SDI Master Quad/i PCIe


Features

- Four independent SDI inputs on one PCIe card
- Each input receives uncompressed SDI at up to 270 Mbps
- Total aggregate bit rate of 1.08 Gbps
- Single Lane PCI Express interface
- Supports all NTSC and PAL standard component and composite serial video data rates (525/625 lines)
- Records 8 or 10 bit 4:2:2 SMPTE 259M digital video signals without adjustment
- ANSI/SMPTE 259M-1997 Level C serial digital video standard compliant
- Automatic cable equalization
- Ships with drivers for Windows® 7 32 and 64 bit, Windows® 2000, Windows® XP, and Linux®
- Windows XP/Server 2003/Server 2008/ Linux API
- Sample Windows® and Linux® applications for reading or writing to disk
- Uncompressed Video Streams on DVD – for testing SDI equipment – can be provided
- Firmware is field upgradeable

Applications

- SDI file storage
- SDI switch
- Encoding to MPEG-XXX

Overview

SDI stands for Serial Digital Interface and is the standardized digital video interface that was adopted in the late 80’s by SMPTE and CCIR committees for standard definition digital video. SDI is compatible with both NTSC and PAL.

The SDI Master Quad/i PCIe serial digital input board gives video professionals reliable, real-time access to 4 channels of uncompressed standard definition digital video (SMPTE 259M), enabling applications for computer based video effects, video editing, and storage. SDI Master Quad/i PCIe is designed to provide users with real-time, batch capture and machine control for Disk Based video recorders.

The SDI Master Quad/i PCIe is a standard half sized PCI Express interface board capable of recording continuous serial streams at eight or ten bits of precision. We embrace open system solutions through seamless integration into the Windows® 7, Server 2003/2008, XP, Vista, and Linux environments and support the DirectShow® framework. All video input and output is performed from standard files within the standard file system.

This product was designed to allow inexpensive computers to replace dedicated tape decks and other devices that use digital video. We expect to alter the way in which SDI is used in the broadcast industry.

Computer Modules, Inc.
11409 West Bernardo Court
San Diego, CA 92127
Tel: (858) 613-1818 Fax: (858) 613-1815
www.dveo.com
SDI Master Quad/i PCIe

Capabilities

- Compliant with PCIe Bus
- Full support for SDTI
- Receives all primary and auxiliary data present in SDI signal including embedded audio without change
- Automatic cable equalization for input permits distances as great as 350 meters (1,100 feet) from switchers, cameras, or servers
- Clock Reference Input Connector
- Audio Support: Assumed to be embedded in SDI signal per SMPTE 272M
- Now with DirectShow® filters for Input and A/V separation
- RoHS compliant
- Drivers for XP, Vista, Linux and Server 2003

Specifications

<table>
<thead>
<tr>
<th>Dimensions</th>
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<tbody>
<tr>
<td>Width:</td>
<td>4.20 inches (10.67 cm)</td>
</tr>
<tr>
<td>Length:</td>
<td>6.875 inches (17.46 cm)</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.58 inches (1.47 cm)</td>
</tr>
<tr>
<td>Typical Weight</td>
<td>5.2 oz (147 g)</td>
</tr>
<tr>
<td>Input/Output Connectors</td>
<td>75 ohm BNC</td>
</tr>
<tr>
<td>Data Input/Output</td>
<td>SDI Coaxial cable, 270 Mbps</td>
</tr>
<tr>
<td>Typical Power</td>
<td>800 mA @ 3.3 V</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>0 to 55º C</td>
</tr>
<tr>
<td>Operating Humidity</td>
<td>To 90%, Non-condensing</td>
</tr>
<tr>
<td>Status LED Indicators</td>
<td>Carrier detect</td>
</tr>
<tr>
<td>Receive FIFO Size</td>
<td>1.5 KB per channel</td>
</tr>
<tr>
<td>Bus Interface</td>
<td>Single Lane (x1) PCIe 1.0a</td>
</tr>
</tbody>
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Connector Diagram

- Input Channel A
  - Input A
    - A
    - B
- Input Channel B
  - Input B
- Input Channel C
  - Input C
    - C
    - D
- Input Channel D
  - Input D

Block Diagram

Ordering Information

SDI Master Quad/i PCIe (Model 167)
W – Windows® Support: SDK’s and DirectShow®
L – Linux® Support: SDK’s