Minerva Video Network Platform (VNP) is an MPEG-1 and MPEG-2 encoder/decoder optimized for delivering broadcast quality video over broadband IP networks. Designed for high picture quality and availability by using the latest in video compression and embedded software technology, Minerva VNP offers the perfect solution for delivering a broad range of video distribution and contribution services.

Minerva VNP is a plug-and-play network appliance; simply connect audio and video sources, assign IP addressing information, and plug in the Ethernet cable. Once the system is configured, it can automatically begin transmitting to the specified IP destination in unicast or multicast mode.

Minerva VNP features a wide range of advanced settings including temporal and luminance filtering, forward error correction, packet reordering, and jitter compensation, which increase the ability to adjust and control video quality based on system and network conditions. All Minerva VNP parameters can be changed easily from a web browser.
Minerva® VNP

MPEG-1 and MPEG-2 Encoder/Decoder

Specifications

Video

- Input/Output Formats (NTSC and PAL)
  - Composite (one male BNC)
  - S-video (one Y/C, 4-pin mini-DIN)
  - Serial digital (one male BNC)
- Compression Data Rates
  - MPEG-2: 1.0Mbps to 17Mbps
  - MPEG-1: 500Kbps to 5Mbps
- Resolutions
  - 720, 544, 352 x 480/576
- Multiplexing Formats
  - Encode/Decode: System, Program and Transport

Audio

- Compression Standards
  - MPEG [ISO/IEC 11172, (Part 3) Layer 2]
- Input/Output Formats (mono and stereo)
  - Analog: Unbalanced, line level in; L/R female RCA
  - Digital: AES/EBU; one XLR
- Sampling Rates
  - 32kHz, 44.1kHz and 48kHz
- Data Rates
  - 32 to 384Kbps (encode and decode)

Output Interfaces Supported

- Ethernet
  - 10/100BaseT auto-negotiation
  - RJ-45 connector
- SCSI
  - 68-pin SCSI

Table: Video Network Platforms

<table>
<thead>
<tr>
<th>Part Numbers &amp; Features</th>
<th>VNP-100</th>
<th>VNP-150</th>
<th>VNP-151</th>
<th>VNP-200</th>
<th>VNP-201</th>
<th>VNP-281</th>
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<tbody>
<tr>
<td>MPEG-1 Encoding</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>MPEG-1 Decoding</td>
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<td>MPEG-2 Encoding 4:2:2</td>
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<td>Horizontal Resolution</td>
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<td>352</td>
<td>720, 544, 352</td>
<td>720, 544, 352</td>
<td>720, 544, 352</td>
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<tr>
<td>SCSI</td>
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<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

SCSI Interface

- Additional buffer for FTP applications

Features and Functionality

- VTR control
- Closed captioning (line 21)
- Event scheduling
- Adjustable audio gain
- VITC slave mode
- Adjustable video quality and filter controls
- Audio/video only encoding
- Differential Services Code Point support for Layer 3 QoS
- Forward Error Correction (FEC)
- Packet reordering

Management

- Minerva Assistant application
- SNMP support

Control Environment

- Java-based control software

Physical and Environmental

- Dimensions: 8.5” wide x 2.8” high x 19” deep (216mm W x 72mm H x 482mm D)
- Weight: 15 pounds (6.8 Kilograms)
- Power Supply: 100–240V AC
- Power: 100 watts
- Temperature: Operating: 5 σ 60 °C, Storage: –20 σ 60 °C
- Approvals: FCC Part 15 Class A; UL, CE, TUV, VCCI

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