Introducing the OpenDRC-DA8, a cost-effective multichannel audio processor with FIR filtering capabilities. Powered by an Analog Devices SHARC processor, the OpenDRC-DA8 is a perfect solution for active loudspeakers, and acts as a DAC and preamp as well as crossover. The input digital stream passes through an Asynchronous Sample Rate Converter (ASRC), so any input sample rate up to 216 kHz is supported, and the Asahi Kasei 8-channel DAC provides unbalanced audio outputs via RCA connectors.

The powerful floating-point SHARC processor enables a full range of digital audio processing functions, including minimum-phase crossover filters up to 48 dB/octave, ten bands of parametric EQ on every input and output channel, a compressor/limiter on every output channel, and per-channel delays up to a full 3 seconds. In addition, the FIR filtering capability allows linear-phase crossover filters of arbitrary shapes to be implemented and/or phase and group delay correction on any output. Taps can be allocated across output channels to optimize FIR processing.

The learning remote feature and rotary encoder provide volume, mute, and selection from one of four onboard presets. The OpenDRC-DA8 can also be used in applications such as beam steering of line array loudspeakers.

FIR filtering requires use of third-party design software.
HARDWARE SPECIFICATIONS

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<th>Item</th>
<th>Description</th>
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<tr>
<td>Digital Signal Processor</td>
<td>32-bit floating point Analog Devices SHARC ADSP21369 / 333MHz</td>
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| Control                           | Driverless USB 2.0 control interface for Windows/Mac OS X environments  
A computer is only required for the initial configuration.                                                   |
| Digital Audio Input               | S/PDIF on RCA connector, isolated with digital audio transformer  
The input signal is processed by a high quality onboard Asynchronous Sample Rate Converter for compatibility with most common sample rates (20-216kHz) |
| Analog Audio Outputs              | - Unbalanced analog audio on RCA connectors  
- AKM4440 with 112dB SNR  
- Max output: 2Vrms                                                                                                                                 |
| Sample rate / Resolution          | Resolution: 32 bit  
Sample rate: Depends on selected plug-in. Please consult plug-in datasheet for more information on the operating sample rate of the DSP |
| Template FIR filter capabilities  | FIR filtering with number of taps assignable to each output channel  
Up to 9600 taps @48 kHz, 3400 taps @ 96 kHz  
Please consult the plug-in specs for more info.                                                                                                      |
| FIR filter storage                | FIR coefficients & DSP configuration automatically loaded at bootup                                                                                                                                           |
| USB port                          | USB port type B for real time control and firmware upgrade                                                                                                                                                |
| Power supply                      | 5VDC single supply / 600mA @ 5V - 2.1 mm round plug                                                                                                                                                        |
| Dimensions (H x W x D)            | 41.5 x 214.5 x 206 mm                                                                                                                                                                                       |

MECHANICAL SPECIFICATIONS

- Rotary/Push Encoder
- Selected Preset Indicator
- FILTER SET
  - 1
  - 2
  - 3
  - 4
- SPDIF input
- Analog Outputs
- USB 2.0 PC/Mac control
- 5VDC Power Input
- Features and specifications are subject to change without prior notice