

LINUS12C Data Sheet

LINUS12C

4-Channel DSP Amplifier
with Loudspeaker Management



The LINUS12C is a four channel networkable DSP amplifier delivering 4x 3000 W of virtually distortion-free power in a light weight 19"/2U package. The 4 audio inputs are selectable from analog, AES3 or LiNET digital audio and are routable to any of the 4 outputs.

LINUS12C ENGINE - the class D-IC output stage topology delivers audiophile sonic accuracy with enormous headroom providing significant improvement of the system performance in dynamics and transparency.

LINUS CORE – the SHARC floating point DSP processor ensures tremendous processing power enabling the integration of sophisticated audio algorithms. The advanced signal processing includes IIR and phase linear DS-FIR filters for perfect linearity and superior sound performance as well as advanced look-ahead and frequency dependent limiters for increased system headroom and sonic fidelity under heavy use conditions.

LiNET – a robust, redundant audio transport solution that transmits digital audio over a shielded CAT5e cable. Up to 8 digital audio signals can be sent to each amplifier via LiNET, buffered and sent to the next unit via the LiNET link out for daisy chaining. The signal routing inside the LINUS12C can be done remotely or using the pushbuttons on the front panel.

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.

Containing factory presets for CODA Audio loudspeaker systems LINUS12C offers a flexible solution for touring, permanent installation, corporate AV and portable applications.

LINUS12C Features

- ⊕ High output power 4x 3000 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
- ⊕ Class D-IC amplifier for superior sound performance
- ⊕ 4 balanced analog inputs
- ⊕ LiNET – 8x freely configurable digital audio signals over CAT5e
- ⊕ SMPS with automatic selection 115 V/230 V
- ⊕ Factory presets: ViRAY, N-RAY, TiRAY, APS Series, N-APS Series, CoRAY, HOPS, G-Series, D-Series, CUE-Series, U-Subs



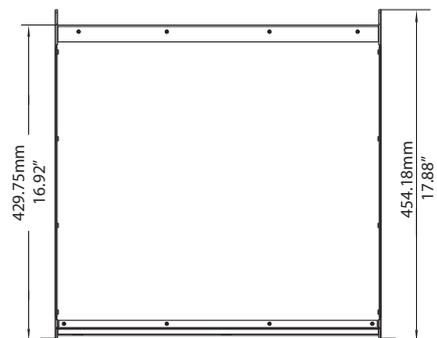
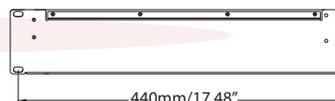
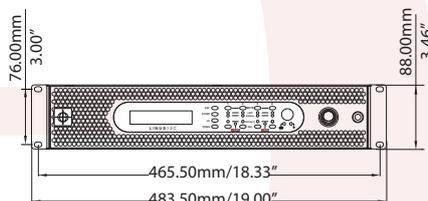
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GENERAL	
Number of output channels	4
Output stage	Class D-IC
Internal samplerate / bit-depth	96 kHz / 24 bit
Signal-to-noise ratio (22 Hz - 20 kHz, 4 Ω - analog input)	>108 dB (unweighted) >111 dB (A-weighted)
Signal-to-noise ratio (22 Hz - 20 kHz, 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, Power on
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 265 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 1x RJ45 LINET IN (8x CH) 1x RJ45 LINET LINK (8x CH) 1x RJ45 AUX
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)	1600 W @ 8 Ω 3000 W @ 4 Ω 4000 W @ 2.7 Ω 4100 W @ 2 Ω
Peak output power* (20 Hz - 20 kHz, 6 dB Crest Factor) (All channels driven)	3200 W _{pk} @ 8 Ω 6000 W _{pk} @ 4 Ω 5500 W _{pk} @ 2.7 Ω 4800 W _{pk} @ 2 Ω
Max. output voltage*	+/- 155 V _{pk}
Max. output current*	+/- 52 A _{pk}
Damping factor (8 Ω load, 1 kHz & below)	> 2500
Min. output load	2 Ω nom
Power output connections	2x Neutrik NL4 speakON® 1x Neutrik NL8 speakON®
THERMAL	
Operating temperature	+5°C to 55°C / 41°F to 131°F
Thermal output (BTU/h)	679.02 = Idle, 2124 = 20 % 4437 = 50 % 8287 = 100 %
Thermal output (kWh)	0.199 = Idle, 0.623 = 20 % 1.300 = 50 %, 2.429 = 100 %
Cooling	2x thermally controlled fans Hot air expelled at rear
PHYSICAL	
Dimensions (W x H x D)	483.5x88x454.2mm / 19x3.4x17.8"
Shipping dimensions (W x H x D)	675x130x560 mm / 26.5x5.1x22"
Net weight	14.70 kg / 32.4 lbs
Shipping weight	17.5 kg / 38.6 lbs



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