Manufacturer Calibration Certificate

The following instrument has been tested and calibrated to the manufacturer specifications.
The calibration is traceable in accordance with ISO/IEC 17025 covering all instrument functions.

- Device Type: **XL2 Audio and Acoustic Analyzer**
- Serial Number: **A2A-11667-E0**
- Date of Calibration: **25 July 2016**
- Certificate Number: **42576-A2A-11667-E0**
- Results: **PASSED**
  (for detailed report see next page)

Tested by: M. Frick

Signature:

Stamp:

NTi Audio AG
Im alten Riet 102
LI - 9494 Schaan
www.nti-audio.com

Calibration of: XL2 Audio and Acoustic Analyzer
Serial Number: A2A-11667-E0
Date: 25 July 2016

- Measurement Data on Receipt: **in tolerance**

- Detailed Calibration Test Results:

		reference	before	actual	unit	actual error	XL2 tolerance	calibration uncertainty[2]
RMS Level @ 1kHz, XLR Input		0.1	0.100	**0.100**	V	≤0.1%	±0.5%	±0.10%
		1	0.999	**1.000**	V	≤0.1%	±0.5%	±0.09%
		10	9.987	**9.989**	V	-0.1%	±0.5%	±0.09%
Flatness, XLR Input[1]	20 Hz	1	0.997	**0.996**	V	-0.4%	±1.1%	±0.09%
	20 kHz	1	1.004	**1.004**	V	0.4%	±1.1%	±0.09%
Frequency		1000	1000.00	**999.99**	Hz	≤0.003%	±0.003%	±0.01%
Residual Noise	XLR		< 2 uV	**< 2 uV**			<2 uV	±0.50%
THD+N @ 0 dBu, 1 kHz, XLR Input		-98.5		**-98.9**	dB		typ. -100 dB	±0.50%

- Test Conditions: Temperature: **28.2** °C
  Relative Humidity: **51.7** %

- Calibration Equipment Used:

  - Agilent Multimeter, Typ 34401A, Serial No. MY 5300 4607
    Last calibration: 17.08.2016, Next calibration: 17.08.2017
    Calibrated by ELCAL to the national standards maintained
    at Swiss Federal Office of Metrology. SCS 002

  - FX100 Audio Analyzer, Serial No. 10408
    Last Calibration: 04.05.2016, Next Calibration: 04.05.2017
    Manufacturer calibration based on Agilent 34410, Serial No. MY47014254,
    Last Calibration: 03.06.2016, Next Calibration: 03.06.2017
    which is calibrated by ELCAL to national standards maintained
    at Swiss Federal Office of Metrology. SCS 002

[1] The specified tolerance +/-0.1 dB @ 1V = +/- 1.1%

[2] The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2, providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with the regulations of the GUM.