



### 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
- Saves 20 bit YCrCb 4:2:2 or 24-bit data
- ExpressCard/54 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  
 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

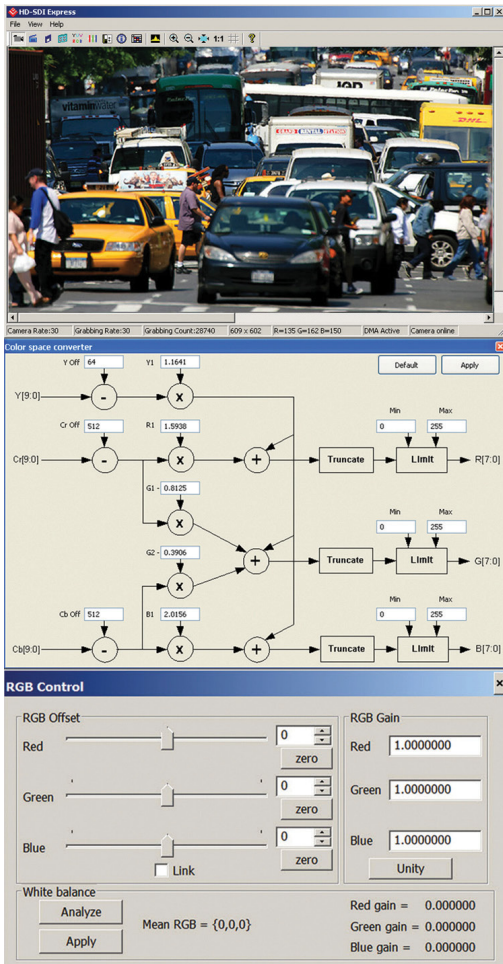
**Regulatory** FCC 15 part B, CE, RoHS

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

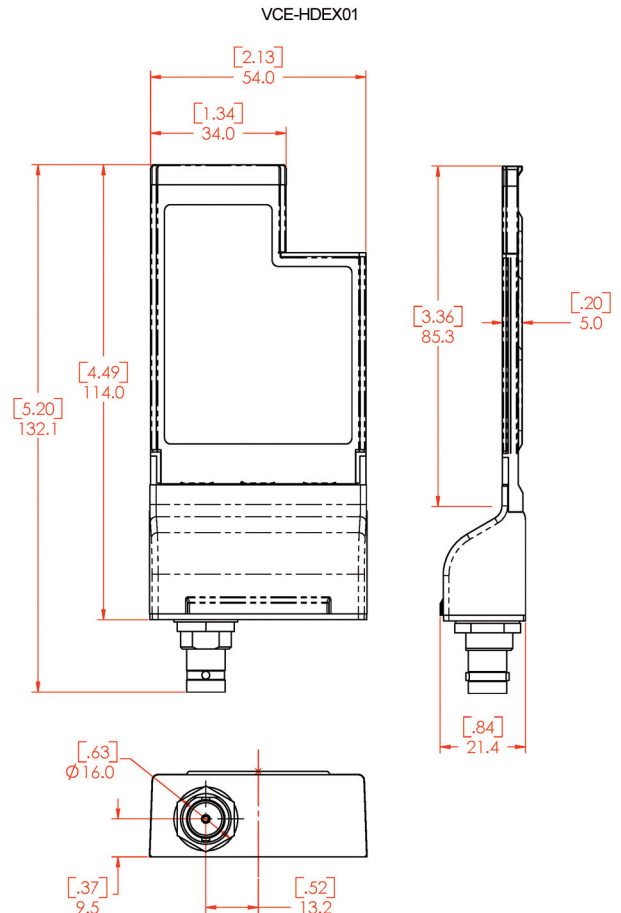
## Order: VCE-HDEX01

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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