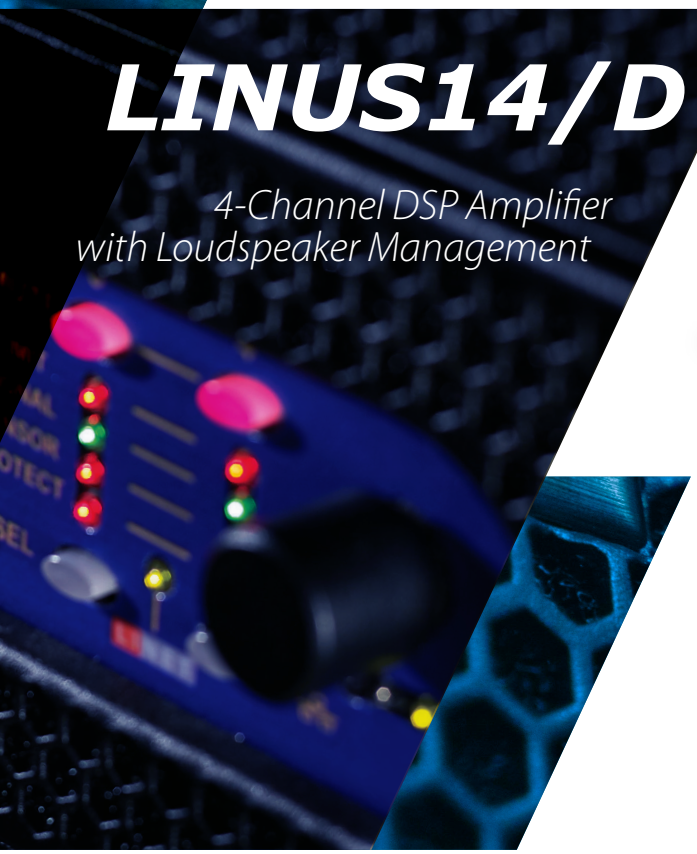
LINUS14/D

4-Channel DSP Amplifier with Loudspeaker Management



The LINUS14/D is a four channel DSP networkable amplifier and comparator delivering 4x 3500 W of clean power in a light weight 19"/2U package. The four audio inputs are selectable from analog, AES3, LiNET digital audio and are routable to any of the four outputs.

The immense power of the LINUS14/D class D-IC output stage topology ensures maximum headroom and sonic accuracy. This amplifier technology is combined with SHARC floating-point processing that features vast processing power which enables the integration of sophisticated audio algorithms. The advanced signal processing includes IIR and phase-linear FIR filters for perfect linearity and superior sound performance as well as look-ahead and various protection limiters for increased system headroom and secure system performace.

The LINUS14/D contains four comparator inputs for use with CODA Audio Sensor Controlled subwoofers and bass extension modules. Receiving a real-time measurement of diaphragm movement from the loudspeaker's integrated velocity sensor, LINUS14/D compares it with the input audio signal and adjusts the amplifier driving voltage and/or current, correcting any driver inaccuracy. This comparator functionality creates a self-optimising, closed feedback loop in which the LINUS14/D provides the precise amount of power required by the driver to accurately reproduce the original audio signal.

LINUS Control - CODA's intuitive system management software provides the user a fast and flexible graphical interface for everything from system configuration and tuning, to control and system monitoring. It is optimised for both Mac OS and Windows, including tablet and native interfaces.

LINUS14/D Features

- Very high output power 4x 3500 W @ 4 Ω
- Integrated DSP, network and amplifier solution
- Advanced IIR and linear phase FIR filters
- LINUS Control - network control and monitoring of amplifiers over Ethernet
- Efficient Class D-IC design for superior sound performance
- LiNET – 8x freely configurable digital audio signals over CAT5 cables
- 4 dynamic comparators for use with CODA Audio Sensor Controlled subwoofers
- SMPS with automatic selection 115 V/230 V
- Factory presets: AiRAY, ViRAY, N-RAY, TiRAY, CoRAY, APS Series, N-APS Series, HOPS Series, CUE Series, G-Series, D-Series, SC Subs, U-Subs

CODA
CODA AUDIO

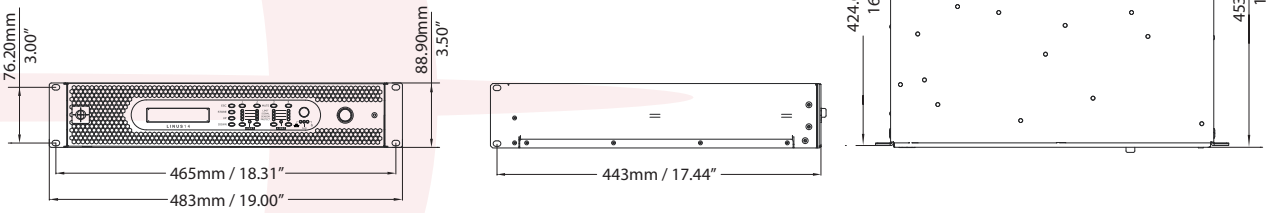
LINUS14/D Data Sheet

LINUS14/D

GENERAL	
Number of output channels	4
Output stage	Class D-IC
Internal samplerate / bit-depth	96 kHz / 24 bit
Signal-to-noise ratio (22 Hz - 20 kHz, 4 Ω - analog input)	>108 dB (unweighted) >111 dB (A-weighted)
Signal-to-noise ratio (22 Hz - 20 kHz, 4 Ω - digital input)	> 116 dB (unweighted) > 119 dB (A-weighted)
Frequency response (8 Ω load, with CLEAR preset)	20 Hz–20 kHz = (+0.0 dB / -1.0 dB)
THD+N & IMD (4 Ω load @ 1/2 output power)	20 Hz–20 kHz = < 0.005%
Latency (input to loudspeaker output)	min. 2.70 ms AES/EBU input min. 2.00 ms Analog input
Protection circuits	Inrush current limiter, Thermal limiter, Output DC, SMPS over-current, Output overload
LED indicators	Mute status, Limit, Signal, Protection, Ethernet control active, Digital signal locked
Ethernet connection	2x 100 Mbps RJ45 Control
AC MAINS	
AC mains input connector	Neutrik 32A powerCON®
AC mains voltage (high range)** (dual voltage SMPS with automatic voltage range selection)	180 V = Minimum 230 V = Nominal 253 V = Maximum
AC mains voltage (low range)** (dual voltage SMPS with automatic voltage range selection)	90 V = Minimum 115 V = Nominal 132 V = Maximum
AC mains frequency	47 - 63 Hz
Power consumption* (1/4 power = 600 W @ 4Ω to represent typical music signal)	Amplifier in standby = 17.6 W Amplifier idle = 191 W Amplifier 1/4 power = 3200 W

*typical values - some variation may exist due to component intolerances
** voltage range should not be exceeded. Amp. output power will degrade below nominal voltage & increase above

INPUT	
Input sources	Analog & AES/EBU
An. input impedance (balanced)	12 kΩ
Max. input level (an. differential)	+18 dBu / 6.15 V_{rms}
Input connections	4x XLR3 Analog IN / 2x XLR5 Sensor IN / 1x RJ45 LINET IN (8x CH) / 1x RJ45 LINET LINK (8x CH) / 1x RJ45AUX
Supported digital input formats (Internal SRC)	32 kHz / 44.1 kHz/ 48 kHz/ 88.2 kHz / 96 kHz / 176.4 kHz / 192 kHz
OUTPUT	
RMS output power* (20 Hz - 20 kHz, THD < 0.01%) (All channels driven)	1800 W @ 8 Ω / 3500 W @ 4 Ω 4400 W @ 2.7 Ω / 4500 W @ 2 Ω
Peak output power* (20 Hz - 20 kHz, 6 dB Crest Factor) (all channels driven)	3600 W_{pk} @ 8 Ω / 7000 W_{pk} @ 4 Ω 6500 W_{pk} @ 2.7 Ω / 5200 W_{pk} @ 2 Ω
Max. output voltage*	+/- 170 V_{pk}
Max. output current*	+/- 52 A_{pk}
Damping factor (8 Ω load, 1 kHz & below)	> 2500
Min. output load	2 Ω nom / 2.7 Ω - Sensor Control
Power output connections	2x Neutrik NL4 speakON® 1x Neutrik NL8 speakON®
THERMAL	
Operating temperature	+5°C to 55°C / 41°F to 131°F
Termal output (BTU/h)	679.02 = Idle / 2470.39 = 20% / 5159.16 = 50% / 9635.88 = 100%
Thermal output (kWh)	0.199 = Idle / 0.724 = 20% / 1.512 = 50% / 2.824 = 100%
Cooling	2x thermally controlled fans Hot air expelled at rear
PHYSICAL	
Dimensions (W x H x D)	483.5x88x454mm / 19x3.4x17.8"
Shipping dimensions (W x H x D)	675x130x560 mm / 26.5x5.1x22"
Net weight	14.75 kg / 32.5 lbs
Shipping weight	17.5 kg / 38.6 lbs



CODA AUDIO GmbH
Boulevard der EU 6, 30539 Hannover, Expo Park, Germany
E-Mail: contact@codaaudio.com Website: www.codaaudio.com

CODA
CODA AUDIO