Vista Spyder X20

Auditoriums
Boardrooms
Broadcast studios
Conference rooms
Control rooms
Houses of worship
Media centers
Post-production
Rental and staging
Training rooms

The Next Generation

The Vista Spyder X20 is a versatile hardware-based video processor combined with the flexibility of a universal routing switcher. Its integrated source monitoring enables simultaneous, real-time, full frame rate monitoring of all inputs.

The Spyder X20 provides users with a 20 megapixel bandwidth to blend, window, mix and scale any source format and then routes the signal to any destination device or combination of display devices – quickly and easily. It is easy to deploy and install because of its advanced architecture and reduces the amount of wires, boxes and rack space traditionally required because everything is all in one unit.

VISTA SYSTEMS

Vista Spyder X20

The next generation of video processing and matrix switching

The Spyder X20 offers a unique architecture that allows for a resolution and video format-independent environment. Users are no longer restricted to the resolution of a single computer or video source, or a single display destination. Multiple displays can be combined to generate an enhanced resolution to exceed what any single display can support.

Ideal for live event and broadcast environments, its 20 megapixel bandwidth enables the Spyder X20 to drive multiple displays to achieve greater brightness, image quality and resolution than has been historically possible. The Spyder X20 can be used in many different environments with any display device (projectors, plasma screens, LED walls, rear projection cubes, etc.) or any combination of display devices. The Spyder X20 provides unsurpassed power and functionality in only 4 rack units (4RU).

This generation of Spyder

The Spyder X20 is designed for users in any environment to take images from unique sources, use a variety of display systems and present the images as intended. It is ideal for applications such as live events, broadcast, high-end boardrooms, command and control, houses of worship and education – any installation that has multi-windowing, multiple displays and processing requirements. The Spyder X20 also offers the flexibility to display 2D and 3D content simultaneously in the same display.

Software interface

The Microsoft® Windows based control software provides full set-up, configuration, and real-time control with an easy-to-use interface.

▲ Vista Advanced is a Windows-based software interface that makes it easy to configure and control the Spyder X20.

Key features
20 megapixel bandwidth
Internal matrix switching
Universal input/output capabilities – mix and match multiple formats with one piece of equipment
Input capability – either 8 or 16 inputs (depending on model) that can be a mix of analog BNC and DVI signals
Output capability – 8 outputs that natively support any display from component analog 480i to digital 4K
Built-in conversion for analog/digital, interlaced/progressive, resolution, aspect ratio and refresh rate
2D and 3D capabilities
Manages and displays multiple 3D sources
Define properties for each output independent of each signal
Integrated source monitoring – real-time and full frame rate view of all sources connected to the Spyder X20 (either 16 or 8 inputs) on a single output, tiled into either a 4x4 array (X20-1608) or a 4x2 array (X20-0808)
Single point of control for all processing and signal distribution functions from front panel, PC via Ethernet, or external control system
10-bit processing
Small form factor – (LxWxH): 21.9 x 17.3 x 7.0" (556 x 439 x 178mm). Additionally, only one piece of equipment is required so the overall space used in a rack is reduced
Each output individually supports rotation – enabling the creation of vertically-oriented displays
User-definable edge blending and tiling
Create any kind of window border or drop shadow with adjustable color, width, softness, shadow offset and transparency
Online editing mode allows for preset displays to be built and edited in preview mode without affecting what the audience is seeing
Additional features
Built-in image Still Store functionality
Built in VESA calculator for custom resolution outputs
Intuitive graphical user interface (GUI)
Simple cohesive control of all functions
Redundant hot swappable power supplies
Optional stereoscopic support
Advanced auto-sync functionality
Bitmap borders
Window titling
Optional HDCP support

▲ Bitmap borders

▲ Reduced rack space

▲ Front panel
With the Spyder X20, layers can be in 'program' and in 'preview' mode. You can build preset displays in preview mode using live layers without affecting the display being viewed by the audience.

▲ Spyder X20-1608 rear panel
The Spyder X20-1608 has 16 inputs and 8 outputs, that can be a mix of analog BNC and DVI signals.

▲ Spyder X20-0808 rear panel
The Spyder X20-0808 has 8 inputs and 8 outputs, and is easy to use and configure.

		Spyder X20-0808	Spyder X20-1608
Input	number	• 8 inputs • 4 supporting composite, S-video, component analog, HDSDI, SDI, and 3G SDI (SMPTE 424M) • 4 supporting progressive DVI and progressive RGBHV	• 16 inputs • 8 supporting composite, S-video, component analog, HDSDI, SDI, and 3G SDI (SMPTE 424M) • 8 supporting progressive DVI and progressive RGBHV
	signals	• Analog RGB composite, component • DVI, single-link and dual-link (8 inputs are dual-link capable) • SDI, HD-SDI and 3G-SDI (SMPTE 424M)	
	pixel clock	• Analog up to 165 MHz • DVI up to 330 MHz	
	resolutions	• Horizontal resolutions up to 2560 and vertical resolutions up to 2160 within 330 MHz (any resolution greater than 2048 x 1200 uses 2 input channels)	
	scan rates	• Up to 120Hz dependant on pixel clock rate maximum	
Output	number	• 8 @ (< 2048 x 1200) or 4 @ (2560 x 1600) or a combination of 4 dual-link and 4 single-link resolutions	
	signals	• Analog RGB, component • DVI, single-link and dual-link (4 outputs are dual-link capable) • SDI, HD-SDI and 3G-SDI (SMPTE 424M)	
	pixel clock	• Analog up to 165 MHz • DVI up to 330 MHz	
	resolutions	• Horizontal resolutions up to 2560 and vertical resolutions up to 2160 within 330 MHz	
	scan rates	• Up to 120Hz dependant on pixel clock rate maximum	
Control and networking		• RS-232 in/out • Ethernet (10/100/1000)	
Enhanced feature sets		• Independent aspect ratio and frame rate set-up • Overlays • Transitions • Aspect ratio conversions • Integrated source monitoring • Output rotation (portrait) • Optional stereoscopic support • Optional HDCP support • 2D and 3D capabilities	
Accessories	standard	• User manual (CD-ROM) • 2 AC power cords • Vista Advanced 2009 software • Rack hardware	
Power requirements	operating voltage	• 100-240 VAC @ 50/60Hz	
	operating current	• 9.0A @ 100 VAC	
	power	• 900W	
	dissipation	• <750 BTU/hr	
Dimensions	space requirements	• 4RU	
	size	• (LxWxH): 21.9 x 17.3 x 7.0" (556 x 439 x 178mm)	
	shipping size	• (LxWxH): 32.3 x 25.5 x 15.0" (820 x 648 x 381mm)	
	volume	• 2652in^3	
	weight	• 59lbs (27kg)	
	shipping weight	• 70.5lbs (32kg)	
Operating environment		• Temperature: 40-95°F (5-35°C) • Humidity: 20-80% non-condensing	
Regulatory approvals		• This product conforms to the following regulations related to product safety, environmental requirements and electromagnetic compatibility (EMC): • UL/CSA/IEC 60950 (3rd edition) • FCC Class A, CE, CCC • RoHS, WEEE	
Limited warranty		• 1 year parts and labor • Contact an authorized Vista representative for full details of our limited warranty	

Minimum PC requirements

Microsoft Windows® 7 Based Computers

Microsoft's Windows® 7 platform provides a rating called the 'Windows Experience Index', which measures the capability of your computer's hardware and software configuration and expresses this measurement as a number called a base score. A higher base score generally means that your computer will perform better and faster than a computer with a lower base score, and makes it simple to purchase a PC with confidence that it will work properly with the Vista Advanced software interface.

Requirements
'Windows Experience Index' of 4.0 or greater

Microsoft Windows XP Based Computers

Computers running the Windows XP user interface do not support the 'Windows Experience Index' provided in Windows Vista and Windows® 7, and therefore the hardware profile listed below can be used as a base hardware configuration.

Requirements
Pentium 4, 2.5Ghz or equivalent
512MB of RAM
128MB, DirectX 9.0 compatible video card (NVidia preferred)
Windows XP Professional, Service Pack 3
Microsoft .NET framework, Version 4.0
Microsoft DirectX 9.0c or later

Note: MAC or PC emulators such as VMWare and Microsoft Virtual PC should not be used to run Vista Advanced, and Vista cannot provide support for users using an emulator of any kind.

Americas

2001 W. Melinda Lane
Phoenix, AZ 85027
ph: 602 943 5700
fax: 623 582 3571

EMEA

ViewPoint
200 Ashville Way
Wokingham, Berkshire, U.K.
RG41 2PL
ph: +44 (0) 118 977 8000
fax: +44 (0) 118 977 8100

Asia

11F, K building, No.26
Lane 168, DaDuHe Road
PuTuo District
Shanghai 200062
People's Republic of China
ph: +86 21 6278 7708
fax: +86 21 6270 5816

Certified System
ISO 9001
ISO 14001
Kitchener, Ontario

For the most current specification information, please visit www.vistasystems.net

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