

LINUS10 2-Channel Loudspeaker Management Amplifier



The LINUS10 is a dual-channel loudspeaker management amplifier with networking and comparator, delivering 10000 W of clean power in a lightweight 19-inch / 2U package.

The exceptional power of the LINUS10 ensures maximum headroom and optimal system performance for all CODA Audio touring systems. This amplifier technology is combined with dual SHARC floating-point processors. This DSP features vast processing power which enables the integration of sophisticated audio algorithms for the most exacting results. 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 performance.

The LINUS10 contains two 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, LINUS10 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 LINUS10 provides the precise amount of power required by the driver to accurately reproduce the original audio signal.

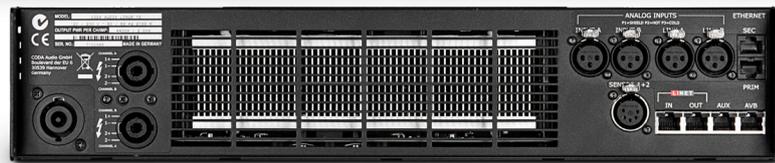
The LINUS10 contains presets for use with CODA Audio loudspeaker systems, enabling quick setup time and providing the utmost in audio clarity and performance. In addition to FOH system control, LINUS10 is suitable for monitor systems, delay systems, and zoned systems.

The LINUS10 contains ports for use with LiNET Master, to transmit and receive up to 8 digital audio signals with low latency across very long distances (300 m or more using CAT5; even longer using CAT7 cables) with an additional built-in redundant network for increased reliability even in failover conditions.

LINUS10 Features

- ⊕ SHARC floating point DSP @ 96 kHz
- ⊕ LiNET – 8x freely configurable digital audio signals over a CAT5 cable
- ⊕ 2 dynamic comparators for use with CODA Audio sensor controlled subwoofers
- ⊕ Advanced IIR and linear-phase FIR filters
- ⊕ True Class H design for superior sound performance
- ⊕ Switched-mode power supply with automatic selection for 115 V or 230 V

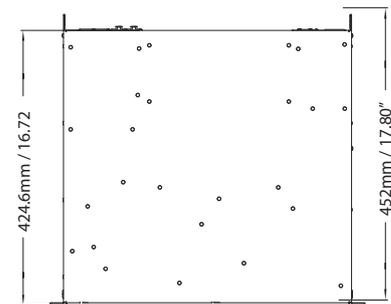
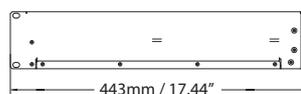
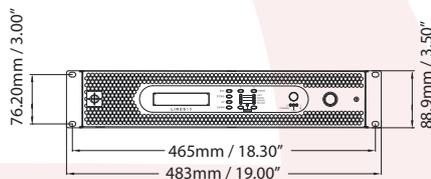
LINUS10 Data Sheet



LINUS10

GENERAL	
Number of output channels	2
Output stage	Hybrid Class H
Internal samplerate / bit-depth	96 kHz / 24 bit
Signal-to-noise ratio (22 Hz - 20 kHz, 4 Ω - analogue input)	>107 dB (unweighted) >110 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 / SMPTE (8 Ω load @ 1/2 output power)	20 Hz-20 kHz = < 0.01%
Latency (input to loudspeaker output)	min. 2.70 ms AES/EBU input min. 2.00 ms Analogue input
Protection circuits	Inrush current limiter, Thermal limiter, Output DC, Output device SOA, Fuse protection, SMPS over-current, Output overload
LED indicators	Mute status, Limit, Signal, Sensor, Protection, Ethernet control active, Digital signal locked, Power on, Overload protection limiter, Fuse protection limiter, SMPS on, ICL on, Mains surge protection
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 267 V = Maximum
AC mains voltage (low range)** (dual voltage SMPS with automatic voltage range selection)	70 V = Minimum 120 V = Nominal 134 V = Maximum
AC mains frequency	50 - 60 Hz
Power consumption* (1/8 power = 600 W @ 4 Ω / 2 Ω to represent typical music signal)	Amplifier in standby = 8 W Amplifier idle = 60 W Amp. 1/8 power = 1900 W @ 4 Ω Amp. 1/8 power = 2100 W @ 2 Ω
*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	Analogue & AES/EBU
An. input impedance (balanced)	12 kΩ
Max. input level (an. differential)	+21 dBu / 8.69 V _{rms}
Input connections	2x XLR3 Analogue IN / 2x XLR3 Analogue LINK / 1x RJ5 Sensor IN / 1x RJ45 LINET IN (8x CH) / 1x RJ45 LINET LINK (8x CH) / 1x AUX RJ45 / 1x DAN RJ45 (not used)
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 < 0.1%) (both channels driven)	1250 W @ 16 Ω / 2300 W @ 8 Ω / 4000 W @ 4 Ω / 4700 W @ 2.7 Ω / 5100 W @ 2 Ω
Peak output power* (20 Hz - 20 kHz, 6 dB Crest Factor) (both channels driven)	1250 W _{pk} @ 8 Ω / 2500 W _{pk} @ 8 Ω / 4900 W _{pk} @ 4 Ω / 6000 W _{pk} @ 2.7 Ω / 5300 W _{pk} @ 2 Ω
Max. output voltage*	+/- 200 V _{pk}
Max. output current*	+/- 72 A _{pk}
Damping factor (8 Ω load, 1 kHz & below)	> 400
Min. output load	2 Ω nom / 2.7 Ω - sensor control
Power output connections	2x Neutrik NL4 speakON*
THERMAL	
Operating temperature	+5°C to 55°C / 41°F to 131°F
Thermal output (BTU/h)	204.9 = Idle / 1538 = 20% / 3415 = 50% / 6830 = 100%
Thermal output (kWh)	0.06 = Idle / 0.45 = 20% / 1000 = 50% / 2001 = 100%
Cooling	2x thermally controlled fans Hot air expelled at rear
PHYSICAL	
Dimensions (W x H x D)	483x88x452mm / 19x3.5x17.2"
Shipping dimensions (W x H x D)	615x130x540 mm / 21x5.1x21"
Net weight	13 kg / 28.7 lbs
Shipping weight	15.6 kg / 34.4 lbs



CODA AUDIO GmbH

Boulevard der EU 6, 30539 Hannover, Expo Park, Germany

E-Mail: contact@codaaudio.com Website: www.codaaudio.com

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