

ALMA24/ALMACARD

DIGITAL PROCESSORS

Digital Loudspeaker Manager



PRODUCT OVERVIEW

ALMA24 and ALMAcard are digital loudspeaker managers including 2 audio inputs and 4 audio outputs, USB interface and 2 volume remote control ports (0-10VDC).

ALMA24 is a 1RU stand-alone processor, meanwhile ALMAcard is its card plug-in interface version, compatible with the DPA amplifier series (it is inserted into its rear panel interface card bay).

KEY FEATURES

- 2 audio inputs x 4 audio outputs, all balanced
- 24 bits / 48 kHz DSP processing
- USB interface and EclerCOMM Manager compatibility
- DSP processing:
 - GAIN, MUTE, POLARITY, etc., per input or output
 - 8 parametric EQ filters per input / 8 parametric EQ filters per output
 - Butterworth, Linkwitz-Riley or Bessel Crossover filters at inputs and outputs (up to 48 dB / oct)
 - Inputs and outputs delay
 - Peak & RMS compressor / limiter at inputs & outputs, including make-up gain
 - 2 LINK groups (output channels link)
- System templates to create user configurations
- 20 user Presets
- Password protection system

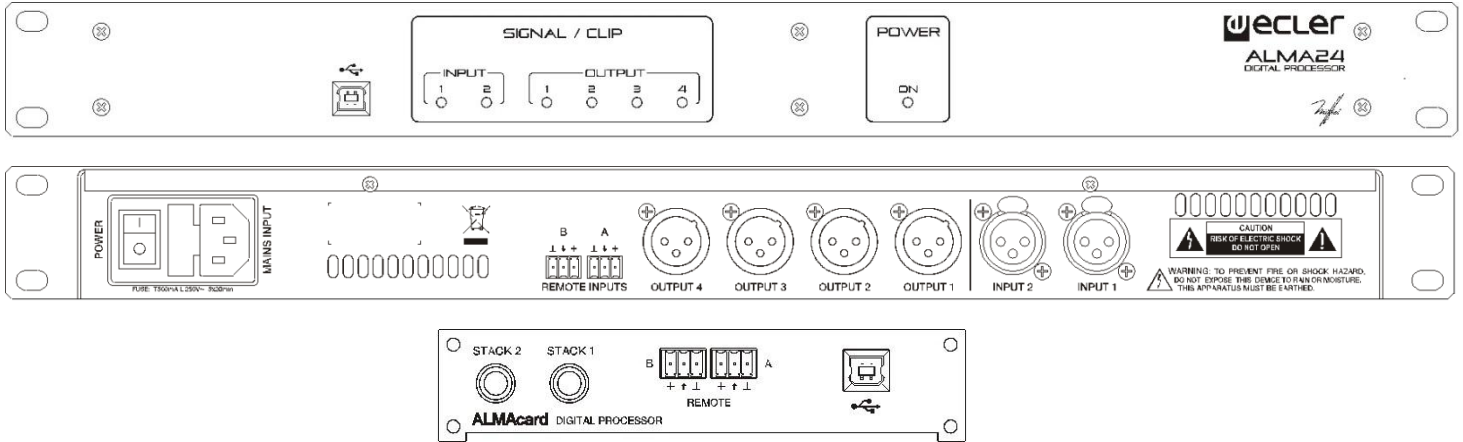
APPLICATIONS

- Permanent installation management system
- Live sound. Monitor management
- Stereo bi-amped general applications

CERTIFICATIONS

- EN60065:2014
- EN55103-1:2009
- EN55103-2:2009
- 2006/95/EC
- 2004/108/CE

MECHANICAL DIAGRAMS



TECHNICAL DATA

Input section	ALMA24
Sensitivity	0dBV
Input impedance	>20k electronically balanced
CMRR	>55dB (20Hz ÷ 20kHz)
Input connector	XLR3 female
Output section	
Nominal Output level	0dBV
Output impedance	300Ω electronically balanced
Output connector	XLR3 male
A/D & D/A	24bit / 48kHz
Frequency response	<10Hz ~ 20kHz
Output noise floor (FFT)	>115dB (from 20Hz to 20kHz)
THD + Noise	< 0.0028% (1kHz, 1Vrms)
Crosstalk	>95dB, 30Hz ÷ 20kHz
Crossovers filters	Inputs & Outputs
Slopes	6, 12, 18, 24 or 48dB/octave (Filter type dependant)
Type	Linkwitz-Riley, Butterworth or Bessel
Delays	
Input delay / step	1seg / 20,8µs
Output delay / step	1seg / 20,8µs
EQ	
Input EQ quantity	8 per channel
Output EQ quantity	8 per channel
Parametric EQ	
Type	Parametric EQ: Q:03 to 200 Low & High Shelf 6/12 dB/oct Low & High Pass 6/12 dB/oct All pass order 1 or 2
Gain	-60dB ~ +12dB step 0.1dB
Frequency	20Hz ÷ 20kHz
Compressors	
Input Compressor	Peak compressor / limiter
Output Compressor	Peak compressor / limiter RMS Compressor / limiter
Threshold	-36 / +12dBV
Attack time	0.1 ~ 500ms
Release time	1 ~ 5s
Ratio	1:1 to ∞ :1
General	
Mains	90÷264VAC 50/60Hz
Power consumption	16VA
Dimensions W x H x D	482.6 x 44 x 120mm
Weight	1.75kg

Processing		ALMAcard
A/D & D/A		24 bit, 48kHz
DSP		32/64 bits
Latency		1ms
Input / Output		2 Inputs (internal) / 4 outputs (2 internal & 2 external)
Input Levels: Nominal / Maximum		0dBV / +12dBV
Input attenuator		from -∞dB to 0dB
Input Impedance		>20kΩ electronically balanced
Stack Output impedance		300Ω electronically balanced
CMRR (20Hz - 20kHz)		>55dB
THD + NOISE		<0.0028% (1KHz, 1Vrms)
Output Noise Floor (FFT)		<-110dB (from 20Hz to 20KHz)
Frequency Response (-0.3dB)		10Hz - 20kHz
Crosstalk (20Hz-20kHz)		better than -60dB CH1 to CH2 & Stack1 to Stack2
Maximum Input Delay		1s (343.4m) for each channel
Maximum Output Delay		1s (343.4m) for each channel
Delay resolution		20.83μs (7mm)
Compressor / Limiter		
Threshold		from -36dBV to +12dBV
Ratio		1:1 to ∞:1 (limiter)
Attack time		Auto or from 0.1ms to 500ms
Release time		Auto or from 1ms to 5s
High & Low pass Crossover filters		
Butterworth		6 / 12 / 18 / 24 / 48 dB/oct
Bessel		12 / 18 / 24 / 48 dB/oct
Linkwitz-Riley		12 / 24 / 48 dB/oct
Parametric EQ		
Type		4 max. per input / 8 max. per output / Bypass Parametric EQ: Q: 0.3 to 200 Low & High Shelf 6/12 dB/oct Low & High Pass 6/12 dB/oct
Gain		-60dB ~ +12dB step 0.1dB
Frequency		20Hz ÷ 20kHz
Others		
Built In signal generator		Sine (20Hz to 20kHz) Polarity(20Hz to 20kHz) White Noise Pink Noise
Signal Mute		Yes
Signal Polarity Invert		Yes
Analog Volume remote control (0-10VDC)		0V = no attenuation (0dB) +10V = full attenuation (-∞)
Connectivity		USB2.0 Full Speed compatible Can provide supply to the ALMAcard while programming software ECLERCOMM Manager
Dimensions		143x75x30mm
Weight		230g.