Datapath VisionRGB-X

Dual Channel RGB/DVI Capture Card

Advanced Graphics Display Technology

- Half size 64 bit PCI-X Card.
- Dual Channel real-time Analog or DVI capture with high speed 500MB/s DMA transfer.
- Capture resolutions up to 1920x1080 Analog or 1600x1200 DVI.
- Support for non-interlace video sources.
- On board processor providing auto-sync and capture mode detection.
- 32MB per channel DDR capture memory.
- Software compatible with the VisionRGB-PRO product range.
- Includes WDM streaming drivers and the Datapath VisionRGB application software.
- Fully integrated with the Datapath Wall Control software for video wall applications.
- VisionRGB-X is also optimised for operation with the Datapath range of graphics cards.
- Support for multiple cards allowing up to 64 capture channels. (32 cards)
- Support for Windows XP/ Server 2003.
- Datapath SDK included for software developers.

The VisionRGB-X is an ideal solution for applications that require the capture of Analog or DVI sources in real time. Typical applications include:

- Viewing Analog or DVI sources from PCs, MACs, Industrial/medical equipment, cameras and other video equipment.
- Recording Analog or DVI video sources.
- Streaming video applications.
- Video/Data Wall Controllers.

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RGB Streaming

For streaming applications, the VisionRGB-X can be used with Windows Media Encoder to compress and stream captured video. To replay the video, use Windows® Media Player.

Any application compatible with Windows DirectShow technology can use the VisionRGB-X due to its built-in WDM support.

VisionRGB Software:

The VisionRGB-X is supplied with a powerful software application for configuring the timing and format of the input sources and displaying the data. Simply connect your external DVI or Analog source into the card, run the VisionRGB-X application to automatically detect the video source format and display the captured video in a window on your desktop. You can also use the software application to record and capture the Analog data at high frame rates and play it back using the Datapath VisionRecorder and VisionPlayer applications.

Hardware Overview:

The VisionRGB-X has two complete capture channels, each supporting up to 1600 x 1200 DVI or 1920x1080 Analog resolution.

The VisionRGB-X captures the Analog/DVI data and triple buffers it into onboard storage. This data is then copied using DMA to the host system for display, storage or streaming.

Whenever the RGB/DVI data is displayed on a non Datapath graphics card, the VisionRGB-X sends the data to system memory, after which, the operating system copies the data to the display. When a Datapath graphics card is used, the VisionRGB-X transfers the data directly to the graphics card thereby increasing performance.

The VisionRGB-X sends portions of the captured data to each video channel and instructs each channel to use its graphics engine to update the data. This utilises the hardware and dramatically increases performance.

Typical up date rates when used with the Datapath Vantage4 graphics card are:

1 channel at 1280 x 1024 - 60Hz.

1 channel at 1024 x 768 - 75Hz.

Models

VisionRGB-X - A dual channel PCI-X capture card.

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Specifications:

• Board Format:	64 bit, up to 133MHz PCI-X, half size plug-in card 105mm x 170mm. PCI Bus Master with scatter/gather DMA providing up to 1GB/sec peak, 500MB/sec sustained
• Connectors:	Two DVI-I Type connectors
• Maximum Sample Rate:	170 Mpixels per second RGB or 165MHz DVI.
• Video Sampling:	RGB: 24 bits per pixel/8-8-8 format.
• Video Capture Memory:	32MB per channel (updated in real time). Triple buffered.
• Analog RGB Mode Support:	640x480, 800x600, 1024x768, 1280x1024, 1600x1200, 1920x1080, Custom modes.
• DVI Single Link Mode Support:	640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200, Custom modes.
• Input Mode Detection:	Automatic detection of input modes in hardware, enabling the tracking of mode changes in the source signal.
• Pixel Output Formats:	RGB: 5-5-5, 5-6-5 or 8-8-8 pixels. YUV 4:2:2: UYVY, YUY2, YVYU. MONO: 8bit
• Update Rate:	User defined, typically up to 60 frames per second, limited by available PCI bandwidth. Multi-buffered to eliminate tearing artifacts
• Video Format Options:	Analog RGB plus HSync and VSync (5 wire).) Analog RGB with Composite Sync (4 wire).)- Progressive Analog RGB with Sync on Green (3 wire).) DVI Single Link.
• Operating System Support	Windows® XP, Windows® Vista and Windows® Server 2003.
• Power Requirements:	Max current at +3.3V - 1A Max current at +5V - 1A Max power - 8 Watts
• Operating Temperature:	0 to 35 deg C.
• Storage Temperature:	-20 to 70 deg C.
• Relative Humidity	5% to 90% non-condensing.

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For details on how to purchase the VisionRGB-X products contact our sales department
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