

LA12X AMPLIFIED CONTROLLER



LA12X is a four-channel amplified controller designed to power the largest loudspeakers in the L-Acoustics catalog. LA12X features a proprietary switch mode power supply (SMPS) with DSP-controlled power factor correction (PFC) capable of delivering 12,000 watts of output power with record hold times.

The universal SMPS (100 - 240 V) allows worldwide operation of LA12X with identical performance while the PFC grants a high tolerance to unstable mains with low power consumption. The 4 x 4 architecture offers both flexibility to power a high density of passive loudspeakers and a powerful amplification for large format active enclosures.

Package in a 2U chassis, LA12X integrates powerful DSP resources with built-in loudspeaker optimization tools and the proprietary L-DRIVE system to protect the loudspeakers and the amplified controller. Beyond analogue and AES inputs, LA12X features AVB inputs and allows for seamless redundancy following the Milan protocol.

SPECIFICATIONS

Amplification and power supply	
Amplification class	Class D
Output power CEA-2006 / 490 A 1 % THD, 1 kHz, all channels loaded	4 x 1400 W (8 Ω) 4 x 2600 W (4 Ω) 4 x 3300 W (2.7 Ω)
Power supply model	Universal Switched Mode Power Supply (SMPS) with Power Factor Correction (PFC)
Mains rating	100 V - 240 V ~ ±10%, 50-60 Hz
Audio specifications	
Frequency response (20 Hz - 20 kHz, 8 Ω load, 60 W output power)	± 0.1 dB
Distortion THD+N (20 Hz - 10 kHz, 8 Ω load, 60 W output power)	< 0.1%
Output dynamic range (20 Hz - 20 kHz, 8 Ω, A-weighted)	> 114 dB
Noise level (20 Hz - 20 kHz, 8 Ω, A-weighted)	< -72 dBV
DSP	
Digital Signal Processor (DSP)	2x SHARC 32-bit, floating point, 96 kHz sampling rate
I/O routing	Flexible 4x4 routing matrix
Per output channel	Built-in EQ station with 8 IIR, 3 FIR EQ filters Array morphing (LF contour, zoom factor), Air absorption compensation filters Internal IIR and FIR EQ algorithms for speaker phase linearization and improved impulse responses L-DRIVE protection (excursion, temperature and over-voltage) Output delay from 0 to 1000 ms
Circuits protection	
Mains and power supply	Over and under voltage / over temperature / overcurrent / inrush current protection
Power outputs	Over current limiting / DC / short circuit / over temperature
Inputs / Outputs	
Analog input	4 balanced analog line inputs with passively connected link
AES / EBU Input	4 channels (2xAES3) with electronically buffered link and failsafe relay 44.1 - 192 kHz sampling rate
AVB input with support of Milan seamless redundant networking	4 channels from 1 stream of up to 8 channels at 48kHz or 96 kHz
Loudspeaker output	2 x 4-point speakON connector 1 x 8-point CA-COM connector
Remote control and monitoring	
Network connection	Dual-port Ethernet Gigabit interface
Third-party management solutions	QSC® / SNMP / Extron® / Crestron®
Physical data	
Height	2U
Weight	14.5 kg / 32 lb

