

AXIS 223M Image Resolutions

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DOCUMENT HISTORY

2006-July-05	1.00	Initial version.
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1. OVERVIEW

AXIS 223M Network Camera supports aspect ratio 4:3 and 16:9. Available resolutions depend on which aspect ratio is set.

This document describes the parameters involved and available image resolutions for AXIS 223M Network Camera.

2. REFERENCES

[AXIS VAPIX™ HTTP API](#)
[AXIS VAPIX™ Parameter specification](#)

3. PARAMETERS

3.1 ImageSource.IO.Sensor.AspectRatio

Image Settings



Image Appearance

Resolution: Widescreen resolutions
 pixels

AXIS 223M must be set to use either aspect ratio 4:3 (normal resolution) or 16:9 (widescreen resolution), when aspect ratio 4:3 is chosen no 16:9 resolutions are available and vice versa. The aspect ratio can be set within the parameter ImageSource.IO.Sensor.AspectRatio. Note that when configuring this parameter, all open video streams will be closed/shut down.

[ImageSource.IO.Sensor]

Parameter name	Default value	Valid values	Security level (get/set)	Description
AspectRatio	4:3	4:3, 16:9	4/4	Specifies which aspect ratio to use. Note: While aspect ratio 16:9 is set, no normal (4:3) resolutions are available. The

				Properties.Image.Resolution will show currently available resolutions. All open video streams will be closed when changing this parameter.
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3.2 Image.I0.Appearance.Resolution

The default image resolution can be set within the parameter Image.I#.Appearance.Resolution. This resolution will be used for all MPEG-4 streams. The default resolution will also be delivered when requesting a JPEG image or a Motion JPEG stream without specifying the resolution or if specifying a non-valid resolution in the HTTP request.

[Image.I0.Appearance]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Resolution	1600x1200	1600x1200, 1280x960, 1024x768, 800x600, 768x576*, 704x576*, 704x480*, 704x288*, 704x240*, 640x480, VGA, 480x360, 384x288*, 352x288*, 352x240*, CIF*, 320x240, 240x180, 192x144*, 176x144*, 176x120*, QCIF*, 160x120 Widescreen (16:9) resolutions: 1600x900, 1280x720, 1024x576, 800x450, 640x360, VGA, 480x270, 320x180, 240x135, 160x90	4/4	The image resolution.

* These resolutions are only valid for aspect ratio 4:3, if used as default value in 16:9 mode, the default 16:9 resolution 1600x900 will be delivered. All other 4:3 resolutions will automatically be delivered in a corresponding 16:9 resolution and vice versa.

3.3 Properties.ImageResolution

The parameter Properties.Image.Resolution contains the currently available image resolutions.

[Properties.Image]

Parameter name	Default value	Valid values	Security level (get/set)	Description
Resolution		A string	0/7	The supported resolutions separated by commas. E.g. 1600x1200,1280x960,1024x768. Note: Only the currently available resolutions will be shown, i.e. changing aspect ratio will affect the value of this parameter.

When aspect ratio is set to 4:3, the Properties.Image.Resolution parameter will have the value: "1600x1200,1280x960,1024x768,800x600,640x480,480x360,320x240,240x180,160x120", and when aspect ratio is set to 16:9 the parameter will have the value: "1600x900,1280x720,1024x576,800x450,640x360,480x270,320x180,240x135,160x90"

Note that the Properties.Image.Resolution do not show all resolutions, even more resolutions are available using AXIS VAPIX HTTP API.

4. SUPPORTED RESOLUTIONS VIA HTTP

The following image resolutions are supported by AXIS 223M via HTTP

Resolution	4:3	16:9	Comment
160x90		x	Deliver 160x120 using aspect ratio 4:3.
160x120	X		Deliver 160x90 using aspect ratio 16:9.
QCIF	X		Deliver 176x144. Not supported using aspect ratio 16:9.
176x120	X		Not supported using aspect ratio 16:9.
176x144	X		Not supported using aspect ratio 16:9.
192x144	X		Not supported using aspect ratio 16:9.
240x135		x	Deliver 240x180 using aspect ratio 4:3.
240x180	X		Deliver 240x135 using aspect ratio 16:9.
320x180		x	Deliver 320x240 using aspect ratio 4:3.
320x240	X		Deliver 320x180 using aspect ratio 16:9.
CIF	X		Deliver 352x288. Not supported using aspect ratio 16:9.
352x240	X		Not supported using aspect ratio 16:9.
352x288	X		Not supported using aspect ratio 16:9.
384x288	X		Not supported using aspect ratio 16:9.
480x270		x	Deliver 480x360 using aspect ratio 4:3.
480x360	X		Deliver 480x270 using aspect ratio 16:9.
VGA	X	x	Deliver 640x480 using aspect ratio 4:3, and 640x360 using aspect ratio 16:9.
640x360		x	Deliver 640x 480 using aspect ratio 4:3.
640x480	X		Deliver 640x 360 using aspect ratio 16:9.
704x240	X		Not supported using aspect ratio 16:9.
704x288	X		Not supported using aspect ratio 16:9.

704x480	X		Not supported using aspect ratio 16:9.
704x576	X		Not supported using aspect ratio 16:9.
768x576	X		Not supported using aspect ratio 16:9.
800x450		x	Deliver 800x600 using aspect ratio 4:3.
800x600	X		Deliver 800x450 using aspect ratio 16:9.
1024x576		X	Deliver 1024x768 using aspect ratio 4:3.
1024x768	X		Deliver 1024x576 using aspect ratio 16:9.
1280x720		X	Deliver 1280x960 using aspect ratio 4:3.
1280x960	X		Deliver 1280x720 using aspect ratio 16:9.
1600x900		X	Deliver 1600x1200 using aspect ratio 4:3.
1600x1200	X		Deliver 1600x900 using aspect ratio 16:9.

Note: Using a non-supported resolution in 16:9 mode will deliver the default resolution.

4. IMAGE OVERLAY LIMITATIONS

The image must either have the format Windows 24-bit BMP (full color) or Windows 4-bit BMP (16 colors). The size of the overlay image in pixels (width by height) must be exactly divisible by 4. For a 4-bit BMP image overlay, the width must be horizontally divisible by 16 and one of the colors must be set to transparent. If not doing this, the sixteenth color will automatically be set to transparent.

The maximum overlay image size supported by the AXIS 223M is 1600x1024.

If the image overlay and text overlay are larger than the video image, no overlay will be displayed. When also using a text overlay, this will occupy 16 to 128 pixels in height (depending on the resolution) and as many in width as the video image. This must be considered when configuring the overlay image.

A text overlay is always placed either at the top or bottom of the video image. When also using an image overlay, if this is positioned so that it overlaps the text overlay, the overlay image will be repositioned so that there is no overlap.

If the overlay is initially positioned so that part of it is outside the video image, it will be relocated (horizontally and/or vertically) so that it appears over the video image, i.e. it is always the whole image that is displayed.