

# Protea System II Digital Processors



## 4.24G GRAPHIC EQUALIZER/SYSTEM PROCESSOR



The Protea Series 4.24G digital equalizer offers true 24-bit resolution from input to output and provides you unparalleled audio processing power for a wide range of applications—monitor systems, front of house PAs, commercial sound installations requiring fixed and tamperproof equalization, recording and broadcast studios, Surround-Sound™, digital audio workstations, and computer recording applications.

The 4.24G has all the audio processing tools needed for flawless graphic equalization and sound control. In addition to 28 bands of 1/3-octave EQ, the 4.24G features a programmable compressor/limiter for general compression or speaker protection, and programmable delay of up to 1.364 sec. for time compensation of speaker clusters, arrays, or monitor speakers. Individual, programmable 24dB/octave high- and low-pass filters allow you to zero in and fine tune the audio spectrum. A large 240 x 64 fluorescent backlit display keeps you constantly informed of every parameter, function and utility. Full control of the 4.24G is available from the front panel in an intuitive and straightforward layout—it's as intuitive as using your familiar analog equalizer. When used with the 4.24RD Full-function Remote Control, leveling a system becomes a breeze. Imagine standing anywhere in the room with your sound system or monitors and adjusting your EQ on the spot! No running back and forth between your sound source and the board to make EQ adjustments. The Protea system can also be expanded to provide up to 16 channels of digital equalization with the addition of the 2- and 4-channel slave units, which can be easily controlled from the 4.24G main unit, from the 4.24RD remote control, or by using a PC running the included Protea System Software. Scene recall, output level and mute functions may also be controlled by an AMX NetLinx system. Never before has equalization been this powerful and simple at the same time.

### FEATURES:

- 24-bit A/D–D/A audio resolution
- 24-bit/100 MHz (x2) digital signal processing
- Four 28-band 1/3-octave channels of EQ
- Programmable compressor/limiter\*
- Programmable delay up to 1.364 seconds\*
- Programmable high- and low-pass filters\*
- \* Available in each channel
- Balanced XLR and 1/4" inputs and outputs
- Intuitive user interface
- Large, 240 x 64 fluorescent backlit display

- Linkable channels
- Constant Q/reciprocal filter design
- ±15dB boost and cut, 0.5dB increments
- 128 preset locations, 50 scenes
- RS-232 computer interface
- AMX Compatible NetLinx Control
- Full MIDI implementation
- Input and output metering viewable in dB or VU
- UL/CUL listed
- Password protection of system operation
- Five year worry-free warranty

### SPECIFICATIONS:

Input:	Active balanced, 18 kohms
Max. input level:	+20 dBu
Output:	Pseudo-balanced, 200 ohms
Max. output level:	+20 dBu
Frequency response:	20 Hz–20kHz, ± .5 dB
THD:	<0.01% @1 kHz, +20 dBu
Dynamic range:	>110 dB (20 Hz–20 kHz) unweighted
Output noise:	<-90 dBu unweighted
Filters	
Type:	Constant Q, reciprocating
Number and spacing:	4 x 28; 1/3-octave spacing
Range:	±15 dB, 0.5 dB increments
Q:	Fixed, 3.2
Compressor/Limiter	
Threshold:	-20 dBu to +20 dBu, 1 dB increments
Ratio:	1.2 : 1 to infinity
Attack:	0.5 ms to 50 ms per dB
Release:	10 ms to 1 sec. per dB

High-pass filter:	24 dB/octave
Range:	20 Hz to 10.6 kHz
Low-pass filter:	24 dB/octave
Range:	33 Hz to 20.1 kHz
Delay	
Maximum delay:	1.364 seconds
Increment:	20 µs
Processor	
Input A to D:	24 bit
Output D to A:	24 bit
Processor:	24 bit, 56 bit accumulator
Sample rate:	48 kHz
Propagation delay:	1.46 ms
I/O Connectors:	XLR 1/4"
Environmental:	40–120 deg. F, non-condensing
Power requirements:	90–125 VAC, 50–60 Hz, 30W; 180–250 VAC, 50–60 Hz, 30 W
Shipping weight:	14 lbs.
Dimensions:	19.0"L x 3.5"H x 8.0"D

