Power Processing Modules

INPUT PROCESSING MODULE FOR CKS, CKV & CKX SERIES POWER PROCESSING AMPLIFIERS

NC-DSP-A Digital Signal Processor (DSP) with Analog Inputs

Product Information

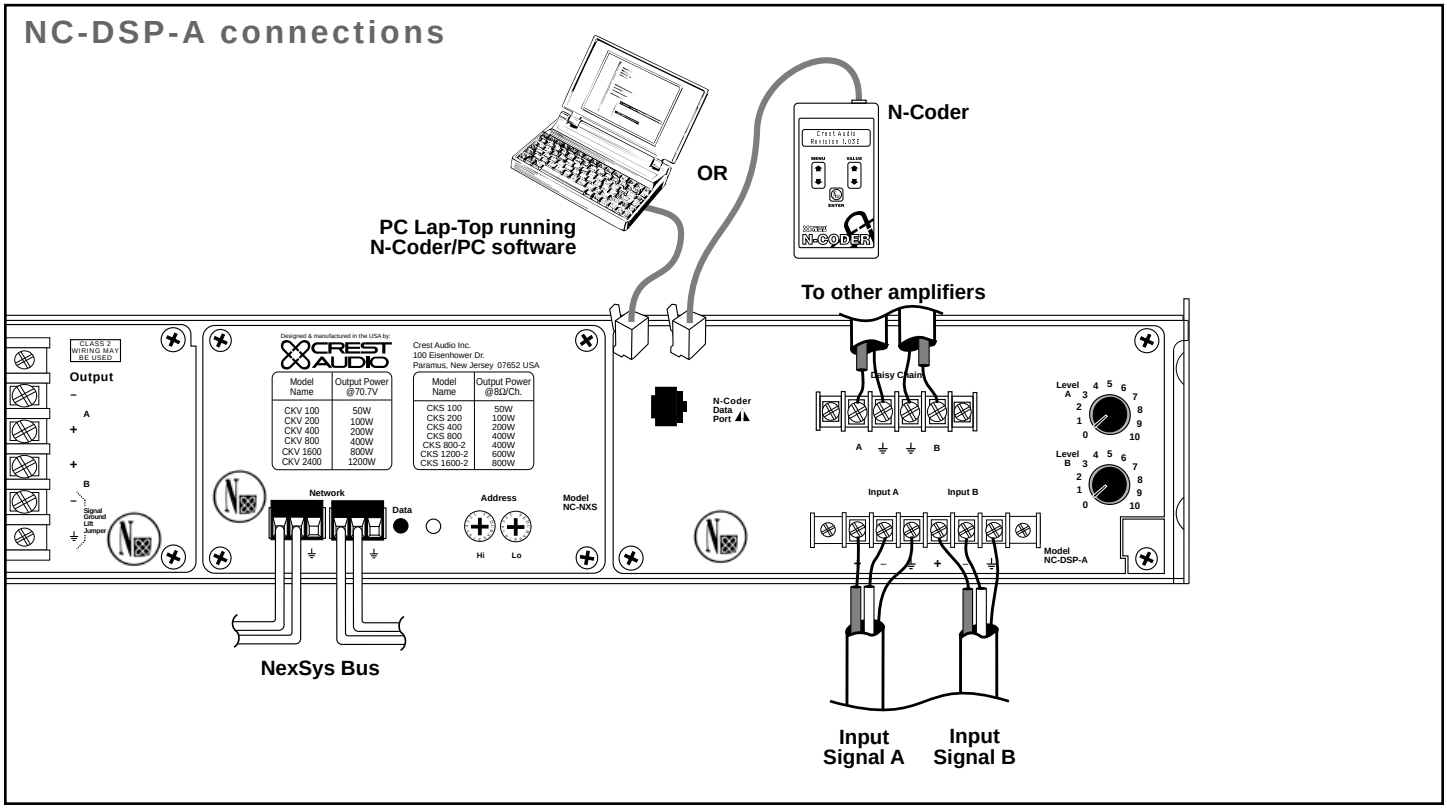
The NC-DSP-A Module fits in the Input Processing bay located on the rear panel of Crest Audio CKS, CKV & CKX Series Power Processing amplifiers. It provides state-of-the-art digital signal processing integrated with the amplifier channel. It is identical in operation to the NC-DSP-D but adds ADC converters, allowing analog audio to be digitally processed. Two post-processing analog outputs are provided to daisy chain out to additional amp channels requiring the same processing.

Input sensitivity is selectable for 10 dBU or 20 dBU. Individual channel attenuators are provided with removable knobs for extra security.

Via NexSys® or N-Coder/PC software, algorithms are down-loaded to the NC-DSP-A to perform crossover, equalizing, driver alignment, system delay, limiting, compression, gating functions, etc. All the requirements for loudspeaker processing can be performed by the NC-DSP-A.

Features:

- Digital signal processing and attenuation programmed by NexSys or N-Coder/PC software.
- Post-processing loop-thru outputs on barrier strip connectors
- Two delays are equivalent to 600 feet (183 meters) each
- Simple setup, tamper-proof configuration
- Can be used stand-alone after being programmed
- Crossover, EQ, delay, and dynamics functions
- Amp channel gain pot knobs removable for security
- Balanced input barrier strip connectors
- Selectable input sensitivity of 10 dBU or 20 dBU



Architects and Engineers Specifications - NC-DSP-A.

The module shall plug into Crest Audio CKS or CKV Power Processing amplifiers in the Input Processing bay. The module shall provide full DSP (digital signal processing) functions. Capabilities for EQ, cross-over filters, delay, dynamics control, etc. are achievable with Nexsys software modules The module shall be capable of being programmed and updated over the NexSys network (if fitted in a CKS or CKV amplifier loaded with an NC-NXS module and NexSys-compatible Power/Output module). The module shall operate as a stand-alone unit after being programmed with the N-Coder/PC software. The audio inputs shall consist of two balanced analog inputs on a barrier strip connector. Two, post-processing, analog outputs on barrier strip connectors shall be provided to loop-thru out to additional amp channels requiring the same processing. Two removable-knob gain pots shall be provided that control the level of each amplifier channel independent of programming. Input sensitivity shall be selectable for either 10dBU or 20dBU. The module shall be designated the Crest Audio model NC-DSP-A.

NC-DSP-A Input Processing Module

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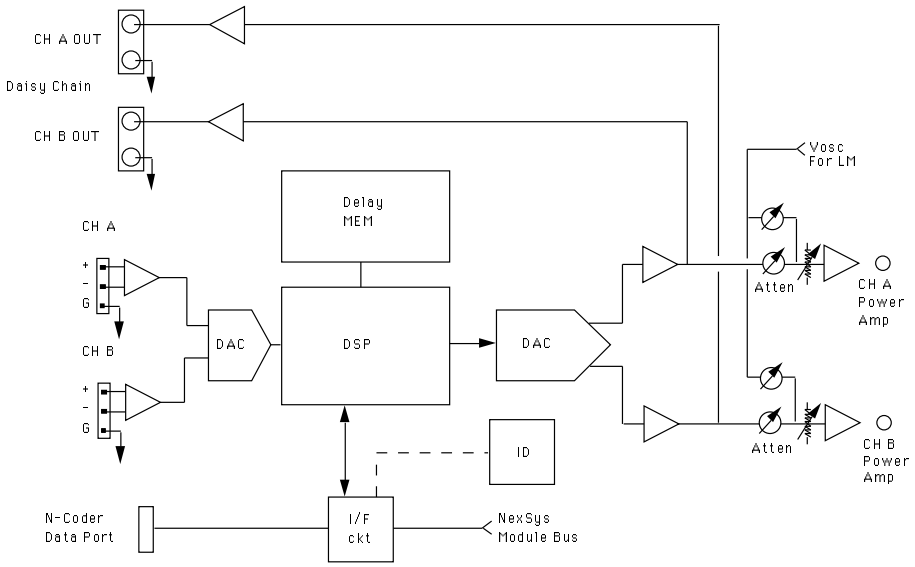
BLOCK DIAGRAM



SPECIFICATIONS

Internal digital signal processing:	24-bit
Analog-to-digital converters:	18-bit
Digital-to-analog converters:	18-bit
Max input level:	+22dBu
Dynamic range:	100dB
Signal-to-noise ratio:	100dB
THD:	0.005%
Frequency response:	20Hz-20kHz
Common mode rejection:	100dB
Selectable input sensitivity:	10 dBU 20dBU

Connectors: Balanced inputs and unbalanced loop-thru daisy-chain outputs on barrier strips with 0.325" (8mm) center & 0.27" (7mm) lug space, RJ-14 (‘RJ-11 6-pin’) N-Coder data port

Controls: 2 gain attenuators (w/removable knobs)

CONTROL OPTIONS

The following NC-DSP-A parameters can be controlled by N-Coder/PC software or via NexSys software.

N-Coder/PC software:
Channel A & B attenuation, phase reverse, muting, all DSP functions*.

NexSys computer control:
Channel A & B attenuation, phase reverse, solo, muting, input and output VU metering; all DSP functions*.

***DSP Programs:** Stereo BP, HP and LP crossovers, mono BP/BP, BP/HP, LP/BP, and LP/HP crossovers, dual mono 5-band EQ

***DSP Algorithms:** Mixer, shelf, 4 and 5-band parametric EQ, long delay, bandpass crossover, 4-band parametric post EQ, short delay, limiter, gain

Crest Audio Inc.
100 Eisenhower Dr., Paramus NJ 07652 USA
TEL: 201.909.8700 FAX: 201.909.8744
http://www.crestaudio.com

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