The **CableVista** Edge Decoder performs MPEG decoding, modulation and upconversion for up to 24 NTSC or 12 PAL channels in a compact 1 RU chassis. The CableVista supports a variety of output card types in the same chassis including: Baseband NTSC/PAL, RF NTSC/PAL, RF NTSC with Off Air Reference. The CableVista provides customers with the highest degree of flexibility available. With numerous redundancy features, hot-swappable components and flexible software, the CableVista is a key element in today’s Digital Simulcast network.

**Optimized for Gigabit Ethernet Networking**
- Full line rate GbE video transport allowing full use of GbE links

**“Pay as You Grow” Modularity**
- Modular design allows for more output cards to be added as demand grows

**High Availability**
- Output cards are hot swappable allowing installation or replacement on active systems
  - Costly service outages are minimized, uptime is maximized
  - Enhanced system reliability: redundant GbE ports, cooling fans, dual power supplies
  - Input Stream Redundancy with failover/failback options at either Stream or Program level

**Extremely High Density**
- Up to 12 Base Band or 24 RF channels in 1RU
- Fully tested and interoperable with industry leading networking equipment
Key Features

- Multiple output card types available:
  - MPEG to Base Band (NTSC or PAL)
  - MPEG to RF Channels (NTSC or PAL)
- DVB and/or SCTE-27 subtitling Option (CV1107+ processor card only)
- Optional EAS support as per SCTE 18 (NTSC output cards only)
  - Alternate firmware load to support subtitling and/or chassis redundancy instead of EAS (must be specified at time of order)
- Chassis redundancy (NTSC output cards only)
  - see N+M Chassis Redundancy Option below
- Modular chassis fits up to 6 output cards and can provide:
  - Up to 12 Base Band channels decoded in 1RU
  - Up to 24 RF channels decoded in 1RU
  - (Also possible to mix output cards of different types in a single chassis)

General Specifications

**GbE Input**

<table>
<thead>
<tr>
<th>Interface</th>
<th>GbE (1+1 Redundant)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Rate</td>
<td>1 Gbps</td>
</tr>
<tr>
<td>Format</td>
<td>MPEG-2 Transport Streams</td>
</tr>
<tr>
<td></td>
<td>188-byte TS Packets</td>
</tr>
<tr>
<td></td>
<td>Unicast and Multicast</td>
</tr>
</tbody>
</table>

**ASI Input**

<table>
<thead>
<tr>
<th>Number of Input Ports</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>BNC Jack, 75 Ω</td>
</tr>
<tr>
<td>Data Rate per port</td>
<td>210 Mbps</td>
</tr>
<tr>
<td>Packet Data Format</td>
<td>188 or 204 bytes/packet</td>
</tr>
<tr>
<td>Standard</td>
<td>EN50083-9</td>
</tr>
</tbody>
</table>

**ASI Output for Loop Through**

<table>
<thead>
<tr>
<th>Number of Output Ports</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>BNC Jack, 75 Ω</td>
</tr>
<tr>
<td>Data Rate per port</td>
<td>210 Mbps</td>
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<tr>
<td>Packet Data Format</td>
<td>188 or 204 bytes/packet</td>
</tr>
<tr>
<td>Standard</td>
<td>EN50083-9</td>
</tr>
</tbody>
</table>

**Video & Audio**

- Video Format: MPEG-2, MP@ML up to full D1 resolution
- Audio Formats: Dolby Digital (AC-3), MPEG-1 layer 2 (Musicam)

**Management & Control**

- Interface: RJ-45 (10/100 Ethernet), RS-232 (CV1107+ Console Port), USB (CV1108+ Console Port)
- Protocols: SNMP, Web Based Interface, DHCP/BootP, TFTP, IGMPv3, Telnet
- Data Rate per port: 210 Mbps
- Packet Data Format: 188 or 204 bytes/packet
- Standard: EN50083-9

**Power / Mechanical / Environment**

- Input Frequency Range: 50/60 Hz
- Input Voltage Range: 100 to 240 VAC
- Power Consumption: 331 W maximum (decoding of 24 channels)
- Chassis (H x W x D): 1.75" x 19" x 23" (NTSC or PAL)
- Weight (fully loaded chassis): 26 lbs
- Operating Temperature Range: 10°C to 40°C
- Humidity Range (non-condensing): 10-90%

**N+M Chassis Redundancy Option (one group per server)**

- Requires specific processor board
- Requires external redundancy server to be installed at each site
- All primary and backup system groups are required to have the same output module card types installed in the same slot positions

**NTSC Modules**

- Emergency Alert Messaging
  - Standard: As per SCTE 18
  - In-Band Reception: via GbE Input
  - Out-of-Band Reception: via 10/100 Ethernet
- VITS Insertion
  - Test Patterns: NTSC7 or NTC Composite, SMPTE Color, Bars, Multiburst, Sin(x)/x, FCC Composite, Modulated Ramp, Black Burst, Shallow Ramp, 120 IRE Bar, Gated CTB
  - VBI Lines: 10 - 20
- CLI Tagging
  - Modulation Type: AM or Carrier Frequency Offset
  - Depth of AM Modulation: 0 to 90%
  - Carrier Freq. Range: 54 to 900 MHz
  - Carrier Freq. Offset: -12.5 kHz to -25 kHz
  - Carrier Freq. Power Offset: -14 dB to 3 dB
- Closed Caption / VBI Processing
  - Input Format: As per ANSI/SCTE 20 2004 or ANSI/SCTE 21 2001
  - Closed Captioning Format: As per EIA608 (Line 21)

**Optional Configurations**

- Dual Power Supplies for Redundancy
- 48VDC Power Supply
- Output Modules: Minimum 2 up to a maximum of 6
- Any combination of the following output cards can be used in the same CableVista chassis: CV1120BB+, CV1116RF/OAPL+, CV1128RF+/CV1146RF+

**PAL Modules**

- Teletext / VBI Processing
  - Input Format: As per EN 301 775
  - Teletext (WST-B) Output: As per ITU-R BT 653-2 (Line 7 to 22)
  - WSS Output: As per EN 300 294
  - VPS Output: As per EN 300 231 (CV1128RF/PBGF card)
- VITS Insertion
  - Test Patterns: CCIR331 Modulate Pedestal, CCIR17, Combination, CCIR18 Multiburst, Sin(x)/x, Modulated Staircase, CCIR330
  - VBI Lines: 10 - 20
- Closed Caption / VBI Processing
  - Input Format: As per ANSI/SCTE 20 2004 or ANSI/SCTE 21 2001
  - Closed Captioning Format: As per EIA608 (Line 21)

**Optional Configurations**

- Dual Power Supplies for Redundancy
- 48VDC Power Supply
- Output Modules: Minimum 2 up to a maximum of 6
- Any combination of the following output cards can be used in the same CableVista chassis: CV1121BB+, CV1122RF/PBGN+, CV1128RF/PBGF+
## CableVista - MPEG to Base Band Video/Audio or RF

### CV1146RF+

#### Digital Video / Audio Source
- **Video Format**: MPEG2, MP@ML
- **Video Resolution**: 720x480, 704x480, 544x480, 528x480, 352x480
- **Video Bitrate**: Up to 15 Mbps
- **Audio Formats**: MPEG Audio 512 kbps max
- **Audio Downmix**: Multichannel downmix to stereo or mono as necessary

#### Analog RF Output
- **RF Channels per Module**: 4 x NTSC
- **Connector**: F-type, female
- **Impedance**: 75 Ω
- **Frequency Range**: 54 to 900 MHz (channel restrictions below 88 MHz. See manual for restrictions)
- **Level Adjustment Range**: 50 to 60 dBmV (wrt block)
- **Attenuation Step Size**: 0.1 dB
- **In Channel Return Loss**: -14 dB (54 to 900 MHz)
- **Out of Channel Return Loss**: -12 dB (20 MHz to 1GHz)
- **Inband Carrier to Noise (wrt Block Power)**: -71 dBc
- **Out of Band Carrier to Noise (average wrt Block Power)**: -76 dBc
- **RF Monitor**: MCX, female
- **RF Monitor Impedance**: 75 Ω
- **Audio**: Licensed BTSC/SAP

### CV1126RF+

#### Digital Video / Audio Source
- **Video Format**: MPEG2, MP@ML
- **Video Resolution**: 720x480, 704x480, 544x480, 528x480, 352x480
- **Video Bitrate**: Up to 15 Mbps
- **Audio Formats**: MPEG Audio 512 kbps max
- **Audio Downmix**: Multichannel downmix to stereo or mono as necessary

#### Analog RF Output
- **RF Channels per Module**: 2 x NTSC
- **Connector**: F-type, female
- **Impedance**: 75 Ω
- **Frequency Range**: 54 to 900 MHz
- **Level Adjustment Range**: 50 to 60 dBmV (wrt block)
- **Attenuation Step Size**: 0.1 dB
- **In Channel Return Loss**: -14 dB (54 to 900 MHz)
- **Out of Channel Return Loss**: -12 dB (20 MHz to 1GHz)
- **Inband Carrier to Noise (wrt Block Power)**: -71 dBc
- **Out of Band Carrier to Noise (average wrt Block Power)**: -76 dBc
- **RF Monitor**: MCX, female
- **RF Monitor Impedance**: 75 Ω
- **Audio**: Licensed BTSC/SAP

### CV1116RF/OAPL+

#### Digital Video / Audio Source
- **Video Format**: MPEG2, MP@ML
- **Video Resolution**: 720x480, 704x480, 544x480, 528x480, 352x480
- **Video Bitrate**: Up to 15 Mbps
- **Audio Formats**: MPEG Audio 512 kbps max
- **Audio Downmix**: Multichannel downmix to stereo or mono as necessary

#### Analog RF Output
- **RF Channels per Module**: 4 x NTSC
- **Connector**: F-type, female
- **Impedance**: 75 Ω
- **Frequency Range**: 54 to 900 MHz (channel restrictions below 88 MHz. See manual for restrictions)
- **Level Adjustment Range**: 50 to 60 dBmV (wrt block)
- **Attenuation Step Size**: 0.1 dB
- **In Channel Return Loss**: -14 dB (54 to 900 MHz)
- **Out of Channel Return Loss**: -12 dB (20 MHz to 1GHz)
- **Inband Carrier to Noise (wrt Block Power)**: -71 dBc
- **Out of Band Carrier to Noise (average wrt Block Power)**: -76 dBc
- **RF Monitor**: MCX, female
- **RF Monitor Impedance**: 75 Ω
- **Audio**: Licensed BTSC/SAP

### CV1120BB+

#### Digital Video / Audio Source
- **Video Format**: MPEG2, MP@ML
- **Video Resolution**: 720x480, 704x480, 544x480, 528x480, 352x480
- **Video Bitrate**: Up to 15 Mbps
- **Audio Formats**: MPEG Audio 512 kbps max
- **Audio Downmix**: Multichannel downmix to stereo or mono as necessary

#### Analog Base Band Output
- **Channels per Module**: 2 x NTSC Base Band
- **Video Connector**: Mini-BNC Jack, 75 Ω
- **Audio Connector**: Terminal Block with 600 Ω balanced output
- **Primary Audio**: 2 channel stereo
- **Secondary Audio**: Monaural, intended for SAP

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<table>
<thead>
<tr>
<th>CV1128RF/PBGN+</th>
<th>CV1128RF/PBGF+</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Digital Video / Audio Source</strong></td>
<td><strong>Digital Video / Audio Source</strong></td>
</tr>
<tr>
<td>Video Format</td>
<td>Video Format</td>
</tr>
<tr>
<td>MPEG2, MP@ML</td>
<td>Dolby® Digital (AC3)</td>
</tr>
<tr>
<td>4:2:0 chroma sampling</td>
<td>MPEG Audio 512 kbps max</td>
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<tr>
<td>4:3 aspect ratio</td>
<td>Dolby Audio 512 kbps max</td>
</tr>
<tr>
<td>Video Resolution</td>
<td>Video Resolution</td>
</tr>
<tr>
<td>720x576, 704x576, 544x576, 528x576, 352x576</td>
<td>720x576, 704x576, 544x576, 528x576, 352x576</td>
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<tr>
<td>Video Bitrate</td>
<td>Video Bitrate</td>
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<tr>
<td>Up to 15 Mbps</td>
<td>Up to 15 Mbps</td>
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<tr>
<td>Audio Formats</td>
<td>Audio Formats</td>
</tr>
<tr>
<td>MPEG1 layer 2 (MUSICAM)</td>
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</tr>
<tr>
<td>Dolby® Digital (AC3)</td>
<td>Dolby Audio 512 kbps max</td>
</tr>
<tr>
<td>Audio Bitrate</td>
<td>Audio Bitrate</td>
</tr>
<tr>
<td>MPEG Audio 512 kbps max</td>
<td>MPEG Audio 512 kbps max</td>
</tr>
<tr>
<td>Dolby Audio 512 kbps max</td>
<td>Dolby Audio 512 kbps max</td>
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<td>Audio Sample Rates</td>
<td>Audio Sample Rates</td>
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<td>32 kHz, 44.1 kHz, 48 kHz</td>
<td>32 kHz, 44.1 kHz, 48 kHz</td>
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<tr>
<td>Audio Downmix</td>
<td>Audio Downmix</td>
</tr>
<tr>
<td>Multichannel downmix to stereo or mono as necessary</td>
<td>Multichannel downmix to stereo or mono as necessary</td>
</tr>
<tr>
<td><strong>Analog RF Output</strong></td>
<td><strong>Analog Base Band Output</strong></td>
</tr>
<tr>
<td>RF Channels per Module</td>
<td>Channels per Module</td>
</tr>
<tr>
<td>2 x PAL B/G</td>
<td>2 x PAL B/G Base Band</td>
</tr>
<tr>
<td>Adjacent frequency channel block</td>
<td>Mini-BNC Jack, 75 Ω</td>
</tr>
<tr>
<td>Connector</td>
<td>Video Connector</td>
</tr>
<tr>
<td>F-type, female</td>
<td>Terminal Block with 600 Ω balanced output</td>
</tr>
<tr>
<td>Impedance</td>
<td>Primary Audio</td>
</tr>
<tr>
<td>75 Ω</td>
<td>2 channel stereo</td>
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<tr>
<td>Frequency Range</td>
<td>Secondary Audio</td>
</tr>
<tr>
<td>54 to 900 MHz</td>
<td>Monaural; intended for SAP</td>
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<tr>
<td>Level Adjustment Range</td>
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<tr>
<td>50 to 60 dBmV (wrt block)</td>
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<tr>
<td>0.1dB</td>
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</tr>
<tr>
<td>In Channel Return Loss</td>
<td></td>
</tr>
<tr>
<td>-14 dB (54 to 900 MHz)</td>
<td></td>
</tr>
<tr>
<td>Out of Channel Return Loss</td>
<td></td>
</tr>
<tr>
<td>-12 dB (20 MHz to 1 GHz)</td>
<td></td>
</tr>
<tr>
<td>Inband Carrier to Noise (wrt Block Power)</td>
<td>-67 dBc</td>
</tr>
<tr>
<td>Out of Band Carrier to Noise (average wrt Block Power)</td>
<td>-72 dBc</td>
</tr>
<tr>
<td>RF Monitor</td>
<td>RF Monitor Impedance</td>
</tr>
<tr>
<td>MCK, female</td>
<td>75 Ω</td>
</tr>
<tr>
<td>Audio</td>
<td>Audio</td>
</tr>
<tr>
<td>2 channel decoding</td>
<td>2 channel decoding</td>
</tr>
<tr>
<td>Nicam (CV1128RF/PBGN+)</td>
<td>Nicam (CV1128RF/PBGN+)</td>
</tr>
<tr>
<td>FM/FM (CV1128RF/PBGF+)</td>
<td>FM/FM (CV1128RF/PBGF+)</td>
</tr>
</tbody>
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Provided by: Mega Hertz   800-883-8839   info@go2mhz.com   www.go2mhz.com

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