

# LA1.16i AMPLIFIED CONTROLLER


**AES67**


LA1.16i is an ultra-compact 16-channel amplified controller dedicated to permanent installations. It is efficiently dimensioned for multichannel and distributed systems utilizing small format enclosures or for near-field applications.

Offering high channel density and versatile bridging functionality, LA1.16i integrates our patented L-SMART power management technology to dynamically match the real-time needs of the loudspeaker system being driven. Its streamlined and elegant 1U chassis hides a powerful DSP engine with features for loudspeaker management, system protection, and monitoring as well as a comprehensive set of tools for system adjustment and calibration. The Milan-certified LA1.16i supports AVB or AES67 network inputs with seamless redundancy, in addition to AES/EBU and analog connections. Three GPIO and a 24 V DC backup power for the DSP card offer external control and increased reliability.

## SPECIFICATIONS

Amplification and power supply			
Output power, all channels loaded	16 channels at 4 Ω	16 channels at 8 Ω	8 channels* at 8 Ω
Peak output power 12 dB Crest Factor, sine burst, 1 kHz, 2 ms	160 W	80 W	300 W
Output power, CEA-2006 / 490A, sine burst, 1 kHz, 20 ms, ≤ 1 % THD	120 W	80 W	230 W
Amplification class	High efficiency Class D		
Power supply model	Universal Switched Mode Power Supply (SMPS) with Power Factor Correction (PFC)		
External DSP backup voltage input	24 V DC (+/- 15%) 0.8 A		
Mains rating	100 V - 240 V - ±10%, 50-60 Hz		
Audio specifications			
Frequency response (20 Hz - 20 kHz, 8 Ω load, Pmax/8 output power)	± 0.25 dB		
Distortion THD+N (20 Hz - 20 kHz, 8 Ω load, Pmax/8 output power)	< 0.003%		
Output dynamic range (20 Hz - 20 kHz, 8 Ω, A-weigthed, Digital input)	> 114 dB		
Noise level (20 Hz - 20 kHz, 8 Ω, A-weigthed, Digital input)	< - 85 dBV		
DSP			
Digital Signal Processor (DSP)	Gen.5 Dual SHARC 32-bit, floating point, 96 kHz sampling rate		
I/O routing	16 x 16 routing and summation matrix		
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)		
Power Management	L-SMART adaptive power management		
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	16 channels 48 kHz / 96 kHz from 16 streams of up to 8 channels		
Alternative network protocol (with support of seamless dual networking)	AES67: 16 channels 48 kHz from 16 streams of up to 8 channels		
AES/EBU input (shared connectors with Analog)	2 channels (1 x AES/EBU, 44.1 - 192 kHz sampling rate) With active link and bypass relay		
Analog input (shared connectors with AES/EBU)	1 channel, link output		
Loudspeaker output	8 female 4-point terminal blocks		
Control and monitoring			
Network connection	Dual-port Ethernet Gigabit interface etherCON™ I/O		
General Purpose Inputs / Outputs (GPIO)	3 GPIO, isolated optocoupler inputs, isolated relays contacts		
Third-party control solutions	Q-SYS® / Crestron® / HTTP API		
Operating conditions			
Temperature	Room temperature from -5° C / 23° F to +50° C / 122° F		
Physical data			
Dimensions W x H x D	483 x 44 (1U) x 411 mm / 19 x 1.75 (1U) x 16.2 in		
Weight	5.6 kg / 12.3 lb		



\* Any odd/even pairs of channels can be bridged (BTL mode)