# FRAME GRABBERS

**IMPERX**™

CAMERAS
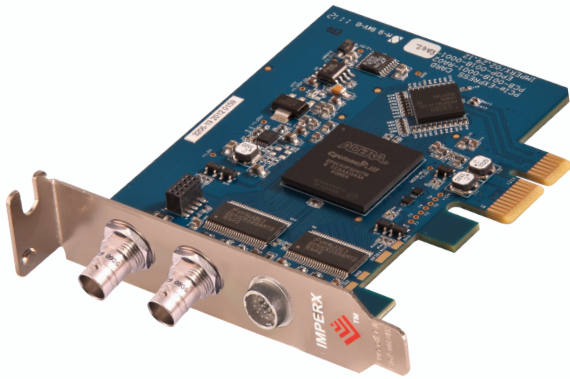FRAME GRABBERS
IMAGING SOLUTIONS

# SPECIFICATIONS

# VCE-HDPCIe01

## HD-SDI PCIe x1 for Desktop PCs

*Acquisition from an SD or HD-SDI video source.*
*Advanced features: Look up tables, histograms, RGB gain/offset with auto-white balance...*
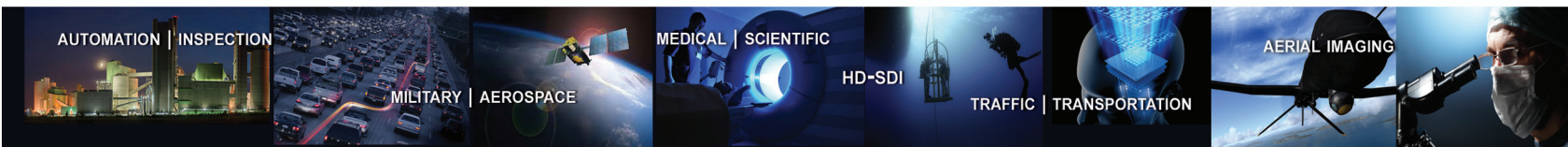
**IMPERX** HD-SDI PCIe x1 is a professional level PCI Express video capture card that enables users to view and store in real time mega pixel video images from any standard HD-SDI video source onto desktop PC computers. IMPERX HD-SDI PCIe x1 is capable of capturing single or multiple frames and standard 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 PCIe x1 (VCE-HDPCIe01) card.

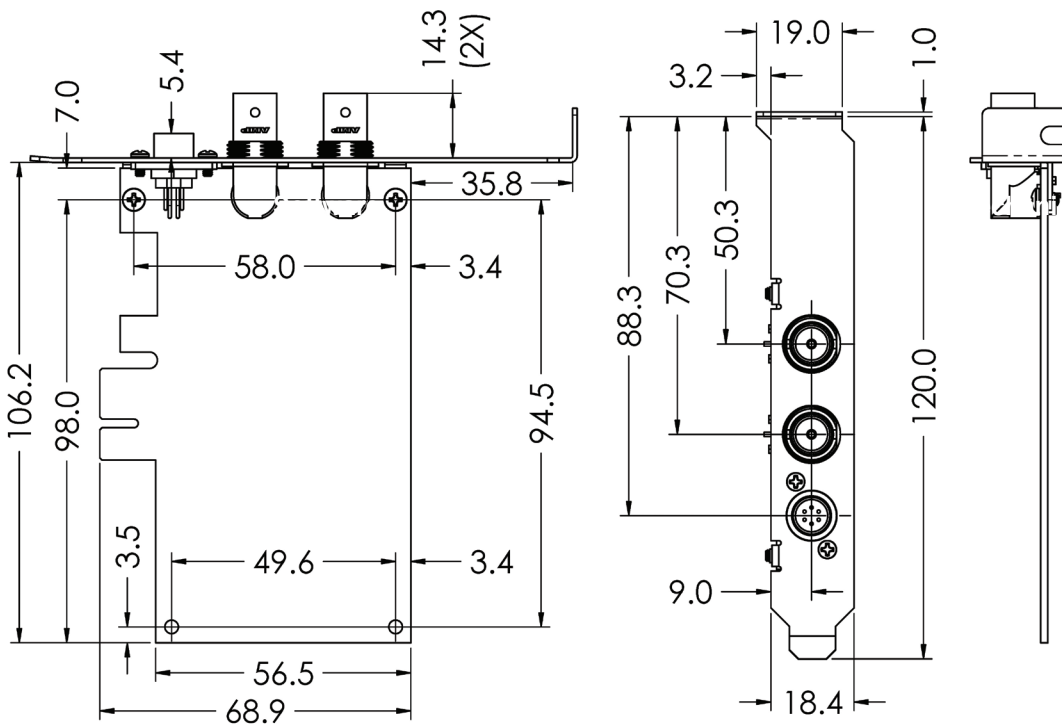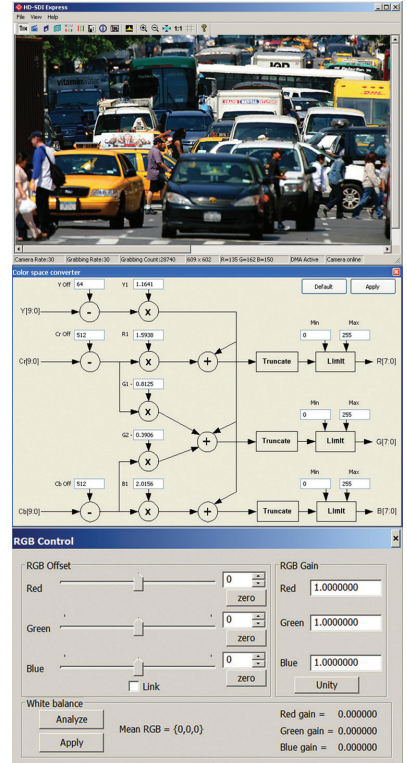| | |
|---|---|
| **Features** | PCIe x1 compliant providing 2.5 Gbps of bandwidth |
| | SD and HD-SDI formats for 720p, 1080i and 1080p video |
| | SMPTE 292M serial interface and SMPTE 274M/296M framing |
| | SD or HD-SDI real time video and audio acquisition with SDI loop-through |
| | Audio acquisition of two 24 bit channels @ 48KHz |
| | A second BNC connector provides an SDI loop-through capability |
| | Bi-directional RS232/RS485 serial interface for camera control |
| | 16/20 bit YCrCb 4:2:2 or 24-bit RGB formatting |
| | Intelligent scatter/gather DMA for fast, efficient use of PCIe x1 bandwidth and system memory |
| | Flow-through pipelined architecture for low latency |
| | On board color space conversion |
| | 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 |
| | Image viewer with DVR controls |
| | Plug-and-Play operation with hot insertion/removal |
| | Many advanced features including look up tables, histograms, RGB gain/offset with auto-white balance, hex pixel dump, gamma correction |
| **Software** | Application program: Full featured, intuitive, easy to use GUI |
| | Drivers: Win XP/2000/Vista/7/8, DirectX, Halcon, Adobe Premiere, Matlab |
| | SDK: C/C++,COM, .NET, ActiveX - all with sample source code |
| **Video Source** | Two 75 ohm BNC coaxial connectors (in and out) |
| | Analog SMPTE 292M serial interface operating at 1.485Gbps |
| | SMPTE 274M and SMPTE 296M framing |
| **Communications** | RS232/RS485 ASYNC UART for camera control |
| | 6-pin Hirose style connector |
| **Power** | 3.3V DC +/-5%, 500 mA steady |
| | 1.65W constant power |
| **Environmental** | Operating temperature: -40°C to +85°C |
| | Relative humidity: 90% non-condensing |
| **MTBF** | >372,000 hours @ 50°C (MIL-STD-785B, MIL-HDBK-217F) |
| **Regulatory** | FCC part 15, Class B, CE, RoHS |
| **Mechanical** | Low profile PCI Express form factor |
| | Weight 1.91 oz., 47g |

AUTOMATION | INSPECTION    MEDICAL | SCIENTIFIC    AERIAL IMAGING
MILITARY | AEROSPACE    HD-SDI    TRAFFIC | TRANSPORTATION
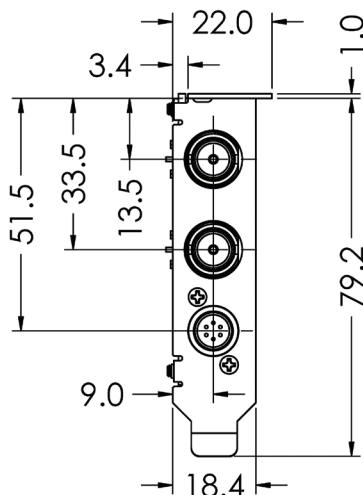
**IMPERX™**

WWW.IMPERX.COM

**Order: VCE-HDPCIe01**

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



ALSO SUPPLIED WITH LOW PROFILE BRACKET

VCE-HDPCIe01, Rev 2