

LA 12X 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.

Packaged 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 analog and AES/EBU inputs, LA12X features AVB inputs and allows for seamless redundancy following the Milan-AVB protocol.

SPECIFICATIONS

Amplification and power supply			
Output power, all channels loaded	4 channels at 2.7 Ω	4 channels at 4 Ω	4 channels at 8 Ω
Output power CEA-2006 / 490A (1% THD, 1 kHz, all channels driven)	3300 W	2600 W	1400 W
Amplification class	High efficiency class D		
Power supply model	Universal Switched Mode Power Supply (SMPS) with Power Factor Correction (PFC)		
Mains rating	100 V - 240 V $\sim \pm 10\%$, 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 - 20 kHz, 8 Ω load, 60 W output power)	< 0.05%		
Output dynamic range (20 Hz - 20 kHz, 8 Ω , A-weighted, Digital input)	> 114 dB		
Noise level (20 Hz - 20 kHz, 8 Ω , A-weighted, Digital input)	< -75 dBV		
DSP			
Digital Signal Processor (DSP)	Dual SHARC 32-bit, floating point, 96 kHz sampling rate		
I/O routing	4 x 4 routing and summation		
Per output channel	Built-in EQ station with 8 IIR, 4 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 Output delay from 0 to 1000 ms		
Technologies			
Loudspeaker Management	L-DRIVE advanced system protection (excursion, temperature and over-voltage)		
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			
AVB input with support of Milan seamless dual networking	4 channels 48kHz / 96 kHz from 1 stream of up to 8 channels		
AES/EBU XLR inputs (shared with analog A & C)	4 channels (2 x AES/EBU, 44.1 - 192 kHz sampling rate) With active XLR link outputs and bypass relay		
Analog XLR inputs (shared with AES/EBU A & C)	4 channels with XLR link outputs		
Loudspeaker output	2 x 4-point speakON™ / 1 x 8-point CA-COM		
Control and monitoring			
Network connection	Dual-port Ethernet Gigabit interface etherCON™ I/O		
Third-party control solutions	Q-SYS® / Crestron® / Control4® / Savant® / HTTP API		
Operating conditions			
Temperature	Room temperature from 0° C / 32° F to +50° C / 122° F		
Physical data			
Dimensions W x H x D	483 x 88 (2U) x 419.1 mm / 19 x 3.5 (2U) x 16.5 in		
Weight	14.5 kg / 32 lb		

