

**Rear/Center Channel plug-in** was engineered for audio processing applications with the need for deriving a sum/difference signal from a stereo source. Along with large delay line and the choice of (L-R) or (L+R) modes, this plug-in combined with a miniDSP kit is a perfect fit to easily complement your existing audio systems with a center/rear speaker.

### Software features

- Extensive set of audio algorithms
- Live tuning, hear the changes real time
- Save/Load configurations
- Optional offline system tuning
- Extensive plotting capabilities
- Plug & Play setup requires no driver
- Free Un-limited Upgrades, your plug-in evolves as we evolve!

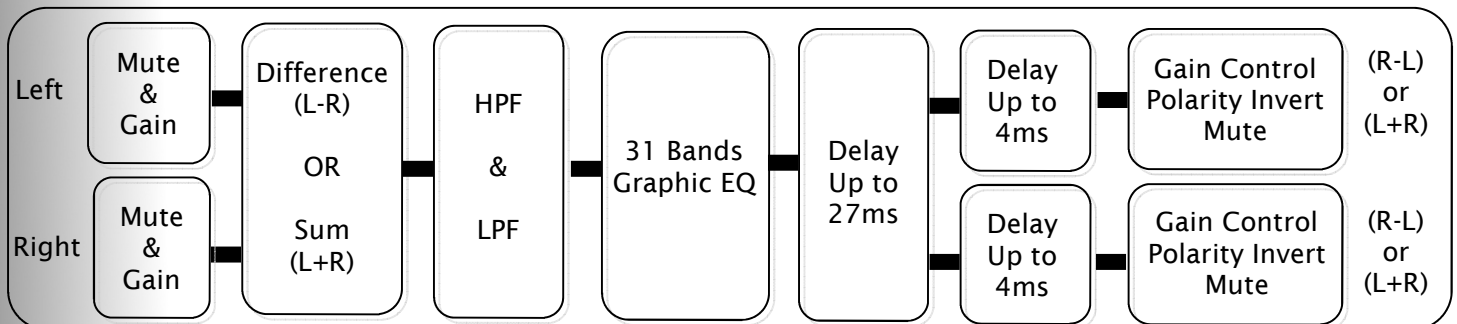
### Applications

- Rear Fill speakers (L-R mode)
- Center channel (L+R mode)
- Folded horns with long delay
- Sub Equalizer

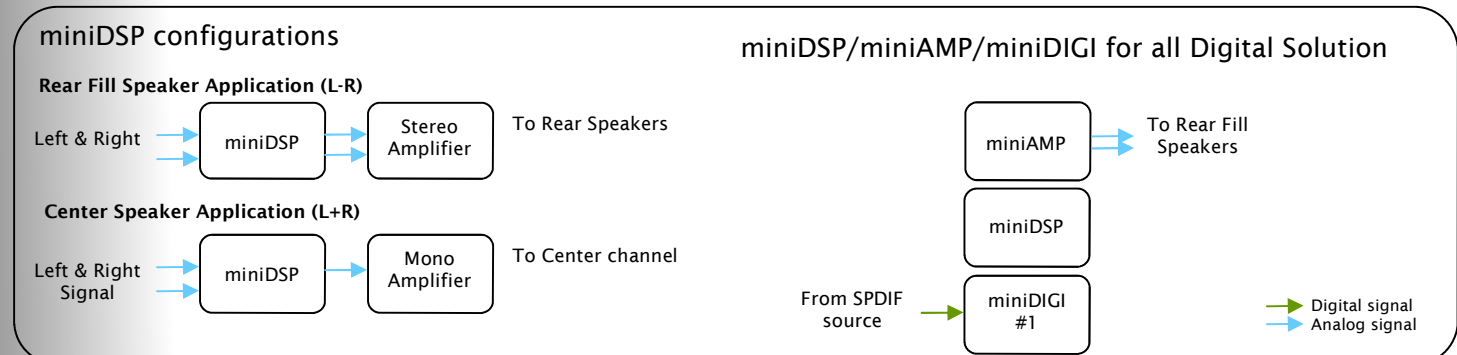
### Algorithm and plug-in configuration

Item	Description
Sampling frequency	48kHz
Algorithm resolution	Double precision for best audio quality (56bits resolution)
Digital Inputs Digital Outputs	Plug-in IN#1&2 selectable on I2S_Data_In7&8 Plug-in OUT#1/2 available on I2S_Data_Out1/2/ Un-processed signal from ADC on I2S_Data_Out5/6 Un-processed signal from Digital IN on I2S_Data_Out 7/8
Input mute/select	Click-less input mute per channel and input selection
Digital Input gain	Fader gain control from -80 to 0dB
In/Out RMS meters	Monitoring signal from -80dBFS to 0dBFS - 150ms refresh
Low/High pass filters	Butterworth/Bessel second order (-12dB/oct) Linkwitz-Riley fourth order (-24dB/oct) Bypass feature
Difference/Sum mode	Difference mode: (Left - Right) Sum mode: (Left + Right)
Graphic Equalizer	31 bands, 1/3 Octave Boost +/-12dB
Delay	Up to 27ms(927cm) with 0.02ms increments Additional 4ms per channel
Polarity	Invert polarity 180degree per channel
Master output gain	Analog potentiometer control master output digital gain fader from -80 to 0dB. Disabled if no pot connected.

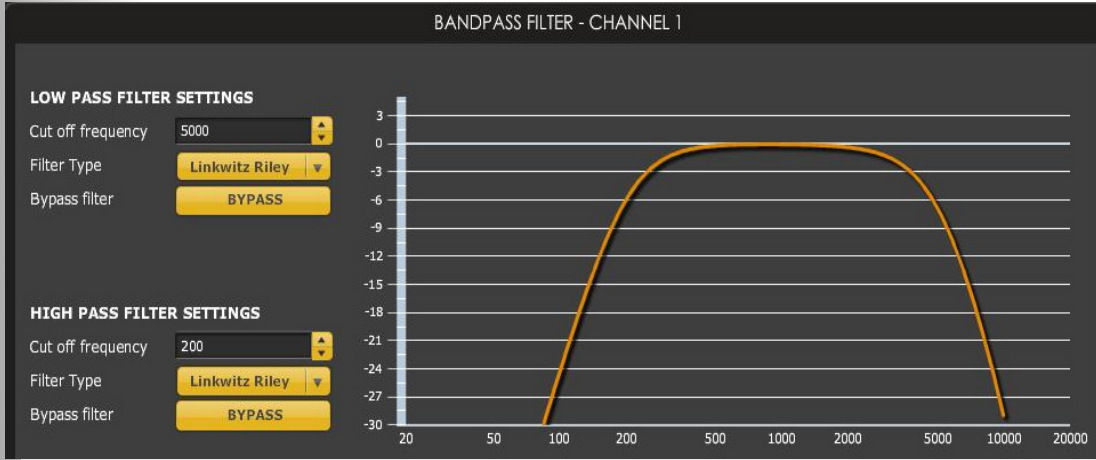
### Audio flow chart diagram



### Application diagrams



## BandPass with selectable slopes



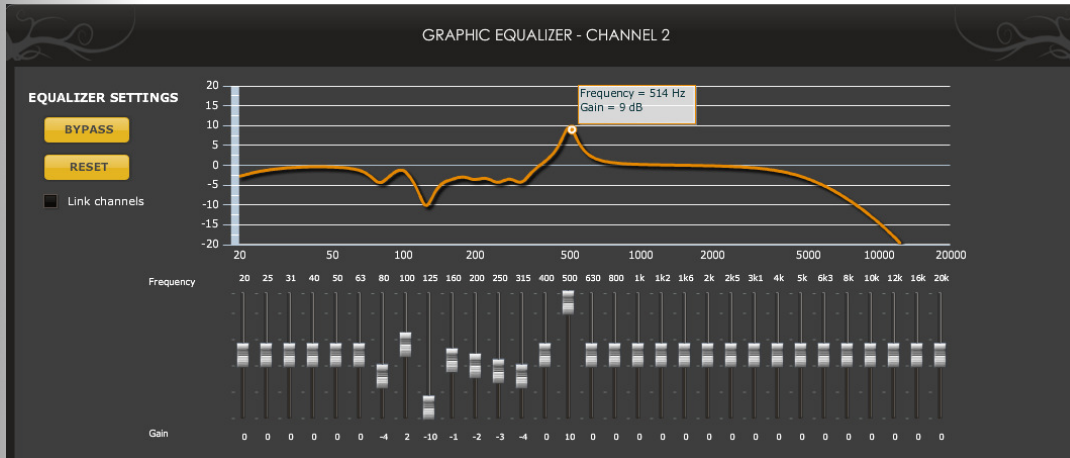
**Double precision algorithms** (56bits) for greater resolution in low frequency range.

**Filter choice** to better fit your application.

**Complex plotting** displays the combined effect of low pass, equalizer and high pass filter.

**Bypass feature** to listen to the effect of filter settings.

## 31 bands Graphic Equalizer



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

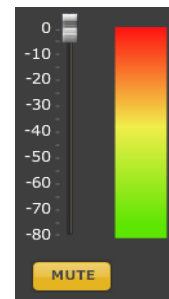
**Complex plotting** displays the combined effect of low pass, equalizer and high pass filter.

**Bypass feature** to listen to the effect of your equalizer settings.

## Delay, Polarity and input/output metering

Output delay in ms  
(0-10ms)  
1.12  
Distance: 0.385 meters

**Delay**  
Control delay per output channel to better time align each channel. To simplify your calculations, the equivalent distance in cm is calculated for you.



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

## Custom firmware

Looking for a custom firmware for a specific application? Want an OEM version for your own product line?

Our sales and engineering can help. Just email us with a description of your requirements and we'll get back to you with a quote.

## 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