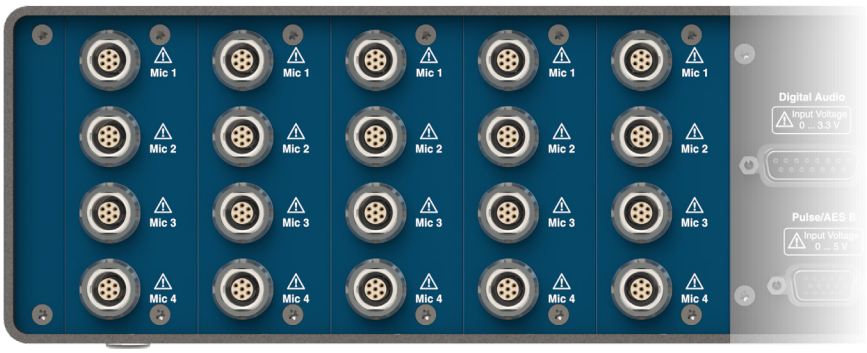
HEAD acoustics
Ebertstraße 30a
52134 Herzogenrath, Germany
Tel.: +49 2407 577-0
Fax: +49 2407 577-99
Email: telecom@head-acoustics.com
Web: www.head-acoustics.com

Data Sheet

coreIN-Mic4 (Code 7730)

Microphone input board



Rear panel of *lab*CORE with five installed *core*IN-Mic4 boards

Overview

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

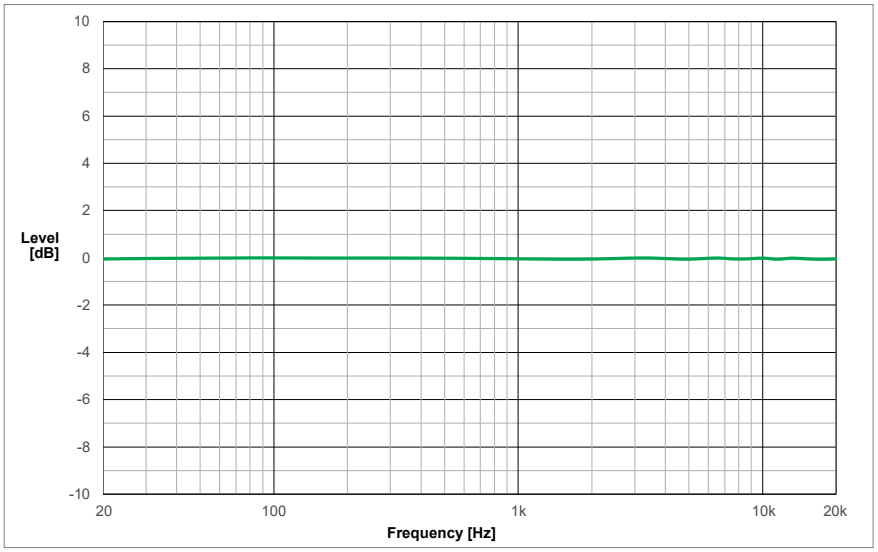
*lab*CORE supports up to six coreIN-Mic4 boards (1 x front, 5 x back).

Description

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

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

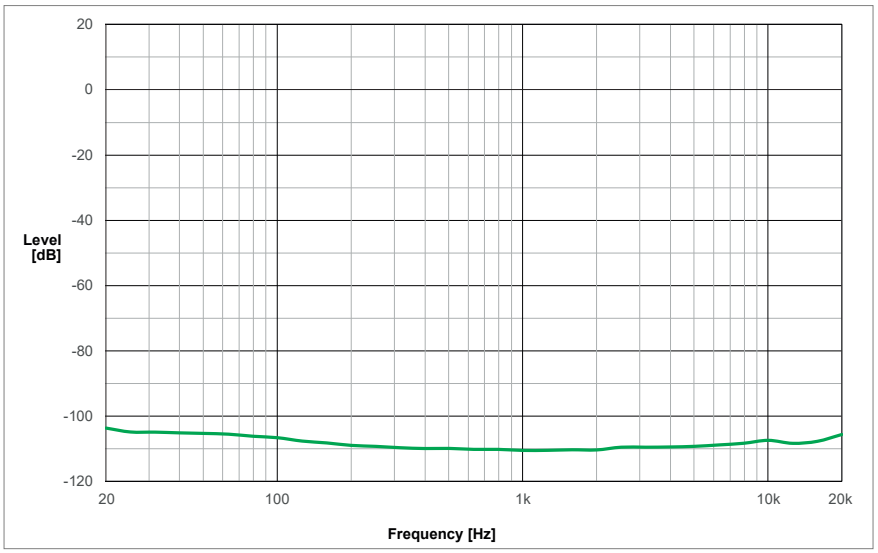
When *core*IN-Mic4 is installed at the front panel of *lab*CORE, LEDs next to each input socket indicate the input level via changing their color. The LCD display of *lab*CORE indicates the input levels of rear mounted boards.



Typical frequency response

Key Features

- Popular 7-pin LEMO socket connection
- 200 volts polarization voltage for each input
- ±60 volts or +120 volts supply voltage at each input
- TEDS support



Typical total harmonic distortion plus noise (THD+N)

Applications

- Input for ear microphones of an artificial head
- Input for measurement microphones

Subject to change

Front panel of *lab*CORE with *core*IN-Mic4

General requirements

Hardware

- ***lab*CORE (Code 7700)**, Modular multi-channel hardware platform
- ***core*BUS (Code 7710)**, *lab*CORE I/O bus mainboard

Software

At least one of the listed software applications is required.

- **ACQUA (Code 6810)**, ACQUA Standard: Basic Analysis Software, full-license version
- **RC-*lab*CORE (Code 6984)**, Remote configuration software for *lab*CORE
- **VoCAS (Code 6985)**, Voice Control Analysis System (only control settings for utilization of VoCAS)

Delivery Items

- ***core*IN-Mic4 (Code 7730)**, Microphone input board
  - **Initial equipping:** HEAD acoustics installs *core*IN-Mic4 to *lab*CORE during production
  - **Retrofitting:** Send in *lab*CORE to HEAD acoustics for installation

Technical Data *core*IN-Mic4	
Channels	4
Connection	7-pin LEMO
Input range	-60 V ... +120 V
Input impedance	100 kΩ
Input range settings	-48 dBV ... +30 dBV (in 6 dBV steps)
Polarization voltage	200 V (±0.1 %), max. 80 µA
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 – 20 kHz), ±0.07 dB (96 kHz sampling, 20 Hz – 40 kHz), ±0.09 dB (192 kHz sampling, 20 Hz – 80 kHz)
S/N	112 dB (3.0 V_{RMS}, 20 Hz – 20 kHz)
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 watts