


# AXIS 243Q Blade Video Server AXIS 291 1U Video Server Rack

*Full frame rate, high-density video encoder rack solution*



*AXIS 291 1U Video Server Rack is a high-density solution for seamless and professional installation of video encoders. Together with the AXIS 243Q Blade Video Server, it is designed to migrate analog systems to high performance, IP-based, digital solutions.*



## **FULL FRAME RATE** >

The powerful combination of AXIS 243Q and AXIS 291 1U offers full frame rate at up to 4CIF resolutions on all channels simultaneously.

## **HIGH-DENSITY SOLUTION** >

The Axis video server rack solution is designed to migrate 4-12 analog cameras to high performance, IP-based, digital video streams, using a single Ethernet port.

## **HIGH-QUALITY, DE-INTERLACED VIDEO** >

Analog video is converted to high-quality, de-interlaced, digital video.

## **SIMULTANEOUS MPEG-4 AND MOTION JPEG** >

Simultaneous Motion JPEG and MPEG-4 for optimized quality and bandwidth

## **VIDEO MOTION DETECTION AND PRE-/POST-ALARM BUFFER** >

The event management capabilities ensure efficient use of the cameras in the network video system. This includes video motion detection, active tampering alarm, and alarm buffering.

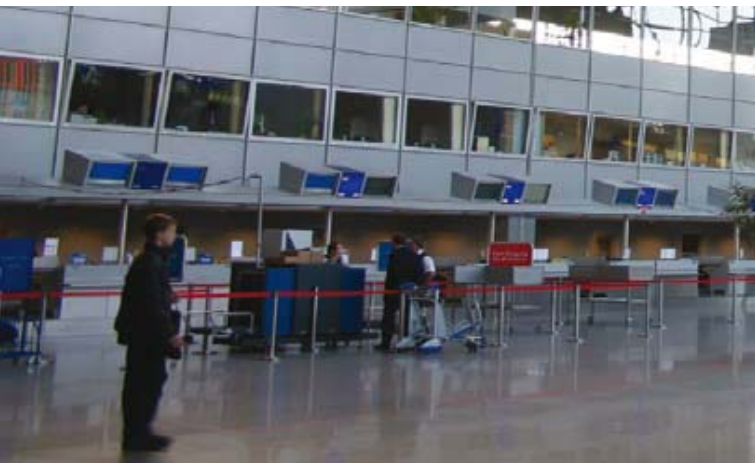
## **SUPPORT FOR PTZ AND DOME CAMERAS** >

The video server enables pan/tilt/zoom control over the network of all leading brands of analog video cameras on the market.

**AXIS**<sup>®</sup>  
COMMUNICATIONS

## AXIS VIDEO SERVER RACK SOLUTION

AXIS 291 1U Video Server Rack is a high-density solution for the seamless and professional installation of various types of video encoder in the same rack, and can migrate 4 to 12 analog cameras to network video via a single Ethernet port. The 19" AXIS 291 1U Video Server Rack can use any combination of up to 3 interchangeable and hot-swappable Axis blade video servers. The combination of video server rack and blade video servers is designed to migrate analog systems to high-performance, IP-based, digital solutions.



## SIMULTANEOUS MPEG-4 AND MOTION JPEG

The Axis video server rack solution offers simultaneous MPEG-4 and Motion JPEG. Video streams can be optimized for image quality and bandwidth efficiency by configuration of frame rate, resolution, compression level and format – offering up to 30 frames per second in 4CIF resolution.

The Axis video server rack solution is ideal when migrating an analog system to an IP-based video surveillance solution. The table below shows the unique features of the combination of AXIS 243Q and AXIS 291 1U in detail.

AXIS 291 1U and AXIS 243Q Blade	
Number of channels	4-12
Video compression	MPEG-4 part 2, Motion JPEG (simultaneous)
Max resolution	4CIF
Frames per second per channel (fps) (NTSC/PAL)	30/25 fps (4CIF) using all 4 channels
Video motion detection	Yes
HTTPS protocols	SSL and TLS
Power supply	Built-in, universal
PTZ support	RS-485
Upgradeable	Up to 12 channels

## POWERFUL VIDEO AND EVENT MANAGEMENT

With Axis network encoders, video can be accessed at any time, from any computer anywhere. The Axis video server rack solution allows for powerful event management with multi-window motion detection, active tampering alarm, and inputs/outputs for connecting e.g. external relays and sensors for activating lights, locking/unlocking doors, etc. Pre- and post-image alarm buffering secures images just before and after an alarm.

### OPEN PROGRAMMING INTERFACE FOR CUSTOMIZED APPLICATIONS

The Axis video server rack solution includes the industry-standard Axis Application Programming Interface, AXIS VAPIX™ API, which facilitates the development of customized software solutions. It also ensures compatibility with the market's widest range of third-party applications, available via Axis Application Development Partners.

## EASY INSTALLATION

The Axis video server rack solution integrates easily and seamlessly, not only with modern IT networks, but also with existing analog surveillance systems. The use of standard software and hardware ensures a dependable and robust system that is simple to install and operate.



### SERVICEABILITY

The Axis video server rack solution offers improved serviceability and trouble-free unit replacement or expansion – simply add more blades. The rack provides serial communication and I/O connectors at the rear of each slot, and a single network connection together with integrated power for simple installation. There is no need to power down when installing or changing blades. AXIS 291 1U combines high reliability and functionality with quick, flexible and professional installation.

AXIS 291 1U is designed for applications that need to be able to expand, not only by adding more channels, but also by using different types of cameras. It is ideal for airports, hotels and train stations or other premises where analog cameras are already installed.

## ADVANCED SECURITY AND NETWORK MANAGEMENT

To facilitate the centralized management of Axis network video devices, the Axis video server rack solution is supported by AXIS Camera Management, which can locate and display connection status, set IP addresses, configure single or multiple units, and also manage firmware upgrades and user access rights. The Axis video server rack solution offers a comprehensive set of network security features, such as multi-level password protection, IP address filtering and HTTPS encryption.

The Axis video server rack solution supports Quality of Service (QoS), which enables e.g. the reservation of network capacity and the prioritization of mission-critical surveillance traffic on a QoS-aware network. The rack solution also includes support for Internet Protocol version 6 (IPv6), which amongst many improvements allows the use of a far greater number of IP addresses than currently available in IPv4. The support for 802.1X network access control is used to authenticate hosts wishing to access devices or resources on a protected network.

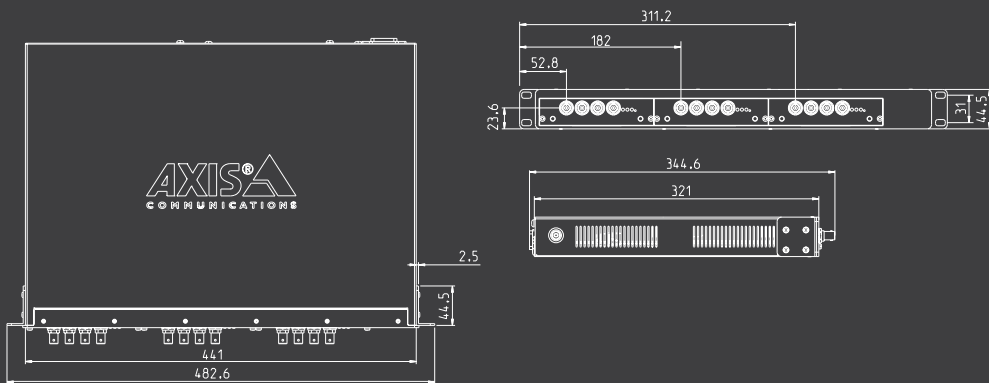


## AXIS BLADE VIDEO SERVERS

A wide range of blade video servers is available. Further information can be found in the datasheet for each video server.

Product Selection Guide							
Product	Number of channels	Video compression	Frames per second per channel (fps) (NTSC/PAL)	Video motion detection	Alarm inputs/outputs	PTZ support	HTTPS
240Q Blade	4	Motion JPEG	6/5 fps (all resolutions) using all 4 channels	Yes	4 / 4	Yes	Yes
241Q Blade	4	Motion JPEG	30/25 fps (CIF) using all 4 channels 30/25 fps (4CIF) using 1 channel	Yes	4 / 4	Yes	Yes
		MPEG-4	20/17 fps (CIF) using all 4 channels 30/25 fps (2CIF) using 1 channel				
241S Blade	1	Motion JPEG	30/25 fps (4CIF)	Yes	4 / 4	Yes	Yes
		MPEG-4	30/25 fps (2CIF)				
243Q Blade	4	Motion JPEG	30/25 fps (4CIF) using all 4 channels	Yes	4 / 4	Yes	Yes
		MPEG-4	30/25 fps (4CIF) using all 4 channels				

## DIMENSIONS



## TECHNICAL SPECIFICATIONS – AXIS 243Q BLADE VIDEO SERVER

<b>Model</b>	AXIS 243Q Blade Video Server Requires the AXIS 291 1U Video Server Rack	<b>Operating conditions</b>	0 – 45 °C (32 – 113 °F) Humidity 20 – 80% RH (non-condensing)
<b>Video compression</b>	Motion JPEG MPEG-4 Part 2 (ISO/IEC 14496-2), Profiles: ASP and SP	<b>Installation, management and maintenance</b>	AXIS Camera Management tool on CD and web-based configuration, configuration of backup and restore Firmware upgrades over HTTP or FTP, firmware available at <a href="http://www.axis.com">www.axis.com</a>
<b>Resolutions</b>	4CIF, 2CIFExp, 2CIF, CIF, QCIF Max 704x480 (NTSC) 704x576 (PAL) Min 160x120 (NTSC) 176x144 (PAL)	<b>Video access from web browser</b>	Camera live view for up to 20 clients, video recording to file (ASF), sequence tour for up to 20 PTZ presets Customizable HTML pages
<b>Frame rate (NTSC/PAL)</b>	Motion JPEG: Up to 30/25 fps per channel in all resolutions MPEG-4: Up to 30/25 fps per channel in all resolutions	<b>Minimum web browsing requirements</b>	Pentium III CPU 500 MHz or higher, or equivalent AMD 128 MB RAM, DirectX 9 compatible graphics board, Direct Draw Windows Vista, XP, 2000, Internet Explorer 6.x or later For other operating systems and browsers see <a href="http://www.axis.com/techsup">www.axis.com/techsup</a>
<b>Video streaming</b>	Simultaneous Motion JPEG and MPEG-4 Controllable frame rate and bandwidth Constant and variable bit rate (MPEG-4)	<b>System integration support</b>	Open API for software integration, including VAPIX® from Axis Communications*, AXIS Media Control SDK*, event trigger data in video stream Quality of Service (QoS) Layer 3, DiffServ Model Watchdog Embedded Linux operating system <i>* Available at <a href="http://www.axis.com">www.axis.com</a></i>
<b>Image settings</b>	Compression levels: 11 (Motion JPEG) /23 (MPEG-4) Rotation: 90°, 180°, 270° Aspect ratio correction Color: color, black/white Overlay capabilities: time, date, text, image or privacy mask De-interlace filter	<b>Supported protocols</b>	IPv4/v6, HTTP, HTTPS, SSL/TLS*, TCP, QoS, SNMPv1/v2c/v3 (MIB-II), RTSP, RTP, UDP, IGMP, RTCP, SMTP, FTP, ICMP, DHCP, UPnP, Bonjour, ARP, DNS, DynDNS, SOCKS, IEEE802.1X. More information on protocol usage available at <a href="http://www.axis.com">www.axis.com</a> <i>*This product includes software developed by the Open SSL Project for use in the Open SSL Tool kit (<a href="http://www.openssl.org">www.openssl.org</a>)</i>
<b>Pan/Tilt/Zoom</b>	Wide range of analog PTZ dome cameras supported* 20 presets/camera, guard tour, PTZ control queue Supports Windows compatible joysticks <i>*Drivers available for download at <a href="http://www.axis.com">www.axis.com</a></i>	<b>Included accessories</b>	Installation Guide, CD with installation and management tools, software and User's Manual, licenses for 1 encoder and 1 decoder, decoder software for Windows
<b>Security</b>	Multiple user access levels with password protection IP address filtering, HTTPS encryption IEEE 802.1X network access control	<b>Video management software (not incl.)</b>	AXIS Camera Station – Video management software for viewing, recording and archiving up to 25 cameras See <a href="http://www.axis.com/partner/adp_partners.htm">www.axis.com/partner/adp_partners.htm</a> for further applications via partners
<b>Alarm and event management</b>	Events triggered by video motion detection, tampering detection, external input, PTZ presets, product restart, video loss, or according to a schedule Image upload over FTP, email and HTTP Notification over TCP, email, HTTP and external output 9 MB of pre- and post alarm buffer/channel (approx. 4 min of CIF resolution video at 4 fps)	<b>Accessories (not included)</b>	AXIS 295 Video Surveillance Joystick Multi-user decoder license pack
<b>Connectors</b>	4 BNC analog composite video inputs, NTSC/PAL autosensing RJ-45 for Ethernet 10BaseT/100BaseTX 4 alarm inputs, 4 alarm outputs RS-485 half-duplex port	<b>Approvals</b>	EN 61000-6-1, EN 61000-6-2, EN 55024, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3, FCC Part 15 Subpart B Class B, AS/NZS CISPR 22, ICES-003, VCCI Class B, ITE EN 60950-1
<b>Processors, memory and clock</b>	CPU: 4 ETRAX 100LX Video processing and compression: 4 ARTPEC-2 RAM: 4x32 MB Flash: 4x8 MB Battery backed up real-time clock	<b>Dimensions (HxWxD) and weight</b>	30 x 130 x 255 mm (1.2 x 5.1 x 10.0") 270 g (0.6 lbs)
<b>Power</b>	Powered from AXIS 291 1U Video Server Rack		

## TECHNICAL SPECIFICATIONS – AXIS 291 1U VIDEO SERVER RACK

<b>Expansion slots</b>	3 slots for Axis blade video servers	<b>Operating conditions</b>	0 – 45 °C (32 – 113 °F) Humidity 20 – 80% RH (non-condensing)
<b>Connectors</b>	Ethernet 10BaseT/100BaseTX/1000BaseT (Gigabit Ethernet), RJ-45 Terminal block (x 3): 4 alarm inputs 4 outputs RS-485/422 half-duplex port	<b>Included accessories</b>	Installation Guide, mounting kit, AC power cable
<b>Casing</b>	Metal casing for standalone or rack mounting	<b>Approvals</b>	EN 61000-6-1, EN 61000-6-2, EN 55024, EN 55022 Class B, EN 61000-3-2, EN 61000-3-3 FCC Part 15 Subpart B Class B, AS/NZS CISPR 22, ICES-003, VCCI Class B, ITE, EN 60950-1, CB-certificate, UL, cUL, KTL
<b>Power</b>	100 – 240 V AC, 1.9 A max 80 W (with 3x243Q)	<b>Dimensions (HxWxD) and weight</b>	483 x 345 x 48 mm (19 x 13.6 x 1.9") including mounting brackets and blades 3.7 kg (8.2 lbs)

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