



Code 7730

coreIN-Mic4

Microphone input board

OVERVIEW

coreIN-Mic4

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coreIN-Mic4 is an extension board for *labCORE*. It contains four microphone inputs. Each input connects to the microphone via a LEMO 7-pin socket. The board provides supply voltage as well as polarization voltage for connected microphones. Furthermore, it supports TEDS for data exchange with microphones.

labCORE supports up to six coreIN-Mic4 boards.

KEY FEATURES

LEMO 7-pin socket connection

200 V polarization voltage for each input

± 60 V or +120 V supply voltage at each input

TEDS support

APPLICATIONS

Input for ear microphones of an artificial head

Input for measurement microphones

DETAILS

DESCRIPTION

coreIN-Mic4 extends *labCORE* with four high-precision and low-noise microphone inputs. *labCORE* has one slot at the front panel and maximum five slots at the rear panel for *coreIN-Mic4* boards.

Each LEMO 7-pin supplies voltages of ± 60 V or +120 V. Furthermore, *coreIN-Mic4* provides 200 V polarization voltage for externally polarized microphones. The board supports TEDS to exchange information on voltage and calibration values with the connected microphones.

When *coreIN-Mic4* is installed at the front panel of *labCORE*, LEDs next to each input socket indicate the input level via changing their color. The LCD display of *labCORE* indicates the input levels of rear mounted boards.

GENERAL REQUIREMENTS

Hardware

- labCORE* (Code 7700)
 - > Modular multi-channel hardware platform
- coreBUS* (Code 7710)
 - > *labCORE* I/O bus mainboard

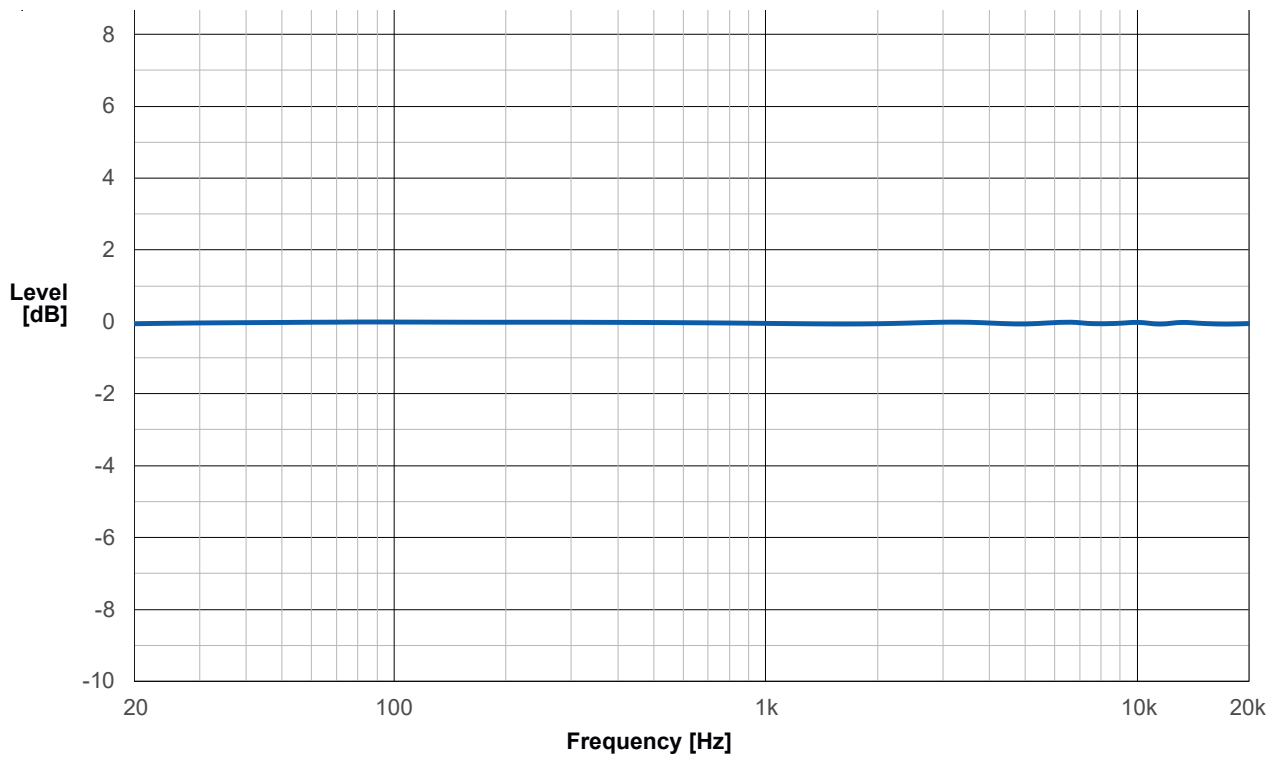
Software

- One of the following software applications
- ACQUA (Code 6810)
 - > Advanced Communication Quality Analysis Software, full license version
- RC-*labCORE* (Code 6984)
 - > Remote configuration software for *labCORE*
- VoCAS (Code 7970)
 - > Voice Control Analysis System

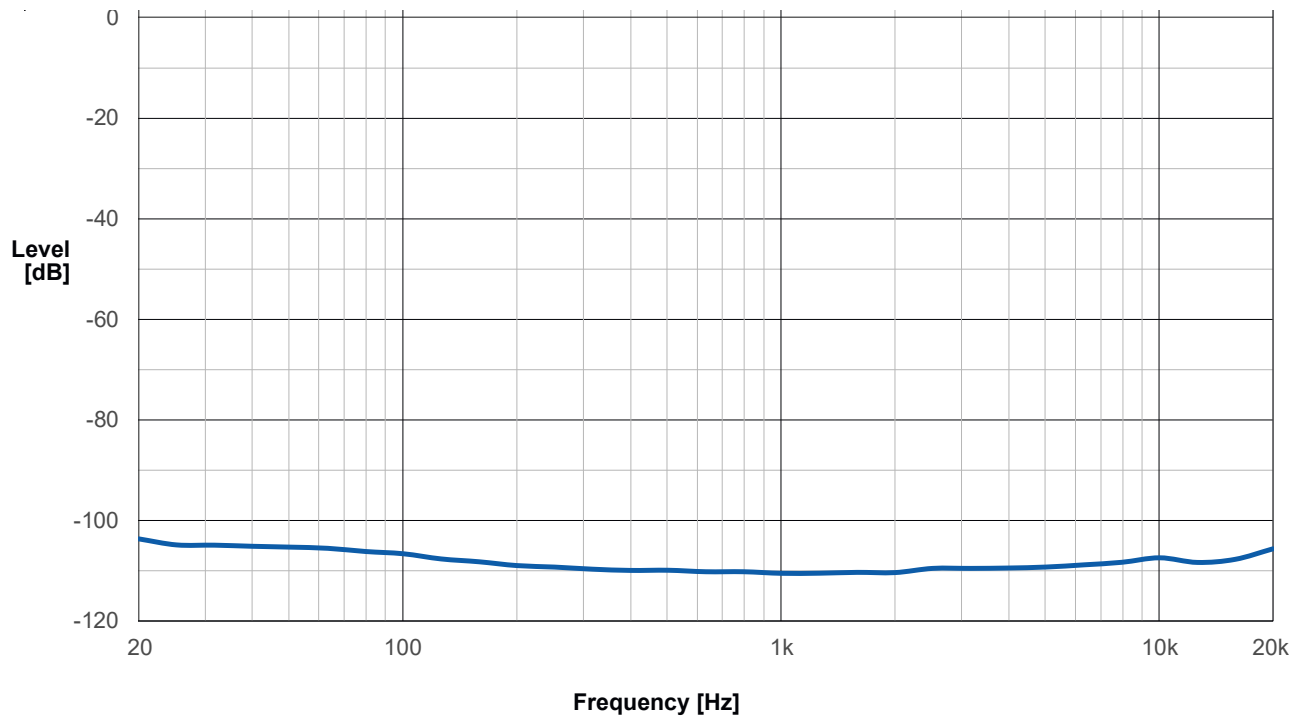
SCOPE OF DELIVERY

- coreIN-Mic4* (Code 7730)
 - > Microphone input board
- Initial equipping
 - > *coreIN-Mic4* is installed to *labCORE* during production
- Retrofitting
 - > Send in *labCORE* to HEAD acoustics for installation

Typical frequency response



Typical total harmonic distortion plus noise (THD+N)



TECHNICAL DATA

Channels	4
Connection	4 x LEMO 7-pin
Input range	-60 V – 120 V
Input impedance	100 k Ω
Input range settings	-48 dBV – 30 dBV (in 6 dBV steps)
Polarization voltage	200 V ($\pm 0.1\%$), max. 80 μ A
Microphone supply	± 60 V or +120 V, max. 4 mA
TEDS	IEEE 1451.4 class 1 MMI, shared return wire
Level accuracy	± 0.1 dB (1 kHz)
Flatness	± 0.05 dB (48 kHz sampling, 20 Hz – 20000 Hz) ± 0.07 dB (96 kHz sampling, 20 Hz – 40000 Hz) ± 0.09 dB (192 kHz sampling, 20 Hz – 80000 Hz)
S/N	112 dB ($3.0 V_{RMS}$, 20 Hz – 20000 Hz)
THD + N	< -108 dB ($3.0 V_{RMS}$, 1 kHz)
Crosstalk	< -126 dB
Digital resolution	32 Bit
Sampling rates	48 kHz, 96 kHz, 192 kHz
Typical power consumption	4.8 W

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Contact Information

Ebertstraße 30a
52134 Herzogenrath, Germany
Phone: +49 2407 577-0
E-Mail: sales@head-acoustics.com
Website: www.head-acoustics.com