



Back panel of labCORE with two coreOUT-Amp2 boards

Description

coreOUT-Amp2 extends labCORE by two amplified loudspeaker outputs. labCORE in combination with coreBUS provides two slots at the rear panel for coreOUT-Amp2 boards.

Each amplifier channel provides robust 20 watts RMS (max. 25 W_{RMS} depending on conditions). One board allows simultaneous operation of two artificial head measurement systems. The highly efficient class-D amplifier technology used in coreOUT-Amp2 enables a very compact build and ensures precise reproduction of the input signal.

Optionally, coreOUT-Amp2 provides power to single drivers and small loudspeakers in low-power scenarios, e.g. parameter and impedance measurements or monitoring.

The output has a 4-pin speakON socket, allowing simultaneous connection of two artificial mouths or loudspeakers. As an internal component for labCORE, coreOUT-Amp2 ensures shortest possible signal paths and prevents interference of the output signal introduced by external components and cabling.

Key Features

- 2 x 20 watts RMS at 4 Ω amplification power
- Safe and easy-to-use 4-pin speakON socket
- Very low distortion and inherent noise floor
- Minimizes signal interference introduced by external devices and cabling

Applications

- Providing power for up to two artificial mouth(s) per board
- Providing power for single drivers and small passive loudspeakers in low-power applications (driver parameter or impedance measurements, near field monitoring etc.)

General Requirements

Hardware

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

DATA SHEET

coreOUT-Amp2 (Code 7720)

Power amplifier board

Overview

coreOUT-Amp2 is an extension board with a two-channel power amplifier for labCORE. It provides amplification for the artificial mouth of the head and torso simulator HMS II.3 to perform measurements in sending direction. Optionally, the 2 x 20 watts RMS class-D-amplifier may also serve in other low-power applications such as small signal measurements of single drivers or low-power measurements of small passive loudspeakers.

labCORE supports maximum two coreOUT-Amp2 boards.

Software

- **ACQUA (Code 6810)**, ACQUA Standard: Basic Analysis Software, full-license version

Delivery

- **coreOUT-Amp2 (Code 7720)**, labCORE power amplifier board
 - **Initial equipping:** coreOUT-Amp2 is installed to labCORE during production
 - **Retrofitting:** Send in labCORE to HEAD acoustics for installation
- **CSB III (Code 6095)**, Adapter speakON <-> 4 x banana plug female

Technical Data coreOUT-Amp2

Technical Data coreOUT-Amp2	
Channels	2
Connection	speakON NL4
Output power	+20 dBV (10 V_{RMS}), max. 25 W_{RMS} at 4 Ω , max. 12.5 W_{RMS} at 8 Ω
Load impedance	3 Ω ... 8 Ω
Amplifier type	Class-D
Level accuracy	± 0.1 dB (1 kHz, 4 Ω)
Flatness	± 0.5 dB (20 Hz – 15 kHz) ± 1.0 dB (20 Hz – 20 kHz)
S/N	100 dB (20 Hz – 20 kHz)
THD+N	< -90 dB (1 kHz, 4 Ω)
Crosstalk	< -110 dB
Digital resolution	32 Bit
Sampling rates	48 kHz, 96 kHz
Typical power consumption	3.5 Watts + output power