The nanoAVR HD is a 2x1 HDMI audio and video switch combined with a high-resolution 8-channel audio processor. The floating-point SHARC digital signal processor (DSP) at the core of the nanoAVR provides an unmatched level of tuning for up to 8 channels of uncompressed audio (Raw/PCM). Channel routing, independent crossovers and 10 bands of parametric equalization on every channel, time alignment... this pocket-size processor provides all the audio processing flexibility our brand is known for.

In its most typical application, the nanoAVR HD connects between two HDMI sources (Blu-ray or DVD player, media streamer, gaming console) and an A/V receiver. From tuning a subwoofer to time-aligning and equalizing a full 7.1 system, there is no shortage of applications for this little box.

The user-friendly PC/Mac software allows real time configuration of the nanoAVR via USB (short distance) or over Ethernet (LAN). Combined with 3rd-party software like Room EQ Wizard and a USB measurement microphone like the UMIK-1, it is easy to measure and tune all channels of a home theater or multi-channel audio system. Once configured, all settings are stored and can be selected with an infrared remote or from the front panel.

**Features**
- High-resolution audio processor
- 2-way HDMI switch
- Floating-point DSP
- Flexible configurations

**Hardware**
- ADI SHARC ADSP21479
- 32-bit floating-point processing
- Dual HDMI 1.4 input
  - Audio and video switching
  - 3D support
  - HDCP support
- Single HDMI 1.4 output
- Front panel preset selector
- IR control with learning feature

**Software Control**
- Real time live control over USB 2.0 or Ethernet
- Windows & Mac compatible
- Firmware upgradeable

**Power**
- Single external 5 VDC supply
- Low power consumption

**Applications**
- Home theater room tuning
- Bass management
- Commercial AV

---

**SYSTEM DIAGRAM**

---

**miniDSP nanoAVR**

- RJ45
- USB 2.0
- LED/IR

- HDMI Input 1
- HDMI Input 2

- MCU
- FLASH

- Analog Devices SHARC ADSP21479

- HDMI Processor

- HDMI Output 1

- +5 VDC

- External power supply

- TV/Monitor/Projector

- A/V Receiver

- Streaming media player

- Blu-ray/DVD Player

- HDMI inputs

- HDMI output

- Loudspeakers

---

Features and specifications are subject to change without prior notice.
# HARDWARE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital Signal Processor</td>
<td>32-bit floating-point Analog Devices SHARC ADSP214749 / 266MHz</td>
</tr>
<tr>
<td>Control</td>
<td>A computer is only required for the initial configuration via USB or Ethernet:</td>
</tr>
<tr>
<td></td>
<td>- Driverless USB 2.0 control interface for Windows and Mac OS X</td>
</tr>
<tr>
<td></td>
<td>- Ethernet control (RJ45 / 100Mbps) with ZeroConf support (Auto-IP/DHCP)</td>
</tr>
<tr>
<td>HDMI Inputs</td>
<td>2 x HDMI 1.4a selectable from software, front panel or IR remote</td>
</tr>
<tr>
<td>HDMI Outputs</td>
<td>1 x HDMI 1.4a output</td>
</tr>
<tr>
<td>Audio sample rate / Resolution</td>
<td>Input/output resolution: 24-bit (32-bit internal)</td>
</tr>
<tr>
<td></td>
<td>Maximum input sample rate: 192 kHz</td>
</tr>
<tr>
<td></td>
<td>DSP internal processing path: 96 kHz</td>
</tr>
<tr>
<td>Video support</td>
<td>Video pass-through of selected source (i.e. no video processing)</td>
</tr>
<tr>
<td></td>
<td>36-bit / 3D support / HDCP embedded keys</td>
</tr>
<tr>
<td>Audio processing</td>
<td>- Matrix mixer for routing of audio</td>
</tr>
<tr>
<td></td>
<td>- 10-band parametric equalizer per channel (peak/notch/low&amp;high shelf)</td>
</tr>
<tr>
<td></td>
<td>- Per channel time delay for time alignment</td>
</tr>
<tr>
<td></td>
<td>- Per channel gain control</td>
</tr>
<tr>
<td></td>
<td>- Per channel real time monitoring</td>
</tr>
<tr>
<td>Storage/Presets</td>
<td>All settings controllable in real time from software user interface</td>
</tr>
<tr>
<td></td>
<td>Up to 4 presets stored in local flash memory</td>
</tr>
<tr>
<td>Infrared remote</td>
<td>Infrared remote receiver on front panel with “learning remote” capabilities</td>
</tr>
<tr>
<td>Firmware</td>
<td>Firmware is user-upgradeable for future proofing</td>
</tr>
<tr>
<td>Power supply</td>
<td>5 VDC single supply @ 600 mA, 2.1 mm center-positive</td>
</tr>
<tr>
<td>Dimensions (H x W x D)</td>
<td>31 x 161 x 200 mm</td>
</tr>
</tbody>
</table>

# MECHANICAL SPECIFICATIONS

![Diagram of the nanoAVR HD device with dimensions 31,00 mm and 161,00 mm]