# **CortexVision**

### Summary

The CV-IPNVR-Rack™ servers are High End servers that can record and manage single- and multi-sensor IP cameras of any resolution, with a maximum of 2700 Mbps throughput. The servers offer Windows 10, Windows IoT, Windows Server 2019 or Linux Ubuntu OS on SSD with RAID 1, Storage with RAID0/ RAID1/RAID5/RAID6/ RAID10, Intel® Xeon® Silver/Gold Processors, 32GB RAM, multiple local view options via DP Switch. The server/recorder is available with 24 SATA, 18TB Each SATA, 432TB Capacity for true enterprise scalability and 3 year limited warranty. All CV-IPNVR-Rack™ servers come with 16-channel licenses included with Cortex VMS Software.

#### **NVR Key Features**

- Supports all ONVIF conformant IP cameras
- Storage options 24 SATA, 18TB Each SATA, 432TB Storage capacity
- Hot spare plug HDDs
- Data redundancy (N+M)
- · Redundant power supply
- Record and manage single- and multi-sensor IP cameras of any resolution with a maximum of up to 2700Mbps throughput
- Local monitoring outputs ports ,two way audio feature with remote client application
- Quad Giga network ports (Optional 2 x 10Giga/Fiber Optic Ports and 2x 1G Ports)
- Windows 10, Windows IoT, Windows Server 2019 or Linux Ubuntu OS on separate SSD
- · SD card interface
- Pre-installed Cortex VMS Software for Configuration, Monitoring and Recording
- One-time Recording License Charge, Fully Transferable Between Cameras and Encoders
- 16-channel licenses included with Cortex VMS Software C-VMS-01 x8.
- · No annual maintenance Charge
- Unlimited Windows/ Linux/ MAC PC clients
- · Simple enterprise scalability
- · Auto device discovery
- Multi stream recording
- E-Map integration and front-end control features
- Rail kit Included
- · USB mouse and keyboard included
- 3 years limited warranty



# Video Management System (VMS) Software

- Pre-configured with Cortex Vision VMS software
- Support up to 2000 channels per Client system/128 channels per server.
- Support creating a VMS system by servers in different LANs with Client Server Architecture
- Support Access control system Integration.
- Support N+M Failover, ONVIF.
- Offer a user-friendly GUI for easy operation.
- Provide access to the system via Mobile video clients.
- For Client App MAC, Windows, Linux.
- For Mobile App iOS, Android, Windows.
- Local Client Display 1200@HD for Windows and 1600@HD for Linux.
- Support multi-monitor and 64 live view channels per monitor with main or sub streams optional.
- Support live video view, playback, historical video search and playback, alarm management.
- Support Fisheye De-warping &PTZ control.
- Support Camera Tour and Layout Tour, Matrix, LDAP, Hovering
- Support Dynamic Visualization including People Counting and Traffic Detection.
- Support up to 64 channels synchronous or asynchronous playback.
- Support reverse and times the speed of playback.
- Support quick location & playback by tags, events and Password on Recorded data.
- Support smart search of motion detection.
- Support marking different types of videos with different colors.
- Support video, audio and data with thumbnail or timeline search Bookmarking.
- Support lock of important Video.
- Support the export of videos in different formats.
- Support multiple kinds of overlays.
- Support local and NAS storage.





## **Technical Specifications**

Included IP licenses Inputs Inputs Inputs Inputs Incompression Form factor Compression Frame Rate Operating system Operating	PART NUMBER	2U -12 Bay	3U - 16 Bay	4U -24 Bay
Form factor Compression Compression Frame Rate Operating system CPU Intel® Xeon® Quad Core Silver/Gold Processors Memory 32 GB and (64GB, 128GB optional) Ethernet port Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports) Max video Throughput Maximum Hard Drives Maximum storage Operating System	Included IP licenses		16	
Compression  Frame Rate  Operating system  Operating system  CPU  Intel® Xeon® Quad Core Sliver/Gold Processors  Memory  Bethernet port  Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)  Max video Throughput  Maximum Hard Drives  Maximum storage  Operating System DVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)  USB  8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)  Video card  AMD FirePro W4100 4x Mini display port to true HD adapters  Resolution  Dy to 20MP  Serial  1x R5 232 & 1x R5485  Audio Inputs  Alarm Inputs  Alarm Outputs  Keyboard and mouse  Rail kit  Included  Power Supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)  Windows Server 2019 or Linux Ubuntu Ubuntu Ubuntu Ubuntu Ubuntu Ob neparature and humidity  Windows 10, Windows Server 2019 or Linux Ubuntu Ubuntu Ubuntu Ubuntu 10	Inputs	128 IP Channels	128 IP Channels	128 IP Channels
Frame Rate         Upto 60 FPS per camera           Operating system         Windows 10, Windows 1oT, Windows Server 2019 or Linux Ubuntu OS on separate SSD           CPU         Intel® Xeon® Quad Core Silver/Gold Processors           Memory         32 GB and (64GB, 128GB optional)           Ethernet port         Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)           Max video Throughput         900 Mbps         1800 Mbps         2700 Mbps           Maximum Hard Drives         12 x HDD         16 x HDD         24 x HDD           Maximum storage         216 TB         28 B TB         432 TB           Operating System Drives         512 GB SSD For OS with RAID 1         700 For Strip Color	Form factor	Rack mount		
Operating system  CPU  Intel® Xeon® Quad Core Silver/Gold Processors  Memory  32 GB and (64GB, 128GB optional)  Ethernet port  Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)  Max video Throughput  Maximum Hard Prives  Maximum storage  Operating System Prive  Video Outputs  USB  USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)  Video card  AMD FirePro W4100 4x Mini display port to true HD adapters  Resolution  Serial  Alarm Inputs  Alarm Inputs  Alarm Outputs  Keyboard and mouse  Rail kit  Power Supply  Voltage  AC Input: 100-240V / 11-4.Ab / 50-60Hz  DC Outputs: 920W: + 12V/75A; +5V sb/4A  Operating supply  Video Certifications  Video Quegating System Prive Video Control of Control	Compression	MJPEG, H.264, H.265		
CPU         Intel® Xeon® Quad Core Silver/Gold Processors           Memory         32 GB and (64GB, 128GB optional)           Ethernet port         Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)           Max video Throughput         900 Mbps         1800 Mbps         2700 Mbps           Maximum Hard Drives         12 x HDD         16 x HDD         24 x HDD           Maximum storage         216 TB         288 TB         432 TB           Operating System Drive         512 GB SSD For OS with RAID 1         Drive           Video Outputs         DVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)         USB           USB         8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)         VIdeo card         AMD FirePro W4100 4x Mini display port to true HD adapters           Resolution         Up to 20MP         Descrial         1x RS 232 & 1x RS485           Audio Inputs         24         Audio Outputs         4/4/12/16           Alarm Inputs         24 TTL         Alarm Outputs         23 TTL & 1 relay           Keyboard and mouse         Included         Included           Power Supply         Dual 920W, redundant power supply         Voltage           Voltage         AC Input: 100-240V / 11-4.4A / 50-60Hz         DC Output: 920W: + 12V/75A ; +5V sb/4A           Operating tem	Frame Rate	Upto 60 FPS per camera		
Memory         32 GB and (64GB, 128GB optional)           Ethernet port         Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)           Max video Throughput         900 Mbps         1800 Mbps         2700 Mbps           Maximum Hard Drives         12 x HDD         16 x HDD         24 x HDD           Maximum storage         216 TB         288 TB         432 TB           Operating System Drive         512 GB SSD For OS with RAID 1         1           Drive         DVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)         USB           USB         8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)           Video card         AMD FirePro W4100 4x Mini display port to true HD adapters           Resolution         Up to 20MP           Serial         1x RS 232 & 1x RS485           Audio Inputs         24           Audio Outputs         4/4/12/16           Alarm Inputs         24 TTL           Alarm Outputs         23 TTL & 1 relay           Keyboard and mouse         Included           Rail kit         Included           Power Supply         Dual 920W, redundant power supply           Voltage         AC Input: 100-240V / 11-4.4A / 50-60Hz           DC Output: 920W: + 12V/75A; +5V sb/4A           Operating temper	Operating system	Windows 10, Windows IoT, Windows Server 2019 or Linux Ubuntu OS on separate SSD		
Ethernet port Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)  Max video	CPU	Intel® Xeon® Quad Core Silver/Gold Processors		
Max video Throughput         900 Mbps         1800 Mbps         2700 Mbps           Maximum Hard Drives         12 x HDD         16 x HDD         24 x HDD           Maximum storage         216 TB         288 TB         432 TB           Operating System Drive         512 GB SSD For OS with RAID 1         1           Video Outputs         DVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)           USB         8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)           Video card         AMD FirePro W4100 4x Mini display port to true HD adapters           Resolution         Up to 20MP           Serial         1 x RS 232 & 1x RS485           Audio Inputs         24           Audio Outputs         4/4/12/16           Alarm Inputs         24 TTL           Alarm Outputs         23 TTL & 1 relay           Keyboard and mouse         Included           Rail kit         Included           Power Supply         Dual 920W, redundant power supply           Voltage         AC Input: 100-240V / 11-4.4A / 50-60Hz           DC Output: 920W: + 12V/75A; +5V sb/4A           Operating temperature and humidity         CE, FCC, UL, ROHS, NDAA,WEEE,ROHS	Memory	32 GB and (64GB, 128GB optional)		
Throughput  Maximum Hard Drives  24 x HDD  16 x HDD  24 x HDD  24 x HDD  Drives  Maximum storage  216 TB  288 TB  432 TB  Operating System Drive  Video Outputs  DVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)  USB  8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)  Video card  AMD FirePro W4100 4x Mini display port to true HD adapters  Resolution  Up to 20MP  Serial  1x RS 232 & 1x RS485  Audio Inputs  Alarm Inputs  4/4/12/16  Alarm Inputs  Alarm Outputs  Alarm Outputs  Reil kit  Included  Power Supply  Dual 920W, redundant power supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE, RoHS	Ethernet port	Quad Giga network ports (2X 10Giga/Fiber Optic Ports and 2 X 1G Ports)		
Drives  Maximum storage  Decrating System Drive  Video Outputs  DVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)  USB  8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)  Video card  AMD FirePro W4100 4x Mini display port to true HD adapters  Resolution  Up to 20MP  Serial  1x RS 232 & 1x RS485  Audio Inputs  Audio Outputs  Alarm Inputs  Alarm Outputs  Reyboard and mouse  Rail kit  Included  Power Supply  Dual 920W, redundant power supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; + 5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS		900 Mbps	1800 Mbps	2700 Mbps
Operating System Drive Video Outputs512 GB SSD For OS with RAID 1Video OutputsDVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)USB8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)Video cardAMD FirePro W4100 4x Mini display port to true HD adaptersResolutionUp to 20MPSerial1x RS 232 & 1x RS485Audio Inputs24Audio Outputs4/4/12/16Alarm Inputs24 TTLAlarm Outputs23 TTL & 1 relayKeyboard and mouseIncludedRail kitIncludedPower SupplyDual 920W, redundant power supplyVoltageAC Input: 100-240V / 11-4.4A / 50-60HzDC Output: 920W: + 12V/75A; +5V sb/4AOperating temperature and humidity0-95% HumidityCertificationsCE, FCC, UL, RoHS, NDAA,WEEE,RoHS		12 x HDD	16 x HDD	24 x HDD
Drive Video Outputs USB  8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)  Video card AMD FirePro W4100 4x Mini display port to true HD adapters Resolution Up to 20MP  Serial 1x RS 232 & 1x RS485  Audio Inputs 24 Audio Outputs Alarm Inputs Alarm Outputs Alarm Outputs Reyboard and mouse Included  Rail kit Included Power Supply Dual 920W, redundant power supply  Voltage AC Input: 100-240V / 11-4.4A / 50-60Hz DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity Certifications CE, FCC, UL, RoHS, NDAA,WEEE,ROHS	Maximum storage	216 TB	288 TB	432 TB
8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)  Video card  AMD FirePro W4100 4x Mini display port to true HD adapters  Resolution  Up to 20MP  Serial  1x RS 232 & 1x RS485  Audio Inputs  Audio Outputs  Alarm Inputs  Alarm Outputs  Alarm Outputs  Exployed and mouse  Rail kit  Included  Power Supply  Dual 920W, redundant power supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS		512 GB SSD For OS with RAID 1		
Video card  AMD FirePro W4100 4x Mini display port to true HD adapters  Resolution  Up to 20MP  Serial  1x RS 232 & 1x RS485  Audio Inputs  24  Audio Outputs  Alarm Inputs  Alarm Outputs  Exployed and mouse  Rail kit  Power Supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Video Outputs	DVI, DisplayPort, 2x HDMI, 2x VGA (4 simultaneous monitors)		
Resolution  Serial  1x RS 232 & 1x RS485  Audio Inputs  24  Audio Outputs  Alarm Inputs  Alarm Inputs  Alarm Outputs  Exploard and mouse  Rail kit  Power Supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  Up to 20MP  1x RS 232 & 1x RS485  At RS485  A/4/12/16  Alarm Inputs  23 TTL & 1 relay  Included  Dual 920W, redundant power supply  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	USB	8 USB slot (2 x USB 3.2, 2 x USB 3.0, 4 x USB 2.0)		
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Audio Inputs  Audio Outputs  Alarm Inputs  Alarm Outputs  Alarm Outputs  Everyboard and mouse  Rail kit  Power Supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Resolution	Up to 20MP		
Audio Outputs  Alarm Inputs  Alarm Outputs  Alarm Outputs  Example Supply  Audio Outputs  Alarm Outputs  Alarm Outputs  Example Supply  Audio Outputs  Example Supply  Audio Outputs  Audi	Serial	1x RS 232 & 1x RS485		
Alarm Inputs Alarm Outputs Exceptionary Alarm Outputs Coertifications  24 TTL  24 TTL  24 TTL  25 TTL & 1 relay  Calculated  Included  Included  Included  Included  Included  Dual 920W, redundant power supply  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Audio Inputs	24		
Alarm Outputs  Keyboard and mouse  Included  Rail kit  Included  Power Supply  Dual 920W, redundant power supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Audio Outputs	4/4/12/16		
Rail kit  Power Supply  Dual 920W, redundant power supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A ; +5V sb/4A  Operating temperature and humidity  Certifications  Included  Dual 920W, redundant power supply  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A ; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Alarm Inputs	24 TTL		
Rail kit  Power Supply  Dual 920W, redundant power supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  Included  Dual 920W, redundant power supply  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Alarm Outputs	23 TTL & 1 relay		
Power Supply  Voltage  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  Dual 920W, redundant power supply  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and 0-95% Humidity  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Keyboard and mouse	Included		
AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A ; +5V sb/4A  Operating temperature and humidity  Certifications  AC Input: 100-240V / 11-4.4A / 50-60Hz  DC Output: 920W: + 12V/75A ; +5V sb/4A  32 - 104 degrees Fahrenheit (0 - 40 degrees C) 0-95% Humidity  CE, FCC, UL, RoHS, NDAA,WEEE,ROHS	Rail kit	Included		
DC Output: 920W: + 12V/75A; +5V sb/4A  Operating temperature and humidity  Certifications  DC Output: 920W: + 12V/75A; +5V sb/4A  32 - 104 degrees Fahrenheit (0 - 40 degrees C) 0-95% Humidity  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Power Supply	Dual 920W, redundant power supply		
Operating temperature and humidity  Certifications  32 – 104 degrees Fahrenheit (0 – 40 degrees C) 0-95% Humidity  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS	Voltage	AC Input: 100-240V / 11-4.4A / 50-60Hz		
temperature and humidity  Certifications  0-95% Humidity  CE, FCC, UL, RoHS, NDAA,WEEE,RoHS		DC Output: 920W: + 12V/75A; +5V sb/4A		
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Warranty 3 years limited	Certifications	CE, FCC, UL, RoHS, NDAA,WEEE,RoHS		
	Warranty	3 years limited		

# 2U, 3U and 4U rack mount servers CV-IPNVR-2U / CV-IPNVR-3U / CV-IPNVR-4U

# **CortexVision**

### **Ordering Information**

#### Windows® OS

- CV-IPNVR2U160T 2U chassis, OTB usable storage.
- CV-IPNVR2U16216T 2U chassis, 216TB usable storage.
- CV-IPNVR3U160T 3U chassis, OTB usable storage.
- CV-IPNVR3U16288T 3U chassis, 288TB usable storage.
- CV-IPNVR4U160T 4U chassis, OTB usable storage.
- CV-IPNVR4U16432T-4U chassis, 432TB usable storage.

#### Linux® OS

- $\bullet \ \ \ \text{CV-IPNVR2U160T-L-2U chassis, 0TB usable storage}.$
- CV-IPNVR2U16216T-L-2U chassis, 216TB usable storage.
- CV-IPNVR3U160T-L-3U chassis, OTB usable storage.
- CV-IPNVR3U16288T-L-3U chassis, 288TB usable storage.
- CV-IPNVR4U160T-L-4U chassis, OTB usable storage.
- CV-IPNVR4U16432T-L-4U chassis, 432TB usable storage.