SDI Master


### Features

- Transmits and receives uncompressed SDI at 270 Mbps
- Supports all NTSC and PAL standard component and composite serial video data rates (525/625 lines)
- Records and plays back 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
- PCI 2.2 bus interface
- Half size PCI card
- 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

### Applications

- Contribution quality video serving around studios
- Logo insertion
- Provide uncompressed input to PC host
- SDI test pattern generation
- Video servers
- Standards converters
- Audio embedding and de-embedding
- Build your own SDI disk recorder

### 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** serial digital I/O board gives video professionals reliable, real-time access to uncompressed standard definition video (SMPTE 259M), enabling applications for video effects and video editing. SDI Master is designed to provide users with real-time, frame-accurate capture and playback, batch capture and machine control for Disk Based video recorders.

Our SDI Master PCI interface board is capable of recording and playing back continuous serial streams at eight or ten bits of precision and streaming full-rate video into and out of main memory. 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.
SDI Master

Capabilities

- Compliant with PCI Bus 2.2, 33/66 MHz, 3.3/5 V
- Full support for SDTI
- Transports 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 (Black Burst)
- Audio Support: Assumed to be embedded in SDI signal per SMPTE 272M
- Now with Direct Show® filters for Input/Output and A/V separation

Specifications

<table>
<thead>
<tr>
<th>Dimensions</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Width:</td>
<td>4.20 in (10.67 cm)</td>
</tr>
<tr>
<td>Length:</td>
<td>6.875 in (17.46 cm)</td>
</tr>
<tr>
<td>Thickness:</td>
<td>0.58 in (1.47 cm)</td>
</tr>
</tbody>
</table>

| Typical Weight      | 5.2 oz (147 g) |
| Input/Output Connectors | 75 Ohm BNC |
| External Clock Input | Black Burst |
| Data Input/Output   | SDI Coaxial Cable |
| Input Form          | 8 Bits, 10 Bits |
| Typical Power       | 5 V @390mA |
| Operating Temperature| 0 to 55º C |
| Operating Humidity  | To 90%, Non-condensing |
| Status LED Indicators | Tx, Rx, Sync, Carrier |
| Receive/Transmit FIFO Size | 2 Kbytes |
| Bus Electrical Interface | PCI 2.2, 5 V or 3.3 V |
| Bus                 | 32 bit wide, 33/66 MHz |

Connector Diagram

Block Diagram

Ordering Information

SDI Master with W or L (Model 107)
W – Windows® Support: SDK’s and DirectShow®
L – Linux® Support: SDK’s

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