MediaMatrix® Peavey Electronics Corporation

Mic/Line Level Input/Output Card

Data Sheet

Description

The NION NIO-4x4 Mic/Line Input/Output Card is a device with 4 mic/line level inputs and 4 line level outputs for use in NION DSP frames. Depending on the NION model up to 4 NIO-4x4 cards may be loaded in a NION DSP.

Features

- Four analog mic/line level audio input channels
- Four analog line level audio output channels
- 24 bit A/D (inputs), 24 bit D/A (outputs)
- 48 or 96 kHz audio sampling rate supported
- High reliability DIN connector to backplane, using slide rail for alignment
- Mini-Euro connectors for easy input connection

Specifications

CATEGORY	INPUT CHANNELS	OUTPUT CHANNELS	DESCRIPTION
AUDIO CHANNELS	4	4	Analog mic/line level signals, adjustable per channel (input) Line level signals (output)
FREQUENCY RESPONSE	20 ~ 20 kHz (+/-0.5 dBr)	20 ~ 20 kHz (+0.5/-0.6 dBr)	Referenced @ 1 kHz, 22 dBu output level
RELATIVE PHASE	+/- 0.4 degrees	+/- 0.4 degrees	20 Hz ~ 20 kHz, referenced @ 1 kHz, 22 dBu output level
THD+N	0.004%	0.004%	22 kHz bandwidth measurement, +4 dBu signal with 20 dB Headroom
DYNAMIC RANGE	-110 dB	-110 dB	A-weight filter measure
CROSSTALK	-102 dB	-107 dB	20 Hz ~ 20 kHz, measured between channel pairs (1-2, 3-4) +33 to -42 dBu (input) 20 Hz ~ 20 kHz, measured between channel pairs (1-2, 3-4) (output)
PHANTOM POWER	48 VDC	NA	Available on a per channel basis
MAXIMUM INPUT SENSITIVITY SETTINGS	+33 to -42 dBu	NA	In 3dB increments, less than 1.0 dB error between settings
ANALOG GAIN	-3 TO +60 dB	NA	True analog gain
FULL-SCALE OUTPUT SETTINGS	NA	+24, +18, +12, +6 dBu	Less than 1.0 dBu error between settings
LINE INPUT IMPEDANCE	5.3K Ohms	NA	Effective for sensitivities of +33 dBu to +6 dBu
MIC INPUT IMPEDANCE	1.9K Ohms	NA	Effective for sensitivities of +3 dBu to -42 dBu
OUTPUT IMPEDANCE	NA	100 Ohms	Balanced
MINIMUM LOAD IMPEDANCE	NA	600 Ohms	Referenced to +22 dBu output
EQUIVALENT INPUT NOISE (EIN)	-129 dBu	NA	Referenced to +22 dBu output, 150 Ohms input termination, 22 kHz bandwidth measurement, Gain = 66 dB
SAMPLE RATE	32 kHz – 96 kHz	32 kHz – 96 kHz	

Notes:
1. All specifications are typical for any channel(s).
2. All measurements are made with an AC line of 120 Volts rms / 60 Hz.
3. All measurements are made using 600-ohm balanced loads at 24 dBu full scale unless otherwise stated.
4. All measurements are made in the analog domain with gain/attenuation set for unity unless otherwise stated.
5. All measurements are made using 48 kHz sample rate.

Architect's & Engineer's Specifications

The mic/line level input/output processing card shall be an eight discrete channel device designed to add 4 mic preamps and/or line level analog inputs and 4 line level analog outputs for the NION DSP audio processing node. The slide rail support industrial package is designed to easily install in one of the slots provided on the rear of the NION DSP audio processing node. The connection at the rear of the card shall use a DIN connector. Cards shall be available for mic and line level analog audio with options for digital and proprietary audio transports. All card types shall include separate software devices for integration into the configuration file. The mic/line level input/output processing card shall be the MediaMatrix NIO-4x4 or approved equal.

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