

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

TECHNICAL SPECIFICATIONS

ALMA24

INPUT SELECTION	
Input impedance	>20k electronically balanced
CMRR	>55dB (20Hz ÷ 20kHz)
Input connector	XLR3 female
OUTPUT SELECTION	
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
CROSSOVER FILTERS	
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	4 per channel
Output EQ quantity	8 per channel
Parametric EQ: Type	Parametric EQ: Q: 0.3 to 200 Low & High Shelf 6/12 dB/oct Low & High Pass 6/12 dB/oct All Pass order 1 or 2
Gain	-60 dB ~ +12dB step 0.1dB
Frequency	20Hz ÷ 20kHz
COMPRESSOR	
Threshold	-36 / +12dBV
Attack time	0.1 ~ 500ms
Release time	1ms ~ 5s
Ratio	1:1 to ∞ :1
GENERAL	
Mains	100-240VAC
Power consumption	16VA
Dimensions WxHxD	482.6x44x120mm
Weight	1.75kg

ALMA24 Card

PROCESSING

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 $-\infty$ dB to 0dB
Input Impedance	>20k Ω electronically balanced
Stack Output impedance	300 Ω 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	20.83 μ s (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 EQ4

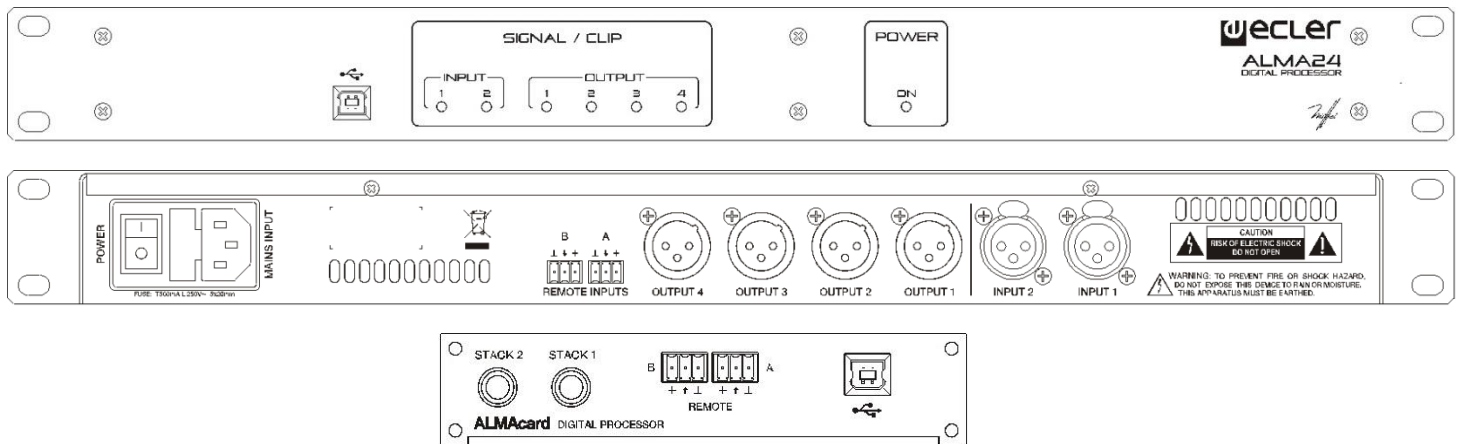
max. per input / 8 max. per output / Bypass

Type	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 \div 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 ($-\infty$)
Connectivity	USB2.0 Full Speed compatible Can provide supply to the ALMAcard while programming software ECLERCOMM Manager
Dimensions	143x75x30mm
Weight	230g.

MECHANICAL DIAGRAM



All product characteristics are subject to variation due to production tolerances. **NEEC AUDIO BARCELONA S.L.** reserves the right to make changes or improvements in the design or manufacturing that may affect these product specifications.

For technical queries contact your supplier, distributor or complete the contact form on our website, in [Support / Technical requests](#).

Motors, 166-168 08038 Barcelona - Spain - (+34) 932238403 | information@ecler.com | www.ecler.com