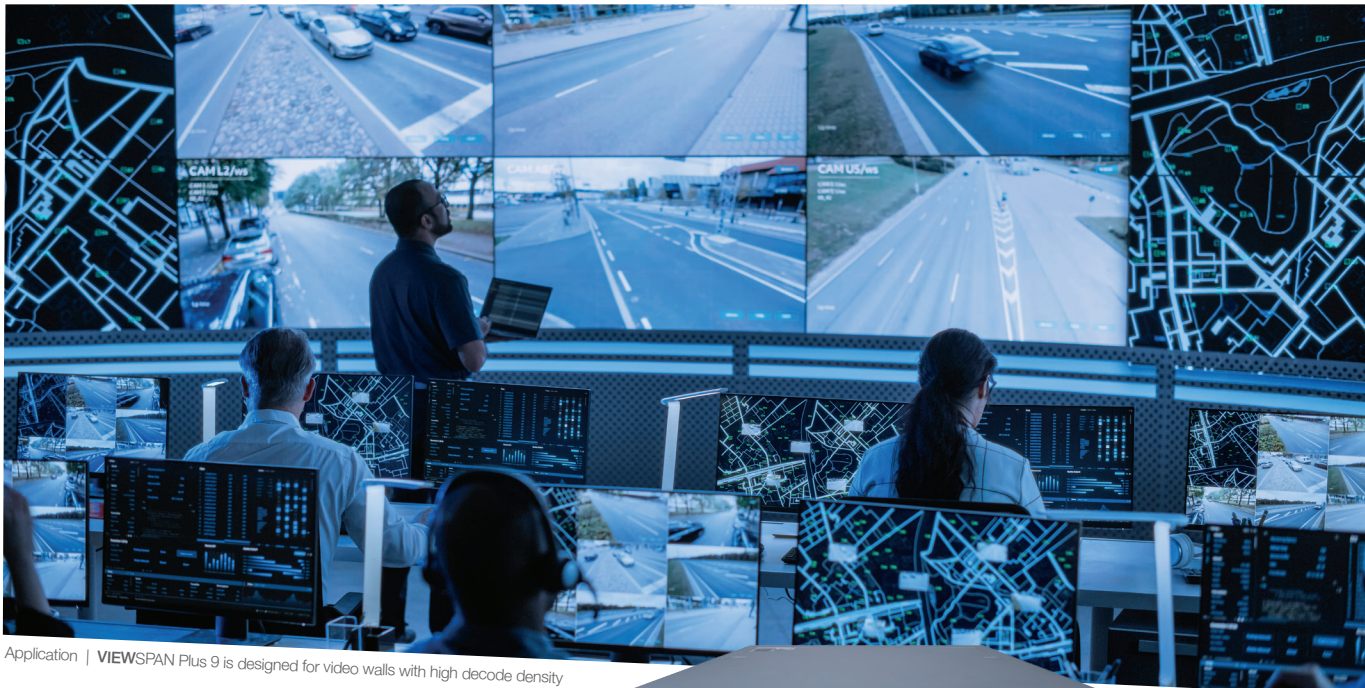9 CHANNEL VIDEO WALL CONTROLLER
VIEWSPAN PLUS 9®

Application | **VIEW**SPAN Plus 9 is designed for video walls with high decode density

A high performance video wall controller for IP video decode and display

All VIEWSPAN® models incorporate highly optimised VIEWSPAN NEXUS video processing software, delivering a full feature set for enterprise-level solutions

| Nine display outputs for Full HD or UHD monitors

| Decoding & display of 9 FHD streams per screen output

| Display of IP cameras, AV sources, web pages & signage

| Integrated browser management of multiple systems

| Stretch & position items anywhere on the video wall canvas

| Compatible with AV capture, VIEWCAST, VNC & web

| Accelerated fisheye camera lens dewarping

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VIEWSPAN Plus 9® is a powerful, modular, display controller for large-scale, high resolution video wall installations

Multiple VIEWSPAN® devices can be integrated to drive large numbers of displays

Configuration and Control via web browser interface

Display Controllers

VIEWSPAN® video wall controllers are designed especially for video surveillance, audio-visual and digital signage applications. They are built on industry standard hardware, specifically selected and tested to meet the performance and reliability requirements of high security control rooms.

VIEWSPAN Plus 9 is a 2U, rackmounted unit, with nine mini DisplayPort outputs with latching connectors. Each output can drive Full HD or UHD monitors at full resolution.
The Plus range of controllers includes dual hot-swap power supplies and modular, hot-swappable front mounted cooling fans.

Optimised Software

The VIEWSPAN system incorporates VIEWSPAN NEXUS highly optimised video processing software.

Combined with the powerful dedicated GPU and CPU hardware, it produces incredible performance with super smooth video, decoding and displaying up to 9 Full HD 30 FPS channels per screen output.
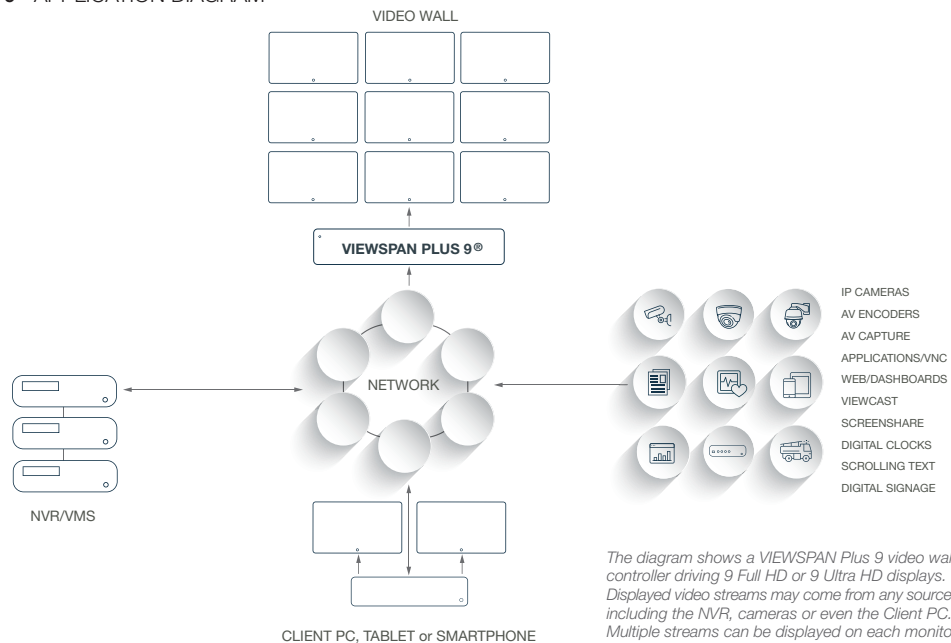
VIEWSPAN includes GPU-accelerated fisheye camera lens dewarping capability, for corrected display of live or recorded video. See the table on page 3 for full decode performance at various stream resolutions.

Setup & 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 it can be used as an accelerator platform for the VMS display, controlling VIEWSPANs on a client through the browser interface.

Multiple VIEWSPAN units can be configured to control large video walls with many monitors for large CCTV control rooms and security operations centres.
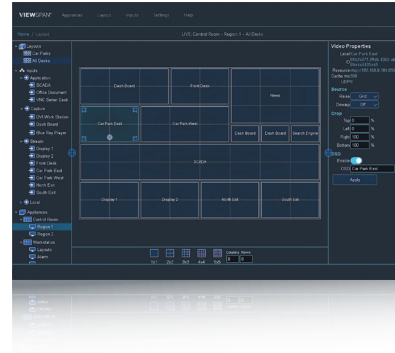
VIEWSPAN PLUS 9® APPLICATION DIAGRAM

VIDEO WALL

VIEWSPAN PLUS 9®

NETWORK

IP CAMERAS
AV ENCODERS
AV CAPTURE
APPLICATIONS/VNC
WEB/DASHBOARDS
VIEWCAST
SCREENSHARE
DIGITAL CLOCKS
SCROLLING TEXT
DIGITAL SIGNAGE

NVR/VMS

CLIENT PC, TABLET or SMARTPHONE

The diagram shows a VIEWSPAN Plus 9 video wall controller driving 9 Full HD or 9 Ultra HD displays. 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).

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Panoramic fisheye camera lens dewarping is performed on the GPU for optimum performance

VIEWSPAN incorporates support for popular VMS systems with full integration

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

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.

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.

Display Flexibility

VIEWSPAN Plus 9 models can smoothly drive a 3 x 3 matrix of nine video streams (at FHD input resolution) on each of its display outputs without stutter or frame drop. Supported video formats may be cropped, scaled and displayed anywhere on the nine-screen video wall canvas. A single stream may also be stretched across the full video wall if required.

Plus 9 models can drive nine 4K/UHD displays. They can decode and display multiple 8-megapixel (4K/UHD) IP camera streams at full resolution and frame rate on these maximum resolution display outputs.

VIEWSPAN can also take advantage of lower resolution sub-streams to display more streams, such as sixteen D1 streams per Full HD screen.

VIEWSPAN® Range

Veracity provides a range of VIEWSPAN models to suit different requirements. The Plus range includes 6, 9 and 12 screen models. The Pro range provides higher IP video decode densities per screen. VIEWSPAN Solo is a compact, low cost option for a single FHD or UHD screen, decoding up to 25 Full HD video streams. Solo is ideal for auxiliary and distributed displays. The VIEWSPAN AV range provides direct AV capture and display for audio-visual video wall applications. All models run VIEWSPAN NEXUS® software, are inter-compatible and are managed through a single browser interface.

VIEWSPAN Performance Comparison Table

PERFORMANCE TABLE FOR FULL HD OUTPUTS		MAXIMUM NUMBER OF SIMULTANEOUS DECODE CHANNELS AT 30 FPS		
IP VIDEO INPUT (RESOLUTION)	IP VIDEO INPUT (REFERENCE)	VIEWSPAN Plus 6®	VIEWSPAN Plus 9®	VIEWSPAN Plus 12®
720 x 480 or 576	NTSC or PAL D1	84 ch	120 ch	120 ch
1280 x 720	720p HD	72 ch	108 ch	120 ch
1920 x 1080	1080p Full HD	54 ch	81 ch	108 ch
3840 x 2160	4K UHD	6 ch	9 ch	12 ch
Display Outputs, Type and Resolution		6 x mini DisplayPort Full HD or 4K/UHD	9 x mini DisplayPort Full HD or 4K/UHD	12 x mini DisplayPort Full HD or 4K/UHD

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 resolution, layout pattern and the number of screens available. For example, VIEWSPAN Plus 9 can decode 81 Full HD input channels when it is connected to 9 Full HD display outputs, then the output streams will be scaled down to fit the screen area resolution defined for those channels.

TECHNICAL **SPECIFICATION**

VIEWSPAN PLUS 9®

POWER INPUT

Input Voltage	100V to 240V AC, 50/60Hz
Power Consumption	210W typical, 276W under full load

SYSTEM

Hardware	2U Rackmount industrial PC server
Processors	CPU: Intel, GPU: Nvidia x 3
Operating System	Windows 10 LTSC, 64bit
	OS on mirrored (RAID 1) 2.5" SSD
Codec Support	GPU: H.264, H.265, MPEG-1, MPEG-2, VP8, VP9
	CPU: ffmpeg codecs – see www.ffmpeg.org/general.html#Video-Codecs

PERFORMANCE

Decode Channels	All at 30 FPS (higher channel counts available with lower frame rates)
(See table on page 3)	120 at D1 resolution
	108 at 720p resolution
	81 at Full HD resolution
	9 at 4K UHD resolution
Stretch Video	Yes, across up to nine screens
Dewarp	Yes

NETWORK

Ethernet	1 x Gb Ethernet
	1 x 10Gb Ethernet

CONNECTIONS

Power	2 x IEC 13
Ethernet	2 x RJ45
USB	3 x USB 3.2 Type A, 2 x USB 3.1 Type A, 2 x USB 3.2 Type C
Display	9 x Mini DisplayPort 1.4

PHYSICAL/ENVIRONMENTAL

Form Factor	2U Rackmount case, includes mounting rails
Case Dimensions	W 482mm x H 87mm x D 450mm [19.00" x 3.43" x 17.72"]
Weight	12.83Kg [28.28lbs] including the mounting rails
Operating Temperature	0°C to +40°C [32°F to +104°F]
Storage Temperature	-40°C to +80°C [-40°F to +176°F]
Relative Humidity	85% non-condensing
Safety & Compliance	CE, FCC Class A, UKCA, BIS, ROHS and WEEE

PRODUCT CODES

VSPAN-PLUS-9-UK	**VIEWSPAN Plus 9, video wall controller, 9 outputs, rails & UK power cable**
VSPAN-PLUS-9-EU	**VIEWSPAN Plus 9, video wall controller, 9 outputs, rails & EU power cable**
VSPAN-PLUS-9-US	**VIEWSPAN Plus 9, video wall controller, 9 outputs, rails & US power cable**

The rear view of VIEWSPAN Plus 9 shows the mirrored, solid-state, 2.5" removable OS drives and the dual hot-swap PSUs. The nine screen outputs are in three rows on the right. Only the two RJ45 network connectors on the main panel are used (1 x Gb, 1 x 10Gb Ethernet)

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