



# FlashBus<sup>®</sup> Spectrim *Lite*

Bus-mastering frame grabber  
for cost sensitive applications

Integral Technologies introduces FlashBus Spectrim Lite, a low-cost, bus-mastering video frame capture board designed with OEM requirements in mind. FlashBus Spectrim Lite utilizes the **Philips TriMedia™ video processor** and enhanced video digitization for high-quality color image capture. FlashBus Spectrim Lite is a perfect general purpose frame grabber for cost sensitive applications.

## Key Features



- Bus-mastering video acquisition
- Philips TriMedia™ Video Processor
- Real-time transfer of video to system or display memory
- 16 MB SDRAM Frame Buffer
- High-quality video scaling to arbitrarily sized windows
- Up to 3 multiplexed composite or one S-Video inputs
- CCIR and square pixel capture resolution
- NTSC and PAL video formats
- Fast video input switching capability
- Area of interest transfers to/from system and on-board memory
- General purpose I/O trigger
- Real-time image flip, rotate, and mirror
- Windows 98, ME, NT 4.0, 2000, and XP drivers
- Windows-based FBG video capture application
- Optional SDK with sample applications
- Compatible with Integral's Imaging and Vision Library (IVL)

## Applications

- Image analysis
- Scientific imaging
- Microscopy
- Law enforcement
- Video surveillance
- Traffic control
- Medical imaging

## Bus-Mastering Performance

FlashBus Spectrim's high speed bus-mastering capability delivers real-time video data to system or display memory, without intervention from the host CPU.

## TriMedia Video Processor

By incorporating a Philips TriMedia VLIW (very long instruction word) processor, FlashBus Spectrim allows for maximum flexibility in handling challenging application requirements. Equipped with a 16 MB SDRAM frame buffer, the TriMedia video processor provides smooth interpolated scaling, hardware overlay, real-time video rotation, and video output functionality.

## High-Quality Video Capture

FlashBus Spectrim provides high-quality capture from up to 3 composite or one S-Video video sources in NTSC or PAL format. Video can be captured and stored in either square pixel or CCIR-601 resolutions, and can be scaled to any arbitrary size. Fast switching of up to 20 images per second between camera inputs is also possible for surveillance applications.

## Camera Control

FlashBus Spectrim Lite contains a single input or output trigger for camera or I/O control. The output trigger can be either TTL or optically isolated for camera strobe.

## Software Developers Kit

As with all Integral Technologies frame grabber products, a comprehensive software developers kit is available that provides access to the features of the FlashBus Spectrim Lite hardware. The SDK includes DLLs for Microsoft Windows 9x, ME, NT 4.0, 2000, and XP operating systems. Source code samples are included in both Visual C and Visual BASIC to provide insight to various hardware functions of FlashBus Spectrim Lite. As always, Integral Technologies provides free technical support to developers using the FlashBus Spectrim SDK.

## Integral Technologies Imaging and Vision Library

Integral Technologies IVL is a high-level programming library that provides an extensive set of optimized high-performance image processing and analysis functions in a conventional C-callable interface. IVL is compatible with all Integral Technologies FlashBus<sup>®</sup> and FlashPoint<sup>®</sup> frame grabbers along with XPress compression products for Windows 9x, ME, NT 4.0, 2000, and XP operating systems.

## Specifications

### Bus Format

- PCI 2.2 Compliant
- Universal slot

### Video Inputs

- 3 Composite inputs
- 1 S-Video input
- BNC or S-Video connector

### Video Digitization

- NTSC M, NTSC N, NTSC 4.43, NTSC-Japan, SECAM, PAL BGDHI, PAL N, and PAL M format support
- ITU-601 digitization
- Software programmable control of offset, gain, hue, and saturation
- EEPROM for storing configuration and calibration settings

### Video Acquisition

- Philips TriMedia video processor
- Smooth interpolated scaling to randomly sized windows
- Bus-mastering video transfers to system or display memory
- Hardware overlay of graphics over video
- RGB 32/24/16/15/8 and YUV 4:2:2 pixel formats
- Area of interest transfers to and from on-board and system memory
- 16 MB SDRAM frame buffer
- Fast image switching of camera inputs up to 20 images/sec
- Real-time image flip, mirror, or rotate

### I/O Control

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

### Software Developers Kit

- Windows 98, ME, NT 4.0, 2000, and XP DLLs
- Video for Windows drivers
- DirectX support
- Visual Basic support
- TWAIN support
- Sample applications with source code
- Windows-based FBG capture application

### Video Cables

- Composite, S-Video, and component input and output cables available
- Custom cables and connector pinouts available upon request

### Physical and Environmental

- Small form factor - 2.5" x 4.721"
- Low power consumption: 4W
- FCC and CE approved

### Ordering Information

- Spectrim Lite: #3043
- Spectrim SDK: #3430