

# MegaDome® UltraHD IP Megapixel Camera

12 Megapixel (MP) H.264 Motorized P-Iris Lens True Day/Night Indoor/Outdoor Dome IP Camera with SNAPstream™ (Smart Noise Adaptation and Processing), NightView™, WDR (Wide Dynamic Range), and Adjustable IR



The 12MP/4K/1080p MegaDome® UltraHD “tri-mode” network camera is part of the new generation of Arecont Vision’s MegaDome cameras. This fully compliant implementation of H.264 (MPEG-4, Part 10) provides full 3968 x 2992 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 MegaDome UltraHD camera series provides an all-in-one solution with integrated 12MP day/night camera, remote focus, remote zoom, P-Iris, 4.4–10mm lens, SDHC card, in an installer-friendly IP66 water/dust ingress rated housing, and vandal resistant, IK-10 rated dome enclosure.

Features include SNAPstream™ (Smart Noise Adaptation and Processing) to reduce bandwidth without impacting image quality, NightView™ for strong low light performance, non-integer scaling, privacy masking, extended motion detection, flexible cropping, forensic zooming, multicasting and Power over Ethernet (PoE - IEEE 802.3af). Built with Arecont Vision massively-parallel MegaVideo® processing technology, the camera series offers more than 38-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.



## Series Features

- 12 Megapixel at 20fps\*
- 12MP/4K/1080p Tri-Mode with 4K at 30fps and 1080p at 60fps\*
- SNAPstream™ Capability to Reduce Bandwidth without Impacting Image Quality
- Remote Focus/Zoom P-Iris Lens
- P-Iris Control to Get Best Depth of Field and Image Clarity
- WDR: See Clearly in Shaded and Bright Light Conditions Simultaneously
- NightView™ 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
- IR LEDs with Adjustable Beam Angle and LED Intensity
- 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
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- Easily Adjustable 3-Axis Gimbal

\* Maximum with H.264 compression

Camera Imaging Specifications

<b>Model</b>		<b>AV12ZMD-401</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>		3968 H x 2992 V
<b>1/4 Resolution (Half Resolution)</b>		1984 H x 1496 V
<b>Scaling (See Scaling Resolution Chart Below)</b>		Yes
<b>Dynamic Range</b>		70.7dB (WDR)
<b>Maximum SNR</b>		40.1dB
<b>Frame Rates*</b>	Maximum Resolution	20fps (3968 x 2992)
	4K Resolution (8.3MP)	30fps (3840 x 2160)
	Half Resolution	20fps (1984 x 1496)
	1080p Resolution (2.1MP or 4K Binning Mode)	60fps (1920 x 1080)
<b>Lens</b>		4.4–10mm Integrated, 1/1.7", F/1.2, H-FOV = 99°–45° (H-FOV = 96°–43° at 4K or 1080p Resolution)

SituationalPlus™

Model	Lens	View Angle	Distance to pixel density (ft.)(m)					
			30ppf-T (100ppm)	30ppf-W (100ppm)	60ppf-T (200ppm)	60ppf-W (200ppm)	90ppf-T (300ppm)	90ppf-W (300ppm)
AV12ZMD-401	4.4–10mm	45°–99°	160' (48.8m)	56' (17.1m)	60' (18.3m)	27.5' (8.4m)	54.5' (16.6m)	17.5' (5.3m)

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

Programmability

<b>Optics</b>	Remote focus, remote zoom, P-iris
<b>Low Light Performance</b>	NightView™ technology
	Pixel binning in 4K 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
<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>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

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

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>	SNMP, HTTP1.0, HTTP1.1, HTTPS, IPv4, 802.1x, RTSP, RTP/TCP, RTP/UDP, TFTP, DHCP
<b>Network Interface</b>	100/1000 Base-T Ethernet
<b>Multi-Streaming</b>	4 non-identical streams

Compliance

<b>Listings</b>	<b>UL CB Scheme:</b> IEC 60950-1(Ed.2), IEC 60950-1(Ed.2); Am.1, IEC 60950-1(Ed.2); Am.2, IEC 60950-22(Ed.1)
<b>FCC Compliance</b>	Title 47, Part 15 (47 CFR 15) Subpart B Class A
<b>Environmental</b>	REACH 1907/2006/EC, WEEE 2012/19/EU
<b>Markings</b>	<b>CE:</b> 2014/30/EU (EMC Directive), 2014/35/EU (Low Voltage Directive), 2011/65/EU (RoHS Directive) EN 55022:2010 Class A, EN 55024:2010, EN 61000-3-2:2006+A1:2009+A2:2009, EN61000-3-3: 2008 EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013
<b>Networking Standard</b>	IEEE 802.3af-2003 PoE Standard, Class 3
<b>Mechanical</b>	IK-10 (EN62262), IP66 (EN60529)
<b>CoO</b>	Made in the USA

Environmental

<b>Operating Temperature</b>	-40°C (-40°F) to +50°C (122°F)
<b>Humidity</b>	0% to 90% (non-condensing)
<b>Storage Temperature</b>	-40°C (-40°F) to +60°C (140°F)

Electrical

<b>Alarm Input/Output</b>	General purpose opto-coupled, 1 input/1 output
<b>Power Over Ethernet</b>	PoE 802.3af, Class 3
<b>Auxiliary Power</b>	12-24V DC
<b>Power Consumption</b>	12.4W / 14.1W (IR on)

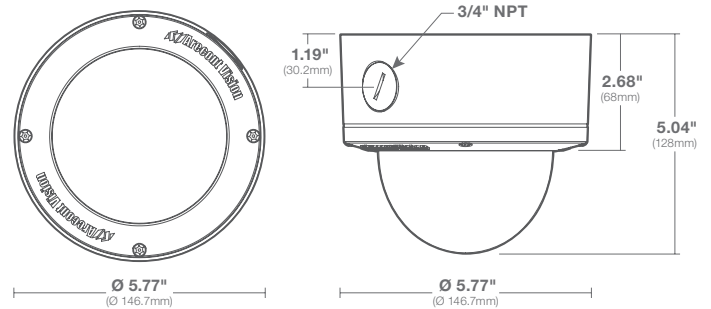
Mechanical

<b>Casing</b>	Die-cast aluminum chassis with 4" polycarbonate dome bubble
	IP66 weather proof standard
	Impact resistant, IK-10 rated
<b>Gimbal</b>	Easily adjustable 3-axis camera gimbal w/360° pan, 77° tilt (w/ full field of view from mounting surface), and 180° z-axis
<b>Dimensions</b> <i>(See Dimensions)</i>	<b>Unit</b> Ø 5.77" (146.7mm) x 5" H (128mm)
	<b>Packaged</b> 6" H (150mm) x 7.5" W (190mm) x 8" L (200mm)
<b>Weight</b>	<b>Unit</b> 2.25lbs (1.02kg)
	<b>Packaged</b> 2.8lbs (1.27kg)
<b>On Board Storage</b>	SDHC slot up to 32GB (card not included)

IR Illuminator

12 pcs 850nm LEDs with Adjustable IR / 50ft (15m) IR distance (max) / 60° and 80° IR angle
Total PoE solution (no external power requirement)

Dimensions



See Next Page for Ordering Information

## Ordering Information



### Accessories

<b>AV-CRMA</b>	Corner Mount Adapter
<b>AV-FMA</b>	Flush Mount Adapter
<b>AV-JBA<sup>1</sup></b>	Standard Junction Box
<b>AV-PMA</b>	Pole Mount Adapter
<b>AV-PMJB</b>	Pendant Mount Bracket with Standard Junction Box <i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i>
<b>AV-WMJB</b>	Wall Mount Bracket with Standard Junction Box <i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i>
<b>MD-CAP</b>	Mounting Cap for MegaDome® Series and SurroundVideo® G5 Mini
<b>MD-JBA</b>	Round Junction Box for MegaDome Series and SurroundVideo G5 Mini

<sup>1</sup> Replacement part for AV-PMJB and AV-WMJB

### Model Numbers

<b>12MP</b>	AV12ZMD-401
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### Create Your Model (Example: AV12ZMD-401)

Megapixel Resolution      Generation      Body Type      Compression



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

<sup>3</sup> "MD" represents MegaDome product line