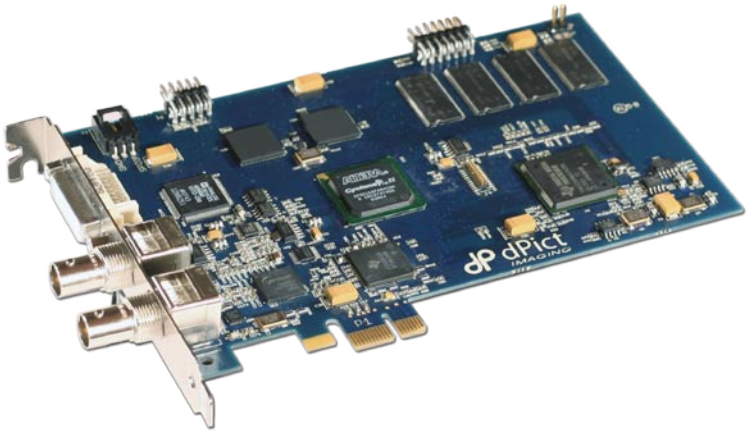
TI Third Party Network Member

DSP™ TEXAS INSTRUMENTS



Nexeon HD Xtra

PCI Express Video Capture Boards

High-definition acquisition board with 3G-SDI and HDTV input support

Nexeon HD Xtra is a full-featured video streaming and capture board for standard and high-definition video inputs. Nexeon HD Xtra supports SDI, HDTV analog RGB/YPrPb component inputs as well as digital HDMI inputs. Nexeon HD Xtra comes equipped with an integrated Video Processor and plenty of memory for fast and reliable video data transfer to system or display memory.

Nexeon HD Xtra Features

- PCI Express interface
- Bus-mastering video acquisition
- SDI input support
- HDTV support up to 1080p
- RGB/YPrPb component input support
- DVI and HDMI input support
- Simultaneous real-time transfer of video to system memory, overlay, or display memory
- TI DM642 Digital Media Processor
- 64 MB SDRAM Frame Buffer
- 3G-SDI acquisition rates up to 2.97 Gb/sec
- HDTV or HDMI acquisition rates up to 150 MHz
- Video scaling to arbitrarily sized windows
- Auto acquisition of SDI and HDMI inputs
- RGB, YUV, or monochrome pixel formats
- Progressive scan video support
- General purpose I/O triggers
- Packed or planar transfers
- Area of interest transfers to system and on-board memory
- On-board microcontroller for robust timing and capture control
- Programmable LUT
- Windows® XP, Vista, and 7 drivers
- Includes dPiction Windows®-based video capture application
- Optional DirectShow support
- Optional SDK with sample applications

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dPict IMAGING, INC.

Nexeon HD Xtra

PCI Express Video Capture Boards

PCI Express Support

Nexeon HD Xtra is designed with the high-speed PCI Express system interface. PCI Express is the high-performance, next-generation interconnect that increases bandwidth, scalability, and reliability.

Bus-Mastering Performance

Nexeon HD Xtra's high speed bus-mastering capability delivers real-time video data to system or display memory simultaneously, without intervention from the host CPU. Video data formatting and resolution is independent between streams, allowing for bandwidth flexibility.

Digital Video Processor

By incorporating a TI DM642 video processor, Nexeon HD Xtra enables maximum flexibility in handling challenging application requirements. Equipped with a 64 MB SDRAM frame buffer, the video processor provides video scaling, pixel formatting, interrupt support, hardware overlay, and real-time video processing without host CPU assistance.

3G-SDI Serial Digital Interface

Nexeon HD Xtra supports viewing and capture of the enhanced video quality from SDI sources. SDI is a broadcast quality video transmission standard that allows for the transmission of un-compressed digital video data on a common coax cable at distances up to 300 feet. Nexeon HD Xtra supports the new 3G-SDI standard, allowing digital video data rates up to 2.97 Gb/sec.

High-Definition Capture

Nexeon HD Xtra supports capture and steaming of high-definition video and display. Nexeon HD Xtra supports VGA display resolutions up to 1280x1024 at 75 Hz, as well as HDTV inputs up to 1080p. With acquisition rates up to 150 MHz, Nexeon HD Xtra is one of the most versatile frame grabbers on the market.

dVeloper Foundation Software Developers Kit

dVeloper is a comprehensive software developers kit that supports all dPict Imaging products, allowing for easy porting to new hardware. dVeloper is royalty free and runs under Microsoft Windows® XP, Vista, and 7 operating systems. Source code samples and complete documentation are included in Visual C, C#, and Visual Basic .NET to provide insight to various hardware functions. Samples include video-in-a-window, overlay, video buffering, camera control, and more.

TI Third Party Network

dPict Imaging is a proud member of the TI Third Party Network. By working closely with TI, we can ensure OEM developers the best possible support.

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Specifications

Form Factor
- PCI Express x1 connector
- Scatter gather DMA support

Video Inputs
- Serial Digital Input (SDI)
- RGB/YPrPb component HDTV
- HDMI input support

HDTV Video Acquisition
- 3G-SDI data rate support up to 2.97 Gb/sec
- HDTV acquisition rates up to 150 MHz
- Progressive scan video support

HDTV Standards Support
- SMPTE 259M: 360 Mb/sec with resolutions up to 960x486 (SDI)
- SMPTE 292M: 1.485 Gb/sec with resolutions up to 1080i (HD-SDI)
- SMPTE 424M: 2.97 Gb/sec with resolutions up to 1080p (3G-SDI)
- HDTV standard up to 1080p (component or HDMI digital)
- Supports VGA display capture up to 1280x1024 @ 75 Hz

Video Formatting
- Video scaling to randomly-sized windows
- Bus-mastering video transfers to system memory, overlay, or display memory simultaneously
- 64 MB SDRAM frame buffer
- RGB 32/24/16/15/8, YUV 4:4:4 and YUV 4:2:2 pixel formats
- Area of interest transfers to on-board and system memory
- Extensive interrupt control for robust capture
- On-board image processing

I/O Triggers and Control
- 4 general-purpose I/O triggers
- Programmable between input and output triggers
- SDI loopthrough output
- Automatic digital video display mode detection

Physical and Environmental
- 6.00" (length) x 4.20" (height)
- 2 BNC connectors
- DVI-I Female display connector
- Operating temperature: 0° C to 70° C
- Relative humidity: 5% up to 95% non-condensing

Available Software Developers Kit
- Compatible with dVeloper Foundation SDK
- Windows® XP, Vista, and 7 DLLs
- Optional DirectShow support
- Extensive documentation and sample code
- dPiction Windows®-based capture application
- Sample applications with source code

Ordering Information
- Nexeon HD Xtra PCI Express: 11052
- dVeloper Foundation SDK: 90010

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Specifications herein subject to change without notice.