

Active Noise Cancellation Analysis Report



Company: Loggers B.V.

Date: 28-09-2009



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Customer Information

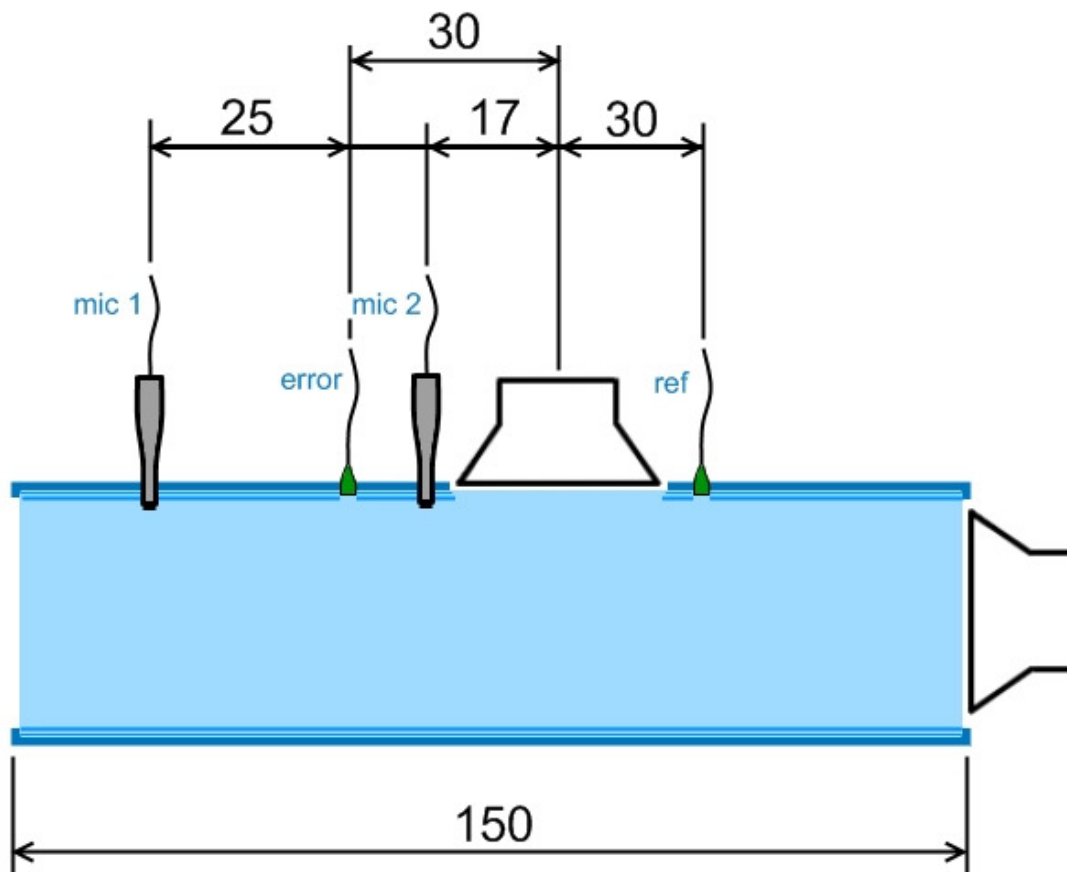
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Company Information

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Test configuration

Hardware:	: LMS SCADAS Mobile Panasonic CF18 (Class 1 - IEC 60651, 60804, 61672)
Software:	: LMS Test.Xpress
Sensors:	: PCB - ICP Microphone model 130D20
Db reference	: 2e-005 Pa
Weighting	: No weighting
Bandwidth measured results	: 1024 Hz
Location measured results	: microphone 1
Configuration: (Size in cm)	



Purpose

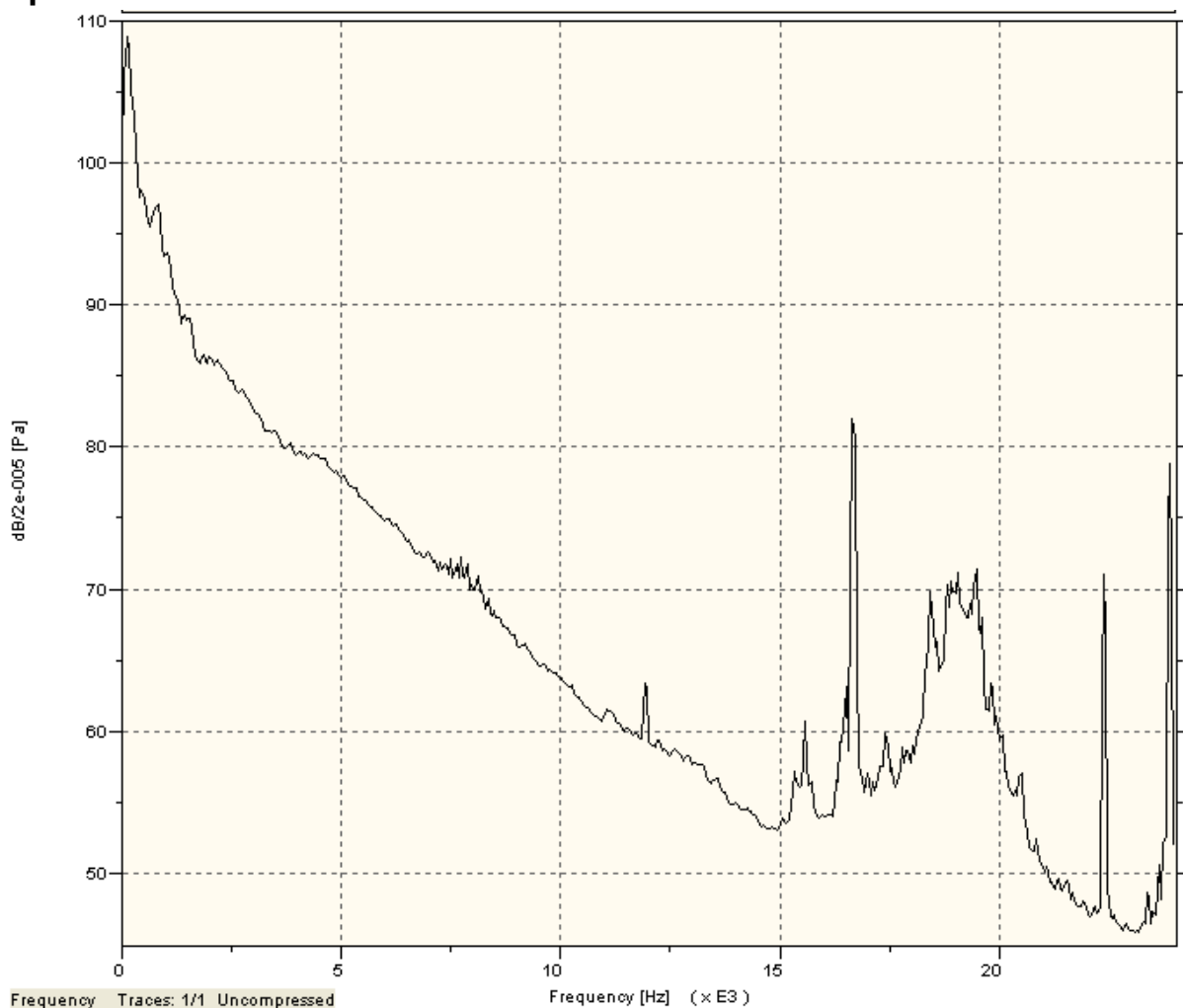
The purpose of this report is to present the results of the analysis of the possibility to use active noise cancellation on the sample provided by the customer.

Noise sample

Requirements sample

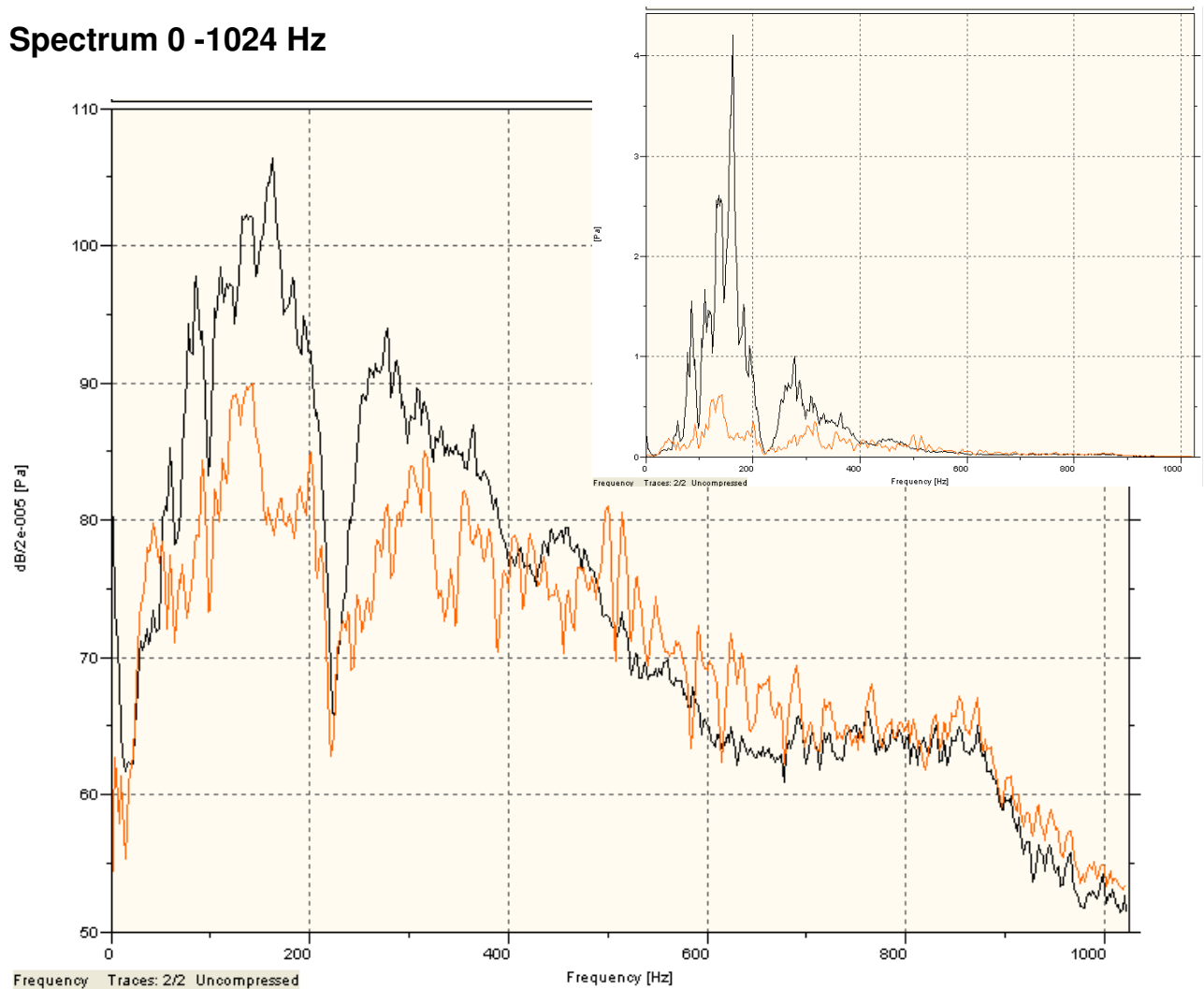
Quality	: no disturbance
Bandwidth microphone	: 20 – 8000 Hz
Amplitude	: 16 Bit
Sampling rate	: 44.1 kHz
Duration	: 30 s.

Spectrum 0 – 25600 Hz



Analysis

Spectrum 0 -1024 Hz



Black curve: undamped sound
 Orange curve: damped sound
 (Small spectrum has a linear scale)

Sound Intensity Level (Leq)

The measured sound intensity level of the undamped sound: 115.2 dB

The measured sound intensity level of the damped sound: <105.2 dB

Conclusion

In this test configuration we achieved a reduction of more than 10 dB on the duct-noise sample.