

Q: Is the AXIS 211 fully 802.3af Power over Ethernet compliant?

A: Yes, it is fully compliant. But there are extensions to the protocols such as power usage negotiation which is not supported as it requires new chips.

Q: How does the light sensitivity differ between the AXIS 210 and AXIS 211?

A: The AXIS 210 operates from 3- 10,000 lux whereas the AXIS 211 goes from 0.75 to 500,000 lux, thanks to a much better lens.

Q: The AXIS 211 is for professional indoor and outdoor applications. Does this mean it can be installed outside?

A: Yes, it can be installed outside but this requires an outdoor housing, such as the [290A or 290B Outdoor Housing](#).

Q: Considering you are using the same image sensor as in AXIS 2100, in what way is the image quality superior in the AXIS 211?

A: AXIS 211 gives significantly better image quality than the AXIS 2100 because:

- The AXIS 211 uses the ARTPEC-2 chip, which has improved signal processing capabilities over the ARTPEC-1 chip used in the AXIS 2100
- Higher quality lens (less distortion, straight lines do not bend at the edges of the image)
- Delivers full 30 frames/second in all resolutions, including 640x480
(Click on [image quality](#) for further information)

Q: Is the image quality on the AXIS 210 better than on the AXIS 205 and AXIS 206 series ?

A: Yes, the image quality from an AXIS 210 is better than from an AXIS 205 and an AXIS 206 series. The AXIS 210 is more light sensitive, supports advanced image scaling algorithms that produce improved images when going below the VGA resolution (e.g. CIF, 320x240). It also features better backlight compensation and more. For more information on image quality, please read about [Axis Superior Image Quality](#).

Q: What do you mean by full featured?

A: The AXIS 211 supports many features not found in [AXIS 205](#) or [AXIS 2100](#), including:

- Improved I/O support, which is not available in the AXIS 205
- UPnP (see separate question)
- Pre- and post-alarm buffers (20 seconds at 4 fps)
- More flexible continuous or event-based image upload
- Ability to insert a custom logo, overlay or mask in image stream
- Ability to run custom scripts in the product thanks to its Linux operating system

Q: What does the insertion of mask, overlay or logo in the video stream mean?

A: It is possible to upload a file (a bitmap file of a smaller size) into the camera through the Web-based API and specify its position in the image. This image can be either a logo (which is supplied as an example), an overlay showing an outline or a privacy mask to protect certain areas of the image from being seen.

Q: Explain AXIS 211's support for CIF resolution.

A: The AXIS 211 is based on [progressive scan](#), rather than interlaced. In almost any case, this is superior to the interlaced mode, which is a legacy from analog CCTV cameras. An analog camera is designed to display images on a TV monitor, so when they are displayed on a computer monitor, the images have a problem with the aspect ratio (the size of each pixel dot). Images will look horizontally compressed. The AXIS 211 has fully square pixels which have the correct aspect ratio for viewing on a computer monitor. As an example, CIF (in NTSC) is 352x240. With aspect ratio correction, this works out to 320x240 (a quarter of VGA). In the same manner, the AXIS 211 VGA resolution is equivalent to 4CIF with aspect ratio correction in NTSC.

Q: You mention that MPEG-4 will be supported from Q3 2004. How will it be done ?

A: The AXIS 211 will have a free upgrade for MPEG-4 support. This will be simultaneous support for both MPEG-4 as well as Motion JPEG. The implementation will be based on the "Advanced Simple profile" which gives better compression than, for example, the "MPEG-4 short header" which is common in video conference equipment. It also features multicast, which means an unlimited number of users will be able watch live view from one camera. The viewing will be done through an ActiveX component, the Axis Media Controller (AMC), which will be automatically installed from the camera.

Q: Why isn't the MPEG-4 support the standard method of using the product?

A: For most surveillance applications that includes recording and analysis, Motion JPEG today is superior to MPEG-4. MPEG-4 is mostly used in remote monitoring applications where bandwidth is restricted and a high frame rate is required.

Q: What is the difference between a Web camera and a network camera?

A: A Web camera is connected to a PC, normally through USB, and uses the PC to make video available to other viewers. It will not work without a PC that is locally connected to the camera.

A network camera combines the functionality of a high-end Web camera, the PC and network interface into one network-ready product.

Q: You talk about the One-click installation. What is that and do I need this?

A: Axis offers a free of charge [AXIS Internet Dynamic DNS Service](#) for all AXIS 210 customers, which allow them to connect to the camera using a customer friendly name (such as <http://axis123456.axiscam.net>) instead of the more cumbersome use of IP addresses. If the IP address is changed, it will automatically update the DNS service. It is a convenient way to access cameras when you have access to the Internet.

Q: Can I save video from the camera?

A: Yes. The AXIS 211 has built-in event handling which may upload images to a server based on scheduled or triggered events.

You may also use an application, such as the [AXIS Camera Station](#), the [AXIS Camera Recorder](#) or the [AXIS Camera Explorer](#), which provides recording functionalities. The Axis software will also allow you to view and manage a large number of cameras. If you need more advanced or specific recording tools, there is a wide range of [third-party software solutions](#) available for Windows and Linux platforms.

Q: Must I have an Internet connection to use the camera?

A: No. The camera works also in a local area network without an Internet connection. But you will not be able to use the [AXIS Internet Dynamic DNS Service](#).

Q: Can I use the AXIS 211 as an alarm device?

A: Yes. There is a built-in video motion detection and I/O input that may be used as triggers. The product has 1.2 MB of pre- and post-alarm memory, which equals to 20 seconds of recording in 4 fps at the typical resolution and image size, which can be uploaded to a server on an event.

Q: Can I use the camera with my Mac?

A: Yes. The AXIS 211 works with a Mac and several other platforms, but functionality may be limited when using certain combinations of operating systems and browsers. The Mac support will be improved in future versions, and currently, the

recommended browser is Netscape or Camino.

Q: I don't want to draw people's attention to the camera. Can I turn off the LEDs in the front?

A: Yes. The LEDs can be controlled from the Setup section in the Web interface, but it will require Administrator rights.

Q: Does AXIS 211 Network Camera support NetMeeting, Windows Media Player or similar Webcam applications?

A: No. The AXIS 211 is not a Webcam designed for those applications; it is a complete network camera with built-in Web server and IP address.

Q: Does AXIS 211 Network Camera support Wireless LANs?

A: Yes, AXIS 211 works fine over wireless networks based on 802.11a,b or g standards. But it will require an external wireless bridge or device point connected to it.

Q: Does AXIS 211 Network Camera support audio?

A: No, there is no support for audio. For audio, use other AXIS products, such as [AXIS 2120](#) and the [AXIS 2191 Audio Module](#).

Q: Does AXIS 211 Network Camera have any serial interfaces or capabilities?

A: No.

Q: How much bandwidth does the camera require?

A: The file size of a JPEG image depends on factors such as selected resolution, compression level and the actual content of the image. Typical image sizes for 640x480, using medium compression and normal daytime indoor office lighting levels, are in the range 30-40 KB. Size for an image of 320x240 and medium compression is in the range of 8-9 KB. The image size is then multiplied by the actual frame rate to define the bandwidth utilized. The user can limit the frame rate and number of simultaneous viewers if wanted. On a 100 Mbps Ethernet network, a network camera will typically use 1-3% of the available bandwidth.

In MPEG-4 mode, the bandwidth requirement is significantly less than with Motion JPEG.

Q: What is the benefit of the UPnP support?

A: Supported in Microsoft Windows XP, UPnP (Universal Plug and Play) is a network discovery mechanism for intelligent network devices, such as network cameras. When enabled (by default, it is not enabled in Windows XP), all UPnP network devices will automatically appear in "My network places" to simplify installation and use.

Q: In home or small business installations, if I only have one IP address from my ISP into my DSL or Cable modem connection, how can I access several cameras on the network from the Internet?

A: Two issues need to be resolved: First, you need to find out which IP address your connection has from the outside - it is not the same as on your LAN. This can be done using AXIS Internet Dynamic DNS Service. Secondly, each camera on the local network needs to be set up with a unique port number which the broadband router can map to reach to the cameras' local IP addresses. Please refer to your router's documentation for port forwarding.

Example:

Camera1 is set up to port 80 (default), and Camera2 to port 8080. Their local IP addresses are 192.168.0.52 and 192.168.0.53 respectively. The Internet/WAN address of the DSL connection is found out, by using AXIS Internet Dynamic DNS service, to be 123.61.102.112. The broadband router is now set up to map port 80 to 192.168.0.52 and port 8080 to 192.168.0.53. Camera1 can now be accessed with <http://123.61.102.112:80> and Camera2 with <http://123.61.102.112:8080> (or more likely by using the AXIS Internet Dynamic DNS Service name as your ISP may change your assigned Internet/WAN address every time you power off your router, but the principle of port mapping in the router is the same).