

VisionRGB PRO

VGA/RGB Capture Card for the PC

(Dual simultaneous channels up to 1600x1200)



- Single or dual Channel PCI card
- Captures up to 1600 x 1200 resolution
- Multi-Sync video mode detection
- High speed PCI bus mastering with scatter gather
- SDK included for custom applications
- VisionRGB application for viewing captured RGB/VGA data
- Supports Windows®NT4, Windows®2000 and Windows® XP drivers



Ultra High Resolution Frame Grabber

The VisionRGB PRO, Frame Grabber is a PCI-card for grabbing video images from different sources to store, print, transmit, or show them in an other display!

Application areas for the VisionRGB Pro.

- *Visual inspection*
- *Print Inspection*
- *Food Inspection*
- *Ultrasound capture*
- *Integration of video and graphics pictures from different sources into one display, e.g. in VideoWall applications*
- *Microscopy*
- *Quality Control*
- *Medical imaging/Visualization*
- *Scientific Image analysis*
- *Printing and transmission of non-computer video such as radar, X-ray or other medical images*

Some working environments require constant access to VGA data from another source. A standalone PCI plug in card, the VisionRGB-PRO captures the display output (e.g. the analogue RGB data) from one computer screen and then displays it as an independent application, in real time, on your Windows® desktop. The VisionRGB-PRO has two VGA compatible inputs for simultaneously feeding two independent data sources directly into your main PC. The data is then converted on the VisionRGB-PRO and displayed as a standard Windows® application on your desktop

The VisionRGB Pro acquires analog RGB or VGA and composite video signals. The card locks automatically to the selected input signal of up to 1600 x 1200 resolution and converts the images to data files. The acquired images can be displayed in the window of a PC workstation or can be stored onto the hard disk for later retrieval. The size of the grabbed image is up to 1600 x 1200 pixels at 16-bit colour resolution. On-screen panels for adjustment of input and output features allow easy control of the card.

Control for adjusting brightness, contrast, width, height and horizontal and vertical position are provided. Standard VESA modes are automatically detected. Support for non standard video modes can be interactively created and saved, therefore enabling non-standard modes to be automatically detected. The VisionRGB-PRO is also supplied with a powerful software application for configuring the timing and the format of the input sources and displaying the captured data. We also provide an SDK (Software Development Kit) so you can interface the Vision RGB-PRO to your own applications.

The VisionRGB-PRO is supplied with drivers for Windows®NT4, Windows®2000 and Windows® XP as standard, and is compatible with all graphics accelerators

HARDWARE OVERVIEW:

The VisionRGB Pro has two complete capture channels, each supporting up to 1600x1200 resolution. Captured video is put into the 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. The captured video can also be up or down scaled before transferring into system memory. 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.

Typical up-date rates are:

- 1 channel at 1280 x 1024 12Hz
- 1 channel at 1024 x 768 17Hz

SPECIFICATIONS:

- Half size PCI adapter.
- Captures up to 2 channels of RGB video in real time (depending upon model).
- Each channel supports up to 1600x1200x16bit capture.
- Maximum capture sample rate is 140MHz in real time and 280MHz for capture in 2 frame times.
- PCI bus mastering allows captured video to be transferred to the host memory or graphics display memory.
- Data is transferred at full PCI bus bandwidth of 134MB/s.
- Scatter gather tables are supported for virtual memory operation.
- Each channel can be up or down scaled in real time.
- Automatic sync and video detection provides multi-sync operation.
- Support for separate H and V sync. Composite sync or sync on green.
- Multiple cards in a single PC allow multiple channels to be captured and displayed simultaneously.

The VisionRGB-PRO is available in two models, the RGB-PRO-1 and the RGB-PRO-2. The VisionRGB-PRO1 is a single channel PCI Capture card, whereas the RGB-PRO-2 is a dual channel simultaneous capture card.

TYPICAL CAPTURE MODES SUPPORTED		
DISPLAY MODE	REFRESH	CAPTURE MODE
640 x 480	85Hz+	Real time
800 x 600	85Hz+	Real time
1024 x 768	85Hz+	Real time
1280 x 1024	85Hz	Real time
1600 x 1200	85Hz	2 frame times

Scope of delivery - The VisionRGB Pro delivery includes the following:

- PCI frame grabber
- Software Application
- Windows NT4/2000 & XP drivers
- Software Development Kit (SDK), with source code examples (optimized for C/C++)
- User Manual

Technical Specifications

Board Format:	PCI Level 2.1 compliant, half size plug-in card 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:	16 bits per pixel / 5:6:5 format
Video Capture Memory:	6 MBytes per channel (updated in real time)
RGB Mode Support	640 x 480; 800 x 600; 1024 x 768; 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® NT4; Windows® 2000; Windows® XP

Software Features

Setup Wizard:
Input Source Selection
Video Format Selection
Horizontal and Vertical Position
Horizontal Phase
Picture Adjustments
Black Level Clamping
Properties:
Brightness and Contrast
Sample Rate



Hardware up and downscaling for re-sizing the captured video.

The VisionRGB-PRO uses specialized dual ported video memory to ensure the highest possible performance with low system overhead.

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.

The VisionRGB-PRO captures data at a maximum rate of 280Mpixels per second. Once captured, the data is converted to either 555, 565 or 888 pixel display formats and then transferred over the PCI bus to host memory, for display on the desktop.

Dynamic Input Source Selection

Administrator Mode

Update Indicator

Always on Top

Models Available

The VisionRGB-PRO is available in two models, the RGB-PRO-1 and the RGB-PRO-2.

The Vision RGB-PRO-1 is a single channel PCI Capture card whereas the RGB-PRO-2 is a dual channel PCI Capture Card.

For more information on these products contact the [sales team by phone or email](#), see details below:



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