PCX™ Series

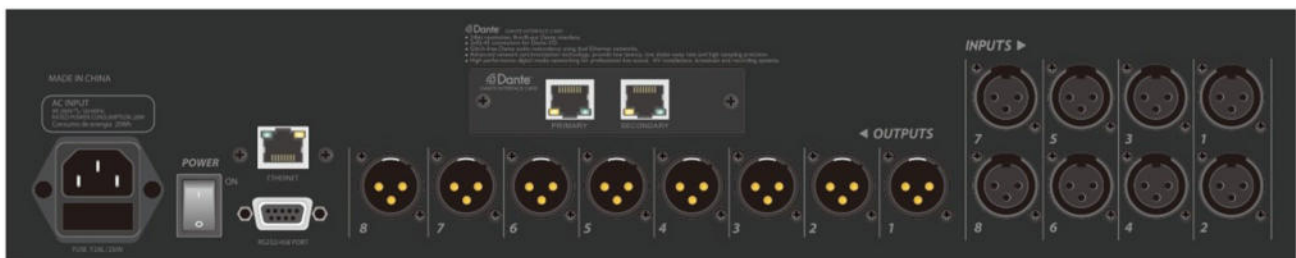## PCX™ 88 - Digital Audio Matrix Processor

CREST AUDIO®

PRELIMINARY

Description

The Crest Audio® PCX™ 88 is a DSP-based, digital audio matrix system that boast a 96 kHz sample rate and a floating point DSP processor for quiet accurate filter response. The crossover filters are fully adjustable and any input can be routed to any output.

The PXC 88 supports 16 input and 16 output channels via a digital matrix system offering flexible routing for any application. Eight (8) each, local balanced line XLR inputs and outputs, allow direct analog audio connectivity with an additional 8 input x 8 output audio data streams over Ethernet via an optional Dante® network audio card. The units software and advanced DSP algorithms offer professional signal processing and control features to manage, optimise and protect FoH, monitor and multi-zone speaker systems while ensuring exceptional audio signal clarity and integrity without loss or coloration.

Input features include gain, mute, HP / LP filters, 5-band PEQ, phase, feedback control, noise gate and automix. Each output features an additional 5-band PEQ, gain, compressor, phase, up to 680ms of delay, and mute. Crossover & band-pass filters can be selected bewteen Butterworth, Bessel or Linkwitz-Riley with alignments from 1st order (6 dB/Oct) to 4th order (24 dB/Oct). EQ filter types include PEQ, Low-Shelf, Hi-Shelf, Low-Pass, High-Pass, All-Pass1 and All-Pass2. An internal signal generator provides sine, white noise and pink noise.

The PCX Editor Software allows extensive remote setup and operation features for up to 255 units via the front panel USB Type B Program port or alternatively via the back panel Ethernet control port or old school serial DB9.

Features

• **8x8 local XLR in- & outputs**

• **Additional 8x8 in- & outputs via optional Dante card**

• **8 balanced XLR inputs & 8 balanced XLR outputs**

• **32-bit SHARC DSP**

• **Sample rate: 96 kHz**

• **A/D & D/A Converters: 24-bit Delta-Sigma**

• **Setup & Control via Ethernet or USB-B**

• **Serial control via RS232 / RS485**

• **5-segment LED meters on each input and output**

• **Automix channel with mixing function**

• **Input: Gain, Mute, +48V Phantom Power, Noise Gate, Feedback, Phase, HP, 5-band PEQ, Automix**

• **Output: 5-band PEQ, Gain, Compressor, Phase, Delay, Mute, Crossover / Band-pass filters**

• **Signal generator: Sine, white noise, pink noise**

• **PCX Editor software for PC allows complete remote setup and operation via Etherenet or USB**

PCX™ 88

Configuration:	16 Inputs & 16 Outputs		Inputs:	XLR female balanced
Local Inputs & Outputs:	8 analog Inputs & 8 analog Outputs		Outputs:	XLR male balanced
Additional I/O via optional Dante Card:	8 digital Inputs & 8 digital Outputs		Ethernet Interface:	RJ-45 / 10 Mbps / Static IPv4 address
			USB Interface:	USB "B"
Dynamic Range:	110 dBu			
THD +N @ 1 kHz (0 dBu):	< 0.005%		RS-232 & RS-485:	D-Sub 9
Crosstalk:	> 70 dBu , 20 Hz - 20 kHz		Baud Rate:	115200
Frequency Response:	20 Hz - 20 kHz, -0.3 dB		Data Bits:	8
C.M.R.R:	> 75 dBu 1 kHz		Parity:	None
			Stop Bits:	1
Maximum Input Level:	+15 dBu			
Maximum Output Level:	+15 dBu		AC Power Input Voltage:	95 to 264 VAC 50/60 Hz
			Fuse:	F2AL 250V (5x20 mm)
Digital Processing:	32-bit SHARC DSP		Power Consumption:	20 Watts
Sample Rate:	96 kHz		Net Weight:	9.92 lbs (4.5 kg)
Delta-Sigma A/D & D/A Converters:	24-bit		Dimensions (HWD):	3.47 x 19 x 10.04 in (88 x 483 x 255 mm)

PCX Editor Software
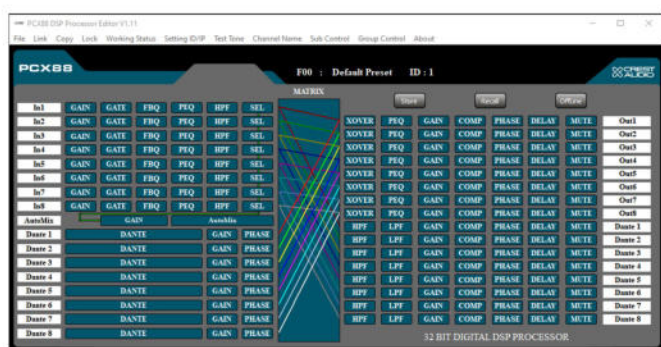
Architect's & Engineer's Specifications

The unit shall be a 2u rack-mountable digital audio matrix processor and loudspeaker management system, capable of 8 local XLR input channels and 8 local XLR output channels, an additional 8 digital input channels and 8 digital output channels are available with the optional Dante card, all independently assigned.

The unit shall operate at 96 kHz sample rate and 24-bit Delta-Sigma A/D and D/A conversion. All input channels shall provide the following processing: Gain, Mute, Noise Gate, Feedback, Phase, HP, 5-band PEQ, Automix. All outputs shall provide the following processing: 5-band PEQ, Gain, Compressor, Phase, up to 680ms of Delay, and Mute.

All speaker processing outputs shall provide the following processing: Crossover & band-pass filters selectable between Butterworth, Bessel or Linkwitz-Riley each with alignments from 1st order (6 dB/Oct) to 4th order (24 dB/Oct). EQ filter types include PEQ, Low-Shelf, Hi-Shelf, Low Pass, High-Pass, All-Pass1 and All-Pass2.

The unit shall have 8 balanced XLR inputs and 8 balanced XLR outputs. All input channels shall be routable to any output. An USB B port on the front panel and an RJ-45 Control Network port on the rear of the unit shall be provided for connection to a networked PC running the devices proprietary editor software.

The unit shall have an integrated power supply accepting AC mains voltages of 95 to 240 VAC, 50/60Hz, 20W max via an earthed 3-pin IEC male connector mounted on the rear chassis. The unit shall be no more than 3.47 inches (88 mm) high by 19 inches (483 mm) wide by 10.04 inches (255 mm) deep weighing no more than 9.92 pounds (4.5 kg).

The digital audio matrix processor and loudspeaker management system shall be the Crest Audio PCX™ 88.