

# MegaVideo® UltraHD IP Megapixel Camera

12 Megapixel (MP) H.264 True Day/Night Indoor Box-Style IP Camera with SNAPstream™ (Smart Noise Adaptation and Processing), NightView™, and WDR (Wide Dynamic Range)



Lens Sold Separately

The 12-megapixel (MP)/8.3MP/1080p MegaVideo® UltraHD “tri-mode” network camera is the new generation of Arecont Vision’s MegaVideo cameras. This fully compliant implementation of H.264 (MPEG-4, Part 10) provides full 4000 x 3000 megapixel resolution at video frame rates of 20 frames per second (fps)† at 12MP, 30fps† while in 4K (8.3MP), and 60fps† while in 1080p (2.1MP).

The series combines a day/night mechanical IR cut filter with a choice of three ultra high definition P-iris lenses for precise, optimal image quality. MegaVideo UltraHD performs exceptionally well in very low-light thanks to NightView™, making it capable of covering areas where very little light is present.

Features include SNAPstream™ (Smart Noise Adaptation and Processing) to reduce bandwidth without impacting image quality, scaling, binning mode, privacy masking, extended motion detection, flexible cropping,

and Power over Ethernet (PoE - IEEE 802.3af). Built with Arecont Vision massively-parallel processing technology, MegaVideo UltraHD offers more than 27-times the resolution of standard resolution IP cameras. It offers the ability to output full real-time frame rates and deliver high-quality megapixel imaging for both indoor and outdoor\* applications.

The SDHC card slot supports up to 32GB of storage capacity for convenient onboard storage. The motorized remote focus/zoom lenses with P-iris control make set-up and maintenance easy. The camera’s power can be supplied via a Power-over-Ethernet compliant network cable connection or with power from a 12–24V DC/24V AC power supply. The camera’s interface allows for an intuitive, fast, and easy configuration.

**12  
MP**

12MP Resolution



Motorized Remote Focus/Zoom Lens and Housing Options



P-Iris Control for Best Depth of Field and Image Clarity



Tri-Mode 12MP/4K/1080p



SNAPstream™ Technology



NightView™



True Day/Night with IR Cut Filter



Pixel Binning Mode



Non-Integer Scaling



SDHC Card Slot

## Series Features

- 12 Megapixel (MP) at 20fps†
- 12MP/4K/1080p Tri-Mode with 4K at 30fps and 1080p at 60fps†
- SNAPstream™ Capability to Reduce Bandwidth without Impacting Image Quality
- P-Iris Control for Best Depth of Field and Image Clarity
- WDR: See Clearly in Shaded and Bright Light Conditions Simultaneously
- NightView™ and Binning Mode for Strong Low Light Performance
- True Day/Night Functionality with Mechanical IR Cut Filter
- Dual Encoder H.264/MJPEG
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control, Multi-Streaming, Multicasting, Forensic Zooming, and Non-Integer Scaling
- Network Protocols Include SNMP, HTTPS, 802.1x, IPv4, DHCP, and More
- Many Remote Focus/Zoom Motorized, P-Iris Lenses to Choose From (Sold Separately)
- Small Size for Flexible Mounting Options
- SDHC Card Slot for Onboard Storage (SD Card Sold Separately)
- Total PoE Solution (No External Power Required for IR LEDs) with Auxiliary Power: 12–24V DC/24V AC
- Use with Arecont Vision Housings or as a Standalone Camera

† Maximum with H.264 compression

\* Applicable for outdoor use in HSG2 or HSG3 housings

Camera Imaging Specifications

<b>Model</b>		<b>AV12ZMV-301</b>
<b>Image Sensor (CMOS)</b>		12MP
<b>Optical Format</b>		1/1.7"
<b>Pixel Pitch</b>		1.85µm
<b>Minimum Illumination</b>	Color (Day Mode)	0.03 Lux
	Color Binning (Day Mode)	0.015 Lux
	B/W (Night Mode)	0.003 Lux, IR sensitive
<b>Full FOV Resolution</b>		4000 H x 3000 V
<b>1/4 Resolution</b>		2000 H x 1500 V
<b>Scaling</b> (See <i>Scaling Resolution Chart Below</i> )		Yes
<b>Dynamic Range</b>		70.7dB (WDR)
<b>Maximum SNR</b>		40.1dB
<b>Frame Rates†</b>	At Maximum Resolution	20fps (4000 x 3000)
	4K Resolution (2/3rds Resolution)	30fps (3840 x 2160)
	Binning Mode (1/4th Resolution)	40fps (2000 x 1500)
	1080p Resolution (1/6th Resolution)	60fps (1920 x 1080)
<b>Lens</b>	P-iris	<b>UHD4.4-10MPI</b> 4.4–10mm, 1/1.7", F/1.2, P-iris, IR corrected, CS-mount, H-FOV = 45°–99°
		<b>UHD12-50MPI</b> 12–50mm, 1/1.7", F/1.8, P-iris, IR corrected, CS-mount, H-FOV = 9°–38°
		<b>UHD30-120MPI</b> 30–120mm, 1/1.7", F/2.2, P-iris, IR corrected, C-mount, H-FOV = 3.5°–13.5°

Scaling Resolution Chart\*\*

Scaled Resolution	Horizontal	Vertical	Pixel Count
720p	1280	720	921600
XVGA	1024	768	786432
DVGA (16:9)	1136	640	727040
DVGA (3:2)	960	640	614400
SVGA	800	600	480000
D1 (PAL)	720	576	414720
4CIF (PAL)	704	576	405504
D1 (NTSC)	720	480	345600
4CIF (NTSC)	704	480	337920
VGA	640	480	307200
2CIF (PAL)	704	288	202752
HVGA (4:3)	480	360	172800
2CIF (NTSC)	704	240	168960
HVGA (8:3)	640	240	153600
HVGA (3:2)	480	320	153600
HVGA (16:9)	480	272	130560
CIF (PAL)	352	288	101376
CIF (NTSC)	352	240	84480
QVGA (SIF)	320	240	76800
QCIF (PAL)	176	144	25344
QCIF (NTSC)	176	120	21120
SQCIF	128	96	12288

\*\* All scaled resolutions are available on all cameras that support scaling

Programmability

<b>Optics</b>	Remote focus, remote zoom, and P-iris control (when remote focus/zoom lens is used)
<b>Low Light Performance</b>	NightView™
	Pixel binning mode
<b>Picture-in-Picture</b>	Simultaneous delivery of full field-of-view and zoomed images
<b>Programmable Shutter Speed</b>	Controls motion blur, 1ms–500ms
<b>Motion Detection</b>	Real-time, 1024 detection zones
<b>Privacy Masking</b>	Unlimited
<b>Scaling</b>	Non-integer scaling down to 128x96 (See <i>Scaling Resolution Chart to the left</i> )
<b>Casino Mode™</b>	Maintains 30fps or higher (4K and 1080p modes only)
<b>Flexible Cropping</b>	Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264
<b>Backlight Compensation</b>	Multi-matrix white balance
<b>Flicker Control</b>	5Hz–255Hz adjustable
<b>Image Rotation</b>	180° image flip
<b>Noise Reduction</b>	Low light noise filter control
<b>Efficiency</b>	SNAPstream™ (Smart Noise Adaptation and Processing)
	Bit rate and bandwidth limitation control
	Bandwidth and storage savings by running at 1/4 resolution
<b>Sharpness</b>	Selectable enhancement level
<b>Miscellaneous</b>	Programmable resolution, brightness, saturation, gamma, tint
	Electronic pan, tilt, zoom (PTZ)

† Maximum with H.264 compression

Data Transmission

<b>Compression Type</b>	H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC
	21 levels of quality
<b>Network Protocols</b>	RTSP, RTP/TCP, RTP/UDP, HTTP1.0, HTTP1.1, TFTP, DHCP, SNMP, HTTPS, IPv4, 802.1x
<b>Network Interface</b>	100/1000 Base-T Ethernet
<b>Multi-Streaming</b>	4 non-identical streams

Compliance

<b>Listings</b>	UL (CB)
<b>FCC Compliance</b>	47 CFR 15 Class A
<b>Environmental</b>	RoHS, REACH, WEEE
<b>Markings</b>	(CE) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1
<b>CoO</b>	Made in the USA

Environmental

<b>Operating Temperature</b>	<b>PoE</b>	-5°C (23°F) to +45°C (113°F)
	<b>Auxiliary Power</b>	-5°C (23°F) to +40°C (104°F)
<b>Humidity</b>	0% to 90% (non-condensing)	
<b>Storage Temperature</b>	-20°C (-4°F) to +60°C (140°F)	

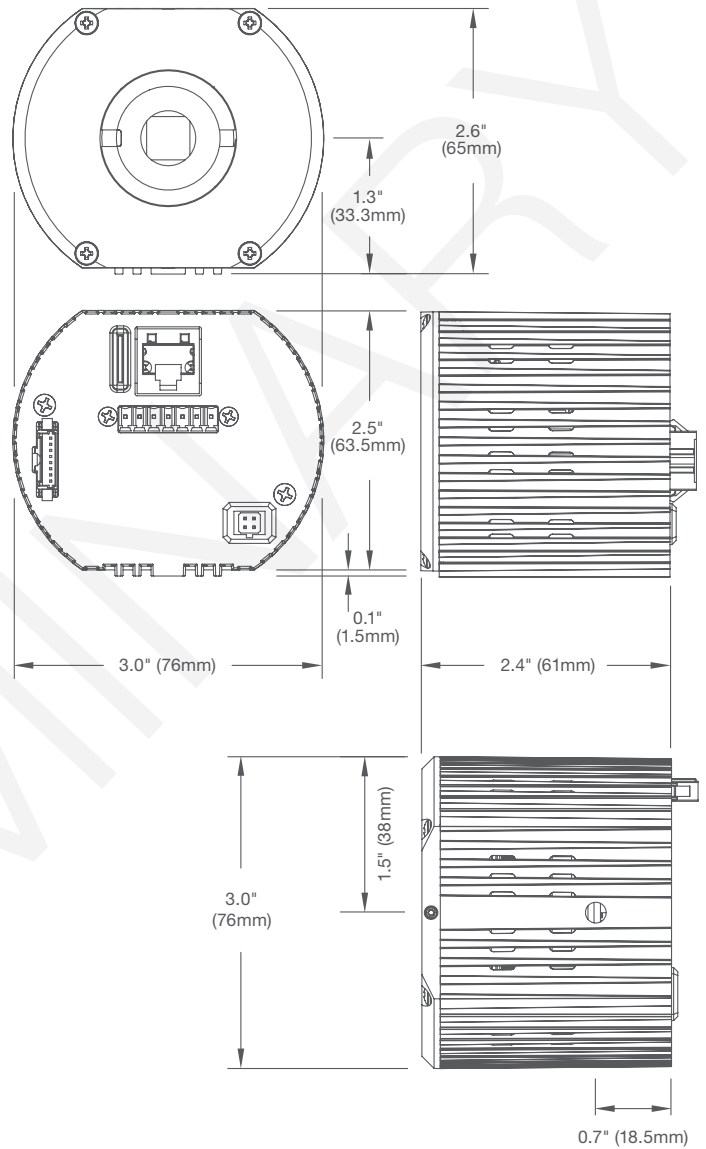
Electrical

<b>Alarm Input/Output</b>	1 input/1 output
<b>Power Over Ethernet</b>	PoE 802.3af, Class 3
<b>Auxiliary Power</b>	12–24V DC/24V AC
<b>Power Consumption</b>	10.7 watts max (auxiliary DC power)

Mechanical

<b>Casing</b>	Die-cast aluminum chassis	
	C/CS lens mount	
<b>Dimensions</b> <i>(See Dimensions)</i>	<b>Unit</b>	3" W (76mm) x 2.4" D (61mm) x 2.6" H (65mm) (w/o lens)
	<b>Packaged</b>	4.1" W (105mm) x 4.1" L (105mm) x 3.3" H (84mm)
<b>Weight</b>	<b>Unit</b>	0.62lbs (0.28kg) w/o lens
	<b>Packaged</b>	0.72lbs (0.33kg) w/o lens
<b>On Board Storage</b>	SDHC slot up to 32GB (card not included)	

Dimensions



See Next Page for Ordering Information

## Ordering Information



### Lens Options (Sold Separately)

<b>Motorized P-Iris</b>	UHD4.4-10MPI (4.4–10mm)
	UHD12-50MPI (12–50mm)
	UHD30-120MPI (30–120mm) <sup>1</sup>

### Compatible Housings (Sold Separately)

<b>HSG3</b> <sup>1</sup>	16" Outdoor PoE Bullet-Style Housing
<b>HSG2</b>	11" Outdoor PoE Bullet-Style Housing

### Model Numbers

<b>12MP</b>	AV12ZMV-301
-------------	-------------

### HSG2 & HSG3 Housing Accessories (Sold Separately)

<b>AV-PMA</b>	Pole Mount Adapter
<b>AV-CRMA</b>	Corner Mount Adapter
<b>AV-EBAS</b>	Square Electrical Box Adapter Plate
<b>AV-JBA</b>	Standard Junction Box
<b>HSG2-WMT</b>	Wall Mount for HSG2 and HSG3 Housing

### Create Your Model (Example: AV12ZMV-301)

Megapixel Resolution      Generation      Body Type      Compression



<sup>1</sup> HSG3 housing is required when using UHD30-120MPI lens for outdoor and impact-resistant applications

<sup>2</sup> "Z" represents the platform

<sup>3</sup> "MV" represents MegaVideo product line