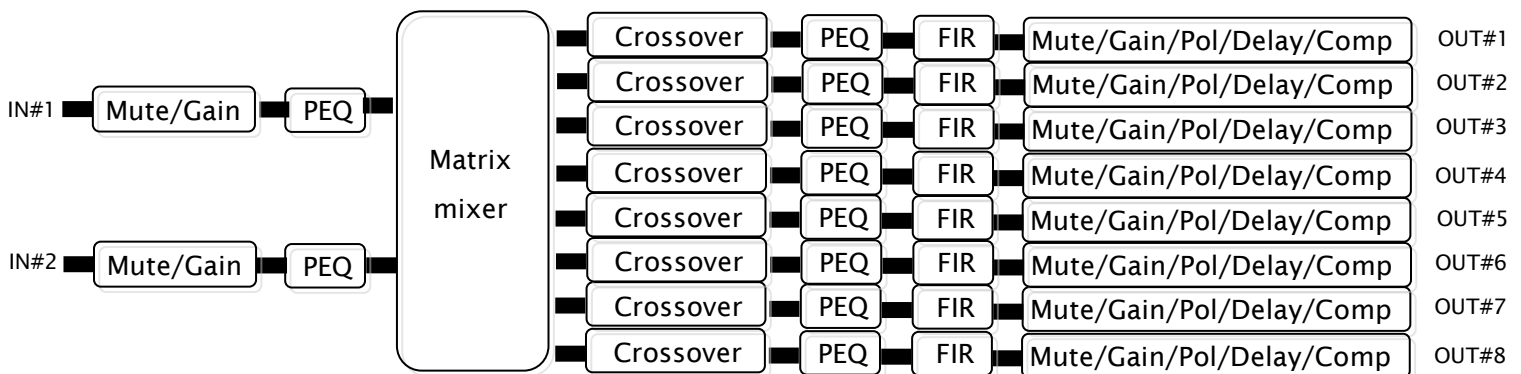


The miniDSP 2x8 nanoSHARC plug-in unleashes the nanoSHARC kit potential for configurations up to 8ch of processing at 96kHz. With USB audio, Toslink or I2S inputs and support for recall of presets via IR control, this plug-in comes with all the typical DSP blocks our customers been used to.

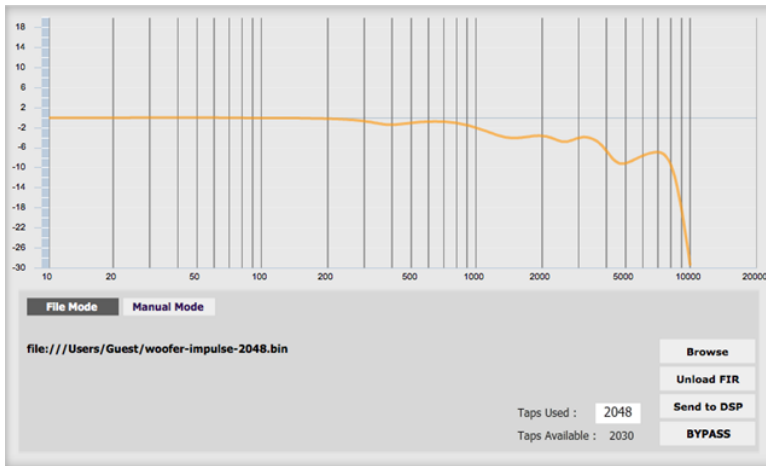
Algorithm and plug-in configuration

Item	Description
Compatible platform	miniDSP nanoSHARC kit
Sampling frequency	96kHz
Algorithm resolution	Floating point 32bit
Input configuration	Stereo input selectable between: - I2S input (I2S master mode) - Digital input (Toslink/PCM up to 192kHz) - ASRC processed - USB audio input (Up to 192kHz) - ASRC processed
Output configuration	Duplicated processed 8ch outputs from DSP structure to: - I2S digital outputs (I2S master mode)
Input mute/select	Click-less input mute per channel and input selection
Digital gain	Fader gain control from -72 to +12dB
Input/ Output meters	Monitoring signal from -80dBFS to 0dBFS - High refresh rate
Matrix Mixer	Full 2 x IN, 8 x OUT matrix mixer to control the routing of channels
Low & High Pass Filters on each output	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 Advanced mode for custom biquad input
Parametric Equalizers (Peak/Shelf)	10 EQ bands per input, 10 EQ bands per output Frequency, Gain, Q configurable, Peak of Shelf (low/high) Per-band bypass feature Advanced feature for custom biquad input
FIR filter banks	8 banks of FIR filters - A FIR pool of up to 3400taps (spread across all channels) / Max 2048taps per ch
Delay	Up to 35mS per channel (1183cm) with 0.01ms increments
Polarity	Invert polarity 180degree per channel
Output mute	Individual output mute

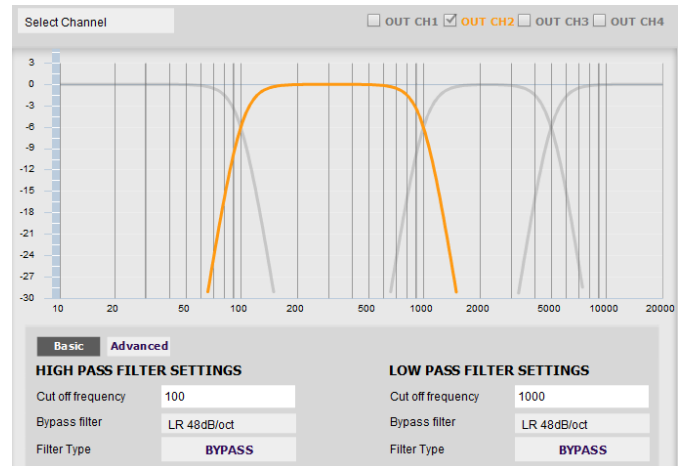
SYSTEM DIAGRAM



CROSSOVER SECTION and FIR SECTION



FIR filter dialog box



IIR filter dialog box

MATRIX MIXER

	Sub_L	Low_L	Mid_L	High_L
Left	On	On	On	On
Right	Off	Off	Off	Off
	Sub_R	Low_R	Mid_R	High_R
Left	Off	Off	Off	Off
Right	On	On	On	On

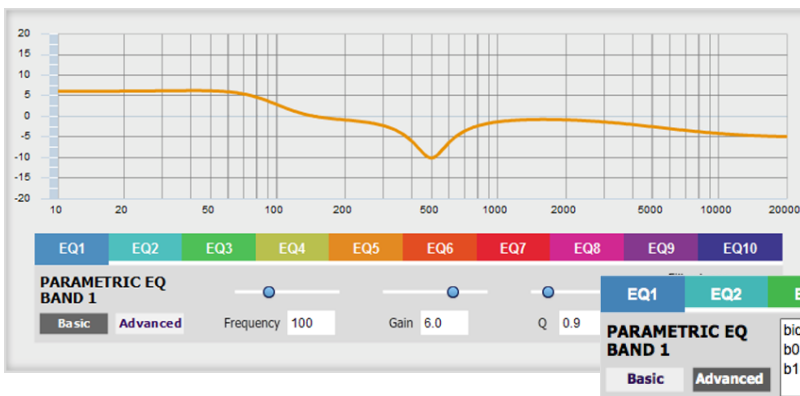
Matrix mixer at center of the DSP structures allows routing and mixing of the input channels to any of the outputs.

Volume control at each crosspoints.

Perfect to build configurations such as: Stereo 2way, 2.1, 3way, 3.1, 4way, multiple SUB..

This control panel includes a 'Channel label' (Input1), a 'Level meter' with a scale from -72 to 12 dB, and a 'Gain adjustment' knob. Below the meter are buttons for '-12 dBfs', '-6.0', 'PEQ', and 'Mute'. Labels on the right indicate 'Current gain', 'Edit EQ settings', and 'Mute channel'.

PARAMETRIC EQUALIZER



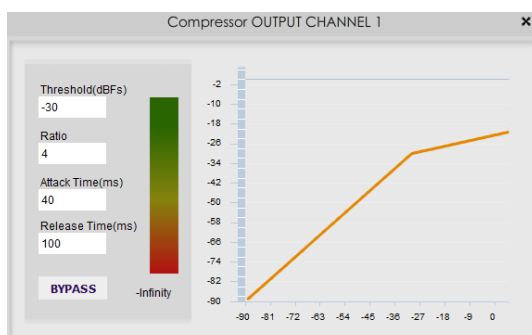
Up to 10 Bands of parametric equalization with complete freedom on Frequency, Gain and Q settings

Peak/Low Shelf/High Shelf selectable per band

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

Advanced mode for custom biquad input

COMPRESSOR LIMITER / SOURCE SELECTION



COMP/LIM dialog box with real time monitoring of compressed signal.

The source selection menu for 'Input1' lists 'Analog', 'TOSLINK', and 'USB' options.

SOURCE & PRESET selection on front page. I2S/USB/Toslink

Configuration Selection: Config 1 Config 2 Config 3 Config 4