SDI Master Quad/i


Overview

SDI is a SMPTE protocol for sending uncompressed 4:2:2 CCIR 601 digital video over a single coaxial cable from a source to a destination.

The SDI Master Quad/i 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 is designed to provide users with real-time, frame-accurate capture, batch capture and machine control for Disk Based video recorders.

The SDI Master Quad/i is a PCI 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. This technology has altered the way in which SDI is used in the broadcast industry.

Features

- Four independent SDI inputs on one PCI card
- Each input receives uncompressed SDI at 270 Mbps
- Total aggregate bit rate of 810 Mbps
- PCI 2.2 bus 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 for input
- 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
SDI Master Quad/i

Capabilities

- Compliant with PCI Bus 2.2, 33 Mhz, 3.3 V
- 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 Direct Show® filters for Input and A/V separation
- RoHS compliant
- Drivers for Windows® Vista, Windows® XP, and Linux®

Specifications

<table>
<thead>
<tr>
<th>Dimensions</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Width:</td>
<td>2.536 in (6.44 cm)</td>
</tr>
<tr>
<td>Length:</td>
<td>4.721 in (11.99 cm)</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.58 in (1.47 cm)</td>
</tr>
<tr>
<td>Typical Weight</td>
<td>4.8 oz (137 g)</td>
</tr>
<tr>
<td>Input Connectors</td>
<td>75 Ohm BNC</td>
</tr>
<tr>
<td>Audio Support</td>
<td>Assumed to be embedded in SDI signal (SMPTE 272M)</td>
</tr>
<tr>
<td>External Clock Input</td>
<td>75 Ohm BNC, NTSC or PAL</td>
</tr>
<tr>
<td>Data Input</td>
<td>SDI Coaxial Cable</td>
</tr>
<tr>
<td>Input Form</td>
<td>8 Bits, 10 Bits</td>
</tr>
<tr>
<td>Typical Power</td>
<td>3.3V @700mA</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>Rx, Sync, Carrier</td>
</tr>
<tr>
<td>Receive FIFO Size</td>
<td>4 Kbytes per channel</td>
</tr>
<tr>
<td>Bus Interface</td>
<td>PCI 2.2, 3.3 V</td>
</tr>
</tbody>
</table>

Connector Diagram

Block Diagram

Ordering Information

SDI Master Quad/i