REPORTE TÉCNICO DECRETO SUPREMO N°38/11 DEL MINISTERIO DEL MEDIO AMBIENTE

Establece Norma de Emisión de Ruidos Generados por Fuentes que Indica

FICHA DE INFORMACIÓN DE MEDICIÓN DE RUIDO

IDENTIFICACIÓN DE LA FUENTE EMISORA DE RUIDO

Nombre o razón social	Alimentos El Golf SPA		
RUT	76.270.209-6		
Dirección	Hernando de Aguirre 129		
Comuna	Providencia		
Nombre de Zona de emplazamiento (según IPT vigente)	UpR y ECr, Uso preferentemente Residencial y Equipamiento Comercial restringido		
Datum	WGS84	Huso	19S
Coordenada Norte	6301061.89 m	Coordenada Este	351124.93 m

CARACTERIZACIÓN DE LA FUENTE EMISORA DE RUIDO

Actividad Productiva	☐ Industrial	☐ Agrícola	☐ Extracción	☐ Otro
Actividad Comercial	☑ Restaurant	☐ Taller Mecánico	☐ Local Comercial	☐ Otro
Actividad Esparcimiento	☐ Discoteca	☐ Recinto Deportivo	☐ Cultura	☐ Otro
Actividad de Servicio	☐ Religioso	☐ Salud	☐ Comunitario	☐ Otro
Infraestructura Transporte	☐ Terminal	☐ Taller de Transporte	☐ Estación Intermedia	☐ Otro
Infraestructura Sanitaria	☐ Planta de Tratamiento	☐ Relleno Sanitario	☐ Instalación de Distribución	☐ Otro
Infraestructura Energética	☐ Generadora	☐ Distribución Eléctrica	☐ Comunicaciones	☐ Otro
Faena Constructiva	☐ Construcción	☐ Demolición	☐ Reparación	☐ Otro
Otro (Especificar)				

INSTRUMENTAL DE MEDICIÓN

Identificación sonómetro					
Marca	Larson Davis	Modelo	LxT1	N° serie	5526
Fecha de emisión Certificado de Calibración			17.01.2018		
Número de Certificado de Calibración			2018000669		
Identificación calibrador					
Marca	Larson Davis	Modelo	CAL200	N° serie	15291
Fecha de emisión Certificado de Calibración			21.12.2017		
Número de Certificado de Calibración			2017013480		
Ponderación en frecuencia	Filtro A		Ponderación temporal		Slow
Verificación de Calibración en Terreno	☑ Si		☐ No		
Se deberá adjuntar Certificado de Calibración Periódica Vigente para ambos instrumentos.					

REPORTE TÉCNICO DECRETO SUPREMO N°38/11 DEL MINISTERIO DEL MEDIO AMBIENTE

Establece Norma de Emisión de Ruidos Generados por Fuentes que Indica

FICHA DE INFORMACIÓN DE MEDICIÓN DE RUIDO

IDENTIFICACIÓN DEL RECEPTOR

Receptor N°1	Hernán Sánchez Rodríguez				
Rut	9.900.584-K				
Calle	Hernando de Aguirre				
Número	159				
Comuna	Providencia				
Fono	956628049				
E-Mail	nanchorodriguez@live.cl				
Datum	WGS84		Huso	19 S	
Coordenada Norte	6301047.28 m		Coordenada Este	351127. 43 m	
Nombre de Zona de emplazamiento	UpR y ECr, Uso preferentemente Residencial y Equipamiento Comercial restringido				
N° de Certificado de Informaciones Previas*					
Zonificación DS N° 38/11 MMA	☐ I	☐ II	☑ III	☐ IV	☐ Rural

** Adjuntar Certificado de Informaciones Previas (Si corresponde, según consideraciones de Art. 8°, D.S. N° 38/11 MMA)*

CONDICIONES DE MEDICIÓN

Fecha medición	13.09.19				
Hora inicio medición	22:00 hrs				
Hora término medición	22:25 hrs				
Periodo de medición	☐ 7:00 a 21:00 h		☑ 21:00 a 7:00 h		
Lugar de medición	☐ Medición Interna		☑ Medición Externa		
Descripción del lugar de medición	Patio				
Condiciones de ventana (en caso de medición interna)	☐ Ventana Abierta		☐ Ventana Cerrada		
Identificación ruido de fondo	Tránsito moderado				
Temperatura [°C]	13	Humedad [%]	59	Velocidad de viento [m/s]	2,7

Nombre y firma Inspector Ambiental (IA)	Daniel Arenas González, Ingeniero de Ejecución en Sonido	
Entidad Técnica de Fiscalización Ambiental	Municipalidad de Providencia	

Nota:

- *Se deberá imprimir y completar esta página para cada receptor evaluado.*
- *Se podrán incluir fotografías del punto donde se ubique el sonómetro para la realización de la medición.*
- *Los datos de Temperatura, Humedad Relativa y Velocidad de viento, corresponderá para mediciones realizadas en el exterior.*

FICHA DE GEORREFERENCIACIÓN DE MEDICIÓN DE RUIDO

☐ Croquis	☑ Imagen Satelital

Origen de la imagen Satelital	Google Earth
Escala de la imagen Satelital	

LEYENDA DE CROQUIS O IMAGEN UTILIZADA

Datum		WGS84		**Huso**		19 S	
Fuentes				**Receptores**			
Símbolo	**Nombre**	**Coordenadas**		**Símbolo**	**Nombre**	**Coordenadas**	
E	Extractor	N	6301061.89 m	P	Punto de medición	N	6301047.28 m
		E	351124.93 m			E	351127. 43 m
		N				N	
		E				E	
		N				N	
		E				E	
		N				N	
		E				E	

Se podrán adjuntar fotografías, considerando como máximo una (1) por fuente y dos (2) por lugar de medición.

FICHA DE MEDICIÓN DE NIVELES DE RUIDO

REGISTRO DE MEDICIÓN DE RUIDO DE FUENTE EMISORA

Identificación Receptor N°	1
☐ Medición Interna (tres puntos)	☑ Medición externa (un punto)

	NPSeq	NPSmin	NPSmáx
Punto 1	54,5	53,7	55,9
	54,6	52,9	55,4
	54,4	53,1	56,5

	NPSeq	NPSmin	NPSmáx
Punto 2			

	NPSeq	NPSmin	NPSmáx
Punto 3			

REGISTRO DE RUIDO DE FONDO

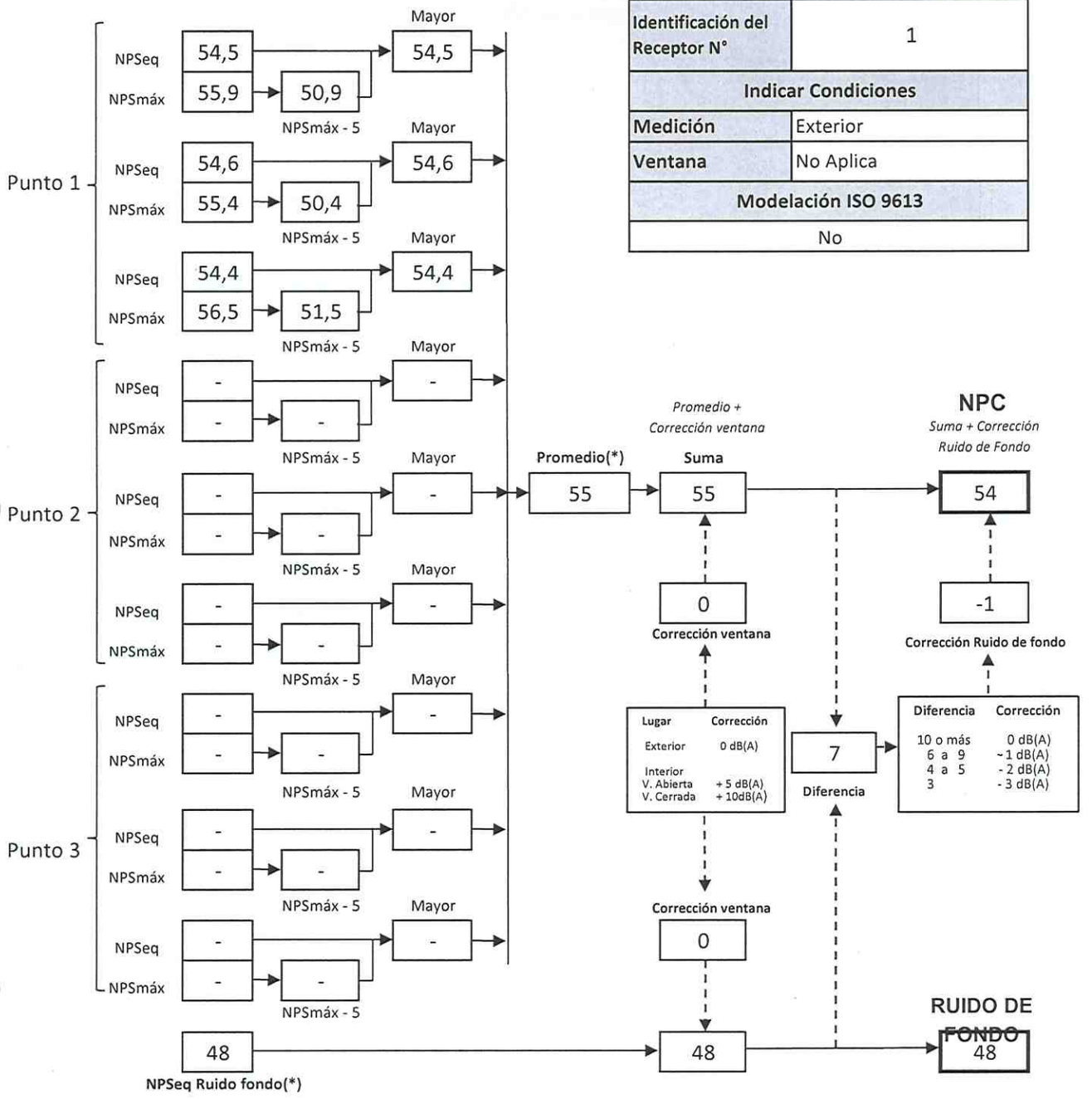
Ruido de fondo afecta la medición	☑ Si	☐ No	
Fecha:	13.09.19	Hora:	22:18 hrs

	5'	10'	15'	20'	25'	
NPSeq	48	48				

Observaciones:
Fuente: Extractor de aire de restaurante Mamut

FICHA DE EVALUACIÓN DE NIVELES DE RUIDO

Información del Receptor	
Identificación del Receptor N°	1
Indicar Condiciones	
Medición	Exterior
Ventana	No Aplica
Modelación ISO 9613	
No	



(*) Aproximar a números enteros

FICHA DE EVALUACIÓN DE NIVELES DE RUIDO

TABLA DE EVALUACIÓN

Receptor N°	NPC [dBA]	Ruido de Fondo [dBA]	Zona DS N°38	Periodo (Diurno/Nocturno)	Límite [dBA]	Estado (Supera/No Supera)
1	54	48	III	Nocturno	50	Supera
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-
			Seleccione	Seleccione	-	-

OBSERVACIONES

ANEXOS

N°	Descripción

RESPONSABLE DEL REPORTE (Llenar sólo ETFA)

Fecha del reporte	
Nombre Representante Legal	
Firma Representante Legal	

Calibration Certificate

Certificate Number 2018000669
Customer:
Sistemas De Instrumentacion
Concha Y Toro NO 65
Santiago-Centro
Santiago, , Chile

Model Number	LxT1	***Procedure Number***	D0001.8384		
Serial Number	0005526	***Technician***	Ron Harris		
Test Results	**Pass**	***Calibration Date***	17 Jan 2018		
Initial Condition	As Manufactured	***Calibration Due***	17 Jan 2020		
Description	SoundTrack LxT Class 1 Class 1 Sound Level Meter Firmware Revision: 2.302	***Temperature***	23.33	°C	± 0.25 °C
		Humidity	50.7	%RH	± 2.0 %RH
		Static Pressure	87.08	kPa	± 0.13 kPa

Evaluation Method ***Tested with:***

Larson Davis PRMLxT1. S/N 046806
PCB 377B02. S/N 177005
Larson Davis CAL200. S/N 9079
Larson Davis CAL291. S/N 0203

Data reported in dB re 20 µPa.

Compliance Standards Compliant to Manufacturer Specifications and the following standards when combined with Calibration Certificate from procedure D0001.8378:

IEC 60651:2001 Type 1	ANSI S1.4-2014 Class 1
IEC 60804:2000 Type 1	ANSI S1.4 (R2006) Type 1
IEC 61252:2002	ANSI S1.11 (R2009) Class 1
IEC 61260:2001 Class 1	ANSI S1.25 (R2007)
IEC 61672:2013 Class 1	ANSI S1.43 (R2007) Type 1

Issuing lab 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 International System of Units (SI) through the National Institute of Standards and Technology (NIST), or other national measurement institutes, and meets the requirements of ISO/IEC 17025:2005.
Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.

The quality system is registered to ISO 9001:2008.

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 would 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.

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Correction data from Larson Davis LxT Manual for SoundTrack LxT & SoundExpert Lxt, I770.01 Rev J Supporting Firmware Version 2.301, 2015-04-30

For 1/4" microphones, the Larson Davis ADP024 1/4" to 1/2" adaptor is used with the calibrators and the Larson Davis ADP043 1/4" to 1/2" adaptor is used with the preamplifier.

Calibration Check Frequency: 1000 Hz; Reference Sound Pressure Level: 114 dB re 20 µPa

Periodic tests were performed in accordance with precedures from IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part3.

Pattern approval for IEC 61672-1:2013 / ANSI/ASA S1 4-2014/Part 1 successfully completed by Physikalisch-Technische Bundesanstalt (PTB) on 2007-10-09 reference number PTB-1.72-4034218.

The sound level meter submitted for testing successfully completed the periodic tests of IEC 61672-3:2013 / ANSI/ASA S1.4-2014/Part 3, for the environmental conditions under which the tests were performed. As evidence was publicly available, from an independent testing organization responsible for approving the results of pattern-evaluation tests performed in accordance with IEC 61672-2:2013 / ANSI/ASA S1.4-2014/Part 2, to demonstrate that the model of sound level meter fully conformed to the class 1 specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1; the sound level meter submitted for testing conforms to the class 1specifications in IEC 61672-1:2013 / ANSI/ASA S1.4-2014/Part 1.

Standards Used

Description	Cal Date	Cal Due	Cal Standard
SRS DS360 Ultra Low Distortion Generator	2017-06-23	2018-06-23	006311
Hart Scientific 2626-S Humidity/Temperature Sensor	2017-06-11	2018-06-11	006943
Larson Davis CAL200 Acoustic Calibrator	2017-07-25	2018-07-25	007027
Larson Davis Model 831	2017-03-01	2018-03-01	007182
PCB 377A13 1/2 inch Prepolarized Pressure Microphone	2017-03-08	2018-03-08	007185
Larson Davis CAL291 Residual Intensity Calibrator	2017-09-19	2018-09-19	007287

Acoustic Calibration

Measured according to IEC 61672-3:2013 10 and ANSI S1.4-2014 Part 3: 10

Measurement	Test Result [dB]	Lower Limit [dB]	Upper Limit [dB]	Expanded Uncertainty [dB]	Result
1000 Hz	114.00	113.80	114.20	0.14	Pass

Acoustic Signal Tests, C-weighting

Measured according to IEC 61672-3:2013 12 and ANSI S1.4-2014 Part 3: 12 using a comparison coupler with Unit Under Test (UUT) and reference SLM using slow time-weighted sound level for compliance to IEC 61672-1:2013 5.5; ANSI S1.4-2014 Part 1: 5.5

Frequency [Hz]	Test Result [dB]	Expected [dB]	Lower Limit [dB]	Upper Limit [dB]	Expanded Uncertainty [dB]	Result
125	-0.22	-0.20	-1.20	0.80	0.23	Pass
1000	0.18	0.00	-0.70	0.70	0.23	Pass
8000	-2.61	-3.00	-5.50	-1.50	0.32	Pass

-- End of measurement results--

Self-generated Noise

Measured according to IEC 61672-3:2013 11.1 and ANSI S1.4-2014 Part 3: 11.1

Measurement	Test Result [dB]
A-weighted	40.63

-- End of measurement results--

Calibration Certificate

Certificate Number 2017013480

Customer:
Sistemas De Instrumentacion
Concha Y Toro NO 65
Santiago-Centro
Santiago,Chile

Model Number	CAL200	***Procedure Number***	D0001.8386
Serial Number	15291	***Technician***	Scott Montgomery
Test Results	**Pass**	***Calibration Date***	21 Dec 2017
Initial Condition	As Manufactured	***Calibration Due***	21 Dec 2019
Description	Larson Davis CAL200 Acoustic Calibrator	***Temperature***	22 °C ± 0.3 °C
		Humidity	32 %RH ± 3 %RH
		Static Pressure	101.3 kPa ± 1 kPa

Evaluation Method The data is aquired by the insert voltage calibration method using the reference microphone's open circuit sensitivity. Data reported in dB re 20 µPa.

Compliance Standards Compliant to Manufacturer Specifications per D0001.8190 and the following standards:
IEC 60942:2003 ANSI S1.40-2006

Issuing lab 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, and meets the requirements of ISO/IEC 17025:2005. **Test points marked with a ‡ in the uncertainties column do not fall within this laboratory's scope of accreditation.**

The quality system is registered to ISO 9001:2008.

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 would 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.

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Standards Used

Description	Cal Date	Cal Due	Cal Standard
Agilent 34401A DMM	09/06/2017	09/06/2018	001021
Larson Davis Model 2900 Real Time Analyzer	04/10/2017	04/10/2018	001051
Microphone Calibration System	08/08/2017	08/08/2018	005446
1/2" Preamplifier	10/05/2017	10/05/2018	006506
Larson Davis 1/2" Preamplifier 7-pin LEMO	08/08/2017	08/08/2018	006507
1/2 inch Microphone - RI - 200V	04/24/2017	04/24/2018	006510
Pressure Transducer	06/01/2017	06/01/2018	007310

Larson Davis,a division of PCB Piezotronics,Inc
1681 West 820 North
Provo,UT 84601,United States
716-684-0001

ACCREDITED Cert. #3022.01

LARSON DAVIS
A PCB PIEZOTRONICS DIV.

-- End of Report--

Signatory: *Ron Harris*

Larson Davis, a division of PCB Piezotronics, Inc
1681 West 820 North
Provo, UT 84601, United States
716-684-0001

ACCREDITED Cert. #3022.01

LARSON DAVIS
A PCB PIEZOTRONICS DIV.

Output Level

Nominal Level [dB]	Pressure [kPa]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
114	101.3	114.00	113.80	114.20	0.13	Pass
94	101.3	94.01	93.80	94.20	0.14	Pass

-- End of measurement results--

Frequency

Nominal Level [dB]	Pressure [kPa]	Test Result [Hz]	Lower limit [Hz]	Upper limit [Hz]	Expanded Uncertainty [Hz]	Result
94	101.3	1,000.10	990.00	1,010.00	0.20	Pass
114	101.3	1,000.09	990.00	1,010.00	0.20	Pass

-- End of measurement results--

Total Harmonic Distortion + Noise (THD+N)

Nominal Level [dB]	Pressure [kPa]	Test Result [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
94	101.3	0.42	0.00	2.00	0.25	Pass
114	101.3	0.38	0.00	2.00	0.25	Pass

-- End of measurement results--

Level Change Over Pressure

Tested at: 114 dB, 23 °C, 28 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [dB]	Lower limit [dB]	Upper limit [dB]	Expanded Uncertainty [dB]	Result
101.3	101.1	0.00	-0.30	0.30	0.04 ‡	Pass
92.0	92.0	0.00	-0.30	0.30	0.04 ‡	Pass
108.0	108.0	-0.02	-0.30	0.30	0.04 ‡	Pass
83.0	83.2	-0.01	-0.30	0.30	0.04 ‡	Pass
74.0	74.1	-0.06	-0.30	0.30	0.04 ‡	Pass
65.0	65.1	-0.14	-0.30	0.30	0.04 ‡	Pass

-- End of measurement results--

Frequency Change Over Pressure

Tested at: 114 dB, 23 °C, 28 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [Hz]	Lower limit [Hz]	Upper limit [Hz]	Expanded Uncertainty [Hz]	Result
108.0	108.0	0.00	-10.00	10.00	0.20 ‡	Pass
101.3	101.1	0.00	-10.00	10.00	0.20 ‡	Pass
92.0	92.0	0.00	-10.00	10.00	0.20 ‡	Pass
83.0	83.2	-0.01	-10.00	10.00	0.20 ‡	Pass
74.0	74.1	-0.01	-10.00	10.00	0.20 ‡	Pass
65.0	65.1	-0.02	-10.00	10.00	0.20 ‡	Pass

-- End of measurement results--

Total Harmonic Distortion + Noise (THD+N) Over Pressure

Tested at: 114 dB, 23 °C, 28 %RH

Nominal Pressure [kPa]	Pressure [kPa]	Test Result [%]	Lower limit [%]	Upper limit [%]	Expanded Uncertainty [%]	Result
108.0	108.0	0.39	0.00	2.00	0.25 ‡	Pass
101.3	101.1	0.38	0.00	2.00	0.25 ‡	Pass
92.0	92.0	0.37	0.00	2.00	0.25 ‡	Pass
83.0	83.2	0.36	0.00	2.00	0.25 ‡	Pass
74.0	74.1	0.36	0.00	2.00	0.25 ‡	Pass
65.0	65.1	0.36	0.00	2.00	0.25 ‡	Pass

-- End of measurement results--

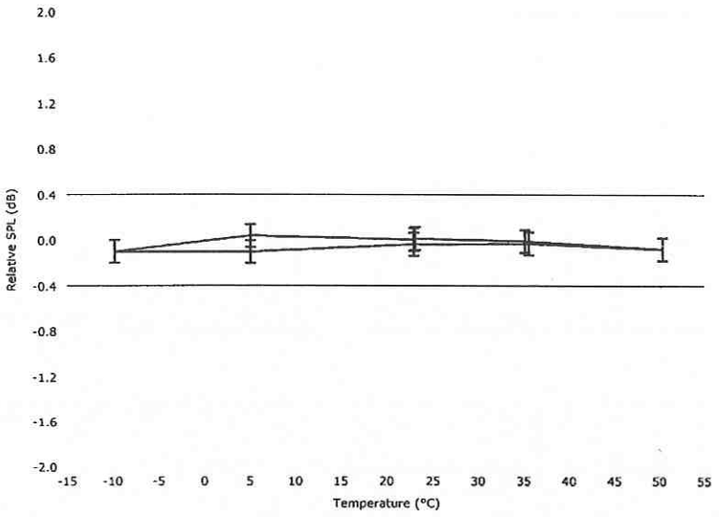
Signatory: Scott Montgomery

Model CAL200 Relative SPL vs. Temperature

Larson Davis Model CAL200 Serial Number: 15291

Model CAL200 Relative SPL vs. Temperature at 50% RH.
A 2559 Mic (SN: 2995) with a PRM902 Preamp (SN: 5726), station 19 was used to check the levels.

Test Date: 05 Dec 2017 17:42:11



0.1dB expanded uncertainty at ~95% confidence level (k=2)

Sequence File: CAL200.SEQ

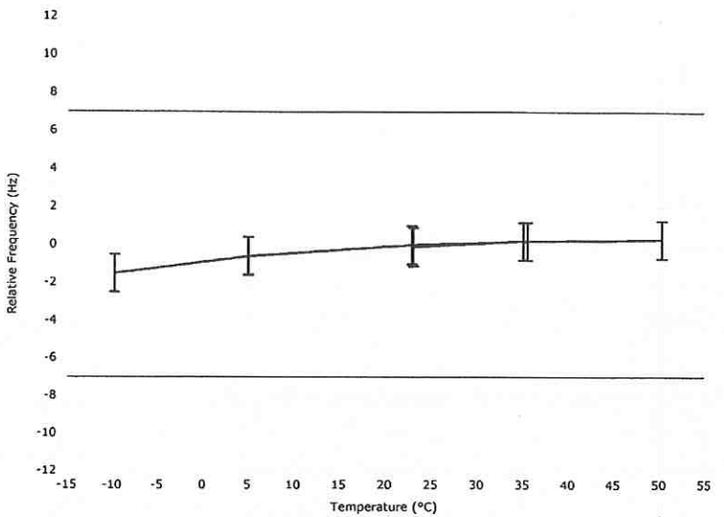
Test Location: Larson Davis, a division of PCB Piezotronics, Inc.
1681 West 820 North, Provo, Utah 84601
Tel: 716 684-0001 www.LarsonDavis.com

Model CAL200 Relative Frequency vs. Temperature

Larson Davis Model CAL200 Serial Number: 15291

Model CAL200 Relative Frequency vs. Temperature at 50% RH.
A 2559 Mic (SN: 2995) with a PRM902 Preamp (SN: 5726), station 19 was used to check the levels.

Test Date: 05 Dec 2017 17:42:11



1.0 Hz expanded uncertainty at ~95% confidence level (k=2)

Sequence File: CAL200.SEQ

Test Location: Larson Davis, a division of PCB Piezotronics, Inc.
1681 West 820 North, Provo, Utah 84601
Tel: 716 684-0001 www.LarsonDavis.com