NE Series





Connecting and controlling an audio processor for networked systems has now been simplified with Ashly's NE-Series Protea ne24.24M digital signal processor. This Network Enabled (NE) processor offers ease of use, setup and control using standard 10/100 Ethernet protocol and Protea NE Software. No special outboard control units are needed.

The ne24.24M Matrix Processor uses modular expansion cards to provide up to twenty-four channels of audio matrixing and processing. The base unit offers a four-input/four-output configuration. Each input and output expansion card has an individual DSP processor allowing you to expand the base unit's total inputs or outputs four channels at a time. These cards are easily installed in the field without the need to reprogram the device.

Matrixing allows you to route any input to any output and control individual levels once they have been assigned. Fixed path architecture and extensive processing power per channel will reduce the amount of time it takes to set up your system. All programming is accomplished using Ashly's Protea NE Software on a PC platform. No front panel controls and multi-level software security assures you a tamperproof audio system. Input channel processing blocks include Mic Preamp with Phantom Power, Gain, Delay, fifteen EQ Filters, Gate, Autoleveler and Ducker. Inputs may be configured as either mic or line level. Output channel processing blocks consist of a Cross Point Mixer, HPF/LPF, Delay, fifteen EQ Filters, Gain and Limiter. The cross point mixer in the output section allows you to route any input to any output at any level and mute any input at any output without affecting the true input configuration. The HPF/LPF block offers Bessel, Butterworth and Linkwitz-Riley filters with 12, 18, 24 and 48dB/octave slopes.

Whether you are designing or installing a system for corporate boardrooms, restaurants, courtrooms, houses of worship, left/center/right theatres, auditoriums or conference centers, the Protea ne24.24M will more than satisfy your requirements for any zoned system requiring input/output matrixing with signal processing.



NE Series specifications

Preliminary Data 03/08

Features:

- 10/100 Ethernet and RS-232 computer interface Is standard
- Extensive DSP Available
- Easy and intuitive user interface
- Mic/Line inputs
- 24-bit A/D-D/A audio resolution
- 24-bit/150 MHz DSPs
- Up to 24 channels of audio processing
- 4x4 base unit configuration
- Expand inputs or outputs 4 channels per module
- Modules easily field installable
- Euroblock connectors for audio, preset recall, DC remote level control and data in/out
- 31 preset locations
- Four dedicated remote controls for Level, Preset Recall and Program mable Functions
- Third Party Control Friendly
- Input and output metering viewable in dBu
- Multi-level Security
- Five year worry-free warranty
- Safety/Compliance: (cTUVus, FCC, CE pending), RoHS

Rear panel:

- 10/100 Ethernet port
- RS-232 Port
- Euroblock inputs
- Euroblock outputs
- Remote level control
- Preset Recall
- Data in and out ports

Accessories

Four Channel Input Module Four Channel Output Module WR-1 2-ch Level Control WR-2 Four Position Switch WR-5 Programmable Selector RD/RW8 8-ch Level Control



NE Series specifications

Protea ne24.24M Matrix Processor

Input	Active Balanced, 18 kohms	Crossover High Pass Filter Type	Linkwitz-Riley, Bessel, Butterworth
Max Input Level	+20dBu	Crossover High Pass Filter Slope	12, 18, 24 and 48dB/Octave
Input Gain Range	-50dB to +12dB, selectable polarity	Crossover High Pass Filter Range	Off to 20KHz, 1Hz incr
Output	Active Servo Balanced, 112 ohms	Crossover Low Pass Filter Type	Linkwitz-Riley, Bessel, Butterworth
Max Output Level	+20dBu	Crossover Low Pass Filter Slope	12, 18, 24 and 48dB/Octave
Output Gain Range	-50dB to +12dB, selectable polarity	Crossover Low Pass Filter Range	Linkwitz-Riley, Bessel, Butterworth
Frequency Response	20 Hz-20kHz, ±0.25 dB	Maximum Input Delay	682.5ms, 20uS incr
THD	<0.01% @1 kHz, +20 dBu	Maximum Output Delay	682.5ms, 20uS incr
Dynamic Range	>110 dB (20 Hz-20 kHz) unweighted	Gate Threshold	-80 to +20dBu, 1dBu incr
Output Noise	<-90 dBu unweighted	Gate Floor	Off, -80 to 0dBu, 1dBu incr
Power Requirements	90 - 240VAC, 40W	Gate Attack	.2, .5, 1, 2, 5, 10, 20, 50ms/dB
Shipping Weight	13lbs (Maximum)	Gate Release	5, 10, 20 50, 100, 200, 500, 1000ms/dB
Dimensions	19.0"L x 3.5"H x 8.5"D	Autoleveler Target Level	-40 to +20dBu, 1dBu incr
Connections	Euroblock	Autoleveler Ratio	1.2:1, 1.5:1, 2:1, 3:1, 4:1, 6:1, 10:1
Environmental	40-120 deg. F, (4-49 deg, C) noncondensing	Autoleveler Hold Time	0, 1, 2, 3, 4, 5, 6Sec
Mic Preamp Gain	0dB, +20dB, +40dB, +60dB	Autoleveler Threshold Below Target	-30 to 0dB, 1dB incr
Mic Preamp Phantom Power	+48VDC (9.6ma/input)	Autoleveler Gain Increase Rate	5, 10, 20 50, 100, 200, 500, 1000ms/dB
Mic Preamp EIN	-128dBu, 20-20KHz, 50 ohm source	Autoleveler Gain Decrease Rate	5, 10, 20 50, 100, 200, 500, 1000ms/dB
Parametric EQ Bandwidth	1/64th Octave to 4 Octave	Ducker Trigger Threshold	-80 to +20dBu, 1dBu incr
Parametric EQ Range	+15/-30dB, 0.1 dB incr	Ducker Depth	-30 to 0dBu, 1dBu incr
Parametric EQ Resolution	1Hz	Ducker Release:	5, 10, 20 50, 100, 200, 500, 1000ms/dB
Low-Shelf EQ Slope	6 or 12dB/Octave	Cross Point Mixer Gain	-50 to +12dB, 1dB incr with Mute
Low-Shelf EQ Frequency Range	20Hz to 2KHz	Compressor/Limiter Threshold	-20dBu to +20dBu, 1dB incr
Low-Shelf EQ Range	+/-15dB, 0.1dB incr	Compressor/Limiter Ratio	1.2, 1.5, 2., 3, 4, 6, 10, 20,:1
High-Shelf EQ Slope	6 or 12dB/Octave	Compressor/Limiter Atack	0.5ms to 50ms per dB
High-Shelf EQ Frequency Range	3.886KHz to 20KHz	Compressor/Limiter Release	10ms to 1sec. per dB
High-Shelf EQ Range	+/-15 dB, 0.1 dB incr	Input A/D Output D/A	24 bit
All Pass Filter Type	Second-Order (-180 degrees)	DSP	24-bit Freescale
All Pass Filter Frequency Range	20Hz to 20KHz	Sample Rate	48kHz
		Propagation Delay	1.46ms



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