

4x10 Xover v1 is a plug-in for the miniDSP 2x8 platforms. It is designed to be used for flexible configurations ranging from a multi-zone audio processor to multi-way crossover. Operating at 96kHz, both analog and digital input (I2S) are being mixed to the matrix mixer for complete freedom of audio routing.

Software features

- . Extensive set of audio algorithms
- . Live tuning, "hear changes real time"
- . Channel linking to synchronize settings of two channels (PEQ/Crossovers)
- . Save/Load configurations
- . Up to four preset configurations stored
- . Extensive plotting capabilities
- . Plug & Play setup requires no driver
- . Custom Input/Output labels
- . Free Un-limited Upgrades

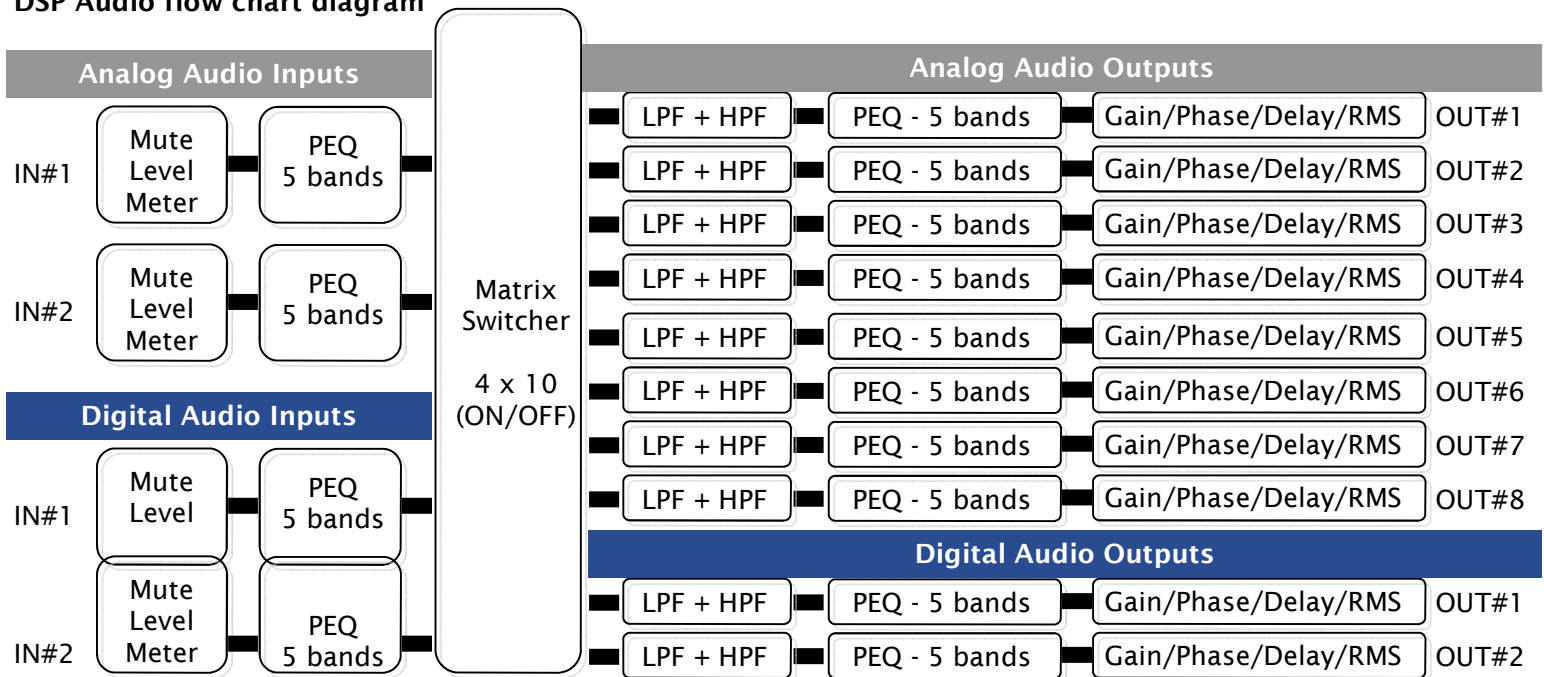
Applications

- . Active loudspeaker processor
- . Custom amplifiers
- . Car audio processor
- . Small PA processor
- . Custom Pro Audio boards

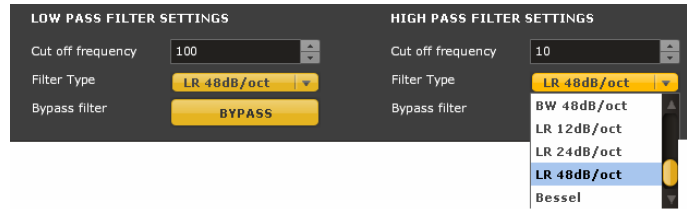
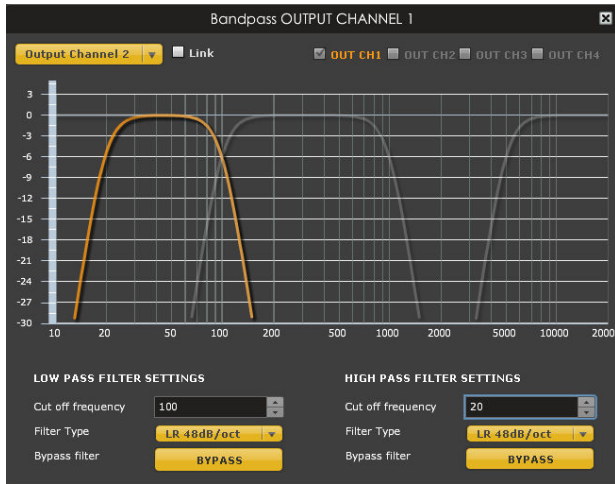
Algorithm and plug-in configuration

Item	Description
Sampling frequency	96kHz
Inputs/Outputs	Inputs: Up to 2 analog inputs, up to 2 digital inputs (I2S) Outputs: Up to 8 analog outputs, up to 2 digital outputs
Algorithm resolution	Double precision filters (56bits resolution)
Input mute/select	Click-less input mute per channel and input selection
Digital gain	Fader gain control from -80 to 0dB
Input/ Output meters	Monitoring signal from -80dBFS to 0dBFS - High refresh rate
Low & High Pass filter types	Butterworth up to 8th order (6 to 48dB/oct) Linkwitz-Riley up to 8th order (12 to 48dB/oct) Bessel - 2nd order - Bypass per filter Frequency: 10Hz to 20kHz in 1Hz increments
Parametric Equalizers (Peak/Low&High shelf)	5 PEQ bands per input, 5 PEQ bands per output Frequency: 10Hz to 20kHz, 1Hz increments Gain: 0 to 16dB, 0.1dB increments Q: 0.5 to 50, 0.1digit increment Type: Peak of Shelf (low/high) & Per-band bypass feature
Mixer	Central mixer for 4 x 10 cross-point configuration (ON/OFF)
Delay (time alignment)	Up to 9ms per channel (3m) in 0.02ms increments
Polarity	Invert polarity 180degree per channel
Output mute	Individual output mute
Master output gain	Analog potentiometer control master output digital gain fader from -80 to 0dB. Disabled if no pot connected.

DSP Audio flow chart diagram



Low Pass and High Pass filter per output channel



Double precision algorithms (56bits) for greater resolution

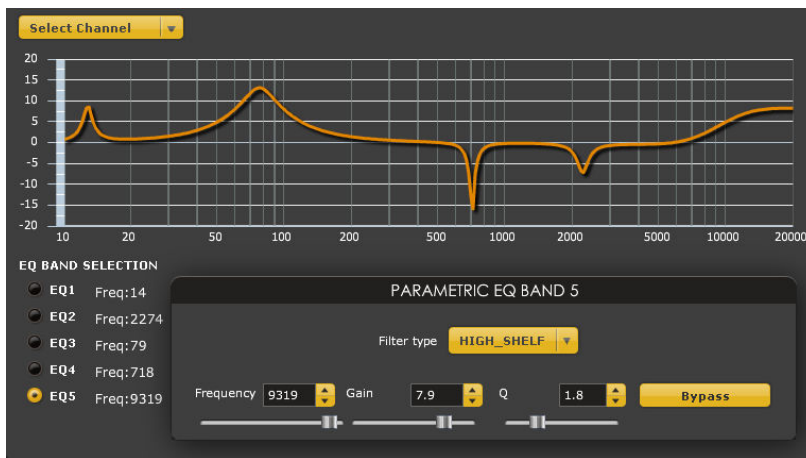
Wide range of filter choices Up to 8th order (48dB/oct) with

Channel linking feature to link up settings to Left & Right channels

Complex plotting displays the combined effect of low/High pass

Bypass feature to listen to the effect of filter settings

Parametric Equalizer (Peak/Shelf)



Double precision algorithms (56bits) for greater resolution in low frequency range.

Up to 5 Bands of parametric equalization with complete freedom on Frequency, Gain and Q settings

Peak/Low Shelf/High Shelf selectable per band

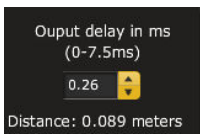
Per Band Bypass allows to quickly listen to the effect of your equalizer settings.

Real time channel linking to keep PEQ settings of two channels synchronized



Delay, Polarity, Input/output metering

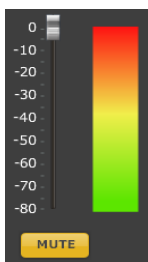
Central Matrix Switcher toggles ON/OFF routing



Delay
Control delay per output channel to better time align each channel.

To simplify your calculations, the equivalent distance is also provided.

	Analog Out								Digital Out	
	Output 1	Output 2	Output 3	Output 4	Output 5	Output 6	Output 7	Output 8	I2S	I2S
Analog In										
Input 1	On	On	On	On	Off	Off	Off	Off	On	Off
Input 2	Off	Off	Off	Off	On	On	On	On	Off	On
Digital In										
I2S	On	On	On	On	Off	Off	Off	Off	Off	Off
I2S	Off	Off	Off	Off	On	On	On	On	Off	Off



RMS meter displays for input and output channels. Resolution from -80 to 0dBfs (Full scale)

Software & Hardware requirements

PC Hardware requirements

- 1GHz CPU
- 512MB RAM
- USB V2.0

Software requirements

- Windows XP/Vista/7
- Adobe Air environment
- Net 3.5 environment



Mac Hardware requirements

- Intel Core Duo or faster
- 512MB RAM
- USB V2.0

Software requirements

- Mac OS X v10.4, 10.5, 10.6
- Adobe Air environment