The Extron HAE 100 4K Plus audio de-embedder and HAI 100 4K Plus audio embedder are high performance 4K/60 HDMI audio devices. The HAE 100 4K Plus extracts audio from a 4K HDMI source, and provides outputs for stereo and dual mono analog audio signals, as well as digital audio multi-channel or two-channel formats. The HAI 100 4K Plus embeds two-channel analog audio, S/PDIF stereo digital audio, or S/PDIF multi-channel audio, onto the HDMI output signal.

- HDMI Audio de-embedding with analog and digital audio outputs
- Audio embedding of analog or digital audio onto an HDMI signal
- Supports 4K/60 @ 4:4:4
- Supported HDMI 2.0b specification features include data rates up to 18 Gbps, HDR, Deep Color up to 12-bit, 3D, and HD lossless audio formats
- HDCP compliant with user-selectable authorization
- EDID Minder® automatically manages EDID communication between connected devices
**DESCRIPTION**

**HAE 100 4K Plus**

The Extron HAE 100 4K Plus is a high performance 4K/60 audio de-embedder that extracts the audio from an HDMI signal. The HAE 100 4K Plus provides an analog output for stereo or dual mono signals, as well as an S/PDIF digital audio output that supports two-channel or Dolby® and DTS® multi-channel formats.

**HAI 100 4K Plus**

The Extron HAI 100 4K Plus is a high performance 4K/60 audio embedder that embeds either two-channel analog audio, or S/PDIF digital audio in two-channel or multi-channel formats onto the HDMI output signal. The HAI 100 4K Plus includes an HDMI input, analog stereo audio, and S/PDIF audio inputs that support two-channel or Dolby® and DTS® multi-channel formats, as well as an HDMI output.

The HAE 100 4K Plus and HAI 100 4K Plus are HDCP compliant, supporting data rates up to 18 Gbps, HDR, 12-bit Deep Color, 3D, and lossless audio formats. They are equipped with integrator-friendly features such as EDID Minder®, HDMI input cable equalization, and comprehensive LED status display.

**KEY FEATURES**

- **Selectable output format** – Allows the output video format and color space to be manually configured.
- **HDMI audio pass-through** – The HAI 100 4K Plus provides audio signal pass-through for all embedded audio formats on the HDMI output. The embedded audio output can also be muted.
- **Automatic HDMI input cable equalization** – Actively conditions incoming HDMI signals to compensate for signal loss when using long cables, low quality cables, or source devices with poor signal output.
- **Comprehensive, real-time status LED indicators for troubleshooting and monitoring** – Front panel LEDs verify the presence of HDMI input and output signals, and HDCP authentication.
- **Front panel USB configuration port**
- **Easy setup and commissioning with Extron's PCS - Product Configuration Software** – Conveniently configure multiple products using a single software application.
- **Rack-mountable 1" (25 mm) high, quarter rack width metal enclosure**
- **Includes Lockit® HDMI cable lacing brackets**
- **External Extron Everlast™ power supply included** – Provides worldwide power compatibility with high-demonstrated reliability and low power consumption. This power supply is compatible with the ZipClip 50 Mounting Kit.
- **Extron Everlast Power Supply is covered by a 7-year parts and labor warranty**

**PANEL DRAWINGS**

![HAE 100 4K Plus](image1)

![HAI 100 4K Plus](image2)
VIDEO

HDMI input
- Maximum data rate: 18 Gbps (6 Gbps per color)
- Maximum pixel clock: 600 MHz
- Resolution range: 4K (4096x2160) @ 60 Hz, UHD (3840x2160) @ 60 Hz
- Color bit depth: 8, 10, or 12 bits subject to the maximum data rate

VIDEO INPUT
- Number/signal type: HDMI (or single link DVI-D, with appropriate DVI-HDMI adapters)
- Input cable length:
  - 4K/UHD @ 30 Hz: Up to 50’ (15.0 m)
  - 1080p @ 60 Hz: Up to 100’ (30.0 m)
  - 720p @ 60 Hz: Up to 150’ (45.0 m)

VIDEO OUTPUT
- Number/signal type: HDMI (or single link DVI-D, with appropriate DVI-HDMI adapters)

AUDIO INPUT — HAI 100 4K PLUS
- Analog
  - Number/signal type: 1 stereo balanced/unbalanced
  - Connector: (1) 3.5 mm captive screw connector, 5 pole
  - Nominal level: +4 dBu, -10 dBV configurable
  - CMRR: >60 dB type @ 1 kHz
  - Input gain adjustment: 18 dB to +24 dB, 1 dB steps
- Digital
  - Number/signal type: 1 S/PDF
  - Connector: 1 female RCA jack (tip, ring)
  - Source formats: LPCM 2.0, Dolby Digital 2.0, Dolby Digital 2.0 Surround, Dolby Digital 5.1, Dolby Digital EX, DTS Digital Surround 5.1, DTS ES Matrix 6.1, DTS ES Discrete 6.1

AUDIO OUTPUT — HAI 100 4K PLUS
- Analog
  - Number/signal type: 1 stereo balanced/unbalanced
  - Connector: (1) 3.5 mm captive screw connector, 5 pole
  - Nominal level: +4 dBu, -10 dBV configurable
  - CMRR: >60 dB type @ 1 kHz
  - Input gain adjustment: 18 dB to +24 dB, 1 dB steps

CONTROL/REMOTE
- USB control port: 1 front panel female mini USB, type B
- USB standards: USB 2.0, high speed

GENERAL
- Power supply
  - HAI 100 4K PLUS: External
    - Input: 100-240 VAC, 50-60 Hz
    - Output: 12 VDC, 0.5 A, 6 watts
  - HAE 100 4K PLUS: External
    - Input: 100-240 VAC, 50-60 Hz
    - Output: 12 VDC, 1.5 A, 18 watts
- Power consumption
  - HAI 100 4K PLUS
  - HAE 100 4K PLUS
- Temperature/humidity
  - Storage: -40 to +158 °F (-40 to +70 °C) / 10% to 90%, noncondensing
  - Operating: +32 to +122 °F (0 to +50 °C) / 10% to 90%, noncondensing
- Thermal dissipation
  - HAI 100 4K PLUS
  - HAE 100 4K PLUS
- Regulatory compliance
  - CE, c-UL, UL, C-tick, FCC Class A, ICES, VCCI
  - Complies with appropriate requirements of RoHS and WEEE

NOTE: All nominal levels are at ±10%.

For complete specifications, please go to www.extron.com
Specifications are subject to change without notice.
HAE 100 4K Plus in a huddle room application with an SB 33 A Sound Bar

HAI 100 4K Plus used in a streaming station