



# FlashPoint<sup>3D</sup><sub>LITE</sub><sup>®</sup>

AGP & PCI Video Frame Grabbers

## Get Fast and Furious Image Transfer with the Industry's

### First Full-Featured AGP Video Frame Grabber

Integral Technologies announces another first in video frame grabber technology—an AGP board that transfers images significantly faster than more conventional formats. FlashPoint 3D Lite™ captures and displays superior-quality 24-bit color and monochrome video at resolutions up to 1600x1200 with simultaneous VGA and S-Video output. Whichever format you choose (AGP or PCI), FlashPoint 3D Lite provides the greatest feature set to give you high-quality, fast video acquisition in a low-cost, easy-to-install solution.

#### Key Features

- High-performance AGP or PCI bus frame grabber
- Integrated 3D graphics accelerator
- High-quality composite or S-Video output
- 8MB SGRAM video frame buffer
- Display resolution up to 1600x1200
- High-quality color video capture and display of NTSC and PAL video
- Nondestructive color key overlay of graphics on live video
- Up to 3 composite/RS-170 and 1 S-Video inputs
- YUV 4:2:2 color and monochrome video digitizing
- Programmable offset and gain on video input
- Optically isolated output trigger, strobe interface
- General purpose TTL input and output triggers
- Chroma key for live video graphics underlay
- Triple video buffering support
- Multiple-monitor support under Windows 98
- System interrupt based on Vsync or input trigger
- Hardware pan and zoom (up to 4x)
- Software Developers Kit (Windows 95/98/NT)

#### Applications

- Machine vision
- Inspection and process control
- Image analysis
- Scientific imaging
- Microscopy
- Medical imaging
- Fingerprint biometrics
- Law enforcement
- Security and access control
- Traffic control



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FlashPoint 3D Lite is a high-performance, low-cost AGP frame grabber designed to capture and display full-frame color and monochrome video in real time to VGA display memory. Also available in PCI bus format, it is specifically designed with features for OEMs, VARs, and system integrators designing systems that require high-quality video acquisition in a low-cost, easy-to-install solution.

3D is the first in the FlashPoint family of products to incorporate an **on-board 3D accelerator and 8MB of fast SGRAM**. Its 128-bit memory interface is capable of running at speeds up to 125MHz, allowing for display resolutions up to 1600x1200 at 85Hz.

FlashPoint 3D Lite supports **nondestructive overlay of text and graphics on live video**. This enables applications that require crosshairs, selector boxes, or other objects to be displayed on live video while the underlying video is cleanly captured or displayed. Its independent control of the graphics and video color depth allows efficient memory usage that supports the simultaneous display and capture of high-resolution video (up to 768x576) on a high-resolution desktop (up to 1280x1024).

FlashPoint 3D Lite multiplexes **up to 3 composite/RS-170 and 1 S-Video inputs in both NTSC and PAL formats** and supports the capture of noninterlaced video from progressive scan cameras. Video is displayed full-screen or in a resizable window and can be adjusted (offset and gain) to desired levels through software-controlled video amplifiers. Very low pixel jitter ensures accurate representation of horizontal detail.

FlashPoint 3D Lite allows for **simultaneous VGA and video output** by incorporating an integrated video encoder. Both a composite and S-Video output is provided in NTSC and PAL formats. Flicker reduction is possible with a programmable flicker filter.

To control external devices or cameras, the FlashPoint 3D Plus has been designed with **multiple I/O or camera interface controls**. A software-controlled, optically isolated contact closure circuit enables triggering a strobe for synchronizing illumination to a digitized video frame. A general-purpose input trigger and TTL output trigger allow for synchronization of image acquisition to external events.

A comprehensive **Software Developers Kit (SDK)** provides programmable access to the features of the FlashPoint 3D's hardware architecture. The SDK includes DLLs for Microsoft Windows 95/98/NT, Visual Basic support, MCI, Video for Windows (AVI) and TWAIN drivers, and sample applications with source code. Source code samples provide insight to various functions of the FlashPoint 3D, such as video-in-a-window, color and chroma key, camera integration control and triple buffering. FlashPoint 3D offers full DirectX support.

### Analog Video Input

- Up to 3 composite/RS-170 video inputs (with #3665 cable)
- 1 S-Video color input

### Video Decoder/Digitizer

- NTSC & PAL
- Square pixel digitizing resolutions for NTSC (12.27 MHz at 640x480) and PAL (14.75 MHz at 768x576)
- Software-programmable digital control of offset, gain, hue and saturation
- EEPROM for storing configuration and calibration settings

### Analog Video Output

- Composite or S-Video output in NTSC and PAL formats
- Programmable flicker filter

### Video Pixel Format

- YUV 4:2:2 Color

### VGA Frame Buffer & Pixel Format

- 8MB SGRAM
- 8/16/24 bits per pixel — up to 16 million colors

### Video Scaling Processor

- High-quality still frame video capture
- Smooth, high-quality interpolated scaling
- Support for hardware pan and zoom up to 4 to 1
- Triple video buffering support

### I/O Control

- Optically isolated output trigger for flash interface
- 1 general purpose TTL input trigger
- 1 general purpose TTL output trigger

### Software Developers Toolkit (SDK)

- MS Windows™ 95/98 and Windows™ NT display drivers
- MS Windows™ 95/98 and Windows™ NT DLLs
- MS Windows™ MCI (16/32 bit) and Video for Windows (AVI) drivers
- Full DirectX support
- Visual Basic support
- TWAIN driver (16/32 bit)
- Sample applications with source code
- MS Windows™ FPG video capture application (95/98/NT)
- Media Cybernetics ImagePro Plus 3.0 drivers
- Optimas 6.2 drivers

### Video Input Cable

- Composite, S-Video and RS-170 video input cable
- Custom cables and connector pinout available upon request