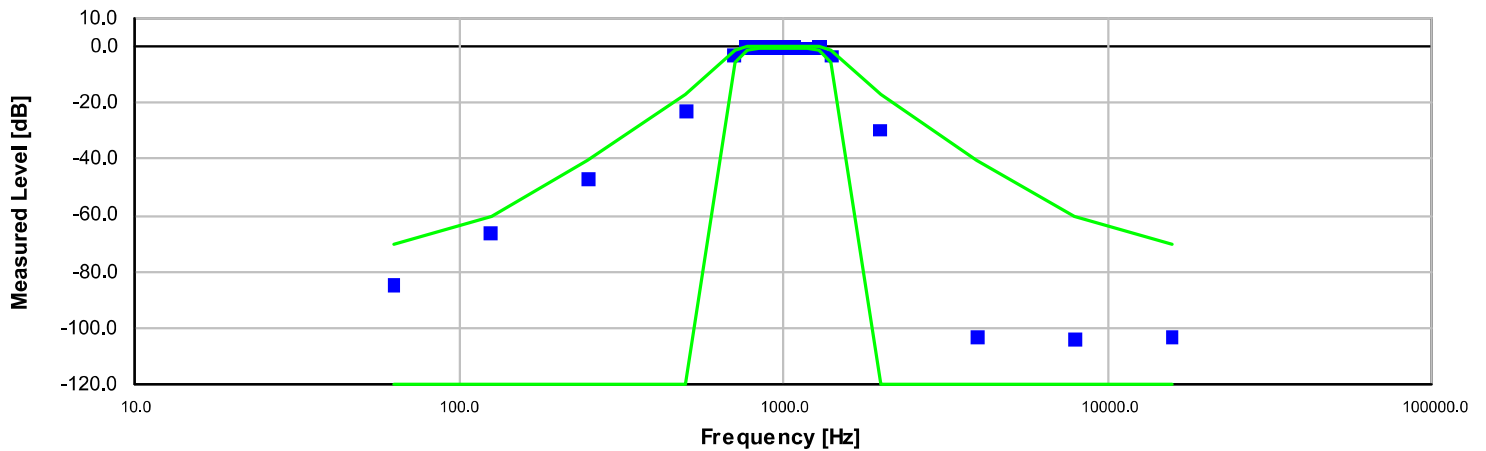
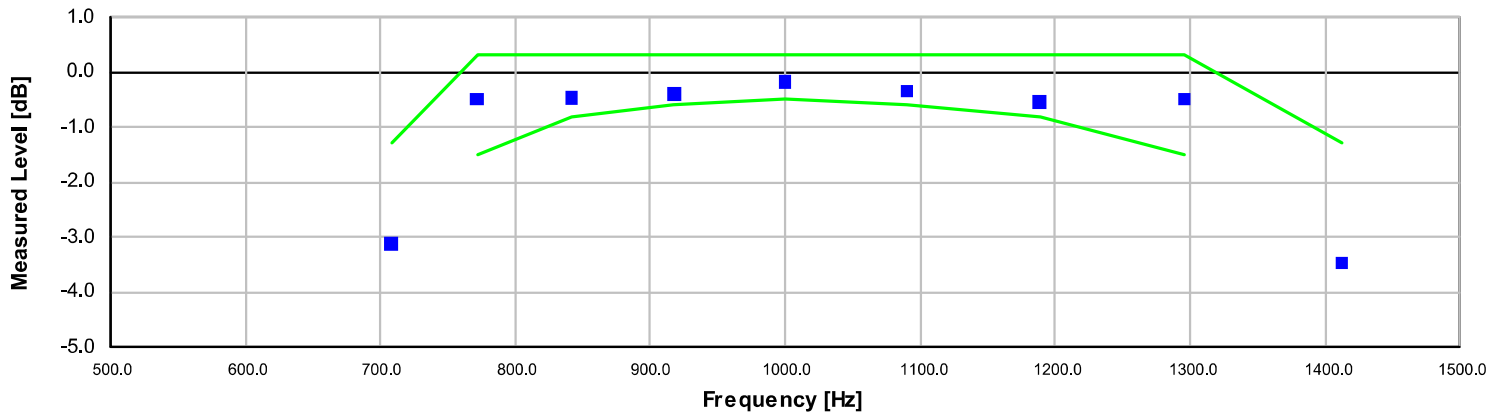


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
1.00	-84.80	-inf	-70.10	0.19	Pass
2.00	-66.48	-inf	-60.10	0.18	Pass
3.98	-47.18	-inf	-40.60	0.18	Pass
7.94	-22.98	-inf	-16.70	0.18	Pass
11.22	-3.03	-5.40	-1.30	0.16	Pass
12.23	-0.41	-1.50	0.30	0.15	Pass
13.34	-0.42	-0.80	0.30	0.15	Pass
14.54	-0.30	-0.60	0.30	0.15	Pass
15.85	-0.11	-0.50	0.30	0.15	Pass
17.28	-0.20	-0.60	0.30	0.15	Pass
18.84	-0.41	-0.80	0.30	0.15	Pass
20.54	-0.34	-1.50	0.30	0.15	Pass
22.39	-3.24	-5.40	-1.30	0.21	Pass
31.62	-29.63	-inf	-16.70	0.23	Pass
63.10	-113.11	-inf	-40.60	2.60	Pass
125.89	-115.61	-inf	-60.10	1.90	Pass
251.19	-115.42	-inf	-70.10	1.90	Pass

-- End of measurement results--

X-Axis 1/1 Octave Filter: 1 kHz

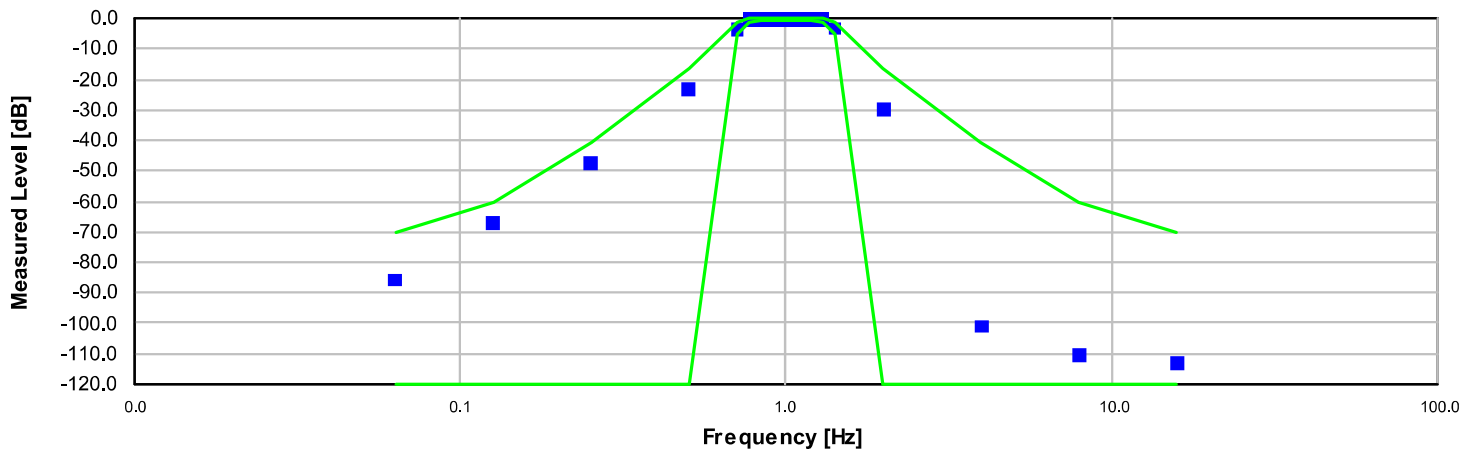
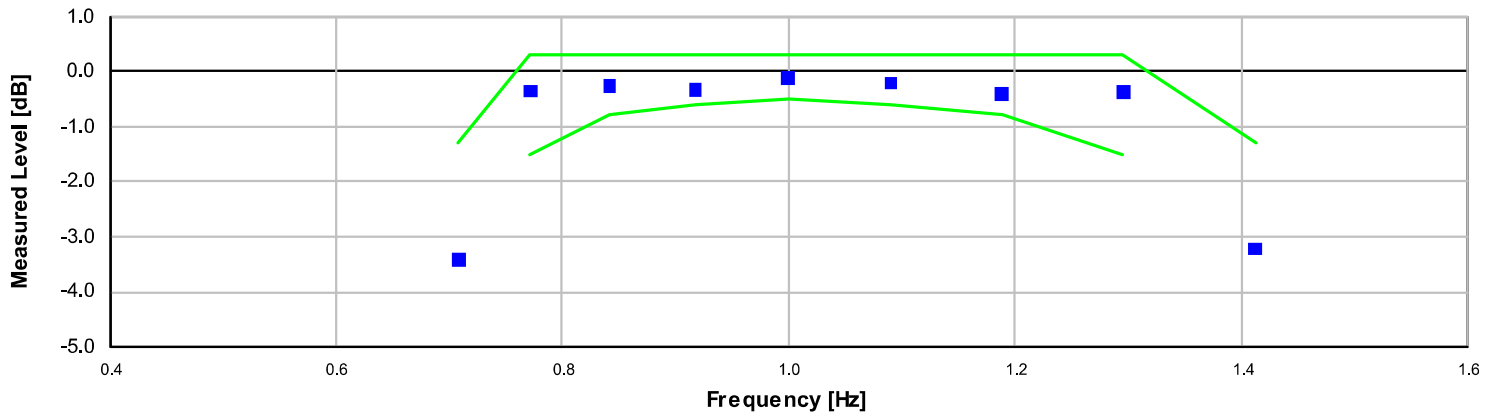


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
63.10	-84.74	-inf	-70.10	0.28	Pass
125.89	-66.47	-inf	-60.10	0.18	Pass
251.19	-47.19	-inf	-40.60	0.18	Pass
501.19	-23.00	-inf	-16.70	0.18	Pass
707.95	-3.14	-5.40	-1.30	0.16	Pass
771.79	-0.49	-1.50	0.30	0.15	Pass
841.40	-0.48	-0.80	0.30	0.15	Pass
917.28	-0.40	-0.60	0.30	0.15	Pass
1,000.00	-0.18	-0.50	0.30	0.15	Pass
1,090.18	-0.34	-0.60	0.30	0.16	Pass
1,188.50	-0.55	-0.80	0.30	0.15	Pass
1,295.69	-0.49	-1.50	0.30	0.16	Pass
1,412.54	-3.47	-5.40	-1.30	0.21	Pass
1,995.26	-29.81	-inf	-16.70	0.23	Pass
3,981.07	-103.14	-inf	-40.60	1.40	Pass
7,943.28	-103.68	-inf	-60.10	2.70	Pass
15,848.93	-103.26	-inf	-70.10	2.10	Pass

-- End of measurement results--

Y-Axis 1/1 Octave Filter: 1.0 Hz

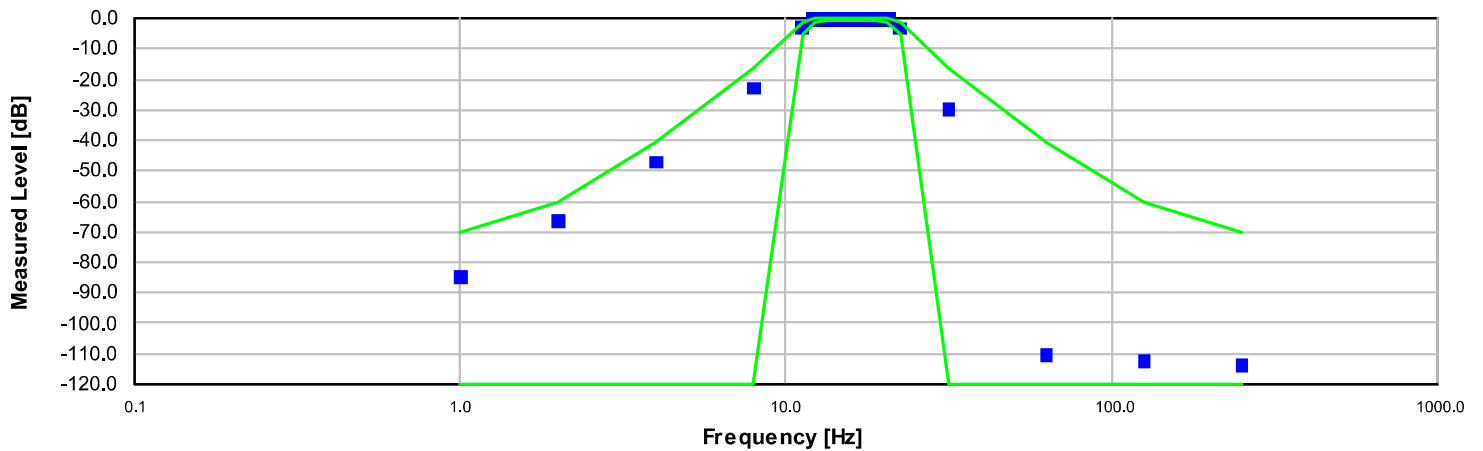
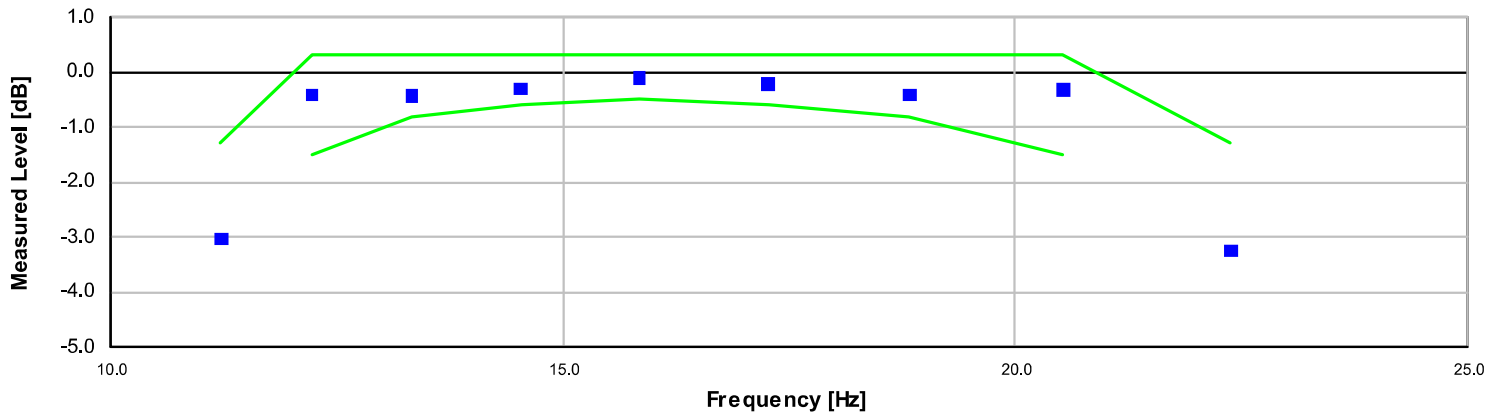


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0.06	-85.96	-inf	-70.10	0.25	Pass
0.13	-67.13	-inf	-60.10	0.20	Pass
0.25	-47.42	-inf	-40.60	0.18	Pass
0.50	-23.21	-inf	-16.70	0.18	Pass
0.71	-3.42	-5.40	-1.30	0.16	Pass
0.77	-0.35	-1.50	0.30	0.17	Pass
0.84	-0.27	-0.80	0.30	0.17	Pass
0.92	-0.32	-0.60	0.30	0.15	Pass
1.00	-0.11	-0.50	0.30	0.15	Pass
1.09	-0.20	-0.60	0.30	0.15	Pass
1.19	-0.41	-0.80	0.30	0.15	Pass
1.30	-0.36	-1.50	0.30	0.15	Pass
1.41	-3.22	-5.40	-1.30	0.20	Pass
2.00	-29.73	-inf	-16.70	0.23	Pass
3.98	-100.95	-inf	-40.60	3.40	Pass
7.94	-110.65	-inf	-60.10	4.10	Pass
15.85	-113.14	-inf	-70.10	3.40	Pass

-- End of measurement results--

Y-Axis 1/1 Octave Filter: 16.0 Hz

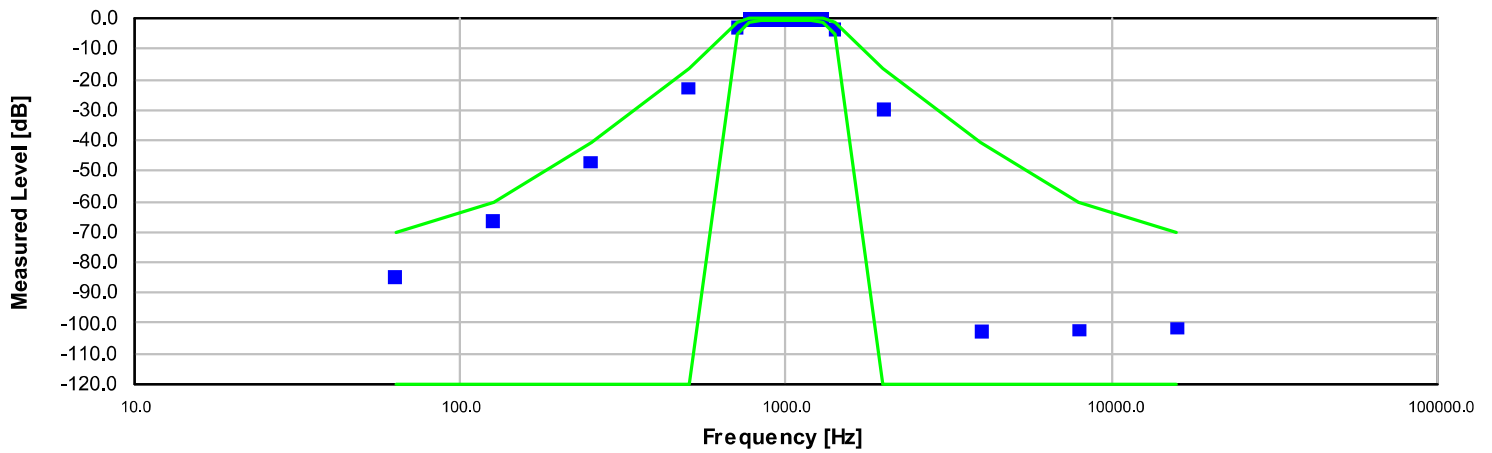
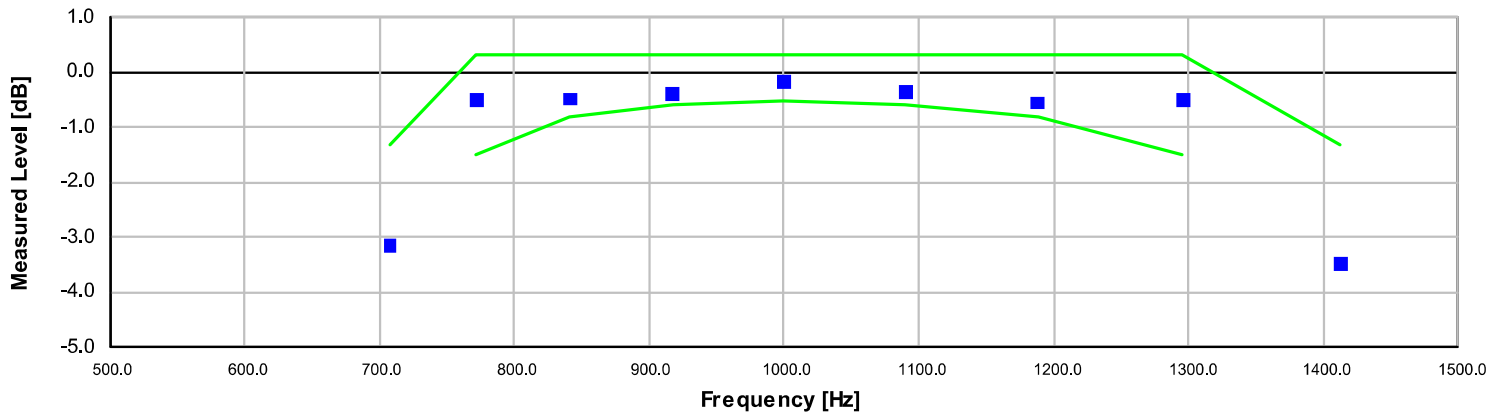


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
1.00	-84.79	-inf	-70.10	0.19	Pass
2.00	-66.48	-inf	-60.10	0.18	Pass
3.98	-47.18	-inf	-40.60	0.18	Pass
7.94	-22.98	-inf	-16.70	0.18	Pass
11.22	-3.03	-5.40	-1.30	0.16	Pass
12.23	-0.41	-1.50	0.30	0.15	Pass
13.34	-0.42	-0.80	0.30	0.15	Pass
14.54	-0.30	-0.60	0.30	0.15	Pass
15.85	-0.11	-0.50	0.30	0.15	Pass
17.28	-0.20	-0.60	0.30	0.15	Pass
18.84	-0.41	-0.80	0.30	0.15	Pass
20.54	-0.33	-1.50	0.30	0.15	Pass
22.39	-3.24	-5.40	-1.30	0.21	Pass
31.62	-29.63	-inf	-16.70	0.23	Pass
63.10	-110.45	-inf	-40.60	2.60	Pass
125.89	-112.64	-inf	-60.10	1.90	Pass
251.19	-113.72	-inf	-70.10	1.90	Pass

-- End of measurement results--

Y-Axis 1/1 Octave Filter: 1 kHz

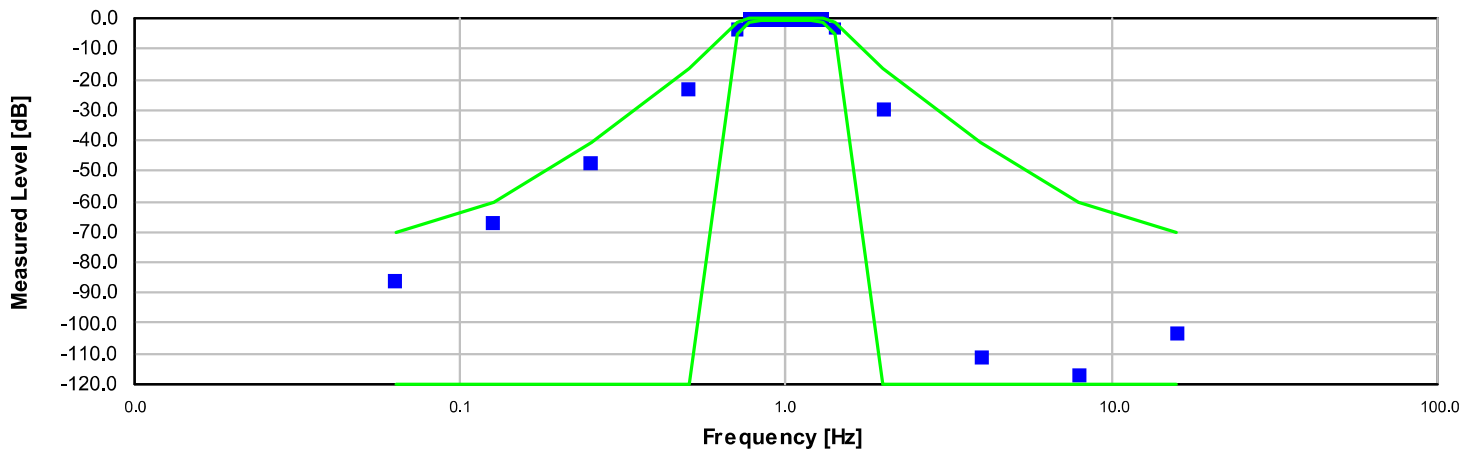
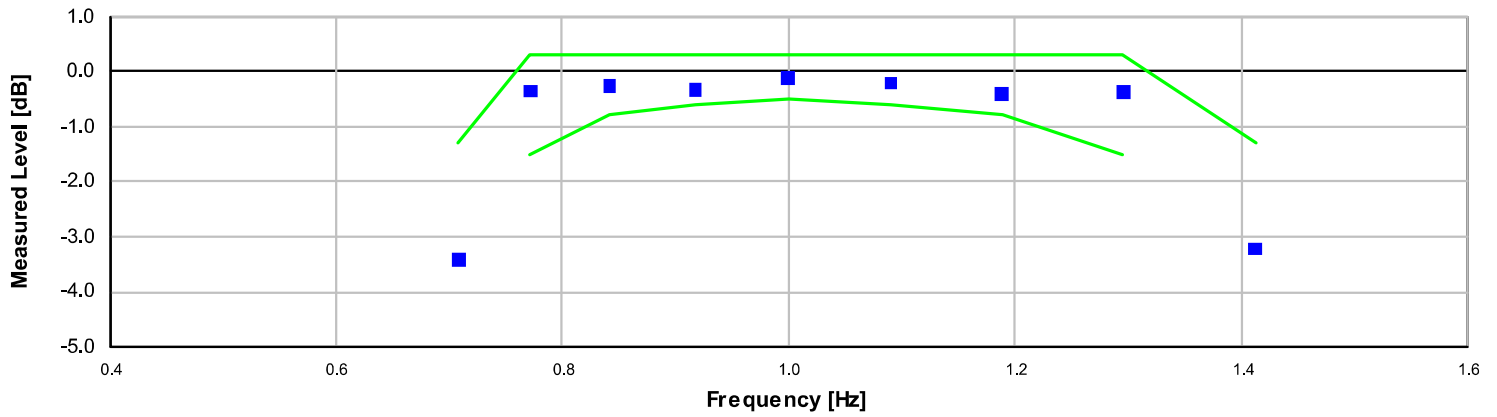


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
63.10	-84.73	-inf	-70.10	0.28	Pass
125.89	-66.47	-inf	-60.10	0.18	Pass
251.19	-47.19	-inf	-40.60	0.18	Pass
501.19	-23.00	-inf	-16.70	0.18	Pass
707.95	-3.14	-5.40	-1.30	0.16	Pass
771.79	-0.49	-1.50	0.30	0.15	Pass
841.40	-0.48	-0.80	0.30	0.15	Pass
917.28	-0.40	-0.60	0.30	0.15	Pass
1,000.00	-0.18	-0.50	0.30	0.15	Pass
1,090.18	-0.35	-0.60	0.30	0.16	Pass
1,188.50	-0.56	-0.80	0.30	0.15	Pass
1,295.69	-0.50	-1.50	0.30	0.16	Pass
1,412.54	-3.47	-5.40	-1.30	0.21	Pass
1,995.26	-29.82	-inf	-16.70	0.23	Pass
3,981.07	-102.86	-inf	-40.60	1.40	Pass
7,943.28	-102.35	-inf	-60.10	2.70	Pass
15,848.93	-101.66	-inf	-70.10	2.10	Pass

-- End of measurement results--

Z-Axis 1/1 Octave Filter: 1.0 Hz

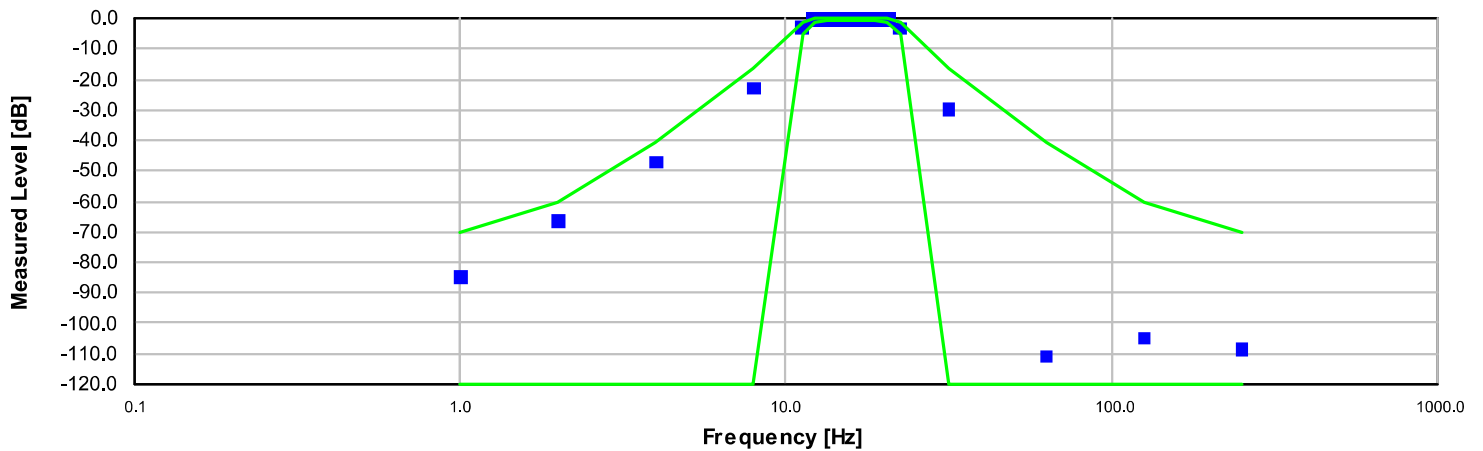
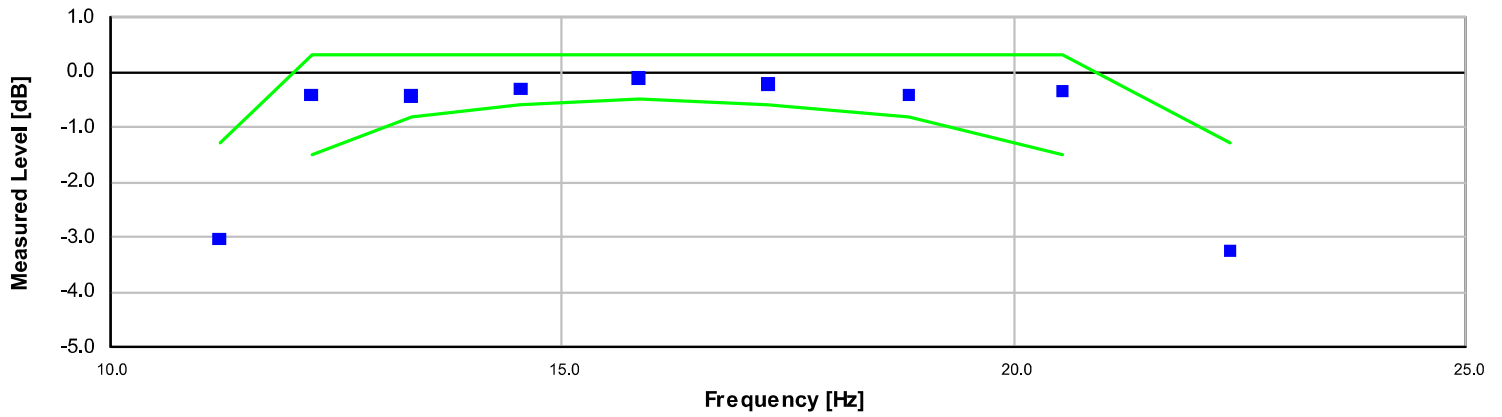


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0.06	-86.01	-inf	-70.10	0.25	Pass
0.13	-67.13	-inf	-60.10	0.20	Pass
0.25	-47.42	-inf	-40.60	0.18	Pass
0.50	-23.21	-inf	-16.70	0.18	Pass
0.71	-3.42	-5.40	-1.30	0.16	Pass
0.77	-0.35	-1.50	0.30	0.17	Pass
0.84	-0.27	-0.80	0.30	0.17	Pass
0.92	-0.32	-0.60	0.30	0.15	Pass
1.00	-0.11	-0.50	0.30	0.15	Pass
1.09	-0.20	-0.60	0.30	0.15	Pass
1.19	-0.41	-0.80	0.30	0.15	Pass
1.30	-0.36	-1.50	0.30	0.15	Pass
1.41	-3.22	-5.40	-1.30	0.20	Pass
2.00	-29.73	-inf	-16.70	0.23	Pass
3.98	-110.92	-inf	-40.60	3.40	Pass
7.94	-116.94	-inf	-60.10	4.10	Pass
15.85	-103.06	-inf	-70.10	3.40	Pass

-- End of measurement results--

Z-Axis 1/1 Octave Filter: 16.0 Hz

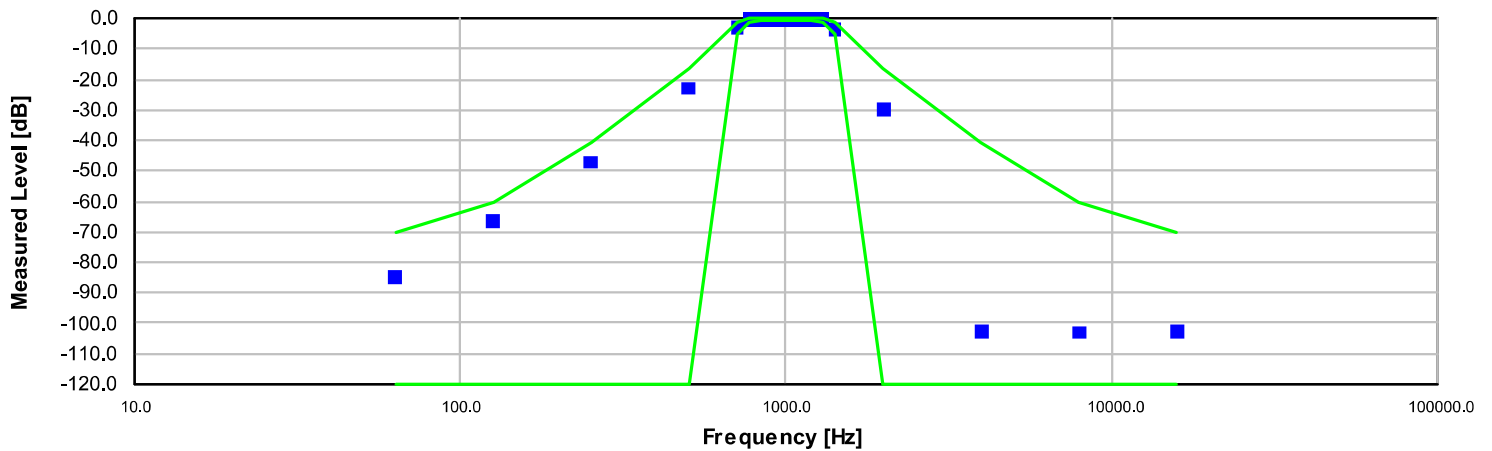
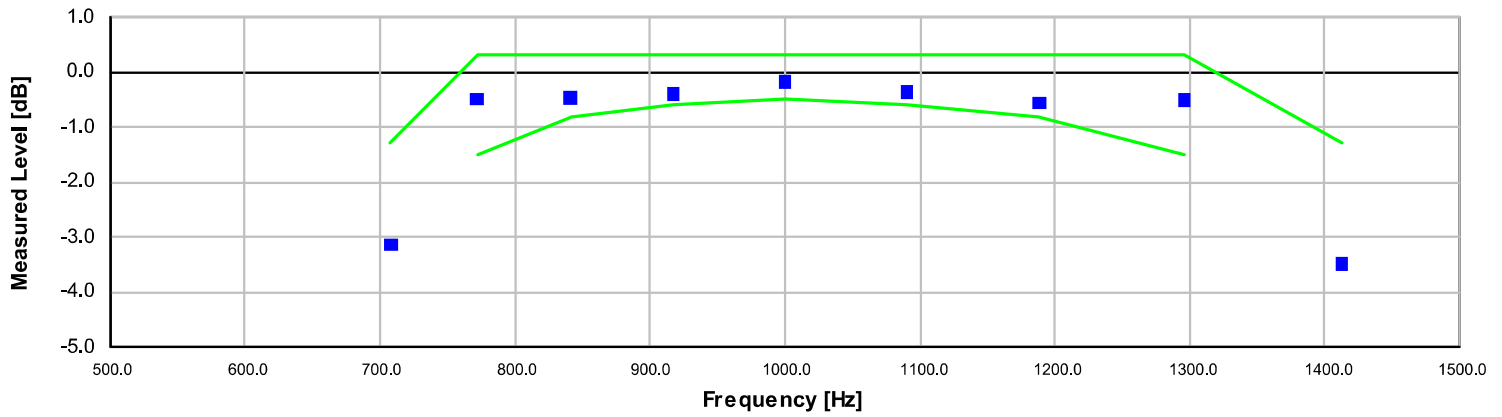


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
1.00	-84.78	-inf	-70.10	0.19	Pass
2.00	-66.48	-inf	-60.10	0.18	Pass
3.98	-47.18	-inf	-40.60	0.18	Pass
7.94	-22.98	-inf	-16.70	0.18	Pass
11.22	-3.02	-5.40	-1.30	0.16	Pass
12.23	-0.41	-1.50	0.30	0.15	Pass
13.34	-0.42	-0.80	0.30	0.15	Pass
14.54	-0.30	-0.60	0.30	0.15	Pass
15.85	-0.11	-0.50	0.30	0.15	Pass
17.28	-0.20	-0.60	0.30	0.15	Pass
18.84	-0.41	-0.80	0.30	0.15	Pass
20.54	-0.33	-1.50	0.30	0.15	Pass
22.39	-3.24	-5.40	-1.30	0.21	Pass
31.62	-29.63	-inf	-16.70	0.23	Pass
63.10	-110.80	-inf	-40.60	2.60	Pass
125.89	-105.00	-inf	-60.10	1.90	Pass
251.19	-108.47	-inf	-70.10	1.90	Pass

-- End of measurement results--

Z-Axis 1/1 Octave Filter: 1 kHz

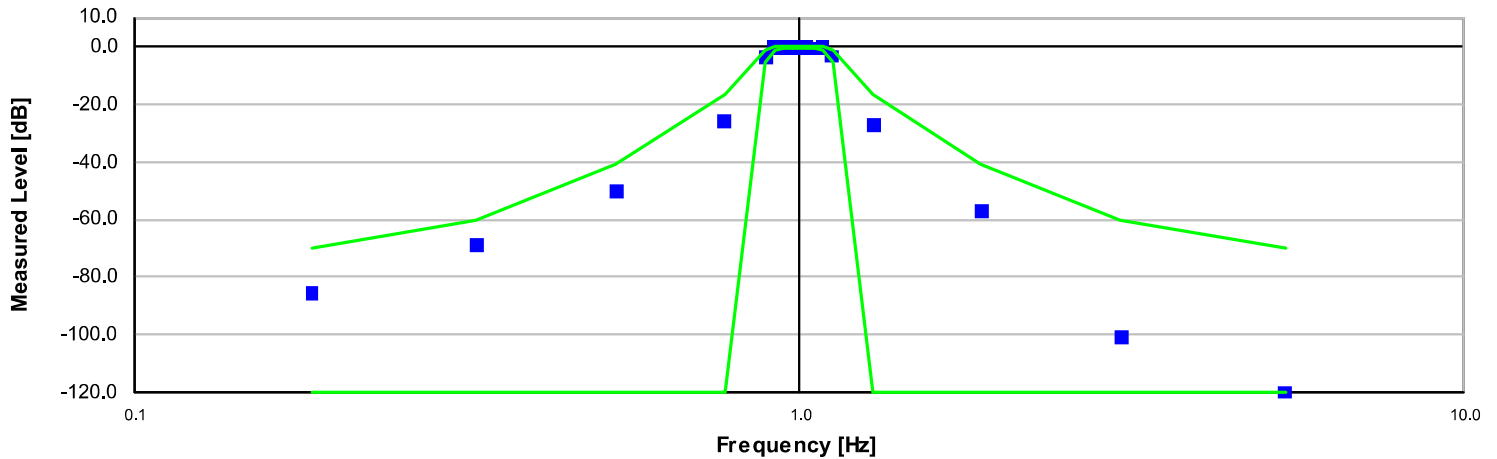
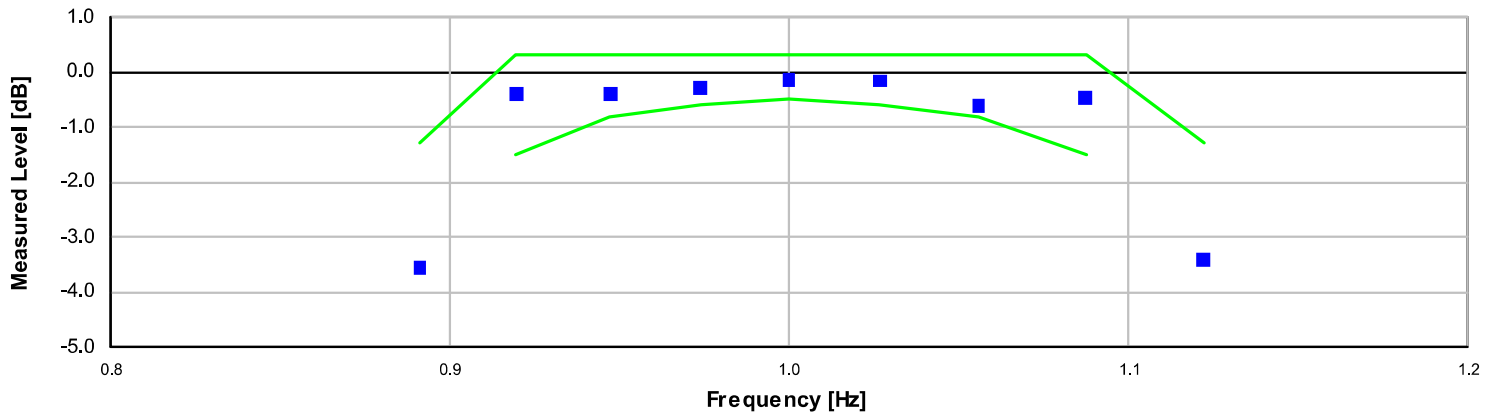


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
63.10	-84.73	-inf	-70.10	0.28	Pass
125.89	-66.47	-inf	-60.10	0.18	Pass
251.19	-47.19	-inf	-40.60	0.18	Pass
501.19	-23.00	-inf	-16.70	0.18	Pass
707.95	-3.14	-5.40	-1.30	0.16	Pass
771.79	-0.49	-1.50	0.30	0.15	Pass
841.40	-0.48	-0.80	0.30	0.15	Pass
917.28	-0.40	-0.60	0.30	0.15	Pass
1,000.00	-0.18	-0.50	0.30	0.15	Pass
1,090.18	-0.35	-0.60	0.30	0.16	Pass
1,188.50	-0.56	-0.80	0.30	0.15	Pass
1,295.69	-0.49	-1.50	0.30	0.16	Pass
1,412.54	-3.47	-5.40	-1.30	0.21	Pass
1,995.26	-29.81	-inf	-16.70	0.23	Pass
3,981.07	-102.57	-inf	-40.60	1.40	Pass
7,943.28	-102.95	-inf	-60.10	2.70	Pass
15,848.93	-102.48	-inf	-70.10	2.10	Pass

-- End of measurement results--

X-Axis 1/3 Octave Filter: 1.0 Hz

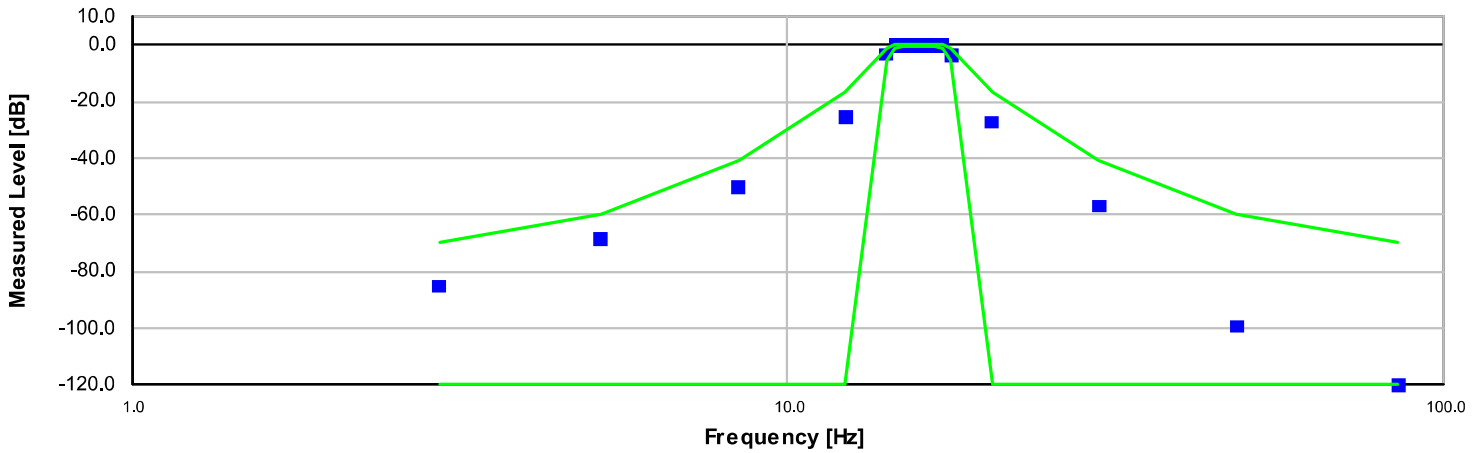
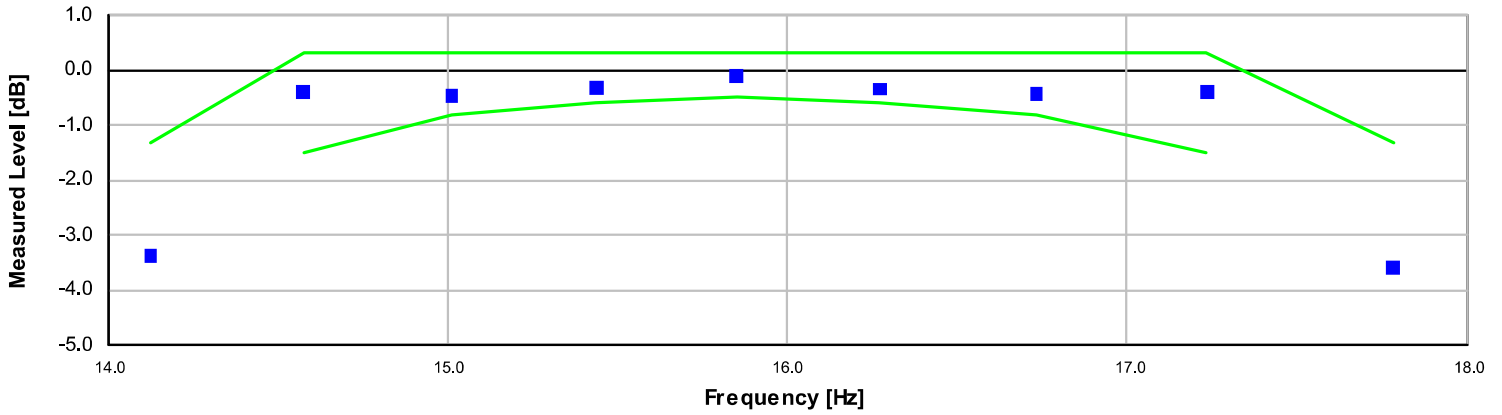


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0.19	-85.67	-inf	-70.10	0.18	Pass
0.33	-68.86	-inf	-60.10	0.15	Pass
0.53	-50.49	-inf	-40.60	0.16	Pass
0.77	-26.06	-inf	-16.70	0.18	Pass
0.89	-3.56	-5.40	-1.30	0.15	Pass
0.92	-0.39	-1.50	0.30	0.15	Pass
0.95	-0.39	-0.80	0.30	0.16	Pass
0.97	-0.29	-0.60	0.30	0.16	Pass
1.00	-0.14	-0.50	0.30	0.15	Pass
1.03	-0.16	-0.60	0.30	0.16	Pass
1.06	-0.63	-0.80	0.30	0.16	Pass
1.09	-0.47	-1.50	0.30	0.15	Pass
1.12	-3.42	-5.40	-1.30	0.15	Pass
1.29	-27.15	-inf	-16.70	0.15	Pass
1.88	-57.27	-inf	-40.60	0.23	Pass
3.05	-100.64	-inf	-60.10	0.41	Pass
5.39	-127.95	-inf	-70.10	4.30	Pass

-- End of measurement results--

X-Axis 1/3 Octave Filter: 16.0 Hz

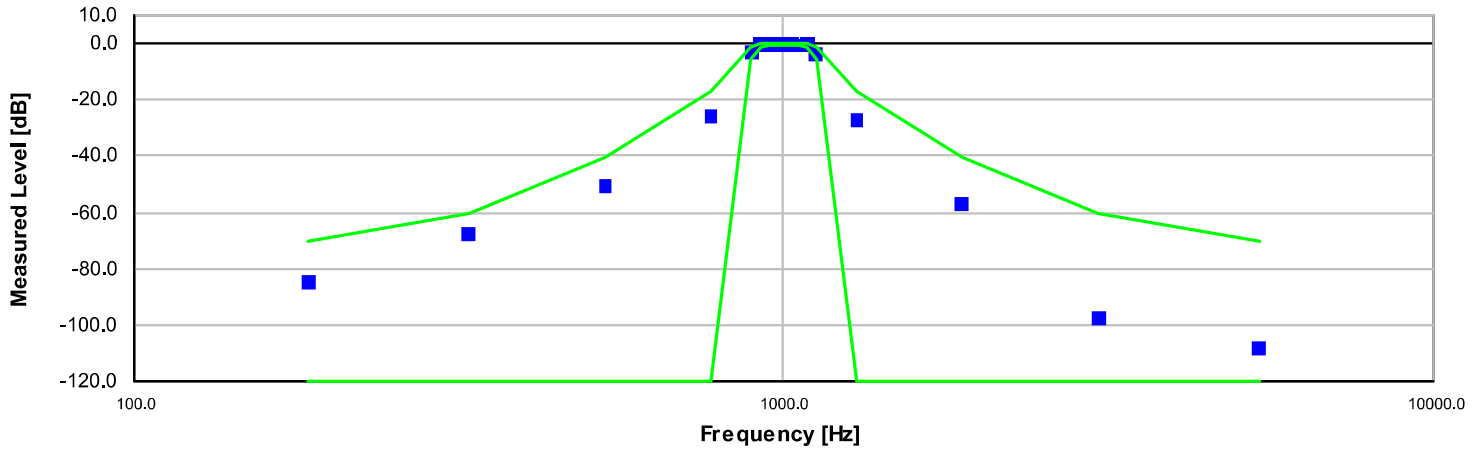
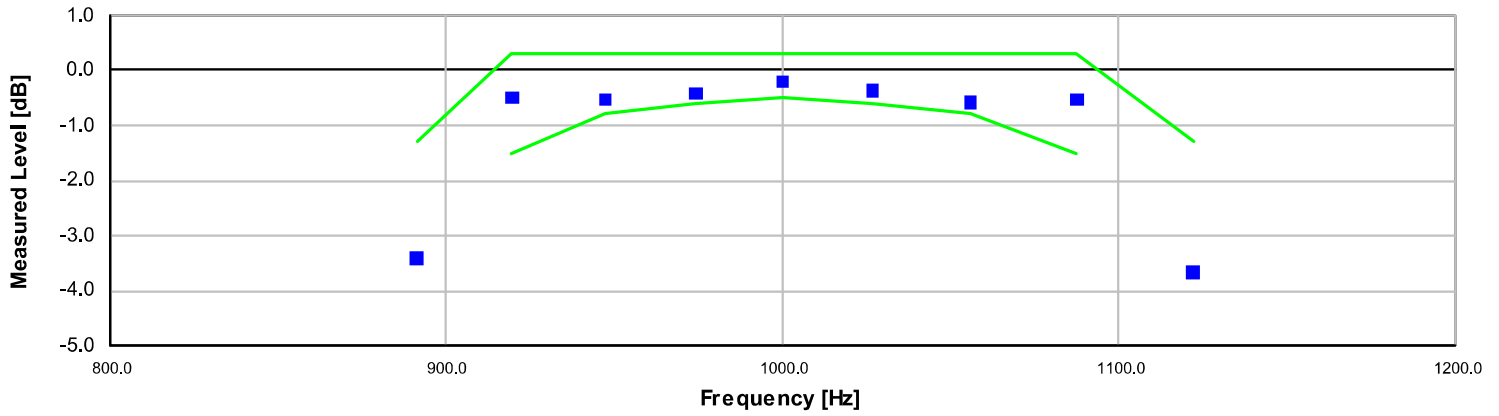


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
2.94	-85.33	-inf	-70.10	0.15	Pass
5.19	-68.65	-inf	-60.10	0.16	Pass
8.42	-50.51	-inf	-40.60	0.15	Pass
12.24	-25.53	-inf	-16.70	0.15	Pass
14.13	-3.38	-5.40	-1.30	0.15	Pass
14.57	-0.39	-1.50	0.30	0.15	Pass
15.01	-0.47	-0.80	0.30	0.15	Pass
15.44	-0.31	-0.60	0.30	0.15	Pass
15.85	-0.10	-0.50	0.30	0.15	Pass
16.27	-0.34	-0.60	0.30	0.15	Pass
16.73	-0.42	-0.80	0.30	0.15	Pass
17.24	-0.40	-1.50	0.30	0.15	Pass
17.78	-3.58	-5.40	-1.30	0.15	Pass
20.51	-27.39	-inf	-16.70	0.15	Pass
29.82	-57.02	-inf	-40.60	0.15	Pass
48.40	-99.36	-inf	-60.10	1.70	Pass
85.46	-120.14	-inf	-70.10	2.10	Pass

-- End of measurement results--

X-Axis 1/3 Octave Filter: 1 kHz

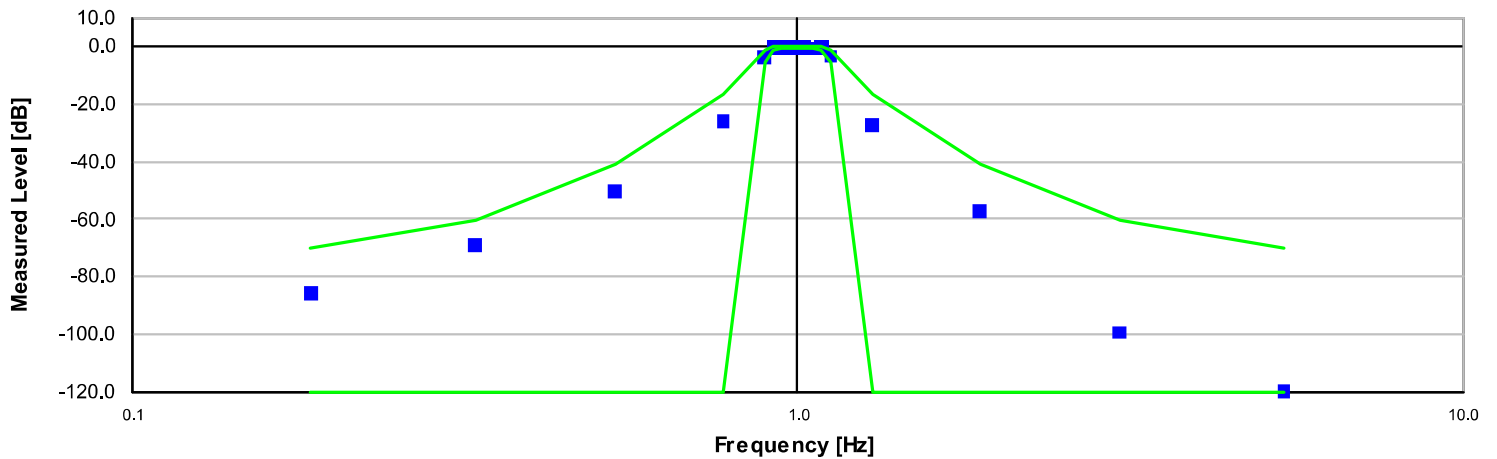
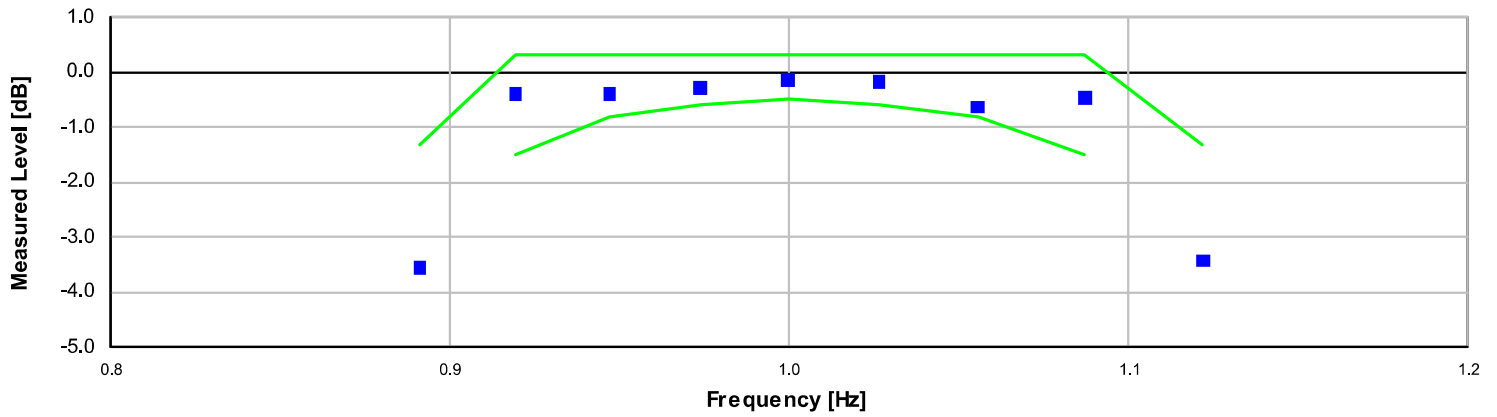


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
185.46	-84.87	-inf	-70.10	0.16	Pass
327.48	-67.65	-inf	-60.10	0.16	Pass
531.43	-50.53	-inf	-40.60	0.16	Pass
772.57	-25.64	-inf	-16.70	0.16	Pass
891.25	-3.40	-5.40	-1.30	0.16	Pass
919.58	-0.49	-1.50	0.30	0.16	Pass
947.19	-0.53	-0.80	0.30	0.16	Pass
974.02	-0.42	-0.60	0.30	0.16	Pass
1,000.00	-0.20	-0.50	0.30	0.16	Pass
1,026.67	-0.37	-0.60	0.30	0.16	Pass
1,055.75	-0.57	-0.80	0.30	0.16	Pass
1,087.46	-0.53	-1.50	0.30	0.16	Pass
1,122.02	-3.66	-5.40	-1.30	0.16	Pass
1,294.37	-27.52	-inf	-16.70	0.16	Pass
1,881.73	-57.09	-inf	-40.60	0.16	Pass
3,053.65	-97.88	-inf	-60.10	0.94	Pass
5,391.95	-108.32	-inf	-70.10	2.00	Pass

-- End of measurement results--

Y-Axis 1/3 Octave Filter: 1.0 Hz

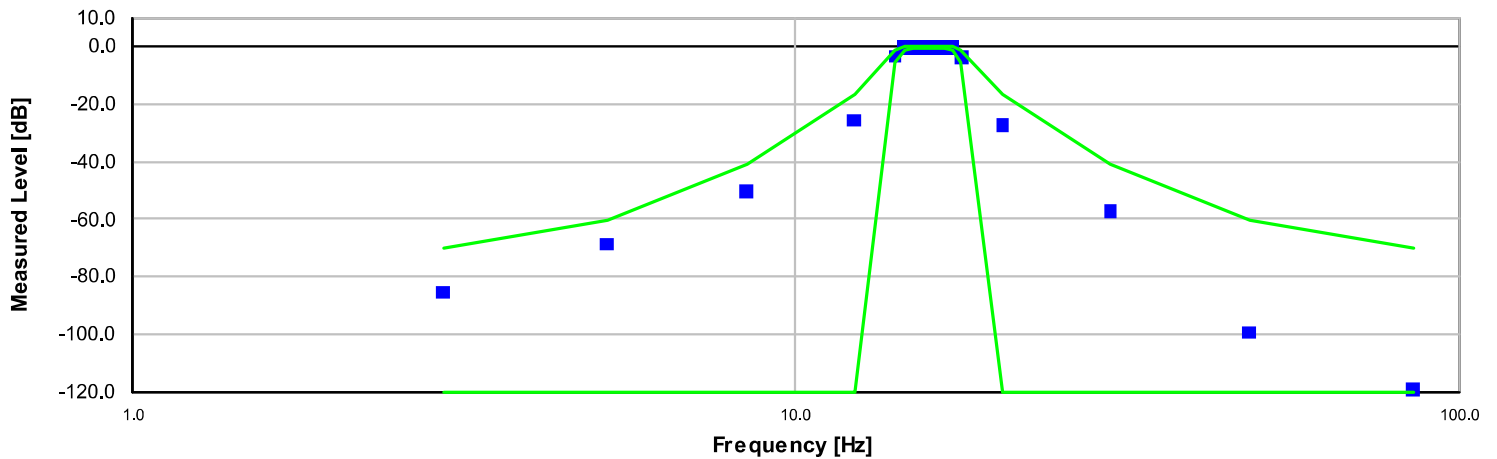
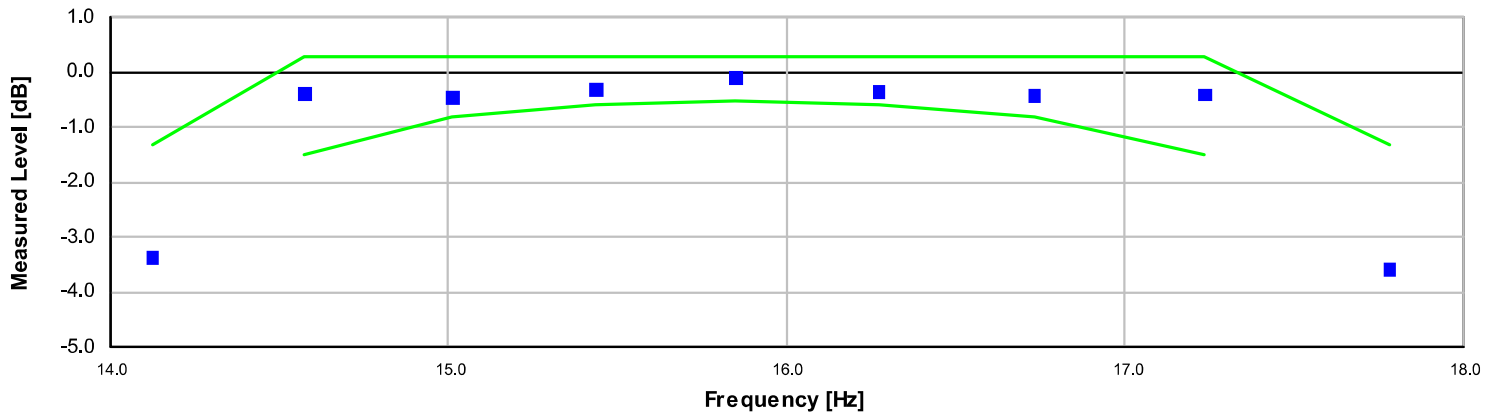


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0.19	-85.67	-inf	-70.10	0.18	Pass
0.33	-68.86	-inf	-60.10	0.15	Pass
0.53	-50.49	-inf	-40.60	0.16	Pass
0.77	-26.06	-inf	-16.70	0.18	Pass
0.89	-3.56	-5.40	-1.30	0.15	Pass
0.92	-0.39	-1.50	0.30	0.15	Pass
0.95	-0.39	-0.80	0.30	0.16	Pass
0.97	-0.29	-0.60	0.30	0.16	Pass
1.00	-0.14	-0.50	0.30	0.15	Pass
1.03	-0.16	-0.60	0.30	0.16	Pass
1.06	-0.63	-0.80	0.30	0.16	Pass
1.09	-0.47	-1.50	0.30	0.15	Pass
1.12	-3.42	-5.40	-1.30	0.15	Pass
1.29	-27.16	-inf	-16.70	0.15	Pass
1.88	-57.27	-inf	-40.60	0.23	Pass
3.05	-99.39	-inf	-60.10	0.41	Pass
5.39	-120.36	-inf	-70.10	4.30	Pass

-- End of measurement results--

Y-Axis 1/3 Octave Filter: 16.0 Hz

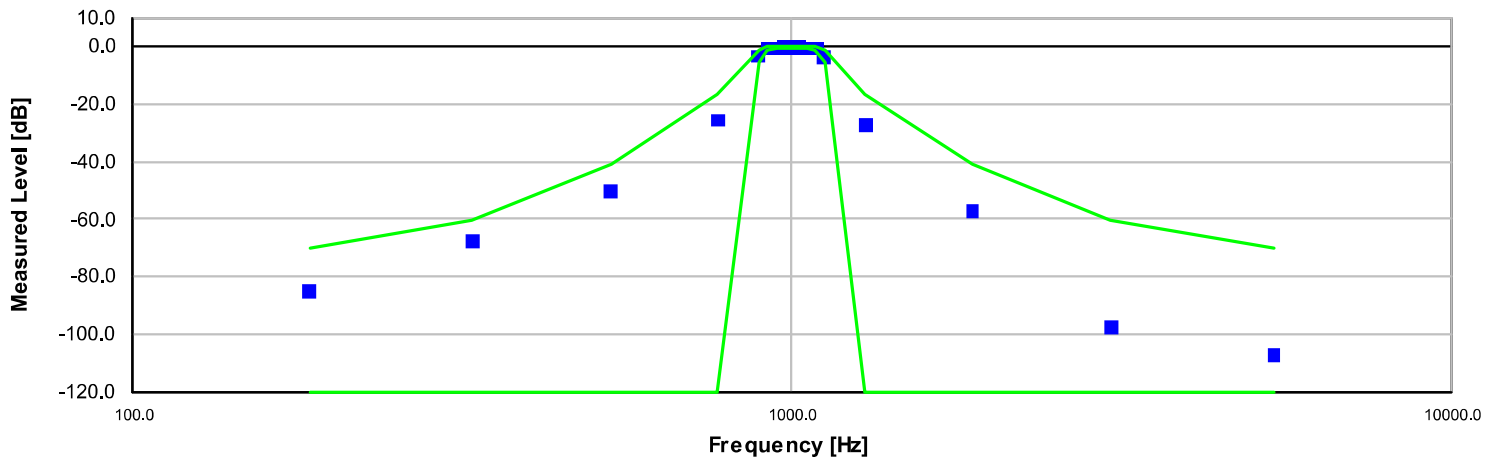
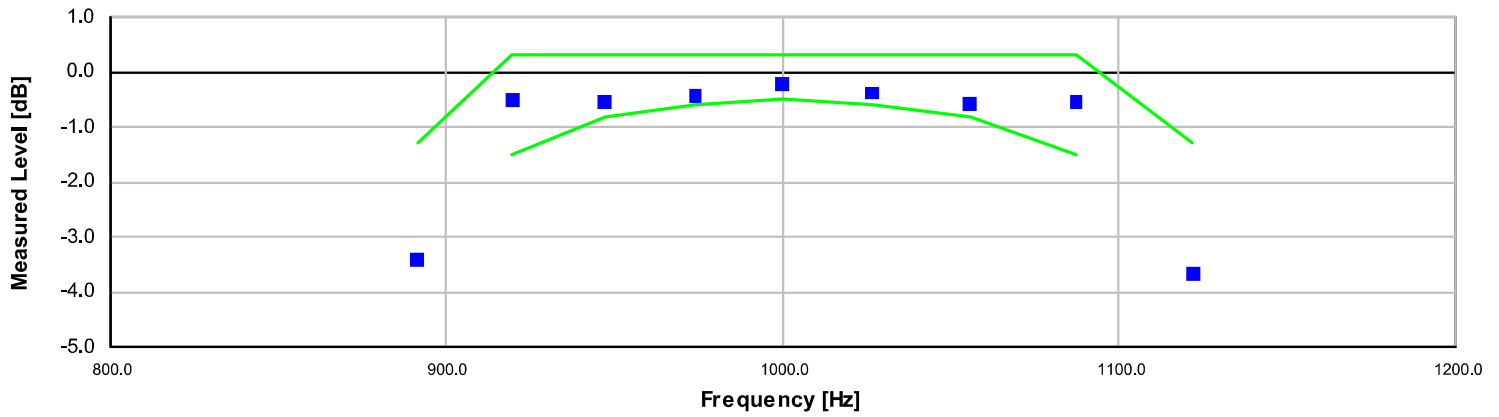


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
2.94	-85.33	-inf	-70.10	0.15	Pass
5.19	-68.65	-inf	-60.10	0.16	Pass
8.42	-50.51	-inf	-40.60	0.15	Pass
12.24	-25.53	-inf	-16.70	0.15	Pass
14.13	-3.38	-5.40	-1.30	0.15	Pass
14.57	-0.39	-1.50	0.30	0.15	Pass
15.01	-0.47	-0.80	0.30	0.15	Pass
15.44	-0.31	-0.60	0.30	0.15	Pass
15.85	-0.10	-0.50	0.30	0.15	Pass
16.27	-0.34	-0.60	0.30	0.15	Pass
16.73	-0.42	-0.80	0.30	0.15	Pass
17.24	-0.40	-1.50	0.30	0.15	Pass
17.78	-3.58	-5.40	-1.30	0.15	Pass
20.51	-27.39	-inf	-16.70	0.15	Pass
29.82	-57.02	-inf	-40.60	0.15	Pass
48.40	-99.34	-inf	-60.10	1.70	Pass
85.46	-118.95	-inf	-70.10	2.10	Pass

-- End of measurement results--

Y-Axis 1/3 Octave Filter: 1 kHz

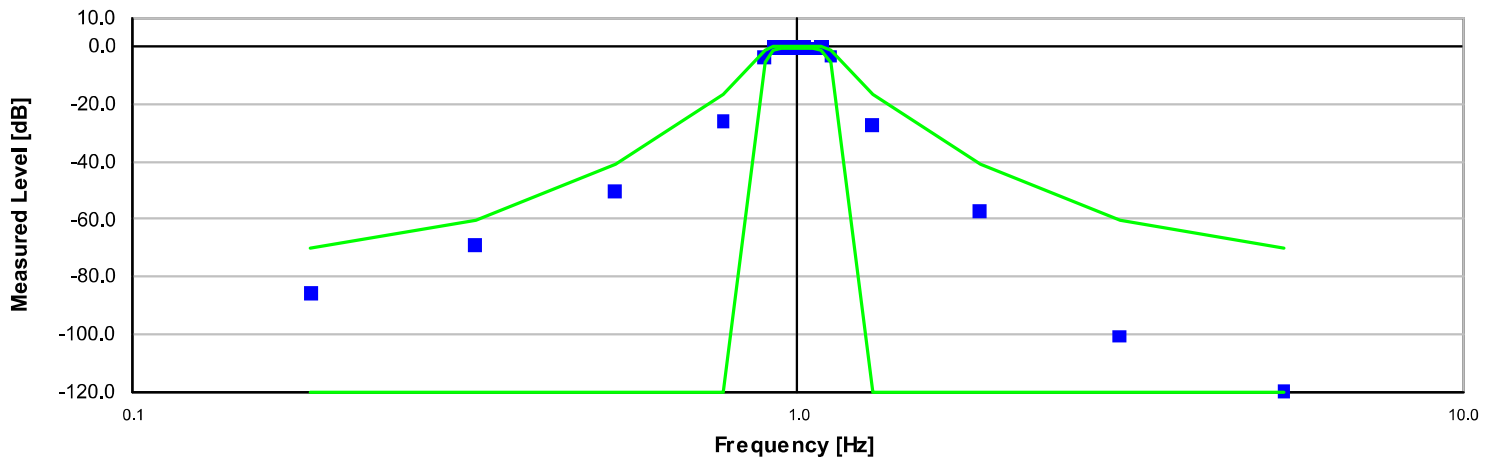
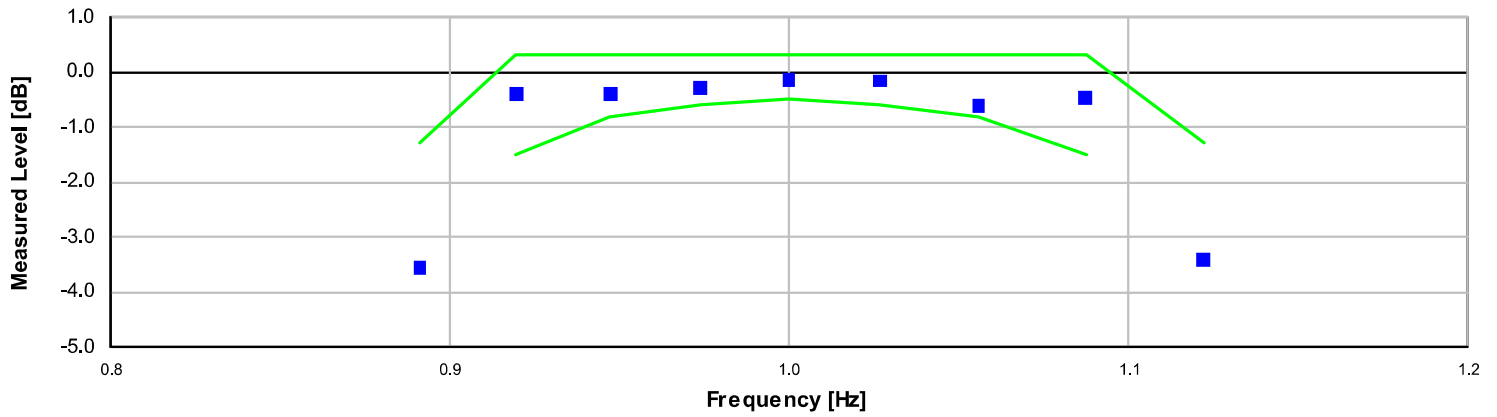


Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
185.46	-84.87	-inf	-70.10	0.16	Pass
327.48	-67.65	-inf	-60.10	0.16	Pass
531.43	-50.54	-inf	-40.60	0.16	Pass
772.57	-25.64	-inf	-16.70	0.16	Pass
891.25	-3.40	-5.40	-1.30	0.16	Pass
919.58	-0.50	-1.50	0.30	0.16	Pass
947.19	-0.53	-0.80	0.30	0.16	Pass
974.02	-0.42	-0.60	0.30	0.16	Pass
1,000.00	-0.21	-0.50	0.30	0.16	Pass
1,026.67	-0.38	-0.60	0.30	0.16	Pass
1,055.75	-0.58	-0.80	0.30	0.16	Pass
1,087.46	-0.53	-1.50	0.30	0.16	Pass
1,122.02	-3.67	-5.40	-1.30	0.16	Pass
1,294.37	-27.53	-inf	-16.70	0.16	Pass
1,881.73	-57.10	-inf	-40.60	0.16	Pass
3,053.65	-97.62	-inf	-60.10	0.94	Pass
5,391.95	-107.50	-inf	-70.10	2.00	Pass

-- End of measurement results--

Z-Axis 1/3 Octave Filter: 1.0 Hz



Filter shape measured according to IEC 61260-1:2014 and ANSI S1.11

Frequency [Hz]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
0.19	-85.67	-inf	-70.10	0.18	Pass
0.33	-68.86	-inf	-60.10	0.15	Pass
0.53	-50.49	-inf	-40.60	0.16	Pass
0.77	-26.06	-inf	-16.70	0.18	Pass
0.89	-3.56	-5.40	-1.30	0.15	Pass
0.92	-0.39	-1.50	0.30	0.15	Pass
0.95	-0.39	-0.80	0.30	0.16	Pass
0.97	-0.29	-0.60	0.30	0.16	Pass
1.00	-0.14	-0.50	0.30	0.15	Pass
1.03	-0.16	-0.60	0.30	0.16	Pass
1.06	-0.63	-0.80	0.30	0.16	Pass
1.09	-0.47	-1.50	0.30	0.15	Pass
1.12	-3.42	-5.40	-1.30	0.15	Pass
1.29	-27.15	-inf	-16.70	0.15	Pass
1.88	-57.27	-inf	-40.60	0.23	Pass
3.05	-100.65	-inf	-60.10	0.41	Pass
5.39	-124.12	-inf	-70.10	4.30	Pass

-- End of measurement results--