



HD-SDI ExpressCard/54 Video Capture Card



HD-SDI ExpressCard/54 (VCE- HDEX01)

Acquisition from an SD or HD-SDI video source.

Advanced features: Lookup tables, histograms, RGB gain/offset with auto-white balance...

The IMPERX HD-SDI ExpressCard/54 is a professional level PCI Express video capture card that enables users to view and store in real time mega pixel video images from any standard HD-SDI video source onto laptop computers. IMPERX HD-SDI ExpressCard/54 is capable of capturing single or multiple frames and standard AVI clips from any SD or HD-SDI compliant video source. Each captured frame can be stamped with a user message along with the date and time of capture. A full software suite that includes drivers, C/C++, SDK, and an application program is provided with each IMPERX HD-SDI ExpressCard/54 VCE-HDEX01 card.

- Supports SD and HD-SDI formats for 720p, 1080i and 1080p video
- Supports SMPTE 292M serial interface and SMPTE 274M/296M framing
- Supports two audio channels
- Saves 20 bit YCrCb 4:2:2 or 24-bit data
- ExpressCard/34 compliant providing 2.5 Gbps of bandwidth
- Intelligent scatter/gather DMA for fast, efficient use of ExpressCard bandwidth and system memory
- Flow-through pipelined architecture for low latency
- Many advanced features including look up tables, histograms, RGB gain/offset with auto-white balance, hex pixel dump, Gamma correction, etc.
- On board color space conversion
- Plug-and-Play operation with hot insertion/removal



APPLICATIONS

Aerial Mapping
Aerial Robots: Military, Police
Aerospace
Agriculture
Automation

Automotive
Biometrics
Broadcasting
Printed Circuit Board (PCB)
Electronics
Energy/Solar/Wind Power

Flat Panel Inspection
Food/Beverage
Homeland Security
Law Enforcement
Intelligent Traffic Systems (ITS)
Medical Devices/Imaging

Metrology
Microscopy
Military/Defense
Pharmaceuticals
Particle Image Velocimetry (PIV)
Radiology

Robotics
Scientific Apps
Surveillance
Semiconductors
Transportation
Textile/Apparel

HD-SDI ExpressCard/54 VCE-HDEX01 Specifications

Features

- SD or HD-SDI real time video acquisition
- Audio acquisition of two 24 bit channels @ 48KHz
- ExpressCard/54 compliant
- PCI Express x1 lane providing 2.5 Gbps of bandwidth
- Intelligent scatter/gather DMA
- Flow-through pipelined architecture
- Dynamic buffer allocation
- Selectable window sizes
- Adjustable RGB brightness and auto white balance
- Programmable RGB lookup tables and Gamma correction
- Captures single, multiple frames or AVI clips
- Normal or delay capture
- Date, time and text overlay
- RAW, BMP, TIFF or adjustable JPEG file format
- 16/20 bit YCrCb 4:2:2 or 24-bit RGB formatting
- Image viewer with DVR controls

Software

- Application program: Full featured, intuitive, easy to use GUI
- Drivers: Win XP/2000/Vista/7, DirectX, Matlab, Halcon
- SDK:C/C++, COM, .NET, ActiveX—all with sample source code

Video Source

- 75 ohm BNC coaxial connector
- Analog SMPTE 292M serial interface operating at 1.485 Gbps
- SMPTE 274M and SMPTE 296M framing

Power

- 3.3V DC +/-5%, 500 mA steady
- 1.65W constant power

Environmental

- Operating temperature: 0°C to 65°C
- Relative humidity: 90% non-condensing

Regulatory

- FCC 15 part B, CE, RoHS

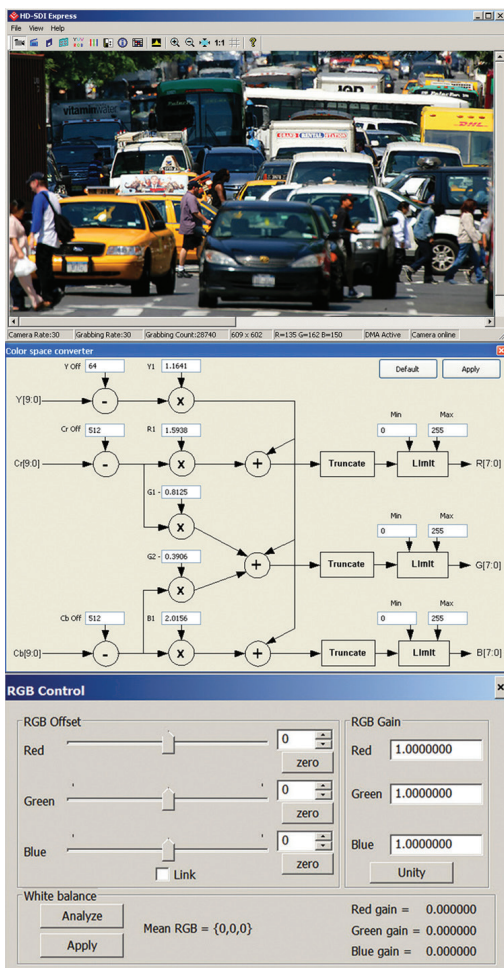
Mechanical

- Express Card/54 form factor
- Weight 1.91 oz., 61g

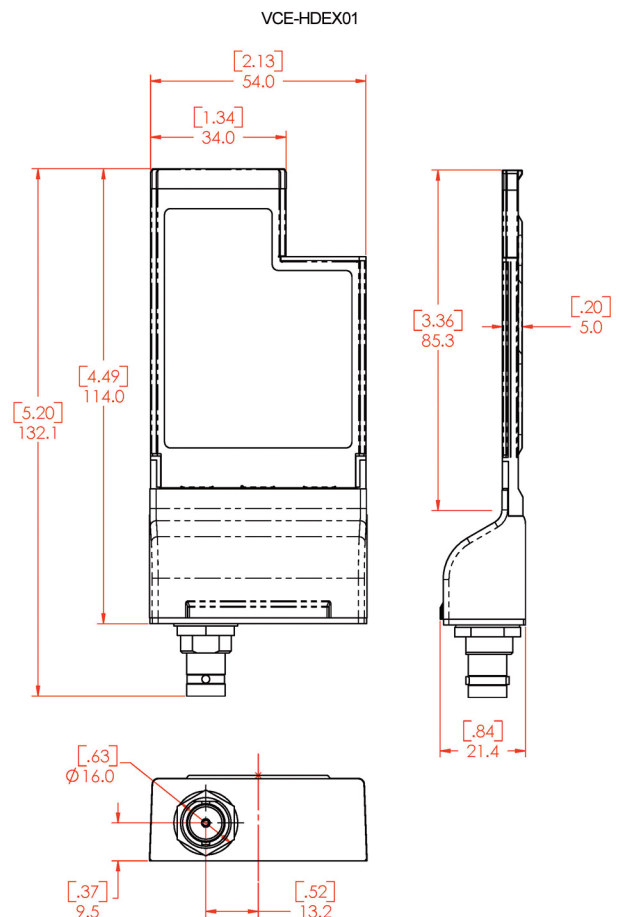
Order: VCE-HDEX01

For specific details and ordering information, consult the HD-SDI Express user's manual or contact IMPERX at sales@imperx.com.

Software



Mechanical Dimensions



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