**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 inside the DSP and controllable from IR
- Extensive plotting capabilities
- Plug & Play setup requires no driver
- Custom Input/Output labels

**Applications**

- Active loudspeaker processor
- All digital Signal Processing
- Car audio processor
- Custom Pro Audio boards

**Algorithm and plug-in configuration**

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sampling frequency</td>
<td>96kHz</td>
</tr>
<tr>
<td>Inputs/Outputs</td>
<td>Inputs: Up to 2 digital inputs selected between either SPDIF or Toslink source via software or IR remote&lt;br&gt;Outputs: Up to 8 digital outputs</td>
</tr>
<tr>
<td>Algorithm resolution</td>
<td>Double precision filters (56bits resolution)</td>
</tr>
<tr>
<td>Input mute/select</td>
<td>Click-less input mute per channel and input selection</td>
</tr>
<tr>
<td>Digital gain</td>
<td>Fader gain control from –80 to 0dB</td>
</tr>
<tr>
<td>Input/Output meters</td>
<td>Monitoring signal from –80dBFS to 0dBFS - High refresh rate</td>
</tr>
<tr>
<td>Low &amp; High Pass filter types</td>
<td>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&lt;br&gt;Frequency: 10Hz to 20kHz in 1Hz increments</td>
</tr>
<tr>
<td>Parametric Equalizers&lt;br&gt;[Peak/Low&amp;High shelf]</td>
<td>5 PEQ bands per input, 5 PEQ bands per output&lt;br&gt;Frequency: 10Hz to 20kHz, 1Hz increments&lt;br&gt;Gain: 0 to 16dB, 0.1dB increments&lt;br&gt;Q: 0.5 to 50, 0.1dig increment&lt;br&gt;Type: Peak of Shelf (low/high) &amp; Per-band bypass feature</td>
</tr>
<tr>
<td>Mixer</td>
<td>Central mixer for 2 x 8 cross-point configuration [ON/OFF]</td>
</tr>
<tr>
<td>Delay (time alignment)</td>
<td>Up to 9ms per channel [3ms] in 0.02ms increments</td>
</tr>
<tr>
<td>Polarity</td>
<td>Invert polarity 180degree per channel</td>
</tr>
<tr>
<td>Output mute</td>
<td>Individual output mute</td>
</tr>
<tr>
<td>Master output gain</td>
<td>Control master output digital gain fader from –80 to 0dB via IR remote</td>
</tr>
<tr>
<td>IR Learning remote</td>
<td>Learn control commands from NEC/Philips/Sony remote for control of</td>
</tr>
</tbody>
</table>

**DSP Audio flow chart diagram**

**Digital Audio Inputs**

IN#1
- Mute Level<br>- PEQ 5 bands

IN#2
- Mute Level<br>- PEQ 5 bands

**Matrix Switcher**

2 x 8 (ON/OFF)

**Digital Audio Outputs**

OUT#1
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

OUT#2
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

OUT#3
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

OUT#4
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

OUT#5
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

OUT#6
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

OUT#7
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

OUT#8
- LPF + HPF<br>- PEQ - 5 bands<br>- Gain/Phase/Delay/RMS

**nanoDIGI 2x8 Xover v1** is a plug-in for the nanoDIGI 2x8 all digital platforms. Operating at 96kHz, the digital input (either SPDIF or Toslink) are being mixed to the matrix mixer for complete freedom of audio routing. From a multi-zone audio processor to multi-way crossover, this all digital configuration is fitted with the most common speaker and system tuning processing blocks.

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Features and Specifications subject to change prior notice
**Low Pass and High Pass filter per output channel**

- **Low Pass Filter Settings**
  - Cut off frequency 100
  - Filter Type LR 6dB/oct
  - Bypass Filter BYPASS

- **High Pass Filter Settings**
  - Cut off frequency 10
  - Filter Type LR 6dB/oct
  - Bypass Filter BYPASS

**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

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**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

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**Delay, Polarity, Input/output metering**

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

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

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

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**Central Matrix Switcher toggles ON/OFF routing**

- **Up to 4 x selectable memories**

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**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

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