

VideoXpert Rackmount Workstation™

Product Features

- Provides scalability and modular expansion
- Supports monitor walls, including cell layouts and cameras
- Supports MJPEG, MPEG-4, H.264, and H.265
- Supports environments that use anti-virus and firewall software
- Imports users and roles from existing LDAP servers to reduce administrative overhead, and enables single sign-on (SSO)
- Microsoft® Windows®-based for easy setup and maintenance
- The VX-RKWKST supports up to 4 monitors per workstation (either 4 native or 2 native and 2 using Enhanced Decoders, depending on the decoder model), with the option for independent CPUs displaying up to 25 streams per monitor
- The VX-RKWKS8T supports up to 8 monitors per workstation (2 native and 6 using Enhanced Decoders), with the option for independent CPUs displaying up to 25 streams per monitor on a VideoXpert™ Enterprise system
- Workstations are available with 3D mouse and programmable keyboard accessories to customize and optimize operator efficiency
- Supports ONVIF-compliant cameras and devices
- Supports Shared Display™ Decoders so operators can send video to surveillance personnel who need it most
- Supports DNS hostnames for ONVIF-compliant cameras and Pelco cameras
- Enables and supports Risk Management Framework (RMF) and FIPS 140-3



Overview

The VxOpsCenter™ is a Windows-based application, providing an optimal environment from which users can watch live and recorded video. With the support of Enhanced Decoders™, the VideoXpert Rackmount Workstation™ supports up to eight monitors, each capable of displaying up to 25 video streams simultaneously. Through the VxOpsCenter, users can configure and recall complete workspaces, enabling operators to quickly log in and get to work.

Advanced Operator Controls

In addition to the standard keyboard and mouse, workstations support an Enhanced Keyboard, an Enhanced Mouse, and the KBD5000. The Enhanced keyboard includes programmable keys to which operators can map shortcuts to their favorite tabs and workspaces. The Enhanced Mouse or your existing KBD5000 are mapped to the full range of VxOpsCenter controls.



KBD5000 Jog/Shuttle, Keypad, and Joystick



Enhanced Keyboard



Enhanced 3D Mouse

Technical Specifications

Hardware

Item	Description
Processor	Intel® Core i7-9700K
Memory	16 GB DDR4
Operating System	Windows® 10 IoT Enterprise
SSD Storage	256 GB
USB Ports	
USB Type-A 3.1 Gen1	2x front
USB Type-C 3.1 Gen2	1x front, 2x rear

Video

Item	Description
Video system	- VX-RKWKST: NVIDIA Quadro P620 (1x) - VX-RKWKST8T: NVIDIA Quadro P620 (2x)
Memory	2 GB GDDR5
Video Outputs	- VX-RKWKST: Mini DisplayPort 1.4 (4x) - VX-RKWKST8T: Mini DisplayPort 1.4 (8x)

Item	Description
Display Support (live and playback) ^{1,2}	
VideoXpert Enterprise or VideoXpert Professional systems	<ul style="list-style-type: none"> - 4K monitors: up to 2 monitors directly connected - 1080p monitors: up to 4 monitors directly connected - 25 streams per monitor, up to 64 streams total across all directly connected monitors
VideoXpert Enterprise systems with Enhanced Decoders ³	<ul style="list-style-type: none"> - 1080p monitors on VX-RKWKST: up to 4 monitors directly connected (no Enhanced Decoder is required, unless additional streams per monitor must be displayed) - 1080p monitors on VX-RKWKS8T: up to 4 monitors directly connected; or if more than 4 monitors are desired, 2 monitors directly connected and up to 6 monitors connected through Enhanced Decoders (8 monitors maximum) - Streams, using Enhanced Decoders: 25 streams per Enhanced decoder, plus 25 streams per directly connected monitor

¹ Memory will support up to 20 synchronized playback streams across all monitors.

² For VX-RKWKS8T, distribute directly connected monitors equally between the two video cards.

³ Use Enhanced Decoders VX-A3-DEC or newer.

Networking

Item	Description
Interface	1 Gigabit Ethernet (1000Base-T), 10 Gigabit Ethernet (10GBase-T)
IP version	IPv4 and IPv6

Front Panel

Item	Description
Buttons	Power
Indicators	
Unit Status	White, amber (behind bezel)
Hard Disk Status	White (behind bezel)

Power

Item	Description
Power Input	100 to 240 VAC 50/60 Hz \pm 5%, autoranging
Power Supply	Internal—1 included, 2 maximum ¹
Power Consumption	550 W, 7.4 A / 3.7 A (maximum)

¹ Purchase the additional power supply, part number 450-AEKP, from a third-party.

Environmental

Item	Description
Operating Temperature	10° to 35°C (50° to 95°F) at unit air intake (front)
Non-Operating Temperature	−40° to 65°C (−40° to 149°F)
Operating Relative Humidity	10% to 85%, non-condensing
Non-Operating Relative Humidity	10% to 90%, non-condensing
Operating Vibration	0.26 GRMS



Note: The temperature at the unit air intake can be significantly higher than room temperature. Temperature is affected by rack configuration, floor layout, air conditioning strategy, and other issues. To prevent performance failure and unit damage, make sure the temperature at the unit is continuously within the operating temperature range.

Physical

Item	Description
Construction	Steel and plastic cabinet
Finish	
Front Panel	Black with metallic silver
Chassis	Silver
Dimensions (D x W x H)	57.75 x 48.2 x 4.28 cm (22.73 x 18.97 x 1.68 in)
Mounting (RU)	1 RU
Unit Weight	12.42 kg (27.38 lb)

Certifications

Item	Description
CE	Class A
FCC, Part 15	Class A
ICES-003	Class A
UL/cUL Listed	X
RCM	X
CCC	X
KC	X
NOM	X

Security

VideoXpert includes the following security features:

- Client authentication
- Passwords stored with cryptographic protection
- Configurable roles and permissions
- User action reports
- TLS-based encryption over HTTPS
- Support running with antivirus
- Ability to encrypt exports
- Synchronized system clocks using NTP
- Supports video and data encryption using AES-128-256 through third-party disk encryption software.
- Incorporates FIPS 140-3 validated cryptographic modules
- FISMA/NIST Configuration Guidance – This guide will help organizations documenting the system through their RMF process with information about:
 - How to categorize the system
 - Which NIST-based security controls are applicable
 - How VX implements NIST-based security controls
- FISMA/NIST Compliance Testing – VideoXpert is installed on a FISMA representative system with applicable DISA STIGs (Defense Information Systems Agency, Secure Technical Implementation Guidelines) and tested for functionality. Applicable STIGs include:
 - Microsoft Windows 10 for VxOpsCenter and VxToolbox
 - Microsoft Windows Server 2016 and 2019 for VideoXpert Core™ and Media Gateway™
 - Microsoft .Net Framework 4

- Microsoft Internet Explorer 11
- Microsoft Windows Firewall and Advanced Security
- Postgres Database 9.x for VideoXpert Core and Media Gateway, and for VxStorage™
- Conforms to SB327 requirements (and international iterations of such) by enforcing default password changes upon initial configuration.

Model Numbers

- **VX-RKWKST** Rackmount Workstation enabling the use of up to four monitors; EU, US, and UK power cords included
- **VX-RKWKS8T** Rackmount Workstation with an additional graphics card, enabling the use of up to eight monitors; EU, US, and UK power cords included

Supplied Accessories

- Keyboard
- Mouse
- Rackmount kit
- Power cords (US, UK, and EU)

Optional Power Accessories

- **PWRCRD-S-AR** Standard power cord, Argentina
- **PWRCRD-S-AU** Standard power cord, Australia
- **PWRCRD-S-EU** Standard power cord, Europe
- **PWRCRD-S-UK** Standard power cord, United Kingdom
- **PWRCRD-S-US** Standard power cord, United States
- **PWRCRD-R-AR** Round power cord, Argentina
- **PWRCRD-R-AU** Round power cord, Australia
- **PWRCRD-R-EU** Round power cord, Europe
- **PWRCRD-R-UK** Round power cord, United Kingdom

Optional Accessories

- **3DX-600-3DMOUSE** Enhanced 3D Mouse and Joystick
- **Y-U0023-G910KBD** Enhanced Keyboard
- **A1-KBD-3D-KIT2** Enhanced Keyboard and 3D Mouse Combination Kit
- **KBD5000** Keyboard with Jog/Shuttle, Keypad, and Joystick
- **PMCL622** Full High-Definition LED Monitor, 22"
- **PMCL624** Full High-Definition LED Monitor, 24"
- **PMCL632** Full High-Definition LED Monitor, 32"
- **PMCL643K** 4K Ultra-High-Definition LED Monitor, 43"
- **PMCL649K** 4K Ultra-High-Definition LED Monitor, 49"

- **PMCL655K** 4K Ultra-High-Definition LED Monitor, 55"
- **PMCL665K** 4K Ultra-High Definition LED Monitor, 65"



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