

AV1255AM	1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus and Auto Iris
AV1255AM-H	1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto Iris and Heater
AV1255AMIR	1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto Iris and IR LEDs
AV1255AMIR-H	1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto Iris, Heater and IR LEDs

Bid-Spec

1.0 Description

The AV1255AM MegaDome® 2 series network camera is part of Arecont Vision's full line of H.264 MegaDome® series cameras. This fully compliant implementation of H.264 (MPEG 4, Part 10) provides full 1280 x 1024 megapixel resolution at full video frame rates of 42fps. The AV1255AM camera line provides an all-in-one solution with integrated 1.3 megapixel camera, remote focus, remote zoom, auto iris lens, and IP66 and vandal resistant dome enclosure.

With the features of PSIA and ONVIF compliance, privacy masking, extended motion detection and flexible cropping, the AV1255AM is a high sensitivity, PoE (IEEE 802.3af) compliant camera with optional heater and IR LEDs configurations. Built with Arecont Vision's massively-parallel MegaVideo® technology, this camera offers over four times the resolution of standard resolution IP cameras with the ability to output full real-time frame rates and deliver the high quality megapixel imaging for both indoor and outdoor applications.

2.0 Bid Specification

- The camera shall utilize a high sensitivity 1.3 Megapixel effective CMOS sensor with 1/2.7" optical format.
- The camera shall have and integrated 3-9mm, Ø14mm Mount, megapixel IR corrected vari-focal lens with 1/2.7" optical format, F1.2 and Horizontal Field of View of 24°-76°.
- The camera shall have a dome enclosure with IP66 for water and dust protection.
- The camera 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 180° 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 is fully compatible with PSIA and ONVIF industry standard and passes conformance tests.
- The camera shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video. This feature will support both HTTP and TFTP protocols, as well as the on-camera web interface.
- The camera shall have 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 in 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.
- 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's bit rate control shall be selectable from 100 Kbps to 10 Mbps for each independent stream.
- The camera's shutter speed shall be 1ms - 500ms.
- The camera shall have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Apple QuickTime, VLC Player and others.
- The camera's H.264 implementation shall maintain full real time video frame rates.
- The camera shall output at a maximum resolution of 1280(H) x 1024(V) pixels up to frame rate of 42 frames per second (FPS).
- It shall be possible to program the camera to output a variety of lower resolution image and increase frame rate.
- 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 shall provide 21 levels of compression quality for optimal viewing and archiving.
- The camera shall support a minimum HTTP, RTSP, RTP over TCP, RTP over UDP 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 0.1 Lux @ F1.2 in color mode and 0 Lux in B/W mode.
- The camera's primary power source shall be Power over Ethernet (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 10.7 watts max power consumption for base model and –H model.
- The camera shall have 12.6 watts max power consumption for IR model and IR–H model.
- The Camera shall provide total PoE solution to drive heater without any external power input. (-H version)
- The camera shall contain IR LED board with 24 pcs 850nm IR LEDs, 20 meter IR distance, 40° IR angle without any external power input. (IR version)
- The Camera's heater should be 2.28 watts and switch on 4°C (32.9°F) and Off: 6.5°C (43.7°F). (-H version)
- The camera's operating ambient temperature shall be -20°C (-4°F) to 50°C (122°F) without heater; -40°C (-40°F) to 50°C (122°F) with heater, stable image temperature is 0°C (32 °F) to +50°C (122°F); storage temperature -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 B 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 IK-10 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 be CE mark 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

Megapixel camera must meet the following operating requirements

Operational

Imaging	1.3 megapixel effective CMOS image sensor Optical format: 1/2.7" Pixel Size: 3 um x 3 um Progressive scan
Active Pixel Count	1280(H) x 1024(V) pixel array
Minimum illumination	Color: 0.1 Lux @ F1.2 Day/Night: 0 Lux, IR sensitive
Dynamic range	69 dB
Maximum SNR	45 dB

Full Field of View (FOV) Resolutions

1280x1024 (HxW) 1.3 megapixel

640x512 (HxW) 1/4 resolution

Cropped Field of View Resolutions

Flexible Cropping: Crop to any resolution that is divisible by 2 pixel in H.264 and 1 pixel in JPEG up to the maximum resolution of the camera. Example resolutions include but not limit to the following.

1280x720 HDTV - 720p

1024x768 XGA

800x600 SVGA

704x570 PAL

704x480 NTSC

640x480 VGA

352x288 CIF

320x240 SIF

Data Transmission

Data rate

Bit rate control from 100Kbps to 10Mbps

Video frame rate up to

42fps @ 1280x1024

58fps @ 1280x720

Compression type

H.264 (MPEG4, Part 10)

Motion JPEG

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

Flexible cropping

Privacy masking

Low Light Noise Filter Control

Bit Rate and Bandwidth Limitation Control

Auto Exposure (AE) and Gain Control (AGC) >120dB

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 JPEG 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 & 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:

10.7 Watts maximum for Base Model and -H Model

12.6 Watts maximum for IR Model and IR-H Model

Auxiliary Power 12-48V DC, 24VAC

Audio Electrical (-A models only)

Streaming: Two-way

Compression : G.711 PCM 8 kHz

Input/ output: External microphone input or line input / line output

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 (-IR models only)

24 pcs 850nm LEDs / 20 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, IK10 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:

3-9mm, F1.2, remote focus, remote zoom and auto-iris

Horizontal Field of View: 24°-76°

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**Compliance:**

Class B FCC, Part 15; EN55022 Class B, 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 compliance

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

AV1255/AV2255 Camera Specification

Installation Manual

4.0 Model Numbers

The camera shall be Arecont Vision model AV1255AM, 1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus and Auto Iris.

The camera shall be Arecont Vision model AV1255AM-H, 1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto Iris and Heater Kit

The camera shall be Arecont Vision model AV1255AMIR, 1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto Iris and IR LEDs.

The camera shall be Arecont Vision model AV1255AMIR-H, 1.3 Megapixel H.264 Day/Night IP MegaDome® 2 Camera w/ Remote Zoom, Remote Focus, Auto Iris, IR LEDs and Heater Kit.

5.0 Warranty

Minimum 3 Year parts and labor

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