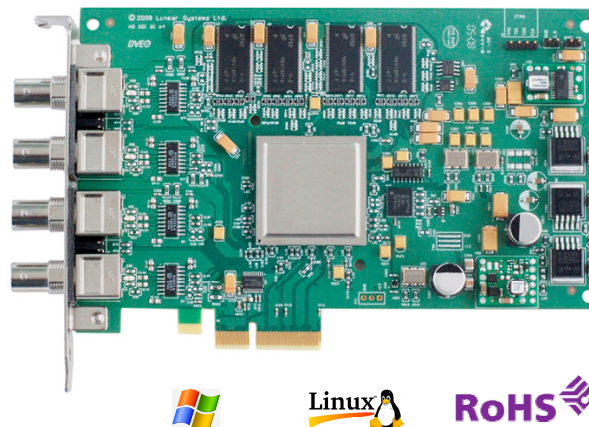


HD-SDI Master™ Quad/i PCIe

**Quad Channel HD-SDI PCIe v1.1
Input Card with On Board Memory
For Real Time Video Capture – Total
Aggregate Bit Rate of Almost 6 Gbps.
Support for Tiger® Operating
System and Linux®.**



Features

- Four independent receiver channels on the same PCIe card
- Each input receives uncompressed HD-SDI at up to 1.485 Gbps
- Total aggregate bit rate of nearly 6 Gbps!
- NRZI to NRZ decoding
- Four Lane (x4) PCIe v1.1 card
- Supported standards include 1080i, 1080p, and 720p at 60 Hz and 59.94 Hz rates
- Automatic Cable Equalization of up to 200 m of Belden 1694A cable at 1.485 Gbps
- Onboard DDR memory buffers data to account for latencies in data transactions on the PCIe bus
- Input monitoring of CRC errors for both the Y and Cb/Cr lines of the input stream
- Field Upgradeable Firmware
- RoHS compliant (2002/95/EC)
- Mac OS X 10.x Support
- Apple Tiger® OS support
- Linux® OS support

Applications

- HD-SDI Ingest Servers
- Post-Processing Stations
- Capturing HD video
- Storing HD video for editing applications
- Electronic news gathering (ENG)

Overview

The **HD-SDI Master™ Quad/i** is a four input channel HD-SDI card with an x4 lane PCI express (PCIe) bus interface. This card provides an efficient interface to today's high performance PC computers, giving increased flexibility for real-time HD capture.

The HD-SDI Master Quad/i receives four independent HD-SDI streams and passes the descrambled stream to the system memory via the PCIe bus. Onboard oscillators allow users to select either 1.485 Gbps or 1.4835 (1.485/1.001) Gbps for the top and/or the bottom two channels, in order to support video formats defined for true 60 Hz rates as well as those defined for the 59.94 Hz rates commonly used in North America. Onboard memory and a proprietary firmware design are used to buffer the inputs to give low system latency as the data flows to the PCIe bus.

The clock and data recovery block locks onto the incoming signal. Once locked, the card then deserializes, converts from NRZI to NRZ, descrambles and frames the stream into 10-bit words before writing the frame to onboard memory. The card also supports de-interlacing in the hardware and can monitor the incoming stream for CRC errors. After each frame is written to the onboard memory, the HD-SDI Quad/i card then transfers the frame to the system over the PCIe bus.

The HD-SDI Master Quad/i is an ideal solution for ingesting HD streams to a workstation for storage and editing.



11409 West Bernardo Court
San Diego, CA 92127

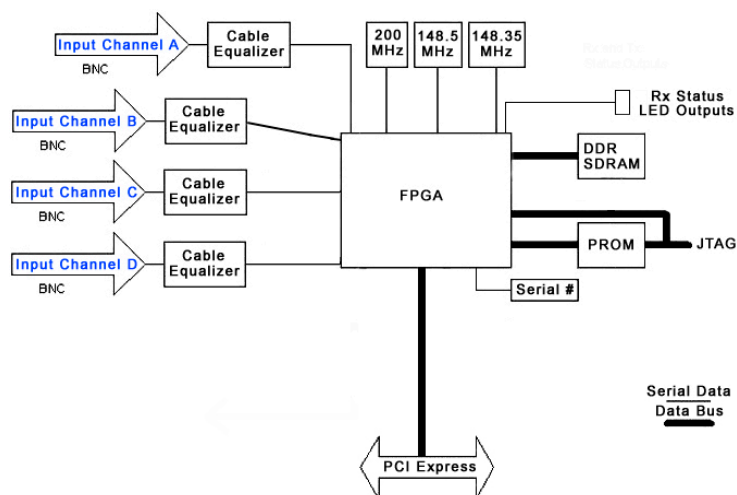
Tel: (858) 613-1818 Fax: 858-613-1815

www.dveo.com

Specifications

Dimensions	
Width:	4.20 inches (10.67 cm)
Length:	6.6 inches (17.46 cm)
Thickness:	0.069 inches (0.175 cm)
Weight	6.4 oz (180 g)
Input Connectors	75 ohm BNC
Data Input	HD-SDI SMPTE 292M
Typical Power	15.45 W (0.96 A @ 3.3V; 1.02 A @ 12 V)
Operating Temperature	0 to 55° C
Operating Humidity	To 90%, Non-condensing
Status LED Indicators	Rx (CD)
Onboard memory	256 MB per channel
Bus Interface	PCIe x4 lane v1.1

Block Diagram



Capabilities

Automatic Standards Detection – The receive channels will automatically detect and lock onto the following HD-SDI standards:

SMPTE 260M 1035i (30Hz)
SMPTE 295M 1080i (25Hz)
SMPTE 274M 1080i (30Hz)
SMPTE 274M 1080i (25Hz)
SMPTE 274M 1080p (30Hz)
SMPTE 274M 1080p (25Hz)
SMPTE 274M 1080p (24Hz)
SMPTE 296M 720p (60Hz)
SMPTE 274M 1080sF (24Hz)
SMPTE 296M 720p (50Hz)

Clock Source Options – Onboard oscillators allow users to select either 1.485 Gbps or 1.4835 (1.485/1.001) Gbps for the top and/or the bottom two channels in order to support video formats defined for true 60 Hz rates as well as those defined for the 59.94 Hz rates commonly used in North America.

Indicator LEDs – Indicator LEDs are provided on the bracket to show receiver operation (one LED per channel). The LED will flash to indicate when valid data is received on that channel. When the channel is not in operation, the LED will be on if a carrier is detected.

Software Support

- Windows XP and 2000 Master driver support
- Apple driver support for Mac OS X Tiger on Intel only and Mac OS X 10.x

Ordering Information

HD-SDI Master Quad/i PCIe

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