SPYDER™ 200 / 300 SERIES

FEATURES:

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- Supports up to 32 independent windows, or up to 16 mixers, or any combination in between
- Perfect for widescreen (edge blended) multi-screen discreet, or single screen applications
- Permits unrestricted window and PIP placement
- All Spyder Inputs are fully capable (not dedicated purpose), allowing any input to operate as Native High Resolution Channels, Scaled PIP, Scaled Background, or Key Channels. Spyder Inputs can also be switched easily from any of the modes during normal operation
- Powerful Expansion capabilities, allows adding inputs or outputs through the Spyder expansion connection, or add pixel real estate by adding more Spyder units in parallel, or do both.
- Spyder has 3 times more pixels than any other presentation system. The same input channels can be utilized across more pixels, and these pixels can be viewed by multiple outputs
- Integrated Operators Monitor allows you to see what the audience sees, plus what the audience will see next (preview) on a single monitor.
- Resolution independence allows multiple projectors to be used to increase pixel space and increase resolution beyond what any single display device can handle.

Special Effects

- Mixing and Multiple Key Frame Effects
- Full Path Editing including Tension, Continuity and Bias control at each Key Frame
- Full Speed Editing including Ease In, Ease Out, and Velocity control at each Key Frame
- Adjustable PIP aspect ratio and smooth transitions between aspect ratios
- PIP borders, including drop shadows and soft inside edge with smooth transitions
- PIP Clone (mirror and offset)with smooth transitions
- Image cropping with smooth transitions

Keying

- Luminance keyer on every input
- Color keyer on every input
- Alpha Channel Bitmaps on any input, for alpha channel titling or bugs from your favorite graphics application

Video Processing

- Up to 6.5 million pixel display capacity from a single frame.
- Multiple Outputs from the same box, up to 2048x1200 resolution on each output
- Inputs accept virtually any input up to 2048x1200 resolution
- 10-bit Analog Inputs and Outputs
- 12-bit scaling for the highest quality images
- Low delay (< 1.5 interlaced frames)
- Motion adaptive de-interlacing (SD & HD)
- 3:2 and 2:2 pull down detection
- Aspect ratio correction
- Same proprietary high-performance scaling as Vista's Montage
- Still Frame (Freeze) capability on every input
- Output synchronization: free-run or vertically referenced to NTSC/PAL black burst via framelock input
- Read/Write Still Store. Load bmp, png, tiff, or jpg images to or capture images from any Spyder Input
- Any output can be a Scaled Output for Recording Widescreens
- Any output can be an Operators Monitor, displaying preview and program for a given pixel space simultaneously on a single output
- Powerful Frame stacking capability, with the expansion (X) option, allows inputs/outputs from other Spyder systems to contribute/view a single pixel space
- S-Video and composite, with composite/S-Video (C) option, for inputs and outputs
- Fully integrated Test Pattern Generator on each input, output and pixel space

Distributor / Vertrieb:

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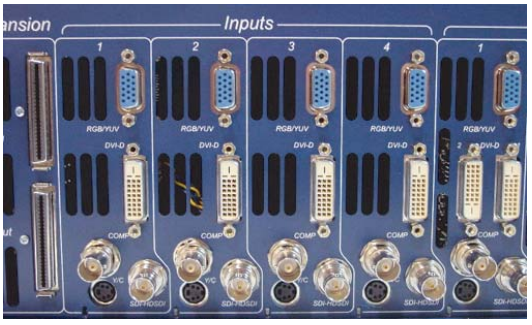
VIDEO PROCESSOR:

The Spyder is packaged as a 2RU or 3RU unit, depending on model. Spyder units are sold as modular components that can be used as single units, or in multi-unit configurations to support up to 32 inputs and 32 outputs.

Each Input Channel is universal, supporting analog, SDI, HD-SDI and DVI sources. Spyder accepts composite and S-Video (NTSC, PAL, SECAM), SDI/ HD-SDI formats computer resolutions up to 2048 x 1200, analog HD formats including 720p, 1080I, 1080p, HD-SDI video, 2048-1080p digital cinema video, and Plasma display resolutions. Vista¹s proprietary high performance scaler features motion adaptive de-interlacing for SD/HD, 3:2 and 2:2 pull down, very low video delay, aspect ratio correction, image cropping and real-time window resizing and positioning. Seamless transition effects, window borders, drop shadows and a variety of keying effects are fully supported.

Each Input Channel is universal and capable of the following:

- Native High Resolution Input for pixel perfect backgrounds
- Scaled Input for Scaled background or PIP window with borders and shadows
- Native or Scaled Luminance Keyer
- Native or Scaled Color Keyer



The baseline Spyder configuration has multiple Input boards. You can configure an input as a Color or Luminance key, or as a PIP, or any two inputs as a mixer. You can size and position PIP and key images at any location on the screen in real-time. PIPs are displayed independently and transitioned onto the background image. Use key images to provide a variety of key effects such as superimposing titles on the image or creating special mask effects. There are two native or scalable resolution background buffers to provide a high resolution still backdrop for the PIP images or background inputs. These buffers have preview/program display and can transitioned, just like a mixer. This allows a scene or theme graphic to be the background without having to use any of Spyder's inputs, and eliminates the need to use one or more inputs to prevent the screens from going to black.

Each Spyder can utilize multiple output boards. These boards provide all output interface functions as well as the blending functionality. Spyder's unique and advanced architecture eliminates the need for external data-doubling processors (overlap) required to support widescreen applications in the past. Output resolutions include computer resolutions of up to 2048x1200, analog HDTV resolutions of 720p, 1080I, 1080p, HD SDI video, and 2048 x 1080p digital cinema video, as well as plasma display resolutions.

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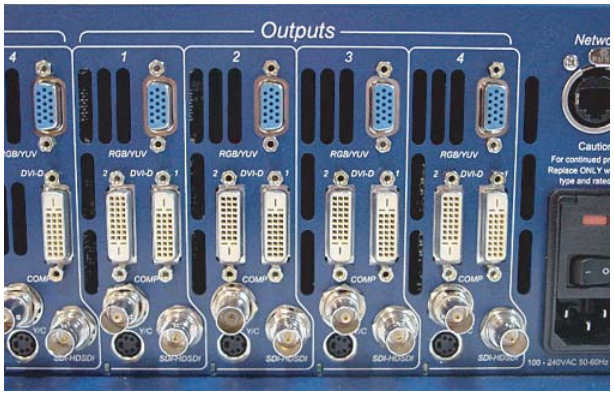
Output synchronization is supported to lock the output frame rate to an externally applied NTSC/PAL black burst signal in studio environments. Outputs also support the DVI 'Twin' specification, that allows greater bit depth to the projector or display.



EFFECTS:

Spyder is powerful, flexible, and easy to use. The expansion capabilities in Spyder ensure that you'll never come up short; up to 32 inputs can added to a Spyder system, but what you can do with those inputs is where the real power is unveiled. All Spyder inputs are universal and can be assigned as native backgrounds, scaled backgrounds or PIP windows, or mixers. These assignments are completely dynamic and can change from cue to cue, or preset to preset. For instance, a Spyder unit configured with 12 inputs might use 2 of those primarily used for dual head high resolution graphics for a background, another input might be primarily used as an HD-SDI background. 6 more might be assigned as generic mixers to cover cameras, graphics and tape rolls. The system would still have 3 layers to spare that can be used as needed for PIPs, overlays, keys, titles, bugs, etc.. The very next preset could use all 12 on screen at once to create a mosaic.

Mixers can be assigned numerous transition types including:

- **Morph:** smoothly transitions size, pos, aspect ratio, border, crop and clone settings from preview to program, flip-flopping after the transition is complete.
- **MixOn MixOff:** mixes program off, and preview on simultaneously, flip-flopping after the transition is complete.
- **Mix Through Black:** which allows a two stage transition, taking the program window completely to black (or background) before bringing on the new window, flip-flopping after the transition is complete.

Each of these options are critical, for example you may choose Morph to transition cleanly from a 5:4 to 4:3 aspect ratio graphics for minimal distraction to the audience, but decide to use a mix option for I-Mag to prevent distorting a presenter's features. Each have their place, depending on the preferences of the operator, and the requirements of the application.

The keying capability of Spyder, and the flexibility of Spyder's design, allow practical use of the system that is simply not available in any other product. For instance you may want a triple head graphics computer, or an HD-SDI animation to provide a background, while a single head high resolution graphics machine provides a text overlay using the chroma key feature. This allows for great performance in the text animations without having to sacrifice the resolution or motion on the backgrounds.

Since all of the inputs are universal, you don't have to worry about having too many dedicated channels of one type coming up short on channels of another type.

Using the Background image mixer, two Background images can be loaded at the full resolution of your display, these can mix just like any other mixer, but they don't use any input resources, which allows you to place logo or theme graphics at native resolution on the display without having to burn precious resources just to keep the screen from going to black.

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SPECIFICATIONS:

COMPOSITING		
Total Pixels (per expansion chain)	Pixels Per frame @ Common Frame Rates 10 bits per color 30 bits per pixel	@23.97hz (16,500,000) @24hz (16,500,000) @25hz (15,800,000) @29.97hz (13,200,000) @48hz (8,200,000) @50hz (7,900,000) @59.94hz (6,600,000) Consult factory for more information

INPUTS		
Spyder Input	Analog	RGBHV/RGsB computer video, or YPbPr video (SD or HD) on 15-pin HD connector; optionally supports S-video and composite on S-Video and BNC connectors
	SDI and HDSDI Inputs	Per SMPTE 259M-C (NTSC/Pal resolution) SMPTE 292 M (HDTV) on BNC connector
	DVI Input	Per DDWG 1.0 on DVI-D connector
	Input Resolutions	NTSC/PalComputer resolutions: VGA (640 x480) through WUXGA (1920 x 1200) up to a maximum of 2048 x 1200.HDTV resolutions: up to 1920 x 1080 (720p, 1080i, 1080p)2048 x 1080p (digital cinema format) All Plasma display resolutions
	Input Capabilities	Native High Resolution BackgroundScaled Background or PIPLuma or Color Keyer
Frame Lock Input	Analog	NTSC/PAL analog black burst reference on BNC Connector

OUTPUTS		
Spyder Output	Analog Outputs	RGBHV/RGsB, YPbPr video (SD or HD) on 15-pin HD connector; optionally S-video and composite on S-Video and BNC connectors
	DVI Output	Per DDWG 1.0 on DVI-D connector
	SDI/HD-SDI Output	Per SMPTE 259M-C (NTSC/Pal resolution) SMPTE 292 M (HDTV) on BNC connector
	Output Resolutions	Computer resolutions: VGA (640 x480) through WUXGA (1920 x 1200) up to a maximum of 2048 x 1200.HDTV resolutions : up to 1920 x 1080 (720p, 1080i,1080p)2048 x 1080p (digital cinema format) Plasma display resolution

POWER / CONTROL		
Ethernet		100 Base T Ethernet
RS-232	3 Ports on DB-9	Independently configurable to control one or more upstream routing switchers
Power		120-240 VAC-50/60Hz., Autoselecting 1.0A maximum