

# VisionRGB-PRO

## RGB Capture Card Advanced Graphics Display Technology



### DESCRIPTION

Traditionally, if you require constant access to standard VGA data from another source, this is transmitted as an analog RGB signal and then displayed on a dedicated screen. This of course means extra monitors and less room in the work environment.

The Datapath VisionRGB-PRO is a stand-alone PCI plug-in card with two VGA compatible inputs for capturing and displaying two data sources simultaneously.

The VisionRGB-PRO captures most analog RGB video sources. The captured video is displayed on your PC windows desktop using Datapath's VisionRGB software application program, or by using our SDK, you can interface to your own application programs.

The VisionRGB-PRO is an ideal solution in many applications where information is distributed as analog RGB, including display/process monitoring in engineering, and for secure data in financial institutions and trading floors

### FEATURES

- DMA transfers the data across the PCI bus without using host CPU cycles
- Hardware up and downscaling for resizing the captured video
- The VisionRGB-PRO has 6MBytes of video capture memory per channel and can capture data at 640 x 480, 800 x 600, 1024 x 768 and 1600 x 1200 resolutions. RGB interlaced modes are also supported as well as many non standard modes
- Dynamic Input Source Selection
- The VisionRGB-PRO application program is also built into the Datapath Wall Control software for video wall systems
- The VisionRGB-PRO is optimised for operation with the range of Vantage4 graphics cards for maximum update rates

## HARDWARE OVERVIEW

The VisionRGB-PRO has two complete capture channels, each supporting up to 1600 x 1200 resolution. Captured video is put into on card frame buffers in real-time. PCI bus mastering, with scatter gather support, is then used to transfer the captured data into either system memory or directly into your VGA card's frame buffer if used with the iH range of graphics cards. The captured video can also be down scaled before transferring over the PCI Bus. The up-date rate to system memory or the VGA frame buffer is dependant on the captured resolution and the level of up or down scaling.

The VisionRGB-PRO can be operated with any standard graphics adapter and is supplied with Windows® 2000, Windows® Server 2003 and Windows® XP. For applications requiring improved update rates and lower system overhead then we recommend using the Datapath iH or Vantage4 range of graphics adapters. The VisionRGB software, when used with the Datapath graphics cards, implements direct DMA to the graphics texture memory. The captured RGB is then rendered to the display using hardware texture mapping to greatly improve performance. This implementation dramatically improves update rates when the image is up-scaled as would be required with video/data wall applications. Each part of the up-scaled image is rendered by the associated graphics processor, effectively parallel processing the up-scaling process.

Typical up-date rates with a standard VGA graphics card are:

1 channel at 1280 x 1024 - 12Hz.

1 channel at 1024 x 768 - 17Hz.

Typical up-date rates with a Datapath Vantage4 graphics card are:

1 channel at 1280 x 1024 - 35Hz.

1 channel at 1024 x 768 - 60Hz.

## RGB STREAMING

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

## SOFTWARE

The VisionRGB-PRO 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 RGB source into the card, run the Vision application to automatically detect the video source format and display the captured video in a window on your desktop.

## MODELS AVAILABLE

The VisionRGB-PRO is available in two models:

- VisionRGB-PRO<sub>1</sub> - A single channel PCI capture card
- VisionRGB-PRO<sub>2</sub> - A dual channel PCI capture card

## RELATED PRODUCTS

Vantage4



## SPECIFICATION

Board Format	PCI Level 2.1 compliant, half size plug-in card 105mm x 170mm PCI Bus Master with scatter / gather DMA providing up to 132 MBytes per second data transfer
Connectors	Two VGA D Type connectors
Maximum Sample Rate	280 Mpixels per second.
Video Sampling	24 bits per pixel / 8:8:8 format.
Video Capture Memory	6 MBytes per channel (updated in real time).
RGB Mode Support	640 x 480; 800 x 600; 1024 x 768; 1280 x 1024; 1600 x 1200.
Pixel Display Formats	555, 565 or 888 pixels.
Update Rate	User defined, typically up to 30 updates per second.
Video Format Options	RGB plus HSync and VSync (5 wire) RGB with Sync on Green (3 wire) RGB with Composite Sync (4 wire)
Operating System Support	Windows® 2000, Windows® Server 2003, Windows® XP Professional, Windows® Vista (x86 and x64) and Windows® 7 (x86 and x64).
Power Requirements	Max current at 12V - 0.20A Max current at +5V - 1.30A Max power - 9.40 Watts
Operating Temperature	0 to 35 deg C / 32 to 96 deg F
Storage Temperature	-20 to 70 deg C / -4 to 158 deg F
Relative Humidity	5% to 90% non-condensing.
Warranty	1 year

## MAIN SALES DEPARTMENT

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