



Code 7720

# coreOUT-Amp2

Power amplifier board

# OVERVIEW

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## coreOUT-Amp2

Code 7720

Power amplifier board

coreOUT-Amp2 is an extension board with a two-channel power amplifier for *labCORE*. It amplifies the artificial mouth of artificial heads from the HMS II series and transmits audio signals for playback. Optionally, the  $2 \times 20 W_{\text{RMS}}$  class-D amplifier is applicable for 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.

## KEY FEATURES

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$2 \times 20 W_{\text{RMS}}$  at  $4 \Omega$  amplification power

Safe and easy to use speakON 4-pin socket

Very low distortion and inherent noise floor

Minimizes signal interferences introduced by external devices and cabling

## APPLICATIONS

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Providing power for up to two artificial mouths

Providing power for single drivers and small passive loudspeakers in low-power applications (driver parameter or impedance measurements, near field monitoring, etc.)

# DETAILS

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## 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  $20 W_{RMS}$  (max.  $25 W_{RMS}$  depending on conditions). The 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 transmitted signals.

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 *speakON* 4-pin 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.

## GENERAL REQUIREMENTS

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### 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

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*coreOUT-Amp2* (Code 7720)

- > *labCORE* power amplifier board

CSB III (Code 6095)

- > Adapter *speakON* <> 4 × banana plug female

Initial equipping

- > *coreOUT-Amp2* is installed to *labCORE* during production

Retrofitting

- > Send in *labCORE* to HEAD acoustics for installation

# TECHNICAL DATA

Channels	2
Connection	speakON NL4
Output power	+ 20 dBV (10 V <sub>RMS</sub> ), max. 25 W <sub>RMS</sub> at 4 Ω, max. 12.5 W <sub>RMS</sub> 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 – 15000 Hz) ±1.0 dB (20 Hz – 20000 Hz)
S/N	100 dB (20 Hz – 20000 Hz)
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 W + output power

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