

## Product guide

### Network video solutions





# Network video solutions for any need

## The driving force in network video

Axis is the world leader in network video. We were first to bring the benefits of IP to video surveillance and remote monitoring, introducing the world's first network camera in 1996. With nearly three decades of network know-how, full commitment to open industry standards, and partnership with over 35,000 experts, Axis delivers solutions that best answer users' current and future needs – including a complete range of high-quality network cameras, video encoders, video management software and accessories.

Axis solutions ensure easy integration and scalability, and use standard networks and IT equipment. As a founding member of the international standards body ONVIF, Axis also promotes equipment interoperability and compatibility.

## Enduring results

With the world's largest installed base of network cameras, Axis offers unrivalled expertise. Used world-wide in sectors ranging from retail and transportation to education and city surveillance, Axis network video solutions deliver enduring results: indoor, outdoor, wired, wireless, and in even the most extreme conditions and remote locations.

## Pioneering partnerships

Axis partners with a comprehensive network of surveillance specialists. Together with leading technology partners, application developers, consultants/design institutes, system integrators and resellers, we create video surveillance solutions that expand the user's potential.

**Get the Axis picture. Stay one step ahead.**

Visit [www.axis.com](http://www.axis.com)

**This guide has been developed to help you navigate our broad range of network video products. If you are looking for comprehensive product specifications, or information about our solutions and customer cases, please visit our website [www.axis.com](http://www.axis.com) or contact your local Axis office.**

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# NETWORK CAMERAS

## Watch anything, from anywhere at any time

The video surveillance market is thriving, driven by increased public and private security awareness. At the same time, the market is rapidly undergoing a technology shift where analog CCTV systems are being replaced by network video – a technology that started at Axis. Axis invented the first network camera in 1996, and continues to lead the market. With network cameras for day and night, indoor and outdoor environments, and features such as wireless, vandal protection and megapixel/HDTV resolutions, Axis offers you a complete portfolio. Whether you need a professional video surveillance solution to secure the safety of people and places, or remotely monitor property and facilities, Axis can meet your needs.

### Common features

- > Axis superior image quality
- > Live and recorded video in HDTV and megapixel resolutions
- > Direct connection to wired and wireless IP networks
- > Easy to install, outdoor-ready video solutions for harsh weather conditions
- > Standard video compression formats including H.264, MPEG-4 and Motion JPEG
- > Built-in intelligence, e.g. video motion detection and tampering alarm
- > Powerful event and alarm management, including alarm input/output through external devices
- > Enhanced video surveillance with audio
- > Power over Ethernet for reduced installation costs and reliable power supply
- > Comprehensive set of security and technology features such as multi-level passwords, IP address filtering, HTTPS encryption, IPv6 and Quality of Service (QoS)
- > Powerful management tools for remote configuration and status
- > Powerful API (VAPIX®) for software integration, AXIS Video Hosting System for Internet-based video surveillance management, AXIS Camera Application Platform for third application software and ONVIF

### Benefits

- > Camera design and features for efficient camera installation and maintenance
- > Remote access to live and recorded video anywhere at any time, from any authorized computer
- > Digital quality images for perfect viewing
- > Clearer images of moving persons and objects thanks to progressive scan
- > Different viewing and storing needs satisfied by multiple, individually configurable streams
- > Scalable and future-proof, based on open IP standards
- > Ease of integration with other systems, such as access control and point of sales
- > Efficient centralized management and reduced maintenance costs
- > Flexible and cost-efficient large-scale video surveillance solutions
- > Reduced staff work-load through intelligent, automated and reliable event management
- > Backed by the industry's largest base of video management software with Axis Application Development Partners

## Types of network cameras

### Network cameras for any need

Axis offers the world's largest selection of network cameras, providing high-quality video solutions for any professional indoor or outdoor video surveillance application.

#### Fixed network cameras

A fixed network camera meets a variety of application needs, and its traditional camera design adds a deterring effect. The viewing direction is set once the camera is mounted. There are several models with a varifocal lens and/or exchangeable lenses for increased flexibility.

#### Fixed dome network cameras

A fixed dome network camera is a compact camera solution with a dome casing. Its main benefit lies in its discreet, non-obtrusive design, as well as in the fact that it is difficult to see in which direction the camera is pointing.

#### PTZ network cameras

PTZ cameras provide pan, tilt and optical zoom functions, enabling wide area coverage and great details when zooming in. All PTZ commands are sent over the same network cable as for video transmission. PTZ cameras can come in various form factors; the most common is a PTZ dome, which is ideal for use in discreet installations due to its design, and difficulty in seeing the camera's viewing angle.

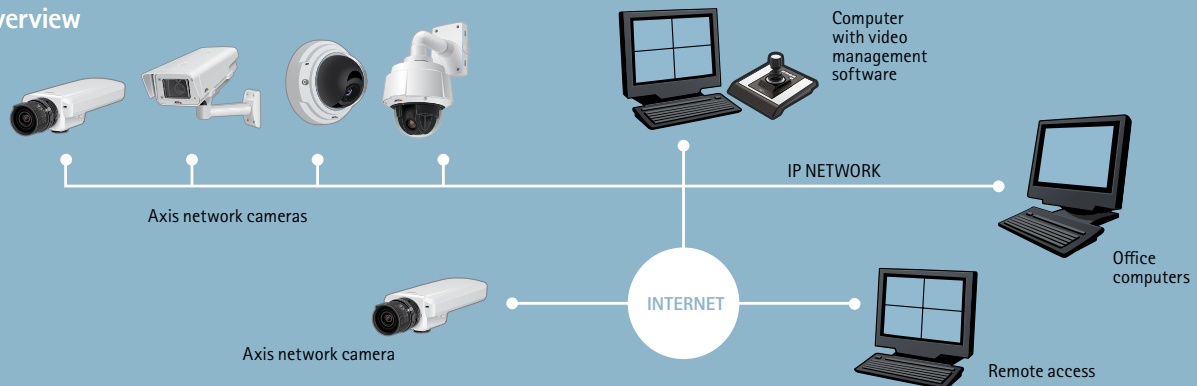
#### Thermal network cameras

Thermal network cameras create images based on heat that radiates from any object, vehicle or person. The cameras see through complete darkness and deliver images that allow operators to detect and act on suspicious activity around the clock in all conditions. Thermal network cameras are a perfect complement to any professional IP-surveillance system.

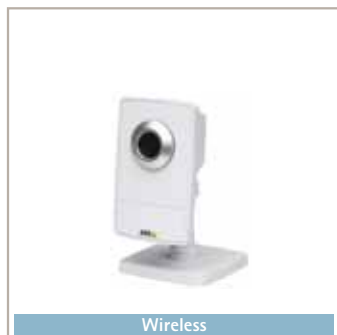
#### Covert network cameras

Covert cameras are designed to blend into the environment and be virtually impossible to discover. They can be placed at eye-level at entrances or integrated into things such as ATM machines for discreet or covert surveillance. They can enable close-up shots for identification purposes or overview surveillance.

### System overview



## FIXED NETWORK CAMERAS



Wireless

### AXIS M1011-W

**The smallest network camera with H.264.**

- > Functional and smart design
- > Progressive scan
- > Simultaneous, multiple H.264, Motion JPEG and MPEG-4 streams
- > Active tampering alarm
- > Wireless and wired connection to the network for flexible installation
- > AXIS Video Hosting System (AVHS)
- > ONVIF



HDTV/Megapixel

### AXIS M1013/ AXIS M1014

**The smallest network cameras with edge storage.**

- > Functional and smart design
- > Progressive scan
- > Simultaneous, multiple H.264, Motion JPEG and MPEG-4 streams
- > **AXIS M1013:** Up to 30 frames per second in all resolutions up to SVGA 800x600
- > **AXIS M1014:** Up to 30 frames per second in all resolutions up to HDTV 720p
- > AXIS Video Hosting System (AVHS)
- > ONVIF



HDTV/Megapixel

### AXIS M1033-W/ AXIS M1034-W

**The smallest and smartest wireless network cameras from the market leader.**

- > Functional and smart design
- > Progressive scan
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > **AXIS M1033-W:** Up to 30 frames per second in all resolutions up to SVGA 800x600
- > **AXIS M1034-W:** Up to 30 frames per second in all resolutions up to HDTV 720p and 1 MP
- > Two-way audio support including built-in microphone and speaker, and audio detection alarm
- > One alarm input and one output
- > Active tampering alarm
- > PIR sensor for detecting movement even in the dark
- > White LED for illuminating the scene automatically at an event or when requested by the user
- > Memory card slot
- > AXIS Video Hosting System (AVHS)
- > ONVIF



HDTV/Megapixel

### AXIS M1054

**The smallest and smartest HDTV network camera.**

- > Functional and smart design
- > Progressive scan
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Two-way audio support including built-in microphone and speaker, and audio detection alarm
- > One alarm input and one output
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > PIR sensor for detecting movement even in the dark
- > White LED for illuminating the scene automatically at an event or when requested by the user
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF

Axis new generation network cameras all include H.264, which is the latest MPEG standard for video encoding. H.264 reduces the size of a digital video file by more than 80% compared with the Motion JPEG format, allowing for more cost-effective and manageable video surveillance systems.



### AXIS M1103/M1104

**Compact and affordable high-resolution cameras for professional surveillance.**

- > Compact design
- > Progressive scan
- > Replaceable CS mount lens
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > **AXIS M1103:** Up to 30 frames per second in all resolutions up to SVGA 800x600
- > **AXIS M1104:** Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ support
- > Pixel counter
- > Support for AXIS Video Hosting System (AVHS)



### AXIS M1113/ AXIS M1113-E

**Compact and affordable high-resolution cameras for professional surveillance.**

- > Compact design
- > Progressive scan
- > Varifocal lens with DC-iris
- > Replaceable CS mount lens
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Up to 30 frames per second in all resolutions up to SVGA 800x600
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ support
- > Pixel counter
- > AXIS Video Hosting System (AVHS)
- > **AXIS M1113-E:** Outdoor-ready, IP66 rated, for temperatures down to -20 °C/ -4 °F



### AXIS M1114/ AXIS M1114-E

**Compact and affordable network HDTV cameras for professional surveillance.**

- > Compact design
- > Progressive scan
- > Varifocal lens with DC-iris
- > Replaceable CS mount lens
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ support
- > Pixel counter
- > AXIS Video Hosting System (AVHS)
- > **AXIS M1114-E:** Outdoor-ready, IP66 rated, for temperatures down to -20 °C/ -4 °F



### AXIS M1143-L/ AXIS M1144-L

**Compact and affordable high-resolution camera with built-in IR illumination.**

- > Compact design
- > Progressive scan
- > Varifocal lens with DC-iris
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Automatic day and night with removable IR filter
- > Built-in IR illumination
- > **AXIS M1143-L:** Up to 30 frames per second in all resolutions up to SVGA 800x600
- > **AXIS M1144-L:** Up to 30 frames per second in all resolutions up to HDTV 720p and 1 MP
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Pixel counter
- > AXIS Video Hosting System (AVHS)
- > ONVIF

## FIXED NETWORK CAMERAS



### AXIS P1346/ AXIS P1346-E

**Superb HDTV quality and multi-view streaming in any environment.**

- > Progressive scan
- > P-Iris control
- > Up to 20 frames per second in all resolutions in 3 MP mode; up to 30 frames per second in 2 MP 4:3 (1600x1200) and HDTV 1080p (1920x1080) mode
- > CS mount lens with remote back-focus adjustment
- > Focus assistant
- > Automatic day and night with removable IR filter
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Multi-view streaming
- > Two-way audio
- > 1 input and 1 output
- > PoE (IEEE 802.3af)
- > Digital PTZ and pixel counter
- > Memory card slot
- > AXIS Video Hosting System
- > AXIS Camera Application Platform
- > ONVIF
- > **AXIS P1346:** Built-in microphone
- > **AXIS P1346-E:** Outdoor-ready, IP66- and NEMA 4X-rated for temperatures down to - 30 °C/ - 22 °F or - 40 °C/F with High PoE; IK10 impact-resistant



### AXIS P1347/ AXIS P1347-E

**Exceptional surveillance with 5-megapixel camera.**

- > P-Iris control for optimal image sharpness
- > Up to 12 frames per second in all resolutions in 5 MP mode
- > Up to 20 frames per second in all resolutions in 3 MP mode and up to 30 frames per second in 2 MP 4:3 (1600x1200) and HDTV 1080p (1920x1080) mode
- > All other features same as AXIS P1346/AXIS P1346-E



### AXIS P1353/ AXIS P1353-E

**Superb, light-sensitive fixed cameras for video surveillance in any environment.**

- > Progressive scan
- > Replaceable CS mount lens offering remote back-focus adjustment
- > Focus assistant
- > Automatic day and night with removable IR filter
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Up to 30 fps in all resolutions up to SVGA 800x600 pixels
- > Lightfinder technology
- > Two-way audio support and audio detection alarm
- > 1 alarm input and 1 output
- > Active tampering alarm
- > PoE (IEEE 802.3af)
- > Digital PTZ support
- > Pixel counter
- > Memory card slot
- > AXIS Video Hosting System
- > AXIS Camera Application Platform
- > ONVIF
- > **AXIS P1353:** Built-in microphone
- > **AXIS P1353-E:** Outdoor-ready, IP66- and NEMA 4X-rated for temperatures down to - 30 °C/ - 22 °F or - 40 °C/F with High PoE; IK10 impact-resistant



### AXIS P1354/ AXIS P1354-E

**Superb, light-sensitive fixed cameras for video surveillance with HDTV quality.**

- > Progressive scan
- > Replaceable CS mount lens offering remote back-focus adjustment
- > Focus assistant
- > Automatic day and night with removable IR filter
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Up to 30 fps in all resolutions up to HDTV 720p and 1 MP
- > Lightfinder technology
- > Two-way audio support and audio detection alarm
- > 1 alarm input and 1 output
- > Active tampering alarm
- > PoE (IEEE 802.3af)
- > Digital PTZ support
- > Pixel counter
- > Memory card slot
- > AXIS Video Hosting System
- > AXIS Camera Application Platform
- > ONVIF
- > **AXIS P1354:** Built-in microphone
- > **AXIS P1354-E:** Outdoor-ready, IP66- and NEMA 4X-rated for temperatures down to - 30 °C/ - 22 °F or - 40 °C/F with High PoE; IK10 impact-resistant





### AXIS Q1602/ AXIS Q1602-E

**Outstanding image performance  
in poor light conditions.**

- > Progressive scan
- > Lightfinder technology
- > Simultaneous, multiple, H.264 and Motion JPEG streams
- > Up to 30 frames per second in all resolutions up to extended D1 (768x576) resolution
- > WDR - dynamic contrast
- > Two-way audio support
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Memory card slot
- > Pixel counter
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS Q1602-E:** Outdoor-ready, IP66- and NEMA 4X-rated, for temperatures down to - 30 °C / - 22 °F or - 40 °C/F with High Power over Ethernet



### AXIS Q1604/ AXIS Q1604-E

**Outstanding image performance  
in intense backlight conditions.**

- > Progressive scan
- > WDR-Dynamic capture
- > Simultaneous, multiple, H.264 and Motion JPEG streams
- > Up to 30 frames per second in all resolutions up to 1280x960
- > Two-way audio support
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Memory card slot
- > Pixel counter
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS Q1604-E:** Outdoor-ready, IP66- and NEMA 4X-rated, for temperatures down to - 30 °C / - 22 °F or - 40 °C/F with High Power over Ethernet



### AXIS Q1755/ AXIS Q1755-E

**HDTV network camera with zoom  
and H.264.**

- > Progressive scan
- > 10x optical and 12x digital zoom with autofocus
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > 30/25 (60/50 Hz) frames per second in HDTV 1080i or 720p resolution and 16:9 format
- > Two-way audio support and audio detection alarm
- > Active tampering alarm
- > Gatekeeper feature zooms in automatically when there is activity in a monitored area
- > Power over Ethernet (IEEE 802.3af)
- > ONVIF
- > Memory card slot
- > **AXIS Q1755:** Built-in microphone
- > **AXIS Q1755-E:** Outdoor-ready, IP66- and NEMA 4X-rated, Power over Ethernet and High PoE, Arctic Temperature Control for temperatures down to -40 °C/F



Axis outdoor-ready cameras have an IP66 rating and are ready for the outdoors at delivery. No external housing is required. For a full list of Axis outdoor-ready cameras see: [www.axis.com/outdoor](http://www.axis.com/outdoor)

## FIXED DOME NETWORK CAMERAS



HDTV/Megapixel

### AXIS M3004-V/ AXIS M3005-V/ AXIS M3006-V

Fixed mini domes for wall or ceiling mount.

- > Vandal- and dust-resistant design
- > 3-axis camera angle adjustment
- > Progressive scan
- > Simultaneous multiple H.264 and Motion JPEG streams
- > **AXIS M3004-V:** Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > **AXIS M3005-V:** Up to 30 frames per second in all resolutions, including HDTV 1080p and 2 MP
- > **AXIS M3006-V:** Up to 30 frames per second in resolutions up to 2 MP, including HDTV 1080p and 16/20 fps in 3 MP
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > AXIS Video Hosting System (AVHS)
- > ONVIF



HDTV/Megapixel

### AXIS M3007-P/ AXIS M3007-PV

Fixed mini domes for wall or ceiling mount.

- > 360° and 180° panoramic views
- > Progressive scan
- > Simultaneous multiple H.264 and Motion JPEG streams
- > 12 frames per second in 5 MP for 360° overview and panoramic views
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS M3007-PV:** Vandal- and dust-resistant design



### AXIS M3011

Ultra-discreet, recessed-mount video surveillance solution.

- > Ultra-discreet fixed dome design for quick and easy recessed mounting in a drop ceiling
- > Progressive scan
- > Simultaneous multiple H.264, MPEG-4 and Motion JPEG streams
- > Up to 30 frames per second in all resolutions ranging up to VGA 640x480 pixels
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > ONVIF



HDTV/Megapixel

### AXIS M3014

Ultra-discreet, recessed-mount video surveillance solution.

- > Ultra-discreet fixed dome design for quick and easy recessed mounting in a drop ceiling
- > Progressive scan
- > Simultaneous multiple H.264 and Motion JPEG streams
- > Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > ONVIF



### AXIS M3113-R/ AXIS M3114-R

**Compact, rugged network cameras for mobile video surveillance.**

- > Flat rugged design that blends in discreetly while withstanding tough conditions in buses and trains
- > Quick, reliable installation
- > Easy lens adjustment/replacement with supplied lens tool
- > Progressive scan
- > Simultaneous H.264 and Motion JPEG streams
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ
- > Pixel counter
- > WDR - dynamic contrast
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > IP66, IP67, NEMA 4X ratings
- > **AXIS M3113-R:** Up to 30 fps in all resolutions up to SVGA
- > **AXIS M3114-R:** Up to 30 fps in all resolutions, including HDTV 720p and 1 MP, vandal-resistant (IK08)



### AXIS M3113-VE/ AXIS M3114-VE

**Affordable and ultra-discreet outdoor fixed domes.**

- > Outdoor-ready, discreet and vandal resistant
- > Quick and reliable installation
- > Easy lens adjustment and replacement with the supplied lens tool
- > Progressive scan
- > Simultaneous H.264 and Motion JPEG streams
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ
- > Pixel counter
- > WDR - dynamic contrast
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > IP66, IP67, NEMA 4X ratings
- > **AXIS M3113-VE:** Up to 30 fps in all resolutions up to SVGA
- > **AXIS M3114-VE:** Up to 30 fps in all resolutions, including HDTV 720p and 1 MP, vandal-resistant (IK08)



### AXIS M3203/ AXIS M3203-V

**Discreet and affordable fixed domes for professional surveillance.**

- > Progressive scan
- > Varifocal lens and wide camera angle adjustment
- > Multiple, individually configurable streams in H.264 and Motion JPEG
- > Up to 30 frames per second in all resolutions
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ
- > Pixel counter
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > **AXIS M3203:** Tamper-resistant
- > **AXIS M3203-V:** Vandal-resistant



### AXIS M3204/ AXIS M3204-V

**Discreet and affordable HDTV fixed domes for professional surveillance.**

- > Progressive scan
- > Varifocal lens and wide camera angle adjustment
- > Multiple, individually configurable streams in H.264 and Motion JPEG
- > Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ
- > Pixel counter
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > **AXIS M3204:** Tamper-resistant
- > **AXIS M3204-V:** Vandal-resistant

## FIXED DOME NETWORK CAMERAS



### AXIS P3301/ AXIS P3301-V

Discreet video surveillance with outstanding H.264 performance.

- > Progressive scan
- > Varifocal lens with DC-iris
- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG
- > Up to 30 frames per second in all resolutions ranging up to VGA 640x480 pixels
- > Two-way audio support including built-in microphone and audio detection alarm
- > 1 alarm input and 1 output
- > Active tampering alarm
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > Power over Ethernet (IEEE 802.3af)
- > Pixel counter
- > **AXIS P3301-V: Vandal-resistant**



### AXIS P3304/ AXIS P3304-V

Discreet video surveillance with outstanding HDTV and H.264 performance.

- > Progressive scan
- > Varifocal lens and wide camera angle adjustment
- > Multiple, individually configurable streams in H.264 and Motion JPEG
- > Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Active tampering alarm
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > Power over Ethernet (IEEE 802.3af)
- > Digital PTZ
- > Pixel counter
- > **AXIS P3304-V: Vandal-resistant**



### AXIS P3346/ AXIS P3346-V/-VE

HDTV 1080p fixed domes.

- > Progressive scan
- > Varifocal lens with P-Iris control
- > Remote focus and zoom
- > Automatic day and night with removable IR filter
- > Multi-view streaming
- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG
- > Up to 20 frames per second in all resolutions in 3 MP mode; up to 30 frames per second in 2 MP 4:3 (1600x1200) and HDTV 1080p (1920x1080) mode
- > Two-way audio support and audio detection alarm
- > Built-in microphone
- > 1 alarm input and 1 output
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > WDR - dynamic contrast
- > Memory card slot
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS P3346-V: Vandal-resistant (IK10)**
- > **AXIS P3346-VE: Vandal-resistant (IK10), outdoor-proof IP66- and NEMA 4X-rated casing**



### AXIS P3353/ AXIS P3363-V/-VE

Fixed domes with Lightfinder technology.

- > Lightfinder technology
- > Progressive scan
- > Varifocal lens with P-Iris control
- > Remote focus and zoom
- > Automatic day and night with removable IR filter
- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG at up to 30 frames per second in all resolutions
- > Resolutions ranging up to 800x600 pixels
- > Two-way audio support and audio detection alarm
- > Built-in microphone
- > 1 alarm input and 1 output
- > Active tampering alarm
- > PoE (IEEE 802.3af)
- > WDR - dynamic contrast
- > Memory card slot
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS P3363-V: Vandal-resistant (IK10)**
- > **AXIS P3363-VE: Vandal-resistant, (IK10), outdoor-proof IP66- and NEMA 4X-rated casing**



### AXIS P3354/ AXIS P3364-V/-VE

HDTV fixed domes with Lightfinder technology.

- > Lightfinder technology
- > Progressive scan
- > Varifocal lens with P-Iris control
- > Remote focus and zoom
- > Automatic day and night with removable IR filter
- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG at up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Two-way audio support and audio detection alarm
- > Built-in microphone
- > 1 alarm input and 1 output
- > Active tampering alarm
- > PoE (IEEE 802.3af)
- > WDR - dynamic contrast
- > Memory card slot
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS P3364-V: Vandal-resistant (IK10)**
- > **AXIS P3364-VE: Vandal-resistant (IK10), outdoor-proof IP66- and NEMA 4X-rated casing**



### AXIS P3364-LV/ AXIS P3364-LVE

HDTV fixed domes with Lightfinder technology and built-in IR illumination.

- > Lightfinder technology
- > Progressive scan
- > Varifocal lens with P-Iris control
- > Remote focus and zoom
- > Automatic day and night with removable IR filter
- > Built-in IR illumination
- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG at up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Two-way audio support and audio detection alarm
- > Built-in microphone
- > 1 alarm input and 1 output
- > Active tampering alarm
- > PoE (IEEE 802.3af)
- > SD/SDHC memory card slot
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS P3364-LV: Vandal-resistant (IK10)**
- > **AXIS P3364-LVE: Vandal-resistant (IK10), outdoor-proof IP66- and NEMA 4X-rated casing**



### AXIS P3367-V/-VE

HDTV 1080p fixed domes.

- > Progressive scan
- > Varifocal lens with P-Iris control for optimal image sharpness
- > Remote focus and zoom
- > Automatic day and night with removable IR filter
- > Multi-view streaming
- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG
- > Up to 12 frames per second in all resolutions in 5 MP mode and capable of all AXIS P3346 capture modes
- > Two-way audio support and audio detection alarm
- > Built-in microphone
- > 1 alarm input and 1 output
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > WDR - dynamic contrast
- > Memory card slot
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS P3367-V: Vandal-resistant (IK10)**
- > **AXIS P3367-VE: Vandal-resistant (IK10), outdoor-proof IP66- and NEMA 4X-rated casing**



### AXIS P3384-V/ AXIS P3384-VE

HDTV 1080p fixed domes with WDR-dynamic capture and Lightfinder technology.

- > Lightfinder technology
- > Progressive scan
- > Varifocal lens with P-Iris control
- > Remote focus and zoom
- > Automatic day and night with removable IR filter
- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG at up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > WDR with 'dynamic capture'
- > Two-way audio support and audio detection alarm
- > Built-in microphone
- > 1 alarm input and 1 output
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > SD/SDHC memory card slot
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > **AXIS P3384-V: Vandal-resistant, IK10 impact-resistant**
- > **AXIS P3384-VE: Vandal-resistant, outdoor-proof IP66- and NEMA 4X-rated casing, IK10 impact-resistant**

## PTZ NETWORK CAMERAS



### AXIS 212 PTZ/ AXIS 212 PTZ-V

Compact PTZ camera offering full overview and instant zoom with retained image resolution – yet with no moving parts.

- > Progressive scan
- > Simultaneous MPEG-4 and Motion JPEG streams
- > 30 frames per second in VGA 640x480 resolution at maximum zoom
- > 140° horizontal angle at view
- > Pan and tilt speed 400°/s
- > PTZ with no moving parts – no wear and tear
- > Power over Ethernet (IEEE 802.3af)
- > Two-way audio support including built-in microphone and audio detection alarm
- > One alarm input and one output
- > **AXIS 212 PTZ-V:** Vandal-resistant casing in metal



### AXIS 214 PTZ

Professional day/night camera with remote pan/tilt/zoom and audio.

- > 18x optical zoom lens with autofocus
- > Automatic day and night with removable IR filter
- > Simultaneous MPEG-4 and Motion JPEG streams
- > Up to 30/25 (60/50 Hz) frames per second in resolutions up to 4CIF
- > Two-way audio, including audio detection alarm
- > One alarm input and one output



### AXIS M5013/ AXIS M5014

Mini PTZ dome that gives the big picture.

- > Progressive scan
- > Pan/tilt/zoom in an ultra-discreet design for indoor monitoring
- > 3x digital zoom
- > Simultaneous multiple H.264 and Motion JPEG streams
- > **AXIS M5013:** Up to 30 frames per second in all resolutions up to SVGA 800x600
- > **AXIS M5014:** Up to 30 frames per second in all resolutions, including HDTV 720p
- > Built in microphone and audio detection
- > AXIS Camera Application Platform
- > ONVIF
- > IP51-rated protection against dust and dripping water
- > Power over Ethernet (IEEE 802.3af)
- > Memory card slot



### AXIS P5512/ AXIS P5512-E

Compact, affordable day/night PTZ domes with 12x zoom.

#### Common features for AXIS P55 Series

- > 360° pan with Auto-flip
- > Automatic day and night with remote control
- > H.264 and Motion JPEG streams
- > 12x optical zoom with autofocus and 4x digital zoom
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions up to 704x480/576
- > **AXIS P5512:** Two-way audio, including audio detection alarm\*, four configurable alarm inputs or outputs; IP51-rated
- > **AXIS P5512-E:** Outdoor-ready, IP66- and NEMA 4X-rated, operates in temperatures down to -20 °C (-4 °F)

\*Using a multi-connector cable



### AXIS P5522/ AXIS P5522-E

Affordable day/night PTZ domes with 18x zoom for broad application.



### AXIS P5532/ AXIS P5532-E

Cost-effective PTZ cameras with 29x zoom.



### AXIS P5534/ AXIS P5534-E

HDTV pan/tilt/zoom cameras with 18x zoom.



### AXIS P5544

HDTV PTZ with 360° panoramic view and 18x optical zoom.

#### Indoor and outdoor-ready (-E) cameras

Available IR filter

- > Wide Dynamic Range and Advanced Gatekeeper
- > AXIS Camera Application Platform
- > Memory card slot

- > PoE+ (IEEE 802.3at)
- > AXIS Video Hosting System (AVHS)
- > ONVIF

- > Progressive scan
- > 18x optical zoom with autofocus and 12x digital zoom
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions, including D1 720x480/576
- > **AXIS P5522:** Two-way audio, including audio detection alarm\*, four configurable alarm inputs or outputs,\* IP51-rated
- > **AXIS P5522-E:** Outdoor-ready, IP66- and NEMA 4X-rated, operates in temperatures down to -20 °C (-4 °F)

- > Progressive scan
- > 29x optical zoom and 12x digital zoom with autofocus
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions, including D1 720x480/576
- > Electronic image stabilizer
- > **AXIS P5532:** Two-way audio, including audio detection alarm\*, four configurable alarm inputs or outputs,\* IP51-rated
- > **AXIS P5532-E:** Outdoor-ready, IP66- and NEMA 4X-rated, operates in temperatures down to -20 °C (-4 °F)

- > Progressive scan
- > 18x optical zoom with autofocus and 12x digital zoom
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions, up to HDTV 720p (1280x720)
- > **AXIS P5534:** Two-way audio, including audio detection alarm\*, four configurable alarm inputs or outputs,\* IP51-rated
- > **AXIS P5534-E:** Outdoor-ready, IP66- and NEMA 4X-rated, operates in temperatures down to -20 °C (-4 °F)

- > Progressive scan
- > Panopsis lens: 360° panoramic view
- Zoom lens: 18x optical zoom with autofocus and 12x digital zoom
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions, up to HDTV 720p (1280x720)
- > Two-way audio, including audio detection alarm\*, 4 configurable alarm inputs or outputs,\* IP51-rated

\*Using a multi-connector cable



## PTZ NETWORK CAMERAS

### Common features for AXIS Q60 Series indoor and outdoor-ready (-E/-C) cameras

- > Progressive scan
- > 360° endless pan
- > Pan/tilt speed 0.05° - 450°/s
- > E-flip
- > Guard tour and tour recording
- > Automatic day and night with removable IR filter
- > H.264 and Motion JPEG streams
- > WDR
- > Vandal-resistant
- > Autotracking, Active Gatekeeper, AXIS Camera Application Platform
- > Memory card slot
- > AXIS Video Hosting System (AVHS)
- > ONVIF



### AXIS Q6032/ AXIS Q6032-E/-C

**Advanced, outdoor-ready PTZ dome for demanding surveillance.**

- > 36x optical zoom, 12x digital zoom
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions up to Extended D1 (752x480/736x576)
- > Electronic image stabilizer
- > **AXIS Q6032:** IP52-rated, 2-way audio, audio detection alarm\*, 4 configurable alarm inputs/outputs; \* PoE+ (IEEE 802.3at)
- > **AXIS Q6032-E/-C:** Outdoor-ready, IP66- and NEMA 4X-rated, High Poe
- > **AXIS Q6032-E:** Arctic Temperature Control for temperatures down to -40°C/F
- > **AXIS Q6032-C:** Built-in active cooling system for operation in temperatures up to 75 °C (167 °F)



### AXIS Q6034/ AXIS Q6034-E/-C

**HDTV surveillance with high-speed, 18x-zoom dome.**

- > 18x optical zoom with autofocus and 12x digital zoom
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions up to HDTV 720p 1280x720
- > **AXIS Q6034:** IP52-rated, 2-way audio, audio detection alarm\*, 4 configurable alarm inputs/outputs; \* PoE+ (IEEE 802.3at)
- > **AXIS Q6034-E/-C:** Outdoor-ready, IP66- and NEMA 4X-rated, High Poe
- > **AXIS Q6034-E:** Arctic Temperature Control for temperatures down to -40°C/F
- > **AXIS Q6034-C:** Built-in active cooling system for operation in temperatures up to 75 °C (167 °F)



### AXIS Q6035/ AXIS Q6035-E/-C

**HDTV 1080p PTZ domes with 20x zoom for ultimate video quality.**

- > 20x optical zoom with autofocus and 12x digital zoom
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions up to HDTV 1080p and up to 60/50 (60/50 Hz) in HDTV 720p
- > **AXIS Q6035:** IP52-rated, 2-way audio, audio detection alarm\*, 4 configurable alarm inputs/outputs; \* PoE+ (IEEE 802.3at)
- > **AXIS Q6035-E/-C:** Outdoor-ready, IP66- and NEMA 4X-rated, High Poe
- > **AXIS Q6035-E:** Arctic Temperature Control for temperatures down to -40°C/F
- > **AXIS Q6035-C:** Built-in active cooling system for operation in temperatures up to 75 °C (167 °F)

Axis outdoor-ready cameras have an IP66 rating and are ready for the outdoors at delivery. No external housing is required. For a full list of outdoor-ready cameras see: [www.axis.com/outdoor](http://www.axis.com/outdoor)



\*Using a multi-connector cable



## COVERT CAMERAS



### AXIS P12 Network Camera Series

Miniature HDTV cameras for exceptionally discreet surveillance.

- > Consists of a main unit, and a separate sensor unit that can be mounted up to 8 meters (26ft.) apart
- > **AXIS P1204:** Sensor unit for surface mount
- > **AXIS P1214:** Sensor unit for mount behind walls
- > **AXIS P1214-E:** IP 66-rated sensor unit for mount behind walls or in supplied housing
- > Progressive scan
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > Up to 30/25 (60/50 Hz) frames per second in all resolutions, up to HDTV 720p (1280x720)
- > One alarm input and one output
- > Active tampering alarm
- > Memory card slot
- > Power over Ethernet (IEEE 802.3af)
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF

### AXIS P85 Network Camera Series

Eye-level covertly mounted cameras for reliable identification.

- > Progressive scan
- > Simultaneous, multiple H.264 and Motion JPEG streams
- > **AXIS P8513:** Up to 30 frames per second in all resolutions up to 800x600
- > **AXIS P8514:** Up to 30 frames per second in all resolutions, including HDTV 720p and 1 MP
- > Active tampering alarm
- > Power over Ethernet (IEEE 802.3af)
- > AXIS Video Hosting System (AVHS)
- > ONVIF
- > Pixel Counter
- > Digital PTZ

## THERMAL NETWORK CAMERAS



### AXIS Q1910/ AXIS Q1910-E

**Reliable detection in dark and challenging indoor conditions.**

- > Uncooled Micro bolometer sensor and 13 mm/F1.25 lens
- > Thermal imaging sensitivity NetD <100 mK
- > Multiple, individually configurable H.264 and MPEG-4 video streams with palette setting
- > Up to 8.3 frames per second in all resolutions up to 160x128 pixels
- > Two-way audio including built-in microphone and audio detection alarm
- > 2 configurable alarm inputs or outputs
- > Active tampering alarm
- > AXIS Camera Application Platform
- > ONVIF
- > Power over Ethernet (IEEE 802.3af)
- > Memory card slot
- > **AXIS Q1910-E:** Outdoor-ready with IP66-rated casing and window heater



### AXIS Q1921/ AXIS Q1921-E

**High quality detection and wide range coverage.**

- > Uncooled Micro bolometer sensor
- > Thermal imaging sensitivity NetD <100 mK
- > Multiple, configurable H.264 and MPEG-4 video streams with palette setting
- > Up to 8.3/30\* frames per second in all resolutions up to 384x288 pixels
- > Power over Ethernet (IEEE 802.3af)
- > Two-way audio including built-in microphone and audio detection alarm
- > 2 configurable alarm inputs or outputs
- > Active tampering alarm
- > AXIS Camera Application Platform
- > ONVIF
- > Memory card slot
- > **AXIS Q1921:** Exchangeable lenses (10, 19 mm)
- > **AXIS Q1921-E:** Outdoor-ready IP66-rated casing, window heater; exchangeable lenses (10, 19, 35, and 60 mm)



### AXIS Q1922/ AXIS Q1922-E

**Superior detection and wide range coverage.**

- > Uncooled Micro bolometer sensor
- > Thermal imaging sensitivity NetD <100 mK
- > Multiple, configurable H.264 and MPEG-4 video streams with palette setting
- > Up to 8.3/30\* frames per second in all resolutions up to 640x480 pixels
- > Power over Ethernet (IEEE 802.3af)
- > Two-way audio with built-in microphone and audio detection alarm
- > 2 configurable alarm inputs or outputs
- > Active tampering alarm
- > AXIS Camera Application Platform, ONVIF
- > Memory card slot
- > **AXIS Q1922:** Exchangeable lenses (10, 19 mm)
- > **AXIS Q1922-E:** Outdoor-ready IP66-rated casing, window heater; exchangeable lenses (10, 19, 35, and 60 mm)



### AXIS Q8721-E Dual PTZ Network Camera

**Thermal detection, HDTV and PTZ surveillance all in one.**

- > Pan: 360° endless, 0.1° – 20°/s
- > Tilt: -45° to +20°, 0.1° – 20°/s
- > IP66-rated aluminum casing
- > Operating conditions: -30 °C to 45 °C (-22 °F to 113 °F)
- > Exchangeable thermal camera lenses (35, 60mm)
- > Support for AXIS Camera Application Platform
- Visual camera (AXIS Q1755)**
- > HDTV 1080i 1920x1080, HDTV 720p 1280x720
- > 10x optical/12x digital zoom
- > Multiple configurable streams in H.264 and Motion JPEG
- > Memory card slot
- Thermal camera (AXIS Q1921)**
- > 384x288 sensor, image can be scaled up to 768x576 and standard VGA
- > Up to 8.3/30\* frames per second in all resolutions up to 384x288 pixels
- > At least 1 stream in H.264 and Motion JPEG: simultaneous, configurable streams in max. resolution at 30 fps
- > Memory card slot

\*Up to 30 fps within EU, Norway, Switzerland, Canada, USA, Japan, Australia, New Zealand. Up to 8.3 fps in other countries. Frame rate above 9 fps may be subject to export control regulations.

# VIDEO ENCODERS/DECODERS

## Helping you migrate your analog security system to an IP-based video solution

Axis video encoders digitize the video signals from your analog CCTV system and distribute them directly over an IP-based network, turning analog cameras into network cameras. Users can view live images from a video management software application or a web browser anywhere, at any time. Connect an Axis video decoder to your system to display live video on digital or analog public view monitors.

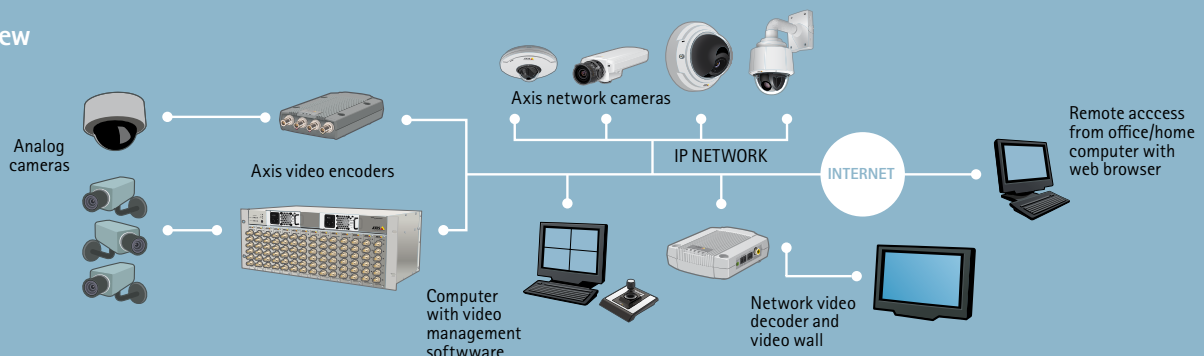
### Common features

- > Analog video sources converted to high-quality digital video
- > Deinterlace filter corrects motion blur caused by the analog video signal
- > Support for ONVIF
- > Standard video compression formats including H.264, MPEG-4 and Motion JPEG
- > Direct connection to IP networks
- > Independent system with embedded web server – no need for additional hardware or software to capture and transfer images
- > Powerful event and alarm management capabilities, including alarm input/output through external devices
- > Remote configuration and status with Axis management tools or standard web browser
- > Comprehensive set of security and technology features such as multi-level passwords, IP address filtering, HTTPS encryption
- > Powerful API (VAPIX®) for software integration
- > IPv6 and Quality of Service (QoS)

### Benefits

- > Remote access to live and recorded video anywhere at any time, from any authorized computer
- > Digital quality images for perfect viewing
- > Scalable and future-proof
- > Lower total cost of ownership by leveraging existing network infrastructure and legacy equipment
- > Convenient digital video storage
- > Increased functionalities compared with CCTV system
- > Remote and secure accessibility for efficient, centralized management and reduced maintenance costs
- > Ease of integration: easy addition of functionality, system expansion and integration with other systems, such as access control or point of sales
- > Backed by the industry's largest base of video management software with Axis Application Development Partners

### System overview



## 1-CHANNEL



**AXIS M7001**

The smallest, one-channel video encoder with H.264 providing an easy and cost-effective solution for small and large analog video installations.

- > Simultaneous H.264 and Motion JPEG streams
- > Full 30/25 (NTSC/PAL) frames per second in all resolutions
- > Resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Image setting adjustment
- > Support for third-party PTZ driver
- > Built-in video motion detection
- > 20 MB pre/post alarm memory
- > Power over Ethernet (IEEE 802.3af) with power out to the small covert camera included in the AXIS M7001 Covert Surveillance Kit
- > AXIS Video Hosting System (AVHS)\*
- > ONVIF



**AXIS Q7401**

One-channel, standalone video encoder for full-featured video surveillance with outstanding H.264 performance.

- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG at full 30/25 (NTSC/PAL) frames per second in all resolutions
- > Resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Image setting adjustment
- > Support for third-party PTZ driver
- > Integrated 2-way audio support
- > 4 configurable inputs/outputs
- > Built-in video motion detection
- > Audio detection
- > Active tampering alarm
- > 64 MB pre/post alarm memory
- > Memory card slot
- > Power over Ethernet (IEEE 802.3af) with power out for camera
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)\*
- > ONVIF

## 4-CHANNEL



**AXIS Q7411**

Full-featured, single channel video encoder with exceptional performance.

- > Multiple, simultaneous, individually configurable streams in H.264 and Motion JPEG at full 50/60 (NTSC/PAL) frames per second in all resolutions
- > Resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Image setting adjustment
- > Support for third-party PTZ driver
- > Compatible with Coaxitron® by Pelco
- > Integrated 2-way audio support
- > 4 configurable inputs/outputs
- > Built-in video motion detection
- > Audio detection
- > Active tampering alarm
- > 64 MB pre/post alarm memory
- > Memory card slot
- > Power over Ethernet (IEEE 802.3af) with power out for camera
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF



**AXIS M7014**

Four-channel cost-effective video encoder with H.264.

- > One H.264 and one Motion JPEG stream per channel at 15 fps per channel in all resolutions up to D1 (720x480 NTSC or 720x576 PAL)
- > Quad view
- > Image setting adjustment
- > Built-in video motion detection
- > Active tampering alarm
- > Support for one third-party PTZ driver
- > Memory card slot
- > Power over Ethernet (IEEE 802.3af)
- > AXIS Video Hosting System (AVHS)
- > ONVIF

\*Special firmware needed. Available for partners on the Axis Partner Pages.

## 4-CHANNEL



### AXIS P7214/ AXIS P7224 Blade

**Full-featured, cost-effective four-channel video encoder with H.264.**

- > One H.264 and one Motion JPEG stream per channel at full frame rate in all resolutions up to D1 (720x480 NTSC or 720x576 PAL)
- > Quad view
- > Image setting adjustment
- > Built-in video motion detection
- > Audio detection
- > Active tampering alarm
- > Two-way audio, full duplex
- > Support for one third-party PTZ driver
- > **AXIS P7214:** 4-channels; one memory card slot, Power over Ethernet (IEEE 802.3af)
- > **AXIS P7224:** 4-channels (blade version)
- > AXIS Video Hosting System (AVHS)
- > ONVIF



### AXIS Q7404

**Four-channel video encoder for full-featured video surveillance with outstanding H.264 performance.**

- > Multiple, simultaneous, individually configurable streams per channel in H.264 and Motion JPEG at full 30/25 (NTSC/PAL) frames per second in all resolutions
- > Resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Image setting adjustment
- > Support for third-party PTZ driver
- > 2 configurable inputs/outputs per channel
- > Built-in video motion detection
- > Active tampering alarm
- > Audio detection
- > Two-way audio support on one channel
- > 64 MB pre/post alarm memory per channel
- > AXIS Video Hosting System (AVHS)
- > ONVIF



### AXIS Q7414 Blade

**Four channel video encoder blade for high-density video surveillance with H.264 and full audio support.**

- > Multiple, simultaneous, individually configurable streams per channel in H.264 and Motion JPEG at full 30/25 (NTSC/PAL) frames per second in all resolutions
- > Resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Image setting adjustment
- > Support for third-party PTZ driver
- > 2 configurable inputs/outputs per channel
- > Video motion detection
- > Audio detection
- > Active tampering alarm
- > Two-way audio support
- > Pre and post alarm memory video buffering
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF



### AXIS Q7424-R

**Full-featured video surveillance for tough environments.**

- > Multiple, simultaneous, individually configurable streams per channel in H.264 and Motion JPEG at full 30/25 (NTSC/PAL) frames per second in all resolutions
- > Resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Image setting adjustment
- > Support for third-party PTZ driver
- > 4 configurable inputs/outputs
- > SFP slot for fiber connection
- > Video motion detection
- > Audio detection
- > Active tampering alarm
- > Two-way audio support
- > Quad view
- > Pre and post alarm memory video buffering
- > Memory card slot
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF

## 6-CHANNEL



**AXIS Q7406 Blade**

**Six-channel video encoder blade for full-featured video surveillance with outstanding H.264 performance.**

- > Multiple, simultaneous, individually configurable streams per channel in H.264 and Motion JPEG at full 30/25 (NTSC/PAL) frames per second in all resolutions
- > Resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Image setting adjustment
- > Support for third-party PTZ driver
- > 2 configurable inputs/outputs per channel
- > Built-in video motion detection
- > Active tampering alarm
- > 64 MB pre/post alarm memory per channel
- > AXIS Camera Application Platform
- > AXIS Video Hosting System (AVHS)
- > ONVIF

## 16-CHANNEL



**AXIS M7010**

**16-channel cost-effective video encoder with H.264.**

- > One H.264 and one Motion JPEG stream per channel at 15 fps per channel in all resolutions up to D1 (720x480 NTSC or 720x576 PAL)
- > Quad view
- > Image setting adjustment
- > Built-in video motion detection
- > Active tampering alarm
- > Support for 4 third-party PTZ drivers (one in each group)
- > 4 memory card slots
- > Power over Ethernet (IEEE 802.3af)
- > AXIS Video Hosting System (AVHS)
- > ONVIF



**AXIS P7210**

**Full-featured, cost-effective 16-channel video encoder with H.264.**

- > One H.264 and one Motion JPEG stream per channel at full frame rate in all resolutions up to D1 (720x480 NTSC or 720x576 PAL)
- > Quad view
- > Image setting adjustment
- > Built-in video motion detection
- > Audio detection
- > Active tampering alarm
- > Two-way audio, full duplex
- > Support for 4 third-party PTZ drivers (one in each group)
- > 4 memory card slots
- > Power over Ethernet (IEEE 802.3af)
- > AXIS Video Hosting System (AVHS)
- > ONVIF

## VIDEO DECODERS



**AXIS P7701**

**Full-featured video decoder with outstanding H.264 performance.**

- > Allows digital or analog monitors to be connected to an Axis IP-based video system
- > For use with all Axis H.264, MPEG-4 and Motion JPEG products
- > Full frame rate in H.264 and MPEG-4 in resolutions up to D1 (720x480 in NTSC, 720x576 in PAL)
- > Motion JPEG video stream decoded in all resolutions up to 720p (1280x720)
- > One way audio decoding
- > Support for legacy equipment
- > Automatic display of alarm-triggered video
- > Power over Ethernet (IEEE 802.3af)

## RACKS FOR ENTERPRISE INSTALLATIONS

Designed for improved serviceability and quick replacement of units, AXIS 291 1U Video Server Rack and AXIS Q7900 Rack hold up to 3 or 14 video encoder blades respectively. They are interchangeable and hot-swappable so there is no need to power down when installing or changing blades. The racks come with integrated power supply for easy installation and expansion. Axis video encoder racks combine high reliability and functionality with flexible and professional installation, and provide higher density of video channels compared with standalone solutions. Axis video encoder racks are specially designed for applications involving a large number of cameras, both existing and new. They are also designed for applications that cover large physical surveillance areas such as prisons, airports, large buildings, university campuses, subways and railway stations.



### AXIS 291 1U Video Server Rack

**AXIS 291 1U Video Server Rack is a high-density solution for quick and professional installation of up to 3 video encoders in the same rack. It is designed to migrate from 1 to 18 analog cameras into high performance, IP-based, digital solutions.**

- > 1-unit high rack solution
- > 3 slots for Axis video encoder blades; "hot swap" support
- > Serial communication and I/O connectors at the rear of each slot, and a single network connection together with integrated power for simple installation
- > Any combination of AXIS P7224, AXIS Q7406 and AXIS Q7414



### AXIS Q7900 Rack

**AXIS Q7900 Rack enables large surveillance installations to quickly install as many as 14 video encoder blades in the same rack. It is designed to migrate from 1 to 84 analog cameras into high performance, IP-based, digital solutions.**

- > 4-unit high rack solution
- > 14 slots for Axis video encoder blades; "hot swap" support
- > Two integrated, replaceable, redundant power supplies
- > Replaceable fan cassettes
- > Four Gigabit Ethernet ports
  - optionally use only 1 port or all 4 ports
- > Serial communication and I/O connectors at the rear of each slot, and common power supply
- > Any combination of AXIS P7224, AXIS Q7406 and AXIS Q7414



# VIDEO MANAGEMENT

## Remote viewing, recording and event management

Axis provides video management software and hardware that complements the company's network cameras and video encoders. Additionally, Axis Application Development Partners (ADP) offer a wide range of complete video solutions.

## VIDEO MANAGEMENT SOFTWARE

### AXIS Camera Companion

AXIS Camera Companion is the market's easiest video surveillance solution for small systems from 1 to 16 cameras – perfect for retail, offices and hotels. With AXIS Camera Companion, all video is recorded on SD cards in the cameras, and no DVR or server is necessary – making each camera a smart, independent video recording device. The system consists of standard Axis cameras, SD cards, software clients for PC and smartphones, and standard network equipment.

- > Excellent HDTV image quality
- > Easy to install and use
- > No central PC or DVR needed
- > Remote and wireless access to video
- > Viewing apps for iPhone, iPad and Android
- > Scalable and future-proof
- > Multilingual support for English, UK English, Arabic, Brazilian Portuguese, Czech, Dutch, Finnish, French, German, Italian, Japanese, Korean, Polish, Russian, Simplified Chinese, Traditional Chinese, Slovak, Spanish, Swedish and Turkish



### AXIS Camera Companion

The AXIS Camera Companion client is a free software available for download. It supports the majority of Axis cameras and encoders. The video captured by a camera is stored locally on the camera's SD card. Mobile apps for viewing are available for Android, iPhone and iPad.

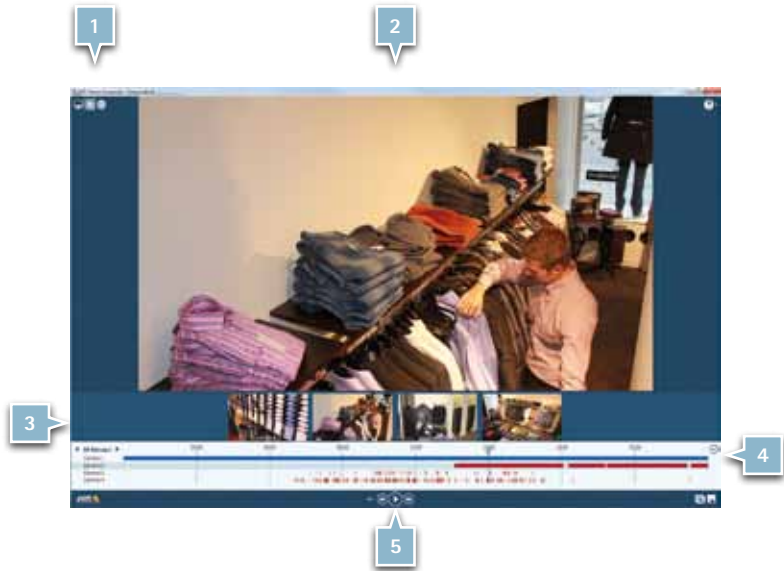
**FREE OF CHARGE!**



## User interface

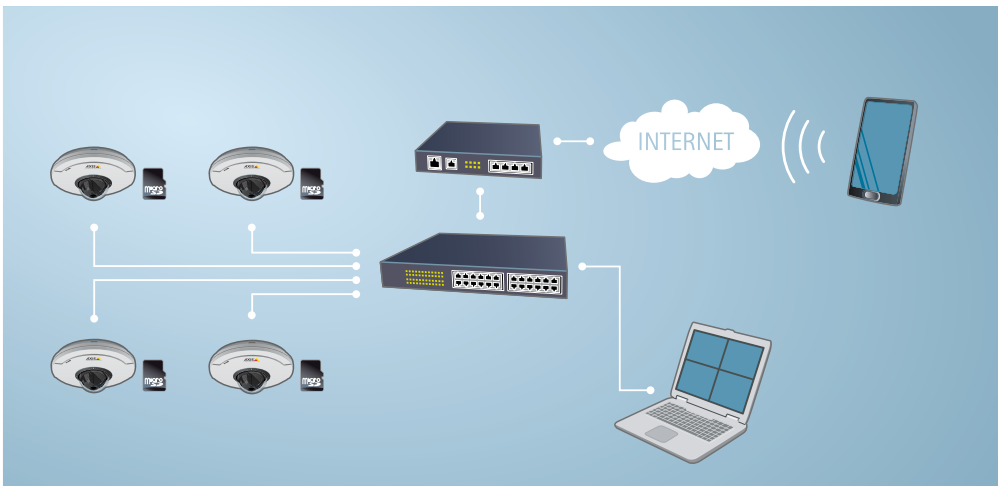
**AXIS Camera Companion** is developed with focus on ease of use. Users can easily access live video, search through recordings and export video clips.

- 1) Easy navigation between live view, recordings and configuration.
- 2) Selected Recording
- 3) Camera Selector with video thumbnails
- 4) Timeline
- 5) Control buttons



## Basic installation of AXIS Camera Companion

The system consists of standard Axis cameras or encoders, SD cards, software clients for PC and smartphones, and standard network equipment.



## VIDEO MANAGEMENT SOFTWARE

### AXIS Camera Station

AXIS Camera Station is a complete monitoring and recording system for up to 100 cameras. Designed for Axis network video products, this software offers easy installation and setup with automatic camera discovery, multi-configuration of devices and a powerful Event Configuration Wizard.

- > Viewing and recording of high quality video and audio from up to 100 cameras
- > Support for H.264, MPEG-4 and Motion JPEG video compression
- > Scheduled and event-driven recording
- > Powerful recording search and export functionality
- > Locking of prioritized recordings
- > Synchronized playback from up to 25 video sources simultaneously
- > Multilingual support for English, French, German, Italian, Spanish, Russian, Korean, Japanese, Chinese, Swedish, Danish, Polish, Turkish, Arabic and Persian.



#### AXIS Camera Station One

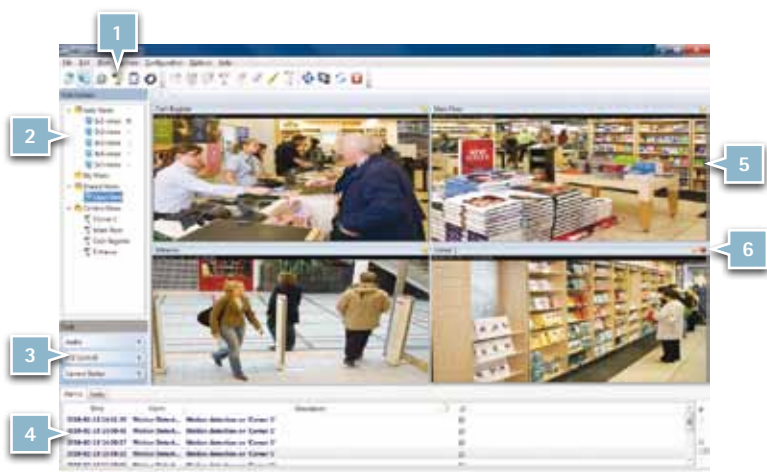
AXIS Camera Station One is a free one-camera version of AXIS Camera Station, designed for single camera viewing and recording. The software is available from the Axis website and is upgradable to a 4- or 10-base license of AXIS Camera Station.

FREE OF CHARGE!

### User interface

The AXIS Camera Station user interface is developed with a focus on ease-of-use and intuitive handling, with navigation tools that provide quick access to cameras and recordings in the system.

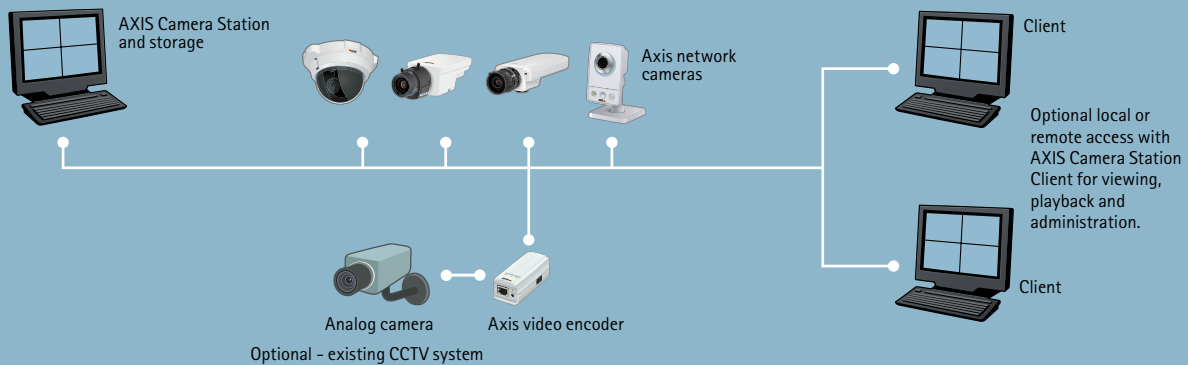
- 1) Easy navigation using different workspaces
- 2) Select customized split view
- 3) Quick access to Audio and PTZ Control
- 4) Alarm log
- 5) Live view
- 6) Red marker indicates alarm recording



## Scenario 1: Basic installation with remote access on the local network

AXIS Camera Station and Axis network cameras are located on the same local network. Viewing, playback and administration are done directly in AXIS Camera Station. Existing analog cameras connected to an Axis video encoder achieve the same functionality.

Typical environments for this type of installation are small offices or retail shops.



## APPLICATION DEVELOPMENT PARTNERS

### Specialized solutions for any system size

Axis Application Development Partners (ADP), which comprise more than 800+ companies, offer a wide range of complete software solutions that meet varying specifications and requirements for different

application areas—from entry-level software to comprehensive applications covering most industry segments. More information about Axis Application Development Partners is available at [www.axis.com/partner/adp\\_program/](http://www.axis.com/partner/adp_program/)



## HOSTED VIDEO

AXIS Video Hosting System (AVHS) enables a hosted monitoring and recording service to be managed and distributed to you by a service provider. With an Internet connection and an Axis camera as the only

requirements, you can enjoy a trouble-free monitoring solution over the Internet. For more information visit [www.axis.com/hosting/](http://www.axis.com/hosting/)



## INSTALLATION AND MANAGEMENT TOOLS

### AXIS T8414 Installation display

**Handheld device for fast and easy camera setup.**

AXIS T8414 Installation Display is a battery-powered handheld device that displays live video from a camera and makes setting a camera's viewing angle and focus at the installation site easier than with the use of a laptop or remote computer.

- > Touchscreen monitor (320x240 color LCD)
- > Zoom function
- > Snapshot function
- > Storage of snapshots on SD card or USB memory
- > Supports Axis network video products and analog cameras
- > Provides Power over Ethernet to Axis network cameras
- > Video clip recording and playback



### AXIS Camera Management

AXIS Camera Management is a powerful and efficient installation and management tool for Axis network video products. The tool uses standard Internet protocols and runs on a standard Windows PC.

- > Locates and shows status of Axis video devices on the network

- > Assigns IP addresses, manually or automatically from a specified range
- > Configures single or multiple units
- > Manages user access rights
- > Firmware upgrades of multiple units, in sequence or in parallel
- > Efficient management of camera applications



# HARDWARE ACCESSORIES

## A full range of accessories for enhanced operability and optimized image quality.

Axis provides a wide range of complementary video and network accessories and devices for your network cameras and video encoders. Accessories from Axis ensure straightforward installation and superior performance. See all available accessories at [www.axis.com/accessories](http://www.axis.com/accessories).



### AXIS T92A Housing Series

Protective housing for Axis network cameras.

- > Side opening system for fast and easy installation
- > IP66-rated protection
- > Indoor and outdoor installations
- > Sunshield for thermal insulation
- > Operating conditions down to 20 °C (-4 °F) and up to +50 °C (122 °F)
- > Die-cast aluminum
- > Compatible with: AXIS P13 Series, AXIS Q16 Series, AXIS Q1755



### AXIS T92E Housing Series

Protective housing for Axis fixed network cameras.

- > Side opening system for fast and easy installation
- > Dual shell
- > IP66-, NEMA 4X- and IK10-rated protection
- > Arctic Temperature Control
- > Indoor and outdoor installations
- > Sunshield for thermal insulation
- > Operating conditions -30 °C to +50°C (-22°F to 122°F) with PoE and down to -40 °C (-40 °F) with High PoE
- > Aluminum casing
- > Compatible with: AXIS M11 Series, AXIS P13 Series, AXIS Q16 Series, AXIS Q1755, AXIS Q19 Series



### AXIS T93E05 Protective Housing

Unobtrusive housing with compact and slim design.

- > One cable installation for fast and easy installation
- > Compact design
- > IP66-rated protection
- > Indoor and outdoor installations
- > Sunshield for thermal insulation
- > Operating conditions -20 °C to +50°C (-4°F to 122°F)
- > Acrylate casing
- > Compatible with: AXIS M11 Series



### AXIS T95A Series Dome Housing

Protective housing for Axis dome network cameras.

- > Top opening system for easy access and efficient installation
- > Pre-mounted heaters, blower and power supplies
- > Dome cover with superior optical clarity
- > IP66-rated protection
- > Indoor and outdoor installations
- > Enhanced heating system
- > Operating conditions down to -30 °C (-22 °F)
- > Die-cast aluminum
- > Compatible with: AXIS 214 PTZ

## HARDWARE ACCESSORIES



### AXIS T98A-VE Surveillance Cabinet Series

The cabinets are specially designed for Axis outdoor network cameras. It is IP66- and NEMA 4X-rated for protection against the ingress of dust and high pressure water jets as well as IK10-rated for protection against impact and vandal acts.



### AXIS T97A10 Enclosure

Protective IP66-rated enclosure for wall-mount installation outdoors. The enclosure is suitable for AXIS Q7401 Video Encoder, AXIS P8221 Network I/O Audio Module and AXIS P7701 Video Decoder.



### Mounting accessories

Mounts for installing Axis network cameras in various locations and positions, including drop-ceiling mounts and pendant kits for poles, parapets and ceilings.



### Casings and covers

Interchangeable casings and covers for Axis network cameras. Colored casings with clear transparent or smoked transparent bubbles. Vandal-resistant models also available.



### Lenses

Axis' selection of optional lenses includes varifocal megapixel lenses, fixed focal lenses, P-Iris lenses, IR corrected lenses, D/N lenses and various M12 megapixel lenses.



### AXIS T90A Illuminators

White light and infrared illuminators for indoor/outdoor surveillance in low light or complete darkness. The various models offer flexibility to match the illumination angle to the Axis network camera field of view.



### AXIS T90C Fixed Dome IR-LED

This infrared, vandal-resistant illuminator allows outdoor models of AXIS P33 Network Cameras to deliver high quality images even in complete darkness. The illuminator requires no maintenance, has low power consumption and an IP66- and NEMA 4X-rated casing.



### Power over Ethernet

Axis products, including PTZ cameras and PTZ domes, can communicate data and receive power over a single Ethernet cable with the use of Power over Ethernet (PoE) and High PoE products.

## HARDWARE ACCESSORIES



### Power accessories

A wide selection of mains adapters and extension cables for Axis network video products.



### AXIS T8310 Video Surveillance Control Board

Control all Axis PTZ and PTZ dome network cameras with the modular system of 3 separate joystick, keypad and jog dial units with many application defined hotkeys. Easy to install using USB interface and supports AXIS Camera Station.



### AXIS P8221 Network I/O Audio Module

Provides additional I/O and audio to enhance network video surveillance systems. Features 8 configurable digital I/O ports, two-way audio and built-in pre-amplifier and phantom power for balanced microphones.



### AXIS T83 Microphones

Discreet and compact microphones for discreet and flexible installation.



### AXIS T8129 PoE Extender

Extends a PoE connection beyond the 100m limit. Provides IEEE 802.3af and IEEE 802.3at compliance. Does not require any additional power supply and the connected network camera is fed by a single PoE switch or midspan.



### AXIS T8640 Ethernet over Coax Adaptor PoE+

Enables IP communication over existing Coax video cabling and converts an analog system to digital. It can also be used in those installations that require PoE transmissions over 100 m (328 ft.).



### AXIS T8604 Media Converter Switch

Converts Ethernet to optical fiber. Can be connected in a daisy chain network and the maximum number of cameras connected in the daisy chain depends on the generated bit rate per camera



### YP3040 Pan-Tilt Motor

YP3040 Pan-Tilt Motor is an IP66-rated compact pan/tilt motor for use with AXIS Q1755 Network Camera and AXIS Q19 Thermal Network Camera Series.



# BUNDLES AND KITS

## Complete solutions and special offers

Axis offers economical purchases comprising product bundles which include several network cameras with video management software. These solutions let you get started quickly with your video application. For a full list of available bundles, please visit [www.axis.com](http://www.axis.com) or contact your local Axis office.

### Surveillance kits with AXIS Camera Station



**AXIS M10  
Surveillance Kits**

AXIS M10 Surveillance Kit consists of four AXIS M10 Network Cameras and one AXIS Camera Station software with a 4-base license. Kits with AXIS M1011, AXIS M1031-W or AXIS M1054 Network Cameras are available.



**AXIS M11  
Surveillance Kits**

AXIS M11 Surveillance Kit consists of four AXIS M11 Network Cameras and one AXIS Camera Station software with a 4-base license. Kits with AXIS M1103 or AXIS M1104 Network Cameras are available.



**AXIS M32  
Surveillance Kits**

AXIS M32 Surveillance Kit consists of four AXIS M32 Network Cameras and one AXIS Camera Station software with a 4-base license. Kits with AXIS M3203 or AXIS M3204 Network Cameras are available.



**AXIS M70  
Surveillance Kit**

AXIS M70 Surveillance Kit consists of one AXIS M7010 or one AXIS M7014 Video Encoder and one AXIS Camera Station software with a 4-base or 16-base license.



### Surveillance kits with AXIS Camera Station



+



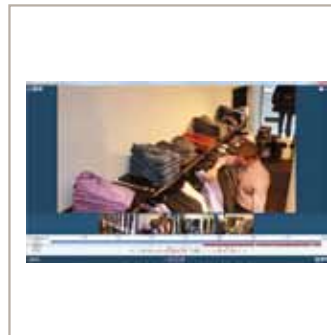
#### AXIS P72 Surveillance Kit

AXIS P72 Surveillance Kit consists of one AXIS P7210 or one AXIS P7214 Video Encoder and one AXIS Camera Station software with a 4-base or 16-base license.

### Surveillance kits with AXIS Camera Companion



+



#### AXIS M1014 Surveillance kit

AXIS M1014 Surveillance Kit consists of four AXIS M1014 Network Cameras and one AXIS Camera Companion free software client.



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#### AXIS M3004-V Surveillance kit

AXIS M3004-V Surveillance Kit consists of four AXIS M3004-V Network Cameras and one AXIS Camera Companion free software client.

# TECHNICAL CORNER

## VIDEO STREAMING

Many Axis network video products offer users the option of more than one video compression format. The video compression standards include Motion JPEG, MPEG-4 Part 2 and H.264 (also known as MPEG-4 Part 10/AVC). H.264 is the latest compression standard that offers the most efficient format for compressing video, enabling great savings in bandwidth and storage without compromising image quality.

The Axis Media Control (AMC) includes both an MPEG-4 and an H.264 decoder, which makes viewing video streams and integration into applications easy.

Furthermore, Axis' multicasting support enables an unlimited number of viewers without sacrificing network system performance.



## POWER OVER ETHERNET (PoE)

With a network video solution, you have the option of using the same Ethernet cable for video, audio and power. This makes it easier to install products since an electrician is not required and the network video product is able to operate even when there is a power failure if the PoE source is connected to a UPS.

PoE technology is regulated in standards called IEEE 802.3af/802.3at and is designed in a way that does not degrade the network performance or decrease the network reach.

The standard IEEE 802.3at provides up to 25.5 W of power, especially useful for powering units that requires more power, such as PTZ and PTZ Dome cameras.

The power delivered over the network is automatically activated when a compatible product is identified, and blocked to legacy devices that are not compatible. This feature allows users to freely and safely mix legacy and PoE-compatible devices on their network.



## QUALITY OF SERVICE (QoS)

As different networks, such as telephone, data and video (CCTV) all continue to merge into a single IP network, it becomes more and more important to control the sharing of network resources, to fulfill the requirements of each service.

One solution is to have network equipment treat different types of services (voice, data, video) differently as the traffic passes through the network.

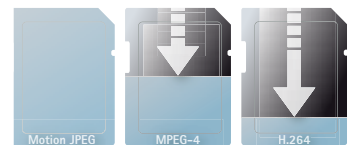
By using Quality of Service (QoS), network applications can co-exist on the same network, without consuming each other's bandwidth. QoS makes it possible to prioritize traffic, thus creating a more reliable network.



## H.264

H.264, also known as MPEG-4 Part 10/AVC for Advanced Video Coding, is the latest MPEG standard for video encoding. H.264 takes video compression technology to a new level. An H.264 encoder can, without compromising image quality, reduce the size of a digital video file by more than 80% compared with the Motion JPEG format and as much as 50% more than with the MPEG-4 Part 2 standard. This means that much less network bandwidth and storage space are required for a video file. Or seen another way, much higher video quality can be achieved for a given bit rate.

As the H.264 format is now available in network cameras, video encoders and video management software, system designers and integrators need to make sure that the products and vendors they choose support this standard. Network video products that support both H.264 and Motion JPEG are ideal for maximum flexibility and integration possibilities.



## P-IRIS

P-Iris is an automatic and precise iris control. It involves a P-Iris lens and specialized software that optimize image quality. The system is designed to address the shortcomings of an auto-iris lens by providing drastic improvements in contrast, clarity, resolution and depth of field.

In bright situations, P-Iris limits the closing of the iris to avoid blurring (diffraction) caused when the iris opening becomes too small. This can typically happen in cameras that use DC-iris lenses in combination with megapixel sensors that have small pixels. Being able to avoid diffraction and at the same time benefit from an automatically controlled iris is highly valued in outdoor video surveillance applications.

A P-Iris lens allows the position of the iris opening to be precisely controlled. In Axis network cameras with P-Iris, the iris position is automatically set to use the central and best performing part of the lens under most lighting conditions.

P-Iris is especially beneficial for megapixel/HDTV cameras and demanding video surveillance applications.



## AXIS CAMERA APPLICATION PLATFORM

AXIS Camera Application Platform is an open application platform. It enables the integration of third-party applications, which can be downloaded and installed on Axis network cameras and video encoders. The platform makes it possible for integrators, resellers and end users to meet specific needs by selecting the most suitable applications for their Axis network video products.

Compatible applications can be installed on Axis network cameras and video encoders to extend their functionality to meet specific end-user needs.

For more info about AXIS Camera Application Platform and compatible applications from Axis such as AXIS Cross Line Detection, visit [www.axis.com/applications](http://www.axis.com/applications).



**AXIS**  
COMMUNICATIONS

COMPATIBLE  
APPLICATION

## MEGAPIXEL

The higher the resolution, the more details can be seen in an image. This facilitates the identification of objects and persons – important considerations in video surveillance. Megapixel resolution allows the same scene to be viewed in greater detail, or a larger scene to be viewed at a maintained resolution. The higher resolution also means that digital pan/tilt/zoom can be used without causing a drop in resolution.

After the video signal from an NTSC or PAL analog camera has been digitized, the maximum resolution will be 0.4 megapixel. New network camera technology makes higher resolutions possible.



The full 1600x1200 resolution provided by, for example, AXIS P1346 Network Camera gives more than 4 times the number of pixels compared with a high-resolution analog camera.



One common megapixel format is 1280x1024, which gives 1.3-megapixel resolution, 3 times higher than analog cameras. Cameras that provide multi-megapixel resolutions are also available. It is, however, important to bear in mind that higher resolutions generally lead to reduced light sensitivity because of the smaller pixels in the image sensor as compared with conventional cameras.

## HIGH-DEFINITION TELEVISION (HDTV)

Axis HDTV network cameras comply with SMPTE (Society of Motion Picture and Television Engineers) standards with regard to HDTV resolutions and frame rates, HDTV color fidelity and a 16:9 format. The two most important HDTV standards are SMPTE 296M and SMPTE 274M.

SMPTE 296M (HDTV 720p) defines a resolution of 1280x720 pixels with high color fidelity in a 16:9 format using progressive scanning at 25/30 Hertz (Hz), which corresponds to 25 or 30 frames per second depending on the country, or at 50/60 Hz (50/60 frames per second).

SMPTE 274M (HDTV 1080) defines a resolution of 1920x1080 pixels with high color fidelity in a 16:9 format using either interlaced or progressive scanning at 25/30 Hz or 50/60 Hz.



Analog camera resolution,  
4:3 ratio



HDTV/Megapixel network camera resolution, 16:9 ratio



## THERMAL IMAGING

Thermal cameras detect radiation in the infrared (IR) spectrum, which is outside the range of visible light and near-infrared light. Ordinary visible light has wavelengths of 0.4–0.7  $\mu\text{m}$ . This is what the human eye can see, and also what standard, non-day/night cameras can detect and display. Light at this part of the spectrum requires a radiation source, e.g. the sun or a lamp.

Near-IR light, with wavelengths of 0.7–1.5  $\mu\text{m}$ , is beyond what the human eye can see, but most camera sensors can detect it and make use of it. A day/night camera uses an IR-cut filter during the day to filter out IR-light so that it does not distort the colors of images as the human eye sees them. When the camera is in night mode, the IR-cut filter is removed and the camera delivers a black and white image. Near-IR light also requires a light source, which could be a natural part of the environment, such as streetlights or moonlight, or a dedicated IR-lamp. Thermal radiation is emitted at wavelengths of 3–1000  $\mu\text{m}$ .

Thermal radiation does not require a separate light source since the radiation comes from every object that has a temperature above 0 degrees Kelvin. That means that even very cold objects such as ice emit thermal radiation. The hotter the object is the more thermal radiation it emits. In other words, the greater the temperature differences in a scene, the clearer the thermal image will be.

A thermal camera requires special sensors and special optics. Regular glass cannot be used for the lenses since this blocks the thermal radiation. This also means that standard camera housings cannot be used. Most lenses for thermal cameras are made using germanium, which is transparent to IR-light and thermal radiation.



## ONVIF

ONVIF is a non-profit organization founded by Axis, Bosch and Sony in 2008.

The goal of ONVIF is to facilitate the development and use of a global open standard for the interface of network video products. The ONVIF specification will ensure interoperability between network video products regardless of manufacturer. It will become even easier for end users, integrators, consultants and manufactur-

ers to take advantage of the possibilities offered by network video, resulting in more cost-effective and flexible solutions, expanded market opportunities and reduced risk. Visit [www.onvif.org](http://www.onvif.org) for more information.

Axis was one of the first companies on the market to launch products with ONVIF support: AXIS P3301/-V Fixed Dome Network Cameras. Most of the products in the Axis portfolio now include ONVIF support.



## LIGHTFINDER TECHNOLOGY

A day and night network camera can deliver excellent color images during the day. As night falls and light fades, the camera can automatically switch to night mode to make use of near infrared (IR) light to continue to deliver video. However, the images produced in low light condition are typically in black and white.

But with the Lightfinder technology Axis has mastered the art of low light video. This is the result of a careful choice of CMOS sensor with the appropriate lens, together with the elaboration of the image data coming from the combination of sensor and lens. The fusion of these factors – sensor, lens, in-house chip development and knowledge in image processing – provides the outstanding performance of this technology.

A network camera incorporating Lightfinder technology will thus offer better resolution and more lifelike colors in low-light conditions than any analog camera on the market. Furthermore, these advantages come without compromising other important features of network cameras, such as progressive scan and video intelligence analysis.

Network cameras with Lightfinder technology are the perfect solution for indoor and outdoor surveillance in low-light conditions, especially where users require color information in the video for recognition and identification purposes.



High-end surveillance camera (above)  
vs. Lightfinder technology (below)

## EDGE STORAGE

Edge storage is a concept in Axis network cameras and video encoders that allow them to record video directly to a storage device such as an SD/SDHC card, creating more robust and flexible video surveillance systems.

Using edge storage, it is possible to record video locally when the central system is not available, or continuously record in parallel.

When used together with video management software (VMS), missing video clips resulting from, for instance, network disruptions, can later be retrieved and merged with the central storage, thereby providing uninterrupted video recordings. Additionally, edge storage can improve video analysis for systems with low network bandwidth and it can be used to manage recordings in remote locations or installations where there is intermittent or no network availability.



## AXIS' CORRIDOR FORMAT

Axis' Corridor Format provides a vertically-oriented, "portrait"-shaped video stream ideal for monitoring areas that are more vertical than horizontal in shape, such as staircases, hallways, aisles, roads, runways, tunnels, and similar spaces.

In these situations, the traditional landscape format is not optimal since a large part of the field of view – specifically the edges of the image – is redundant. Consequently, the image quality is not maximized because the full area and resolution of the camera's image sensor is not utilized. And on top of providing surplus images from areas that do not require monitoring, bandwidth and storage is also wasted.

By adapting perfectly to the monitored area, Axis' Corridor Format can maximize image quality while eliminating bandwidth and storage waste. The resulting image will have a 9:16 aspect ratio, which makes it a perfect match with modern HDTV network cameras that deliver a 16:9 aspect ratio.





# PREPARING YOUR NETWORK VIDEO PROJECT

## Main considerations

### 1. Define the scene and type of network video products required

- > **Scene: What kind of scene do you want to monitor? How important is it?**  
This will help you determine the features you would like to have in a network camera, such as video quality, light sensitivity and type of lens.
- > **Lighting conditions: level of indoor and/or outdoor light sensitivity required.**  
Axis offers network cameras for indoor use, as well as models for both indoor/outdoor conditions. Indoor/outdoor cameras have varifocal lens that automatically adjust the lens' iris. Day/night cameras, which provide color images during daytime and black and white images during nighttime are also available.  
Check details on the network camera's light sensitivity both in indoor and/or outdoor environments. Lighting conditions are measured in "lux".
- > **Distance from position of camera to object being monitored.**  
This determines the type of camera and type of lens (normal, telephoto, wide-angle) to use, as well as the placement of the camera(s). Choose Axis network cameras with fixed focal or varifocal lenses, with or without replaceable lenses, according to the level of flexibility needed.
- > **Angle of view needed: wide, narrow, general or detailed coverage** (Determine how much of the scene you need to see).  
Network cameras come with fixed angle and focus, as well as variable ones that allow remote pan/tilt/zoom capability, which enables a wider area of coverage.
- > **High or low traffic.**  
The higher the traffic, the more cameras may be needed.

### 2. Determine your application needs: features, recording and storage needs

- > **Application:** Simple remote viewing, intelligent surveillance system with advanced event management, input/output triggers, audio?
- > **Viewing and recording needs:** Determine when and how often you need to view and record: day, night and/or weekends? Schedule the needs for every scene.
- > **Calculate** storage requirements.
- > **Calculate** bandwidth requirements.

### 3. Determine your network needs (LAN/WAN, wireless)

- > Assess network use of current LAN: what are you or the company using it for?
- > Assess network use of current WAN links.
- > Determine the pattern of congestion levels over a given period.
- > Do you need to add new equipment to the network, e.g. switches, or use existing infrastructure and equipment?
- > Do you need to subscribe to additional ISPs for redundancy?

## TOOLS AND RESOURCES

Axis offers a variety of tools and information resources to help design IP surveillance systems. Many are accessible from the Axis website: [www.axis.com/tools](http://www.axis.com/tools)

### Axis Product Selector

This tool helps you select the right cameras or video encoders for your project. A version of this tool, AXIS Guide iPhone app, is available for use on iPhone, iPod Touch and iPad.

### Axis Accessory Selector Tool

This tool helps you pick the right housing, bracket and power accessory for the cameras in your project.

### AXIS Camera Companion Buyers Tool

Pick the cameras, storage and networking devices you need for a small surveillance system with this user-friendly tool.

### Axis Lens Calculator

Use the Axis Lens Calculator to easily establish for a specific camera the optimal camera placement and required focal length for a particular scene size and resolution.

### AXIS Design Tool

Estimate the storage and network bandwidth needs for your system. This tool lets you experiment with viewing, recording and compression options for each camera.

### Axis Coverage Shapes for Microsoft Visio

This tool visualizes the coverage of cameras in a layout drawing to help you ensure that all critical areas are covered.



### Axis Camera Families for Autodesk® Revit®

Design surveillance systems based on Axis cameras directly in your Autodesk Revit 3D CAD building layout. Axis' innovative Revit security camera families provide 3D camera models to illustrate what the camera setup will look like in reality and which areas the surveillance system will cover once installed.



### Technical guide to network video

Before setting up your own system, you need to consider what features are required. It is equally important to consider factors such as performance, interoperability, scalability, flexibility and future-proof functionality. This guide will walk you through these factors, helping you to achieve a solution that fully takes advantage of the potential of network video technology. To order a free personal copy, visit [www.axis.com/free\\_guide](http://www.axis.com/free_guide)



### Intelligent Network Video: Understanding modern surveillance systems

This 390-page hardcover book is authored by Fredrik Nilsson and Axis Communications. It represents the first resource to provide detailed coverage of advanced digital networking and intelligent video capabilities. Published in September 2008, the book is available for purchase through Amazon, Barnes & Noble and CRC Press, or contact your local Axis office. The second revision is planned for release at the end of 2013.

# SOLUTIONS BY INDUSTRY

## A tailor-made solution for every application

Flexibility and scalability are key promises that network video fulfills. Axis offers network video solutions that ensure enduring results, whatever your business area or application need.



### Retail

The key to success for retailers is to provide a satisfying customer experience. With Axis network video, you can achieve greater security and loss prevention, optimize store management and significantly improve store performance. Easily integrated with POS and EAS systems, an Axis network video solution enables remote and local monitoring at any time, from any place. You get rapid ROI as well as cross-functional use of your solution; for instance, by combining people counting, integrated alarm functionality and register monitoring.



### Transportation

Axis provides the means to improve security, operations and overall passenger experience at airports, seaports and public transit systems. Automatic alerts and live video from any camera makes it possible to efficiently detect and manage daily security incidents, and to protect valuable goods and property. Intelligent capabilities such as passenger counting, license plate recognition and motion detection help to improve daily operations in any transportation environment. For traffic monitoring, intelligent camera applications enable automatic incident detection to reduce response times, minimize congestion and improve traffic flow.



### Education

From day-care centers to universities, Axis network video systems help deter vandalism and increase student and staff safety. They enable schools to efficiently monitor their indoor and outdoor areas. Features such as motion detection and live video from any camera give security operators powerful tools to quickly respond to security incidents and avoid false alarms. The cameras provide HDTV-quality video, enabling positive identification of persons and objects. Remote learning is another interesting application, e.g. for students who are unable to attend lectures in person.



### Industrial

Axis network video is used in a multitude of industrial applications, such as remote monitoring of manufacturing lines and processes, performance enhancement of automated production systems, incident detection and perimeter security. Network video is also an efficient tool to improve remote trouble-shooting and maintenance support.



### Critical infrastructure

Whether it is a solar plant, an electrical substation or a waste management facility, network video can help ensure safe, secure and uninterrupted activity everyday. Production data from remote sites can be enhanced with visual information.



### City surveillance

Network video is an essential tool for fighting crime and protecting the public. In emergencies, network cameras can help police or firefighters to quickly focus their action. Axis' advanced network cameras offer razor-sharp detail, motion detection and tamper-resistance. Operating over both wired and wireless networks, they are ideal and extremely cost-effective tools to promote the security that ensures safer cities.



### Government

Axis network video helps protect all kinds of public buildings, from museums and offices to libraries and prisons. Supervising security at building access areas and remote monitoring points 24/7, Axis cameras increase security for staff and visitors. They also help prevent vandalism and provide visitor statistics.



### Healthcare

Axis allows hospitals to efficiently monitor indoor and outdoor environments such as emergency departments, passageways and restricted areas to ensure the protection of staff, patients and sensitive information. Security staff can view live video from multiple locations and cameras can automatically alert staff when there are incidents such as missing patients, perimeter breaches, unauthorized entry, etc. Network video has also become an important tool for remote learning, where doctors or students can watch their peers perform various medical procedures.



### Banking and finance

Banks have traditionally very high demands on security and surveillance. Using existing CCTV equipment and infrastructure, they can create state-of-the-art network video surveillance systems that deliver powerful event management and exceptional image detail for easy detection and identification in all light situations. At bank offices as well as ATMs, Axis solutions increase the security for staff and visitors and offer greater protection of assets and property. Security staff can monitor multiple branches from a central or mobile location, and rapidly verify and respond to alarms.

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## About Axis Communications

As the market leader in network video, Axis is leading the way to a smarter, safer, more secure world — driving the shift from analog to digital video surveillance. Offering network video solutions for professional installations, Axis' products and solutions are based on an innovative, open technology platform.

Axis has more than 1,400 dedicated employees in 40 locations around the world and cooperates with partners covering 179 countries. Founded in 1984, Axis is a Sweden-based IT company listed on NASDAQ OMX Stockholm under the ticker AXIS. For more information about Axis, please visit our website [www.axis.com](http://www.axis.com)

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