Axis HDTV and megapixel network cameras

See what you've been missing.

HDTV and megapixel network cameras

HDTV and megapixel network cameras have an important role to play in video surveillance applications. They can provide images that are more useful, with more image detail and with wider scene coverage than standard resolution cameras. Depending on your requirements, Axis network cameras can bring the advantages of HDTV, megapixel and network technology to your surveillance application.

What do you need to see?

The variation of requirements within video surveillance is enormous. The most fundamental question, however, is generally a choice between two different priorities:

General overview

In a shopping mall, for instance, the primary goal of a camera installation may be to watch for the presence of people and view their movements — not the identification of individuals. For this kind of overview application, sufficient resolution and coverage of a scene may be achieved with either a number of non-megapixel network cameras or a single HDTV or megapixel network camera.

High detail

These are the really demanding situations where you need to be able to identify persons or objects in a scene. This could be point-of-sales monitoring where it is necessary to clearly see every item a customer is purchasing. Using an HDTV or a megapixel network camera will provide higher resolution images with more details than a non-megapixel network camera. This higher resolution enables the operator to choose either to zoom in or to maintain a wider field of view without compromising the ability to see and discover fine details in the image. Furthermore, the full frame rate provided by an HDTV network camera creates a rich viewing experience also when following moving objects or capturing activity in a scene.

When every detail matters

With an HDTV or a megapixel net-
work camera, the resolution is at
least three times better than an
analog CCTV camera. Higher resolu-
tion means more detail. More detail
means better possibilities for identi-
fication. In addition, a true HDTV
network camera provides full frame
rate and extended color fidelity, for
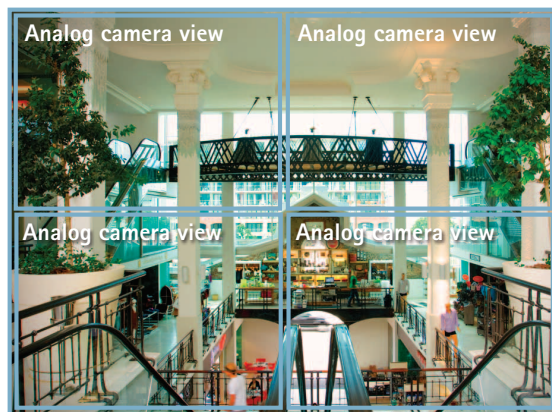an even better viewing experience.

Analog camera resolution

HDTV/Megapixel network camera resolution
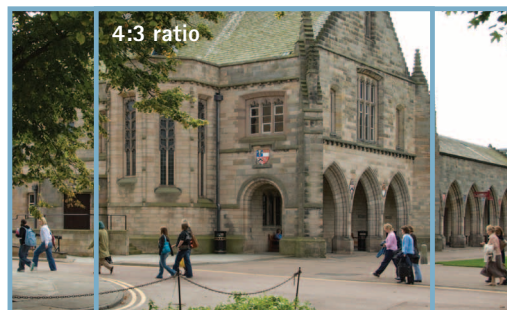
Same number of cameras – more coverage

HDTV/Megapixel network cameras
can cover larger scenes than analog
cameras at a given number of pixels
per area. For example, if four ana-
log cameras provide a good cover-
age of your monitored scene, one
5 megapixel network camera will
cover an even larger area, with no
loss of image resolution.

HDTV/Megapixel network camera view

Different aspect ratios for more efficient surveillance

Conventional TV monitors display
images with an aspect ratio of 4:3
only. HDTV/Megapixel network cam-
eras offer the same aspect ratio, as
well as a variety of others. A much
preferred ratio is 16:9, which is also
the one specified in HDTV standards,
because it includes important details
that are omitted from the left and
right sides of a conventional sized
image.

16:9 ratio

Complete HDTV and megapixel portfolio

Axis has a comprehensive portfolio of HDTV and megapixel network cameras that deliver crisp and clear video images, perfect for the identification of objects and persons. Axis HDTV network cameras comply with key parts of the SMPTE HDTV standard, delivering excellent image quality. Our complete range includes indoor and outdoor-ready, fixed, pan/tilt/zoom, dome and thermal network cameras.

In addition to high image quality, Axis network cameras offer easy installation features, intelligent video functionalities and reliable operation in a wide range of environments. In short, they give you the flexibility to design and implement an effective video surveillance system. All of the following models support H.264 video compression.

HDTV
NETWORK VIDEO

AXIS M1044-W
AXIS M1054

Small and smart HDTV camera.

AXIS M1044W and AXIS M1054 offer 1 megapixel or HDTV 720p resolution. Smart functions such as a PIR sensor, illumination LED, I/O ports and 2-way audio with built-in microphone and speaker make them ideal for residences and small businesses. AXIS M1044-W is wireless with Wifi (IEEE 802.11n) support.

AXIS M1104
AXIS M1114/-E

Compact and affordable HDTV cameras.

AXIS M1104 with CS-mount, fixed iris and AXIS M1114 with CS-mount, varifocal and DC-iris lens provide 1 megapixel or HDTV 720p resolution. Both models are suitable for a wide range of indoor surveillance applications, whereas AXIS M1114-E is adapted for outdoor environments.

AXIS P1344/-E, P1346/-E, P1347/-E

Superb image quality for video surveillance in any environment.

AXIS P13 Network Camera Series comprises of indoor and outdoor-ready fixed cameras that deliver superb HDTV image quality in 1-, 3- and 5-megapixel resolution respectively and with H.264 compression. The cameras are suitable for a wide range of video surveillance applications.

AXIS Q1755/-E

HDTV camera with zoom.

The indoor AXIS Q1755 and the outdoor-ready AXIS Q1755-E deliver HDTV 1080i or 720p resolution and enable 10x optical zoom with autofocus. They are designed for securing areas where high-quality identification is needed.

AXIS M3014

Ultra discreet, recessed-mount.

AXIS M3014 is a 1 megapixel network camera with progressive scan. It is designed for easy installation in recessed ceilings.

AXIS M3114-R
AXIS M3114-VE

Compact, rugged HDTV cameras.

AXIS M3114-R provides rich, full frame rate 1 megapixel or HDTV 720p video. It is designed for use in onboard surveillance solutions such as buses, trains and emergency vehicles. AXIS M3114-VE is outdoor-ready and vandal-resistant.

AXIS M3204/–V
AXIS P3304/–V

Discreet HDTV video surveillance.

AXIS M3204 provide 1 megapixel or HDTV 720p resolution. In addition AXIS P3304 offer two-way audio, I/O ports, pixel counter and digital PTZ. AXIS M3204-V and AXIS M3304-V respectively are vandal-resistant as well.

AXIS P3344/–V/–VE
AXIS P3346/–V/–VE
AXIS P3367/–V/–VE

HDTV with remote focus and zoom.

AXIS P33 Network Camera Series comprises of fixed dome cameras that deliver superb HDTV image quality in 1-, 3- and 5-megapixel resolution respectively. AXIS P33 Series is available in 3 versions: indoor, indoor vandal-resistant and outdoor-ready vandal-resistant.

AXIS M5014

Mini PTZ dome that gives the big picture.

AXIS M5014 is a mini PTZ dome camera that offers 1 megapixel or HDTV 720p resolution. It has progressive scan, 3x digital zoom, built-in microphone and a microSDHC memory card slot for local video storage.

AXIS P5534/–E

HDTV PTZ cameras with 18x zoom.

The indoor AXIS P5534 and outdoor-ready AXIS P5534-E provide HDTV 720p with 18x optical zoom, 360° pan and support for High Power over Ethernet. They are ideal for demanding surveillance applications.

AXIS Q6034/–E
AXIS Q6035/–E

High–speed, HDTV surveillance.

The indoor AXIS Q6034 and outdoor-ready AXIS Q6034-E provide a rich viewing experience with HDTV 720p and 18x optical zoom. Similarly, AXIS Q6035 and AXIS Q6035-E offer HDTV 1080p and 20x optical zoom. These cameras are perfect for applications that need to cover a large area and zoom in for clear details.

HDTV and megapixel network cameras in action

Different industry segments put different requirements on video surveillance solutions, but one shared challenge is getting enough image quality to ensure reliable identification of people and objects. HDTV and megapixel network cameras are used in a number of key industry segments to solve this challenge, including:

High security premises

Casinos and airports, together with passport controls, banks and similar high security premises, are areas where the requirements on the surveillance cameras often include high image quality and detail as well as full frame rate, making HDTV network cameras the natural choice.

Transportation

Security and safety for both passengers and staff are highly prioritized issues for public transportation authorities around the world. HDTV and megapixel cameras at stations, terminals and airports as well as onboard buses and trains, provide valid evidence in the event of criminal incidents, vandalism and insurance claims.

Retail

In retail, theft and shrinkage can be drastically reduced through effective video surveillance. HDTV and megapixel network cameras have an important role to play, for example by giving an overview – without any blind spots – of stores.
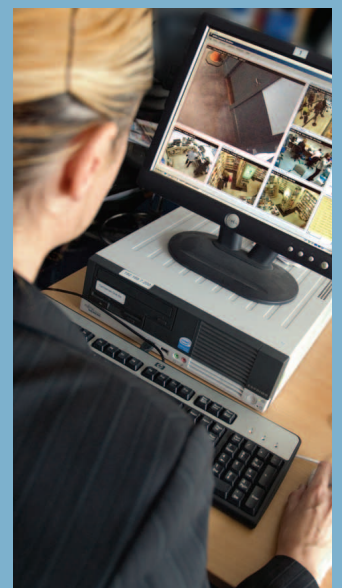
City surveillance

HDTV and megapixel network cameras are typically used in city surveillance situations to provide high-resolution video streams from locations where there is a need to clearly identify people and objects, or get a larger overview, either while viewing live or recorded video. Full frame rate, which is a requirement in HDTV standards, makes it easier to monitor intense and fast moving traffic.
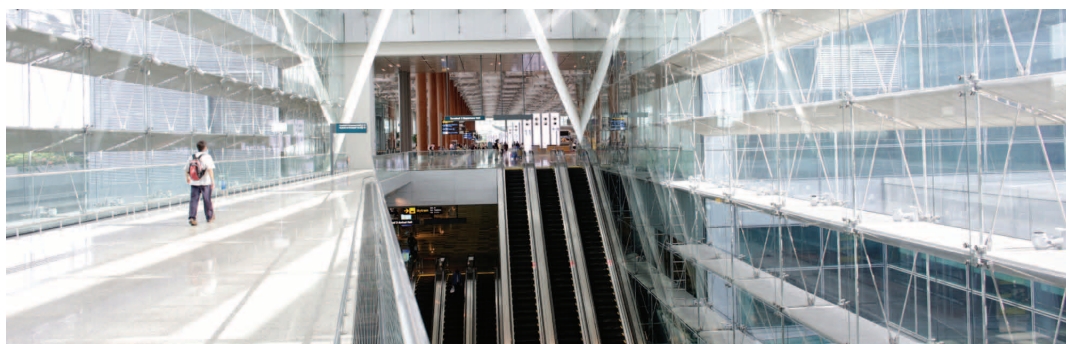
Pixels per meter – a best practice

In the surveillance industry, the best practice for an overview image is to ensure that a scene has 70 to 100 pixels per meter (20-30 per foot), whereas for face identification, as much as 500 pixels per meter (150 per foot) may be required. This means, for example, that if you want to be able to accurately identify people passing through an area that is two meters wide and two meters high, the camera needs to provide a resolution of more than 1 megapixel (1280x1024 pixels).

International HDTV standards

The Society of Motion Picture and Television Engineers, SMPTE, has defined the two most important standards: SMPTE 296M and SMPTE 274M. In short, SMPTE 296M defines a resolution of 1280x720 pixels using progressive scanning, while SMPTE 274M defines a resolution of 1920x1080 pixels using either interlaced or progressive scanning. Axis HDTV network cameras comply with key parts of the SMPTE HDTV standard, which is a unique property of Axis' products. A network camera that follows the HDTV standards is guaranteed to provide high resolution, 16x9 aspect ratio, full frame rate and extended color fidelity, thereby ensuring an overall superb image quality.

The network video advantage

Network video offers many benefits: remote accessibility, easy and future-proof integration, scalability and flexibility, distributed intelligence, and more cost-effective installation and maintenance. Combining HDTV and megapixel network cameras with a selection of non-megapixel network cameras that are optimized for other needs – such as powerful optical zoom, extreme light sensitivity, thermal imaging or low cost – creates video surveillance installations that are effective, reliable and cost-efficient.

Live video at anytime, from anywhere
With network video you can see what's going on, in real time, 24 hours a day, without having to be physically present onsite. You have access from any online computer – even hand-held models. Everything your network cameras pick up you can view and/or record wherever you are. And you have the same remote access to all of the intelligent functions provided by network video systems. All in a secured way.

Superior image quality
Axis network video systems deliver crystal-clear images and high-quality recordings. This makes it easy to track and review situations, identify people and get a clear view of activities. The image quality remains constant over time, and over long distances.

Easy to use
Standard IT technology and computers can be used, which saves money and lowers the total cost of ownership. And, of course, you can restrict access to only authorized personnel.

High video quality in reduced file size
H.264 video compression technology allows the size of a digital video file to be reduced, without compromising image quality, by more than 80% compared with the more conventional Motion JPEG format and as much as 50% more than with the MPEG-4 standard. When it comes to HDTV and megapixel network cameras, the advantage of H.264 is that full resolution video can be transmitted with a minimum use of bandwidth and recorded with a minimum use of storage space.

Lower costs
Network video lets you utilize existing investments while giving you a future-proof, scalable system that can grow with your needs. Additional cameras and storage capacity, even new technologies, are all easily added, thanks to open industry standards. Maintenance and installation costs are minimal. Power over Ethernet technology delivers power to the camera via the network cable, thereby reducing energy consumption as well as the need for cabling and power outlets.

Intelligence where you need it
Advanced network cameras have built-in video motion detection and alarm management, so the camera knows when to send video, and at what frame rate and resolution. Event-driven surveillance can eliminate wasted time and effort by reducing the need for staff to actively monitor surveillance video.

Easy integration with other vital systems
Axis network cameras are based on open IT standards. This makes them easy to integrate with systems such as cash registers, access control systems and building maintenance systems – taking video surveillance to a whole new level of functionality.

Get the Axis picture. Stay one step ahead.

www.axis.com

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About Axis Communications

Axis is an IT company offering network video solutions for professional installations. The company is the global market leader in network video, driving the ongoing shift from analog to digital video surveillance. Axis products and solutions focus on security surveillance and remote monitoring, and are based on innovative, open technology platforms.

Axis is a Swedish-based company, operating worldwide with offices in more than 20 countries and cooperating with partners in more than 70 countries. Founded in 1984, Axis is listed on the NASDAQ OMX Stockholm under the ticker AXIS. For more information about Axis, please visit our website at www.axis.com.

AXIS COMMUNICATIONS