

VIDEO DISPLAY CONTROLLER
VIEWSPAN Solo®



Application | VIEWSPAN Solo® is designed for additional video matrix displays in a variety of applications

An industrial-grade,
 high performance
 video display controller
 for supplementary
 displays

VIEWSPAN Solo® is a video display controller for single or dual screens, with highly optimised video processing software delivering high performance in a compact format.

- | Single or dual outputs for full HD monitors
- | Decoding and display of 25 full HD streams at 30 FPS
- | Single Windows 10 desktop canvas
- | Decoding of any video format, resolution and frame rate
- | Designed for spot monitor or additional display applications
- | Low power consumption (25W typical)
- | Compact format with Vesa mount



VIEWSPAN Solo® is a compact, yet powerful, industrial-grade video display processor for video surveillance

VIEWSPAN Solo® is an ideal networked display system for auxiliary monitors, spot monitors, retail displays, reception desks and manager's offices.



Configuration and Control via web browser interface

Display Controllers

The VIEWSPAN® range of video display controllers are designed especially for video surveillance applications. They are built on dedicated hardware platforms which meet the performance and reliability requirements of video surveillance security applications.

VIEWSPAN Solo® is a compact unit, with a single HDMI output for a full HD or 4K monitor. An additional VGA output may be used simultaneously to drive a second full HD monitor.

Optimised Software

The VIEWSPAN system includes highly optimised video processing software

which, when combined with the specific VIEWSPAN Solo hardware, produces super-smooth video, decoding up to 25 full HD channels at 30 FPS across single or dual display outputs. See the table opposite for full decode performance at various stream resolutions. The larger rackmounted VIEWSPAN 6® variants offer higher performance & 6 display outputs per unit.

Setup and Configuration

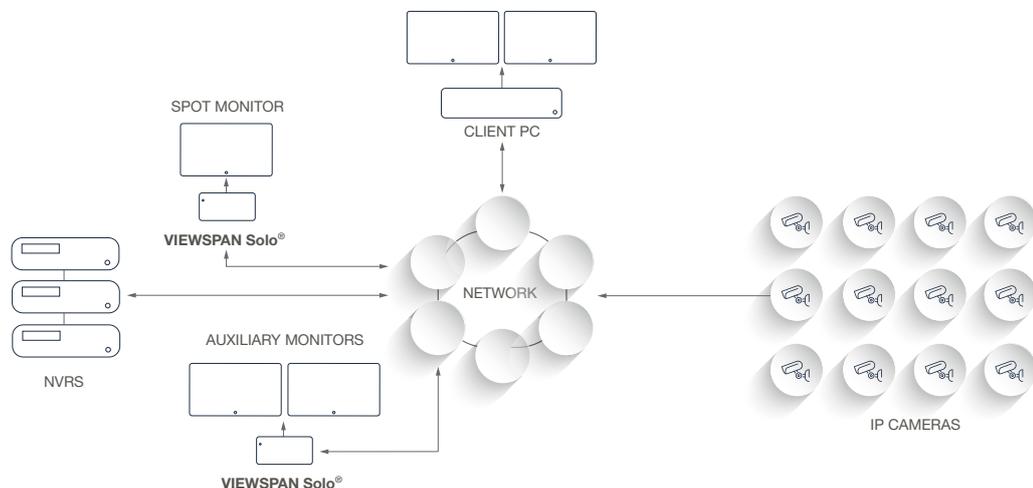
A simple web-browser interface is used to configure all VIEWSPAN systems, allowing network setup, display arrangement and VMS/NVR integration settings. VIEWSPAN can be directly integrated with the VMS

or integrated security management system, or can be used as an accelerator platform for the VMS display, controlling VIEWSPANS on a client through the browser interface.

Matrix View and Layout Patterns

The VIEWSPAN Solo display output(s) can be configured to match the physical monitor layout e.g. a single screen, side-by-side dual screen, or stacked dual screen. Once set, the layout becomes a single canvas for displaying video. Regions are defined within this canvas and may be a fraction of a screen or spread across both screens. Each region can have custom pre-defined matrix layouts

VIEWSPAN Solo® APPLICATION DIAGRAM

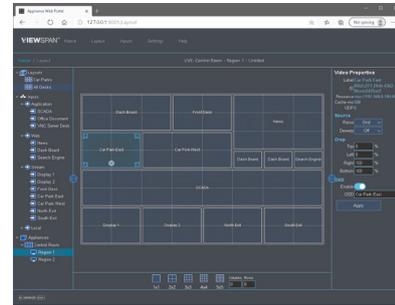


The diagram shows a VIEWSPAN Solo driving an additional spot monitor at an operator workstation and another VIEWSPAN Solo driving a pair of auxiliary monitors elsewhere on the network

(e.g reception desk). Displayed video streams may come from any source, including the NVR, cameras or even the Client PC. Multiple streams can be displayed on each monitor (matrix view).

VIEWSPAN Solo® can drive up to two full HD monitor displays, decoding 25 full HD streams

Panoramic fisheye camera lens de-warping is performed on the GPU for optimum performance.



Multiple display monitor layouts can be defined, saved and selected under operator control or triggered by alarms.

which may be selected manually or automatically. Specific layouts may be triggered via alarms sent to the unit. As many layouts as required may be configured.

Video Stream Decoding

VIEWSPAN® devices can decode almost any video stream format, with the most common being H.264 and H.265 for surveillance applications, at any resolution and frame rate. A higher number of streams can be decoded and displayed simultaneously if the resolution and/or frame rate is lower. For live video display applications, it is preferable to maintain a high frame rate (25 or 30 FPS) for smooth video.

Optimised Resolution for Display

Typical display monitors will be full HD resolution, although VIEWSPAN Solo is capable of driving a 4K monitor if required. When multiple video channels are being displayed on an HD monitor (with 4-way and 9-way matrices being most common), then the input video stream resolution can be reduced accordingly without reduction of display image quality. Nearly all modern IP cameras can provide simultaneous high resolution primary streams for recording and lower resolution sub-streams for display, transmission, remote live viewing and other purposes. VIEWSPAN Solo can take advantage

of these sub-streams to display more channels of smooth live video – see performance reference table below.

VIEWSPAN® Range

Veracity provides a range of VIEWSPAN systems to suit different requirements. In addition to the VIEWSPAN Solo described in this datasheet, VIEWSPAN 6 and 6 Plus are rackmount units offering 6 full HD display outputs and greater flexibility.

VIEWSPAN 6 Plus is a higher performance unit, decoding up to 48 full HD streams at 30 FPS. The 6 Plus model can also drive six 4K displays at full resolution.

VIEWSPAN 6®, VIEWSPAN 6 Plus® and VIEWSPAN Solo® Performance Table

PERFORMANCE TABLE		MAXIMUM NUMBER OF SIMULTANEOUS DECODE CHANNELS AT 30 FPS		
IP VIDEO INPUT (RESOLUTION)	IP VIDEO INPUT (REFERENCE)	VIEWSPAN 6®	VIEWSPAN 6 Plus®	VIEWSPAN Solo®
720 x 480 or 576	NTSC or PAL D1	48 ch	72 ch	48 ch
1280 x 720	720p HD	36 ch	54 ch	36 ch
1920 x 1080	1080p Full HD	26 ch	48 ch	25 ch
3480 x 2160	4K UHD	6 ch	6 ch	6 ch
Display Outputs, Type & Resolution		6 x DisplayPort HD	6 x DisplayPort HD or 4K	1 x HDMI HD or 4K or 1 x HDMI HD + 1 x VGA HD

The table shows the number of video input channels which can be simultaneously decoded at a given input resolution. However, the displayed resolution of each individual channel will be dictated by the

display monitor resolution, layout pattern and number of screens available. For example, VIEWSPAN 6 can decode 26 Full HD input channels but has 6 Full HD display outputs.

Therefore at least some of the input channels will be scaled down to fit the screen area resolution defined for those channels.

TECHNICAL SPECIFICATION

VIEWSPAN Solo®

POWER INPUT Input Voltage Power Consumption	12V DC input, (100V/240V AC, 50/60Hz to 12V DC power supply included) 25W typical, 60W maximum
SYSTEM Hardware Processors Operating System Codec Support	Industrial mini PC board with high performance CPU & GPU OS on mSATA SSD, 4GB DDR RAM CPU: Intel; GPU: Intel Windows 10 Pro, 64bit GPU: H.264, H.265, MPEG2, MJPEG, VC8 CPU: All ffmpeg codecs – see www.ffmpeg.org/general.html#Video-Codecs
PERFORMANCE Decode Channels Stretch Video De-warp	All at 30 FPS (higher channel counts available with lower frame rates) 48 at D1 resolution (48 channels across 2 full HD screens) 36 at 720p resolution (36 channels across 2 full HD screens) 25 at Full HD resolution (25 channels across 2 full HD screens) 6 at 4K UHD resolution (6 channels across a single 4K screen) Yes, across two screens Yes
NETWORK Ethernet	1 x Gigabit Ethernet interface
CONNECTIONS Power Ethernet USB Display	DC jack 1 x RJ45 2 x USB 2.0, 4 x USB 3.0 1 x HDMI 2.0, 1 x VGA
PHYSICAL / ENVIRONMENTAL Form Factor Case Dimensions Weight Operating Temperature Storage Temperature Relative Humidity Safety & Compliance	Mini PC W 129mm x H 40mm x D 129mm [5.08" x 1.57" x 5.08"] 628g 0°C to +40°C [32°F to +104°F] -20°C to +60°C [-4°F to +140°F] 85% non-condensing CE, FCC Class A, ROHS and WEEE, UKCA
PRODUCT CODES VSPAN-SOLO-UK VSPAN-SOLO-EU VSPAN-SOLO-US VSPAN-6-UK VSPAN-6-EU VSPAN-6-US VSPAN-6-PLUS-UK VSPAN-6-PLUS-EU VSPAN-6-PLUS-US	VIEWSPAN Solo video wall controller, 1 or 2 outputs & UK power cable VIEWSPAN Solo video wall controller, 1 or 2 outputs & EU power cable VIEWSPAN Solo video wall controller, 1 or 2 outputs & US power cable VIEWSPAN 6 video wall controller, 6 outputs & UK power cable VIEWSPAN 6 video wall controller, 6 outputs & EU power cable VIEWSPAN 6 video wall controller, 6 outputs & US power cable VIEWSPAN 6 Plus video wall controller, 6 outputs & UK power cable VIEWSPAN 6 Plus video wall controller, 6 outputs & EU power cable VIEWSPAN 6 Plus video wall controller, 6 outputs & US power cable



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