Stay in control with customizable monitoring and interfaces.

EdgeVision offers richly featured, Quality of Experience (QoE) monitoring across an entire network for satellite/cable/IPTV operators and broadcasters, using high performance video/audio streaming and extensive signal probing. By remotely monitoring signals received at set-top boxes, it allows operators to accurately see and hear the quality of signals received in viewers’ homes.

EdgeVision can provide both low-quality and high quality audio/video streams, with fully selectable resolution and bitrates. This allows remote monitoring of signals over a LAN or WAN, without a negative impact on network capacity.

EdgeVision can operate as a standalone monitoring system, using the EdgeVision Player multiviewer, or it can operate as a high performance set-top box probe with the iControl and Kaleido-IP monitoring systems.
EdgeVision Multichannel Quality of Experience Monitoring

**KEY FEATURES**

**High quality audio/video streaming**
- High efficiency H.264 video streaming for remote viewing
- High quality stereo or Dolby Digital audio streaming with acoustic monitoring and audio metering
- Full flexibility in streaming resolution, quality, frame rate and bit rate
- Each EdgeVision input features both a high resolution and a low resolution streaming encoder
- Streams to EdgeVision Player, iControl, Kaleido-IP multiviewer or generic players like VLC

**Full compatibility with HD and SD Set-top boxes**
- Features a full complement of connections for digital and analog audio/video signals, including high-definition video and 5.1 audio signals
- Optional Dolby Digital decoding for multichannel monitoring and Dolby Metadata extraction and analysis, including dialnorm

**Advanced signal quality probing and alarming**
- Performs detection and alarms on video faults, including freeze, black and macro-block detection
- Audio probing includes silence detection, overload, mono and out of phase
- Metadata probing includes closed captioning*, AC-3 metadata
- Optionally performs audio loudness monitoring
- Detected alarms can be logged by iControl, and channel performance can be assessed
- Fingerprint generation for lip sync error and content mismatch detection when used with iControl

**STB remote control and multichannel cycling**
- Infrared port for remote control and channel selection, including infrared learning capabilities
- Users can remotely control STBs to access interactive and VOD services
- Supports control of all leading models of STBs and DVRs from several manufacturers
- EdgeVision Player allows parallel infrared control of multiple STBs
- With Grass Valley’s iControl Edge, unit can automatically cycle across all channels to monitor and probe the quality of an operator’s entire channel lineup

**Available with SDI outputs**
- HD/SD-SDI outputs are available on single, dual and quad-input models
- Provides embedding of analog or Dolby Digital AC-3 digital audio into SDI
- SDI output signal follows input selection

**Robust, compact design**
- Available in single, dual and quad input configurations
- NEBS compliant for high reliability
- Compact unit 1 RU high, 330.2 mm (13 in.) deep
- Available with redundant power supply

**Easy and secured deployment**
- User authentication to control access
- Dynamic IP allocation to accelerate commissioning

---

*Only available with composite input.

---

**Diagram:**

Rear view of the quad-input EdgeVision

---

www.grassvalley.com
**EdgeVision** Multichannel Quality of Experience Monitoring

Richly featured Quality of Experience monitoring
The EdgeVision Player multiviewer interface offers easy to use and highly effective Quality of Experience monitoring.

Quad-split view

Full screen view

- Silence, overload, mono, out of phase, and loudness audio alarms
- Freeze and black video alarms including macro-block detection
- Audio loudness monitoring
- Under monitor labeling clearly identifies the signal source
- Quad or single window monitoring
- Multichannel audio metering
- Set-top box control

www.grassvalley.com
Integration with other Quality of Experience monitoring systems

EdgeVision can also operate as an advanced, multichannel video/audio signal probe with other Grass Valley systems. Signal alarms, Metadata and audio loudness levels as well as audio/video streams generated by EdgeVision can be remotely monitored by the EdgeVision Player, iControl Web as well as Kaleido-IP multiviewers.
## EdgeVision Multichannel Quality of Experience Monitoring

### Specifications

#### Physical
- **Weight:** Approx. 3.75 kg (8.27 lbs.)
- **Dimensions:** 1 RU
- **Power Supply:** Single PSU, second redundant PSU available as an option
- **Power Consumption:** Maximum of 50W at 12V

#### Electrical
- **Compliance:** Telcordia-NEBS, CE, FCC and CSA

#### Ethernet
- **Dual Gigabit Ethernet IEEE 802.3 ports (RJ45)**

#### External Set-top Box Control
- Up to four infrared connectors
- Both infrared and electrical 3.5 mm (0.13 in.) supported

#### HD-SDI/SD-SDI Output (up to 4)
- **Connector:** BNC (75Ω)
- **Signal:** 4:2:2 SMPTE ST 259-C (270 Mb/s), SMPTE ST 272-1994, 4:2:2 SMPTE ST 292-C (1.5 Gb/s)
- **Format:** 525, 625, 480i, 576i, 720p, 1080i

#### Audio/Video Input (up to 4)
- **Video Connectors:** HDMI-IN*, RCA
- **Audio Connectors:** HDMI-IN, S/PDIF-IN, RCA

#### Ordering

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDGEVISION-1</td>
<td>Edge signal monitoring device — single channel</td>
</tr>
<tr>
<td>EDGEVISION-1-SDI</td>
<td>Edge signal monitoring device — single channel with SDI output</td>
</tr>
<tr>
<td>EDGEVISION-2</td>
<td>Edge signal monitoring device — dual channel</td>
</tr>
<tr>
<td>EDGEVISION-2-SDI</td>
<td>Edge signal monitoring device — dual channel with SDI outputs</td>
</tr>
<tr>
<td>EDGEVISION-4</td>
<td>Edge signal monitoring device — quad channel</td>
</tr>
<tr>
<td>EDGEVISION-4-SDI</td>
<td>Edge signal monitoring device — quad channel with SDI outputs</td>
</tr>
<tr>
<td>EDGEVISION-OPT-AV-PROBE</td>
<td>Optional cable kit for EdgeVision, includes the following cables (1 per input):</td>
</tr>
<tr>
<td>EDGEVISION-OPT-CABLE-KIT</td>
<td>One 2 meter / 6 foot HDMI</td>
</tr>
<tr>
<td></td>
<td>One 2 meter / 6 foot S/PDIF audio</td>
</tr>
<tr>
<td></td>
<td>One 2 meter / 6 foot infrared</td>
</tr>
<tr>
<td>EDGEVISION-OPT-IR-LEARNING</td>
<td>Optional infrared remote control learning kit</td>
</tr>
<tr>
<td>EDGEVISION-OPT-LOUD</td>
<td>Audio loudness monitoring option (1 per channel)</td>
</tr>
<tr>
<td>EDGEVISION-1-OPT-DOLBY</td>
<td>Dolby digital (AC-3) audio monitoring option for single input device</td>
</tr>
<tr>
<td>EDGEVISION-2-OPT-DOLBY</td>
<td>Dolby digital (AC-3) audio monitoring option for dual input device</td>
</tr>
<tr>
<td>EDGEVISION-4-OPT-DOLBY</td>
<td>Dolby digital (AC-3) audio monitoring option for quad input device</td>
</tr>
<tr>
<td>EDGEVISION-PSU</td>
<td>Redundant power supply module for single or dual input device</td>
</tr>
<tr>
<td>EDGEVISION-4-PSU</td>
<td>Redundant power supply module for quad input device</td>
</tr>
</tbody>
</table>

### Related Products
- **IC-EDGE-001**
- **KIP-X300**
- **KIP-X100**
- **IC-FINGERPRINT**

### Probing
- **Video:** Loss, black, freeze, macroblock, luma too high
- **Audio:** Silence, overload, out of phase, mono error, loudness error
- **Loudness measurement:** EBU R128, ATSC A/85, ARIB TR B-32

### Metadata
- **Video:** Format, rate
- **Audio:** Type, AC3 metadata, channel allocation

### IP Streaming
- **Streaming Mode:** RTSP/ES over UDP/RTP, RTSP/TS over UDP/RTP, Unicast TS over UDP/RTP, Multicast TS over UDP/RTP, RTSP/TS over TCP, Multicast TS over UDP
- **Signal Path:** 8 bits
- **Compression:** H.264 high profile (level 4.1)
- **Frame Rate:** Full rate down to 5 fps
- **Bit Rate:** 125 kb/s to 4 Mb/s
- **Resolution:** 128x96 to 1920x1080
- **TS Mux Mode:** VBR or CBR
- **Audio Encoding:** AAC, MPEG-1 Layer II or AC-3 (forwarded from input)

### Physical
- **Weight:** Approx. 3.75 kg (8.27 lbs.)
- **Dimensions:** 1 RU
- **Rackmountable in EIA 48.26 cm (19 in.) racks

### Electrical
- **Power Supply:** Single PSU, second redundant PSU available as an option
- **Power Consumption:** Maximum of 50W at 12V

### Compliance
- **Telcordia-NEBS, CE, FCC and CSA

### Ethernet
- **Dual Gigabit Ethernet IEEE 802.3 ports (RJ45)**

### External Set-top Box Control
- Up to four infrared connectors
- Both infrared and electrical 3.5 mm (0.13 in.) supported

### HD-SDI/SD-SDI Output (up to 4)
- **Connector:** BNC (75Ω)
- **Signal:** 4:2:2 SMPTE ST 259-C (270 Mb/s), SMPTE ST 272-1994, 4:2:2 SMPTE ST 292-C (1.5 Gb/s)
- **Format:** 525, 625, 480i, 576i, 720p, 1080i

### Audio/Video Input (up to 4)
- **Video Connectors:** HDMI-IN*, RCA
- **Audio Connectors:** HDMI-IN, S/PDIF-IN, RCA

### Audio Input
- **Audio Input:** 48 kHz analog, PCM audio or AC-3 Dolby Digital audio (optional)

### Probing
- **Video:** Loss, black, freeze, macroblock, luma too high
- **Audio:** Silence, overload, out of phase, mono error, loudness error
- **Loudness measurement:** EBU R128, ATSC A/85, ARIB TR B-32
- **Audio-Video Fingerprints**
- **Metadata**
- **Video:** Format, rate
- **Audio:** Type, AC3 metadata, channel allocation

### 608: CC loss, V-Chip loss, TSID loss, station ID loss

* HDMI signal must not be subjected to HDCP copy protection.