



Code 7720

coreOUT-Amp2

Power Amplifier Board

OVERVIEW

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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 $2 \times 20 \text{ W}_{\text{RMS}}$ 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

$2 \times 20 \text{ W}_{\text{RMS}}$ at 4Ω 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

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

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.

OPTIONS

Alternative to *coreBUS* if *labCORE* shall be extended only with the *coreOUT-Amp2* extension board:

- › *coreBUS One* (7711)
 - » *labCORE* I/O bus mainboard, supporting only one extension board

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

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_{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–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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