The Professional MPEG-2 Decoder

General Description
The Stradis Professional MPEG-2 Decoder is an important element of any professional, MPEG-2 based video system. This flexible PCI card parses all standard MPEG streams, in all MPEG video and audio formats. It decodes both high-quality 4:2:2 video and 4:2:0 video at up to 50 Mbps - placing it at the head of the class in performance - and generates output in any standard format you require. Additional capabilities include the insertion of digital audio into the SMPTE 259 video signal, a Genlock input for external synchronization from a master sync generator, and a proprietary clock-recovery-and-synchronization circuit that accepts real-time streams from a satellite or terrestrial network. The Stradis Professional Decoder can even display the output on a VGA monitor; a special burst transfer mode minimizes bus overhead and produces outstanding video.

Decodes full 4:2:2 profile or MP@ML (4:2:0) up to 50 Mbps
Now with SMPTE 259, AES3, and balanced analog audio outputs

Features
- Parses all MPEG streams: MPEG-2 Elementary, Packetized Elementary (PES), Transport and Program Streams and MPEG-1 Elementary and System Streams
- NTSC (525/60) or PAL (625/50)
- Automatic expansion of MPEG-1 and half-D1 formats to full frame size
- VCXO with clock recovery for real-time signals
- Genlock (external synchronization) input
- Serial Digital Interface (SMPTE 259) video output with embedded audio and sample-rate converter to convert MPEG audio bit-rates to 48 kHz SMPTE 259 standard
- Digital audio (AES3) output
- Balanced analog audio output with computer controlled line-level adjustment up to 26 dBm.

1800 Century Blvd. NE Ste 1225
Atlanta, GA 30345-3218 USA
+1-404-320-0110
+1-404-320-3132 Fax
www.stradis.com

Stradis

The Stradis Professional MPEG-2 Decoder. Professional performance for world-class applications.
Applications
- CATV ad insertion systems
- Distance learning systems
- Playback from video file servers
- Point of sale video displays
- Training systems
- TV broadcast systems
- Video kiosks
- Video over internet/intranet systems
- Video-on-demand systems
- Advertising content distribution
- Military systems

Specifications

<table>
<thead>
<tr>
<th>Spec</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPEG Streams</td>
<td>ISO/IEC 13818 and ISO/IEC 11172 compliant. Parses all streams: MPEG-1 Elementary and System</td>
</tr>
<tr>
<td>MPEG Video</td>
<td>Streams and MPEG-2 Elementary, Packetized Elementary (PES), Transport and Program Streams. Decodes full 4:2:2 profile or MP@ML (4:2:0) up to 50 Mbits per second.</td>
</tr>
<tr>
<td>MPEG Audio</td>
<td>Decodes MPEG-1 layers 1 and 2, two channels, ISO/IEC 11172-3, MPEG-2 layers 1 and 2, two channels</td>
</tr>
<tr>
<td>Digital bitstream input</td>
<td>Through the PCI bus.</td>
</tr>
<tr>
<td>Digital video output</td>
<td>SMPTE 259M or C digital video output, BNC connector.</td>
</tr>
<tr>
<td>Analog video outputs</td>
<td>(M) NTSC, (M) NTSC-Japan, (B, D, G, H, I, N, M) PAL</td>
</tr>
<tr>
<td></td>
<td>S-Video, mini-DIN connector; composite, 1V P-P, RS-170-A compliant, BNC connector. Luma and chroma signals are filtered in accordance with the standard requirements of RS-170-A and CCR 624. A programmable cross color reduction filter is also provided.</td>
</tr>
<tr>
<td>Audio output</td>
<td>Balanced analog audio level up to 26 dBm. Nominal output level user selectable. For example, standard 0 dBm or 4 dBm nominal line-level with 20 dB headroom is supported. Balanced analog audio and AES3 digital audio through a positive-locking Switchcraft Tini Q-G miniature connector. Unbalanced audio (up to 10 dBm) through 3.5mm (1/8&quot;) stereo jack. Also outputs through MPC standard sound card connector with CD-ROM audio pass-through.</td>
</tr>
<tr>
<td>Genlock input</td>
<td>Composite video, 1V P-P, BNC connector.</td>
</tr>
<tr>
<td>On-Screen Display</td>
<td>8x2 to 740x480 NTSC or 8x2 to 720x576 PAL bitmap, using up to a 16 color pallet, 16 levels of blending and 16 levels of shading.</td>
</tr>
<tr>
<td>Host system requirements</td>
<td>Pentium-based PC with an available PCI short card slot conforming to specification revision 2.1 running Windows 98/2000, Windows NT 4.0, or greater, with a VGA supporting Microsoft Direct Draw mode or Linux 2.2.x, or greater, and an X server supporting DGA. Disk transfer rate may limit the maximum sustained MPEG data rate achievable.</td>
</tr>
<tr>
<td>Power requirements</td>
<td>5v (15 W maximum), 12v (3 W maximum), -12v (0.3 W maximum)</td>
</tr>
<tr>
<td>Size</td>
<td>Standard PCI short card, 6.875 in. (174.63 mm) by 4.2 in. (106.68 mm), less connectors.</td>
</tr>
</tbody>
</table>

Notice: Use of this product is expressly prohibited without a license under applicable patents marked on this product, or on the container and user documentation for this product. Additional information is available at www.mpegla.com.

Trademarks: Linux is a registered trademark of Linux Torvalds. Microsoft, Windows, and Windows NT are registered trademarks of Microsoft Corporation. Pentium is a registered trademark of Intel. Tini Q-G and Switchcraft are registered trademarks of Switchcraft, Inc. Stradis is a trademark of Stradis, Inc. Copyright 1999 Stradis, Inc. All rights reserved. Because of technical progress, specifications are subject to change without notice. 4/99

Stradis, Inc.
1800 Century Blvd NE Ste 1225
Atlanta, GA 30345-3218 USA
+1-404-320-0110
+1-404-320-3132 Fax
www.stradis.com