



SPECIFICATIONS MX8700



DESCRIPTION

The MX8700 Digital Electronic Processor is designed to optimize the performance of a wide range of EAW loudspeakers. It is a cost effective, single-rack space, processor designed for use with bi-amplified and tri-amplified loudspeakers with special facilities for adding two channel or mono-summed subwoofers. The MX8700 has two input channels each with four outputs. Its functions include crossover, equalization, delay, polarity and limiting. Configurations are downloaded to the MX8700 using EAW Windows software via an RS-232 interface. Once downloaded, configurations cannot be altered by the end user removing the burden of field set-up and assuring optimum loudspeaker performance. There is a full complement of level and status indicators plus individual output mutes for setting-up and troubleshooting systems.

FEATURES

- Parameters fully protected from tampering
- Digital processing for precise settings
- 6 bands of parametric EQ on each input, 5 on each output and 7 crossover types ensure optimum performance
- Active balanced input and outputs with XLR connectors

CLOSE COUPLED ELECTRONIC PROCESSING™

The concept of Closed Coupled Electronic Processing™ (CCEP™) is central to the EAW design process. EAW engineers integrate electronic signal processing into the total loudspeaker system but we recognize that electronics can only improve performance after all other electro-mechanical factors have been optimized. The MX8700 processor incorporates functions such as complex asymmetrical crossover filters, delay compensation and parametric equalization. All of these parameters are configured for a particular loudspeaker system in an interactive design process using EAW's rapid data acquisition facility and in-house multi-platform computer network.

CONFIGURATIONS

The MX8700 processor is either factory or field configured (Close Coupled™) for a particular EAW loudspeaker system. If you have any questions please contact an authorized EAW sales agent or the factory to be certain that you have correctly configured the processor to your system.

SPECIFICATIONS

Input Type	Two (2): Active balanced
Input Impedance	18k Ohms
Max. Input Level	+20dBu
Output Type	Eight (8): Active balanced
Output Impedance	112 Ohms
Max. Output Level	+20 dBu
Frequency Response	±.25dB, 20Hz-20kHz
Total Harmonic Distortion	<.01% @ 1kHz, +20dBu
Dynamic Range	.110dB, 2-20kHz, unweighted
Output Noise	<-90dBu, unweighted

EQ Filters

EQ Filter Type	Parametric Bell and Shelving (6dB/oct. & 12dB/oct.)
EQ Filter Number	6 per input, 5 per output
Q	.25 to 64
EQ Frequency Resolution	1/24 octave
Level Range	+15/-30dB, 0.1dB increments

Crossover Filters

Crossover Filter Type	Butterworth, Bessel, Linkwitz-Riley
Slope	12dB/oct., 18dB/oct., 24dB/oct.
Number	2 per output
Frequency Resolution	1/24 octave
Level Range	+12dB/-infinite, 0.1dB increments

Limiter

Limiter Threshold	-20dBu to +20 dBu, 1dB increments
Limiter Ratio	1.2:1, 1.5:1, 2:1, 3:1, 4:1, 6:1, 10:1, 20:1, inf:1
Limiter Attack	1 ms/dB, 100 ms/dB, 500 ms/dB
Limiter Release	20 ms/dB, 100 ms/dB, 500 ms/dB

Delay

Input Delay	300 msec max., 1 msec increments
Output Delay	20 msec max., 20 us increments

Digital Processing

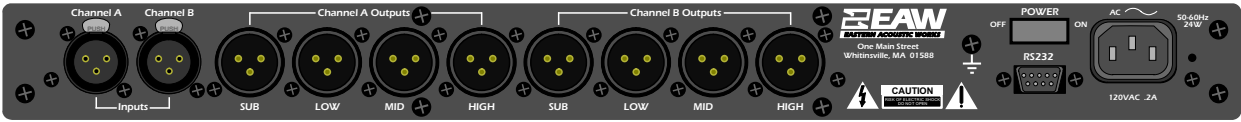
A/D converters	24 Bit, 128x oversampling
D/A Converters	24 bit, 128x oversampling
Sample rate	48kHz
DSP Processing	24 Bit, 56 Bit Accumulator, 200 MIPS
Propagation Delay	1.46 msec





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REAR PANEL



SPECIFICATIONS CONTINUED

Power requirements	120v version: 90-125VAC, 50-60Hz, 24w	
	240v version: 180-250VAC, 50-60Hz, 24w	
Weights	pounds	kilograms
	Net Weight	8.5 3.9
	Shipping Weight	10 4.5
Dimensions	inches	millimeters
	Length	19 483
	Height	1.75 44
	Depth	6 152
Environmental	40-120 degrees F, noncondensing	
Digital Control	RS232 on 9-pin Dsub connector at 9600 Band (rear panel only)	

PRELIMINARY DATA