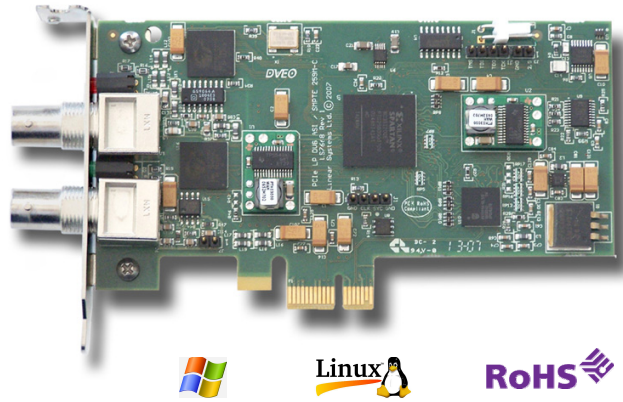


# SDI Master™ FD PCIe LP

**Full Duplex SMPTE 259M and SDTI  
Low Profile PCIe Card With Black  
Burst Sync Input for Seamless Capture  
and Playback of Uncompressed Digital  
Video Streams. Includes Linux and  
Windows SDKs with Example Code in  
C++ and DirectShow® Support.**



## Features

- SMPTE 259M-C transmitter and receiver on one card
- Capture and playback uncompressed SDI at 270 Mbps
- Low Profile PCIe card form factor
- Supports all NTSC and PAL standard component serial video data rates (525/625 lines)
- Capture and playback 8 or 10 bit 4:2:2 SMPTE 259M digital video signals
- PCI Express 1.1 compliant interface bus
- Automatic cable equalization for input
- External clock input via NTSC or PAL black burst signal
- Transmit frame synchronized to black burst
- Firmware controlled support for bypass mode
- “Snoop” function allows access to input data while in bypass mode
- Software readable, unique serial number on each board
- Firmware is field upgradeable
- Software selectable transmit clock source
- Ships with drivers for Windows® 7 32 and 64 bit, Server 2003, Server 2008, 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

## Applications

- SDI file storage
- SDI file playback
- SDI switch

## 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 FD PCIe LP** serial digital input/output board gives video professionals reliable, real-time access to uncompressed standard definition digital video (SMPTE 259M), enabling applications for computer based video effects, video editing, and storage. SDI Master FD PCIe LP 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 FD PCIe LP is a low profile PCI Express interface board capable of recording or playback 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.

**DVEO**  
Broadcast Division

Computer Modules, Inc.

11409 West Bernardo Court

San Diego, CA 92127

Tel: 858-613-1818 Fax: 858-613-1815

[www.dveo.com](http://www.dveo.com)

# SDI Master FD™ PCIe LP

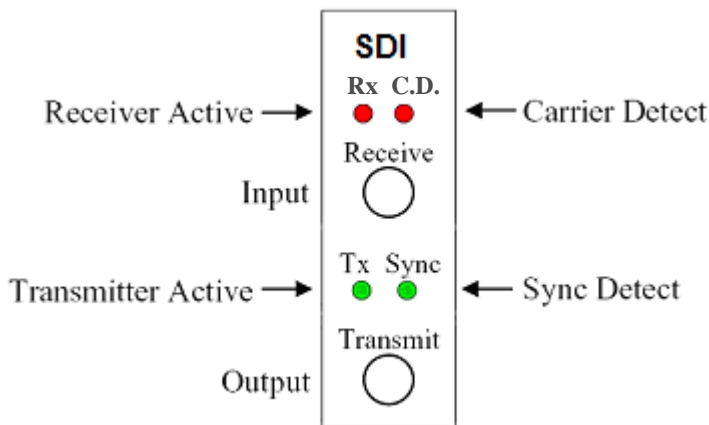
## Capabilities

- Compatible with PCI Express 1.1
- Full support for SDTI
- Transports all 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
- Clock reference input connector
- Audio support: assumed to be embedded in SDI signal per SMPTE 272M
- Now with Direct Show® filters for Input/ Output and A/V separation
- RoHS compliant

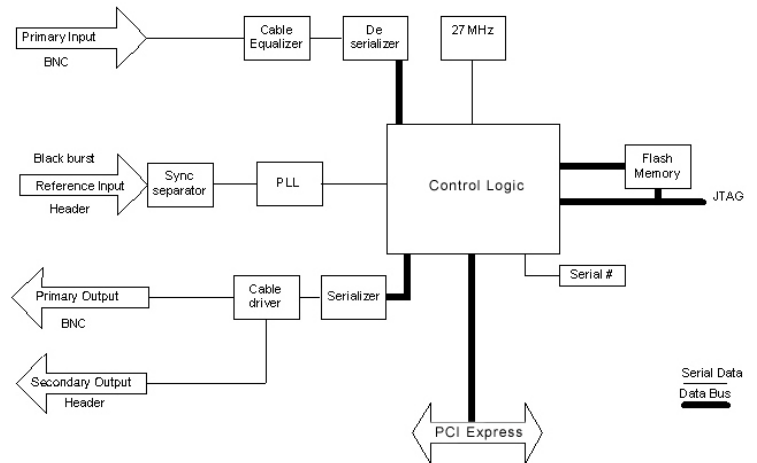
## Specifications

<b>Dimensions</b>	
Width:	2.71 in. (6.89 cm)
Length:	4.72 in. (11.99 cm)
Thickness:	0.58 in. (1.47 cm)
<b>Typical Weight</b>	3.0 oz. (85 g)
<b>Input/Output Connectors</b>	75-ohm BNC
<b>Audio Support</b>	Assumed to be embedded in SDI signal (SMPTE 272M)
<b>External Clock Input</b>	Black burst (NTSC or PAL)
<b>Data Input/Output</b>	SDI Coaxial Cable, 270 Mbps
<b>Input/Output Form</b>	8 bits or 10 bits
<b>Typical Power</b>	1.9 A @ 3.3 V 60 mA @ 12 V
<b>Operating Temperature</b>	0 to 55°C
<b>Operating Humidity</b>	To 90%, Non-condensing
<b>Status LED Indicators</b>	Tx, Rx, Sync, Carrier
<b>Receive FIFO Size</b>	8 kilobytes
<b>Bus Interface</b>	Single Lane (x1) PCI Express 1.1

## Connector Diagram



## Block Diagram



## Ordering Info

### SDI Master FD PCIe LP (Model 145)

– Windows or Linux support, Single SDI Input, Dual Outputs, long and short brackets

W – Windows® Support: SDK's and DirectShow®

L – Linux® Support: SDK's

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