AV10255AMIR 10-Megapixel/1080p Dual Mode H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto-Iris, IR LEDs
AV10255AMIR-H 10-Megapixel/1080p Dual Mode H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto-Iris, IR LEDs and Heater

Bid-Spec

1.0 Description

The AV10255AMIR MegaDome® 2 10-Megapixel/1080p dual mode network camera is part of Arecont Vision's full line of H.264 MegaDome® cameras. This fully compliant implementation of H.264 (MPEG-4, Part 10) provides full 3648 x 2752 megapixel resolution at full video frame rates of 7 frames per second (fps) at 10-megapixel and 29fps in 1080p binned mode. The AV10255AMIR camera line provides an all-in-one solution with integrated 10-megapixel day/night camera, remote focus, remote zoom, auto-iris lens, IR LEDs and IP66 environmental-rated and IK10 impact-rated vandal-resistant dome enclosure.

With the features of binned mode, PSIA and ONVIF conformance, privacy masking, extended motion detection and flexible cropping, the AV10255AMIR is a high sensitivity, Power over Ethernet (PoE - IEEE 802.3af) compliant camera with optional heater configuration. Built with Arecont Vision's massively-parallel MegaVideo® processing technology, this camera offers more than 30-times the resolution of standard resolution IP cameras with the ability to output full real-time frame rates and deliver high-quality megapixel imaging for both indoor and outdoor applications.

2.0 Bid Specification

- The camera shall utilize a high sensitivity 10-megapixel CMOS sensor with 1/2.3" optical format.
- The camera shall have an integrated 4.7-9mm, 14mm mount, megapixel IR corrected vari-focal lens with 1/2.3" optical format, F2.8 and horizontal field-of-view of 37°-78.8°.
- The camera shall have a dome enclosure with IP66 environmental rating for water and dust protection.
- The camera's dome chassis shall be vandal-resistant, constructed of aluminum with a 4" polycarbonate dome bubble with IK10 impact rating.
- The camera shall have a 3-axis gimbal with 360˚ pan, 90˚ tilt and 360˚ Z-rotation for easy and accurate positioning.
- The camera shall be surface mount with optional pendant mount (MD-CMT), wall mount with cap (MD-WMT2), 1.5" NPT mount cap only (MD-CAP), junction box adapter (SV-JBA), electrical box adapter (SV-EBA), flush mount adapter (MD-FMA), MegaDome® 2 heater kit (MD2-HK), corner mount adapter (MD-CRMA) and pole mount adapter (MD-PMA).
- The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
- The camera shall be fully conformant with PSIA and ONVIF industry-standards and pass conformance tests.
- The camera shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video.
- The camera shall have an extended motion detection grid, a higher-granularity grid of 1024 distinct motion detection. User can select between 64-zone based motion detection and extended motion detection to provide backward compatibility with the existing Video Management System (VMS) integration. This feature will support both HTTP and TFTP, as well as the on-camera web interface.

- The camera shall be able to be cropped to any resolution divisible by 2 and maintain H.264 compression. It shall be possible to crop the camera to output a variety of lower resolution images, i.e. 2592 (H) x 1944 (V) pixels at 12fps, or 2048 (H) x 1536 (V) pixels at 18fps.
- The camera shall have multi-streaming support of up to 8 non-identical concurrent streams (different frame rate, bit rate, resolution, quality and compression format).
- The camera shall output at a maximum resolution of 3648 (H) x 2752 (V) pixels up to 7fps and 1920 (H) x 1080 (V) pixels at a maximum frame rate of 29fps.
- It shall be possible to program the camera at binned mode to output at lower resolution and increased frame rate, i.e. 1920 (H) x 1080 (V) pixels at 29fps, or 1824 (H) x 1376 (V) pixels at 26fps.
- The camera shall feature streaming of the full field-of-view (FOV) and simultaneous multiple regions of interest (ROI) for forensic zooming.
- The camera shall be equipped with a 100 Mbps LAN connector.
- The camera's shutter speed shall be 1ms - 500ms.
- The camera shall provide 21 levels of compression quality for optimal viewing and archiving.
- The camera shall support at minimum RTSP, RTP over TCP, RTP over UDP, HTTP and TFTP network protocols.
- The camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control, 50/60Hz selectable flicker control, programmable brightness, saturation, gamma, sharpness, windowing and decimation, simultaneous delivery of full-field view and zoomed images at video frame rate, instantaneous electronic zoom, pan and tilt, and electronic image rotation by 180-degrees.
- The camera shall incorporate necessary algorithms and circuits to detect motion in low-light with clarity.
- The camera shall support a minimum illumination of 0.42 Lux in color non-binned mode and 0.21 Lux @ F1.8 in color binned mode.
- The camera shall support an IR sensitive minimum illumination of 0 Lux in black and white (B/W) mode with an additional IR light source.
- The camera's primary power source shall be PoE complying with the IEEE 802.3af standard.
- The camera shall have the alternative option to be powered via DC power from 12V to 48V DC or 24V AC power source.
- The camera shall have 10.86 watts max power consumption for AMIR model.
- The camera shall have 11.44 watts max power consumption for AMIR-H model.
- The camera shall provide a total PoE solution to drive heater without any external power input. (-H version).
- The camera shall contain an IR LED board with 24 pcs 850nm IR LEDs, 15 meter IR distance, 40° IR angle without any external power input.
- The camera's heater shall be 2.28 watts and switch on at 4˚C (32.9°F) and off at 6.5℃ (43.7°F). (-H version).
- The camera's operating ambient temperature shall be -20℃ (-4°F) to 50ºC (122ºF) without heater; -40˚C (-40°F) to 50ºC (122ºF) with heater. Stable image temperature is 0˚C (32 °F) to +50˚C (122°F). Storage temperature is -40˚C (-40°F) to +60˚C (140 °F) at the humidity 0% to 90% (non-condensing).
- The camera shall be compliant with EMI and EMC requirements, following European Standards EN55022 (Class A limits), EN55024 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11), EN61000-3-2 and EN61000-3-3, EN60950-1.
- The camera shall be compliant with EN62262 IK10 Impact Rating and EN60529 IP66 Ingress Protection Rating.
- The camera shall be compliant with RoHS Directive 2002/95/EC.
- The camera shall be compliant with REACH Directive EC1907/2006.
- The camera shall be compliant with FTC "Made in USA" standard.
- The camera shall have CE marking and UL listed.

- The camera shall have total unit dimensions of Ø5.5" (140.3mm) x 4.9" (124.6mm)H, Bubble only: Ø4.0" (102mm) x 2.4" (61.8mm) H.
- The camera shall have a total unit weight of 2.25 lbs (1.02 kg)

Quick-Spec

3.0 Minimum Performance Specification

The megapixel camera must meet the following operating requirements:

Operational

Imaging	10-megapixel CMOS image sensor
	Binned mode (2x2) ~ 2.5 MP improved low-light performance
	1/2.3" optical format
	Bayer mosaic RGB filter
Maximum Resolutions	
	Mode 1 (Non-Binned): 3648 (H) x 2752 (V)
	Mode 2 (Binned 1080p): 1920 (H) x 1080 (V)
	Mode 3 (Binned 2.5MP): 1824 (H) x 1376 (V)
Minimum illumination	Color (non-binned): 0.42 Lux @ F1.4
	Color (binned): 0.21 Lux@ F1.4
	Day/Night: 0 Lux, IR sensitive
Dynamic range	57.2 dB
Maximum SNR	40 dB

Full Field-of-View (FOV) Resolutions

3648x2752 (HxW) 10-megapixel

1920x1080 (HxW) HDTV-1080p

1824x1376 (HxW) 2.5 megapixel

Cropped Field-of-View Resolutions

Flexible Cropping: Crop to any resolution that is divisible by 2 pixels in H.264 and 1 pixel in MJPEG up to

the maximum resolution of the camera. Example resolutions include but not limited to the following:

2592x1944	5 MP
2560x1600	WQXGA
2048x1536	3 MP
1920x1200	WUXGA
1920x1080	HDTV-1080p
1600x1200	2 MP

1280x1024	1.3 MP
1280x720	HDTV - 720p
1024x768	XGA
800x600	SVGA
704x570	PAL
704x480	NTSC
640x480	VGA
352x288	CIF
320x240	SIF

Data Transmission

Video frame rate up to:

    7fps @ 3648x2752

    12fps @ 2592x1944

    18fps @ 2048x1536

    25fps @ 1920x1080

    37fps @ 1280x1024

Video frame rate in binned mode up to:

    29fps @ 1920x1080

    26fps @ 1824x1376

    43fps @ 1296x972

    54fps @ 1024x768

Compression type

    H.264 (MPEG-4, Part 10)

    Motion JPEG (MJPEG)

    21 levels of quality

Transmission protocols

    HTTP1.0, HTTP1.1, RTSP, TRP over TCP, RTP over UDP, TFTP

    100 Base-T Ethernet Network Interface

Multi-streaming: 8 non-identical streams

Programmability

Remote Zoom, Remote Focus and Auto-Iris

Binned Mode

Flexible Cropping

Privacy Masking

Low-Light Noise Filter Control

Bit-Rate and Bandwidth Limitation Control

On-camera real-time motion detection with 1024 detection zones or 64 detection zones

Auto Backlight Compensation

Auto Multi-Matrix White Balance

50/60Hz Selectable Flicker Control

Electronic Pan, Tilt, Zoom (PTZ)

Electronic Image Flip – 180-Degree Rotation

Resolution Windowing Down to 1x1 Pixels for MJPEG and 2x2 Pixels for H.264

Programmable Shutter Speeds to Minimize Motion Blur

MoonLight™ Mode - Extended Exposure and Proprietary Noise Cancellation

Programmable Resolution, Brightness, Saturation, Gamma, Sharpness, Tint

Picture-In-Picture: Simultaneous Delivery Of Full Field Of View and Zoomed Images

Bandwidth and Storage Savings by Running At 1/4 Resolution

Camera Electrical

General Purpose Opto-Coupled Input and Output

Power over Ethernet (PoE): PoE 802.3af

Power Consumption:

       10.86 Watts Maximum for AMIR Model

       11.44 Watts Maximum for AMIR-H Model

Auxiliary Power 12-48V DC, 24VAC

Heater Electrical (-H models only)

Power Output: 2.28 W Max

Switch: On: 4C° (32.9 °F), Off: 6.5 °C (43.7 °F)

Total PoE Solution: No External Power Requirement

IR Illuminator

24 pcs 850nm LEDs / 15 Meter IR distance (max) / 40° IR Angle

No External Power Required

Mechanical

3-Axis Camera Gimbal with 360˚ Pan 90˚ Tilt and 360˚ Z-Axis

Die-cast Aluminum Chassis with 4" Polycarbonate Dome Bubble, IK-10 Rated

Total Unit Dimensions: Ø5.5 x 4.9 H (in), Bubble Only: Ø4.0 x 2.4 H (in)

Total Unit Dimensions: Ø140.3 x 124.6 H (mm), Bubble Only: Ø102 x 61.8 H (mm)
2.25 lbs (1.02 kg)

Lens:

4.7-9mm, F2.8, Remote Focus, Remote Zoom and Auto-Iris

Horizontal Field-of-View: 37°-78.8°

Environmental

Rated IP66 for Water and Dust Protection
Operating Temperature:

       No Heater: -20°C (-4°F) to +50°C (122°F)

       With Heater: -40°C (-40°F) to +50°C (122°F)

Stable Image Temperature: 0°C (32°F) to +50°C (122°F)

Storage Temperature: -40 °C (-40°F) to 60°C (140°F)

Humidity 0% to 90% (Non-Condensing)

Compliance Information

Class A FCC, Part 15; EN55022 Class A, EN55024, EN61000-3-2 and EN61000-3-3, EN60950-1

RoHS, REACH, IK-10 (EN62262), IP66 (EN60529)
CE Mark, UL Listed

Industry Standard

PSIA and ONVIF Conformance

Accessories:

MD-WMT2: Wall Mount with Cap (1.5" NTP)

MD-CAP: 1.5" NTP Mount Cap

MD-CMT: Pendant Mount

MD-CRMA: Corner Mount Adapter

MD-PMA: Pole Mount Adapter

MD2-HK: Optional 2.28W Heater Kit

SV-EBA: Electrical Box Adapter for MD-WMT2

SV-JBA: Junction Box Adapter for MD-WMT2

Related Documentation

AV10255 Camera Specification

Installation Manual

4.0 Model Numbers

The camera shall be AV10255AMIR, 10 Megapixel/1080p Dual Mode H.264 Day/Night IP MegaDome® 2
Camera w/ Remote Zoom, Remote Focus, Auto Iris, IR LEDs
The camera shall be AV10255AMIR-H, 10 Megapixel/1080p Dual Mode H.264 Day/Night IP MegaDome® 2
Camera w/ Remote Zoom, Remote Focus, Auto Iris, IR LEDs and Heater

5.0 Warranty
Minimum 3-Year Parts and Labor

Arecont Vision reserves the right to change products or specifications without notice.