



FI-P4X8

4 In x 8 Out Digital Speaker Management Processor



The FI-P4X8 is a self-contained, fully programmable, Digital Loudspeaker Management System capable of handling full control of loudspeaker system.

The four inputs and eight outputs can be routed in multiple configurations to meet any system requirement.

Full system setup and configuration can be done in real time from the front panel or with the intuitive PC based graphic user interface software via the on-board RS485 and USB ports.

Packaged into a neat 1U rack design, an intuitive and concise front panel with LCD screen enables engineers to make essential adjustments to the speaker configuration with accuracy.

Product Features

- 96KHz sampling frequency, 32-bit DSP processor, 24-bit A/D and D/A
- USB and RS485 connectors are present for PC connection. 250 units can be connected together via Rs485 and it can be controlled remotely as far as 1500 meters
- 30 user-program parameters can be stored into the device
- Safety/security lock buttons provide peace of mind against unwanted changes from unauthorized users or unwanted set-up changes
- 6 independent parametric EQ of input and output. The gain range is 120dB. The EQ of output channel has two slopes: Lo-shelf and Hi-shelf
- Every input and output has compensation-delay, phase control and mute settings, delay function offer a maximum of 1000ms
- Adjustable gain & limiter of output channel; Just choose the input signal and copy all the parameters from one channel to another channel with joint debugging

Product Applications

- Live sound loudspeaker management
- Active monitor systems
- Fixed installations

Product Specification

Input	4 channels, XLR female connector
Output	8 channels, XLR male connector
Input resistance	Balanced: 20K Ω
Output impedance	Balanced: 100K Ω
PC Connection	USB (front), 2 RS485 RJ45 (Back)
CMRR	>70dB (1 KHz)
Input range	$\leq +25$ dBu
Frequency response	20Hz-20KHz (-0.5dB)
S/N R	≥ 90 dB@1 KHz 0dBu
THD	<0.01% OUTPUT=0dBu/1 KHz
Channel crosstalk	>80dB (1 KHz)
Functions of input channels	
Input mute	Each input and output channel has independent mute function
Input volume	Input Gain Range: -80dB-+12dB, steps @ 1db
Input delay	Each input channel has independent delay compensation control, adjustable range: 0-1000ms; 21pS across, 0-10ms; 84 μ s across, 10ms-20ms; 0.5mS across, 20ms-1000ms
Input polarity	same phase(+/+) or reversed phase(+/-)
Input equalizer	Independent equalizer with 6 bands; frequency: 20Hz-20KHz; gain: -20db-+20db; bandwidth: 0.05oct-3oct
Function of the output channel	
Output mute	Each input and output channel has independent mute function
Output selection	Each input channel can select any output channel
Output gain	Range: -80dB~+12db, steps: 1db
Output delay	Each input channel has independent delay compensation control, adjustment range: 0-1000ms, across: 21us@<10ms, 10ms-20ms, across: 84us@>20ms, across: 0.5ms
Output polarity	In phase (+/+) or out of phase (+/-)
Crossover	Each output channel can be independently set as low-pass or high-pass. These can all be adjusted. Filter types: Linkwitz-Riley; Bessel function; Butterworth. Crossover frequency: 20Hz-20KHz, Slope: 12db/oct; 18db/oct; 24db/oct 30db/oct 36db/oct; 42db/oct; 48db/oct
Limiter	Limiters exist for each output channel. All parameters are adjustable: Threshold: -40dbu-+20dbu; step: 0.5dbu. Attack: 0.3mS-200mS. 0.1 mS step@0.3-1mS; 1ms step @1mS-100ms.
Output equalizer	Each output channel has a 6-band equalizer: 3 modes: low pass/high pass/parametric. A: Lowpass: Slope: 6dB/12db; Frequency: 20Hz-20KHz; Gain:-20db-20db; B: High Pass: Slope: 6db/12db; Frequency range: 20Hz-20KHz; Gain:-20db-20db; C: parameter: Frequency: 20Hz-20KHz, Bandwidth: 0.05oct-3oct; Step: 0.05oct; Gain:-20db-+20db, Step 0.1db
Processor	92KHzSampling frequency, 32bit floating pointDSP
Display	2 x 24 LCD, 8-LED, for input/output levels. Mute and edit functions can be displayed.
Power consumption	≤ 25 W
Voltage	AC 110V/220V 50Hz/60Hz
Product size (WXLXH)	482X228X44mm
Weight	4.1 kg
Package Dimensions (WXLXH)	1PC:555X325X98mm/0.0177m ³ 6PCS:573X337X615mm/0.1188m ³
Total Weight	1PC:5 (kg) 6PCS:31.5 (kg)

