

AV1125IRv1 1.3 Megapixel H.264 IP MegaView™ Day/Night w/ IR illuminator Camera
AV1125DNv1 1.3 Megapixel H.264 IP MegaView™ Day/Night Camera

Bid-Spec _____

1.0 Description

The AV1125 MegaView™ series network camera is part of Arecont Vision's full line of H.264 megapixel cameras. This fully compliant implementation of H.264 (MPEG 4, Part 10) provides 1280 x 1024 megapixel resolution at full video frame rates of 42 fps. The MegaView™ camera line provides an all-in-one solution with integrated 1.3 megapixel camera, 4.5-10mm lens, vandal resistant aluminum cylindrical (Bullet-style) enclosure with IP66 weatherproofing standard, blower, and IR illuminator option. With external lens adjustment feature, the AV1125 MegaView™ camera line is plug-n-play and no need to open camera for installation. Using MegaVideo® technology, these cameras offer bandwidth and storage efficiency of up to 10X on average over traditional megapixel counterparts.

With the new features of PSIA compliance, privacy mask, extended motion detection and flexible cropping, the AV1125 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with Day/Night (DN version) only and Day/Night w/ IR illuminator (IR version) configurations. Built with Arecont Vision's proprietary massively-parallel MegaVideo® technology, the AV1125 has the ability to output multiple image formats allowing the simultaneous viewing of the full resolution field of view and regions of interest for high definition forensic zooming. This camera offers over four times the resolution of standard resolution IP cameras with the ability to output full real time frame rates.

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 4.5-10mm megapixel IR corrected varifocal lens F1.6.
- The camera shall have motorized Day/Night switcher for both IR and DN versions and optional IR LED board for IR version only.
- The camera shall have vandal resistant aluminum cylindrical (Bullet-style) enclosure with IP66 weatherproofing standard.
- The camera shall have external lens adjustments, including focus, iris and zoom (Field of View), and no need to open camera for installation.
- The camera shall have a 3-axis easily adjustable bracket with 360° pan 90° tilt and 180° rotation for easy and accurate positioning.
- The IR version camera shall contain IR LED board with 48 pcs 850nm IR LEDs, 25 meter IR distance, 45° IR angle and 3 watts power consumption.
- The camera shall be wall/ceiling mount with an optional electrical box adaptor, MV-EBA, pole mount adapter, MD-PMA, and corner mount adapter, MD-CRMA.
- The camera shall have an auxiliary power input, AC24V and DC12-48V, to support IR illuminator, blower and camera.
- The camera's power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard to support IR illuminator, blower and camera.
- 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 industry standard and passes PSIA conformance tests.

- The camera shall have privacy mask, the ability to select multiple regions of an arbitrary shape to block the video. This feature will be supported both in 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 zones in contrast to 64 zones supported earlier. User can select between the old 64 zone based motion detection and new extended motion detection to provide backward compatibility with the existing NVR integration. This feature will be supported 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 to 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 at a maximum 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 @ F1.4 in day mode.
- The camera shall support an IR sensitive minimum illumination of 0 Lux in night mode.
- The camera shall be utilized for indoor and outdoor applications.
- The camera's operating ambient temperature is -40°C (-40°F) to +50°C (122°F); stable image temperature is 0°C (32 °F) to +50°C (122 °F); storage temperature -60°C (-76 °F) to +60°C (140 °F).
- The DN version 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 IR 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 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 dimensions of: 4"W (102 mm) x 4.3"H (111 mm) x 11.5"L (293mm) weighing 2Kg (4.4lbs).

Quick-Spec

3.0 Minimum Performance Specification

Megapixel camera must meet the following operating requirements

Operational

Imaging	1.3 megapixel effective CMOS image sensor 1/2.7" optical format Pixel Size: 3 um x 3 um Bayer mosaic RGB filter
Active Pixel Count	1280(H) x 1024(V) pixel array
Minimum illumination	Day mode: 0.1 Lux@ F1.4 Night mode: 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 2 pixels in H.264 and 1 pixel in JPEG
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

Compression type

H.264 (MPEG4, Part 10)

Motion JPEG

21 levels of quality

Transmission protocols

HTTP, RTSP, TRP over TCP, RTP over UDP, TFTP

100 Base-T Ethernet Network Interface

Multi-streaming: 8 non-identical streams

Programmability

Flexible cropping

Privacy mask

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

On-camera real-time motion detection with 1024 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

Electrical

General purpose opto-coupled input and output (DN version only)

General purpose opto-coupled input (IR version only)

Power over Ethernet (PoE): PoE 802.3af for IR illuminator, blower and camera

Auxiliary power 12-48V DC, 24V AC for IR illuminator, blower and camera

Power consumption:

4.9 Watts maximum (DN version)

7.9 Watts maximum (IR version)

Mechanical

Easily adjustable 3-axis camera gimbal

Vandal resistant aluminum cylindrical (Bullet-style) housing

External lens adjustments, including iris, zoom and focus

Total unit dimension:

Dimensions(H x W x D)..... 4"W (102 mm) x 4.3"H (111 mm) x 11.5"D (293mm)

Weight.....2Kg (4.4lbs)

Lens

4.5 - 10 mm vari-focal lens with IR corrected

Max Aperture: F 1.6

Horizontal F.O.V. = 22°-48°

IR Illuminator

Voltage Input: 12V to 48V DC or 24V AC

48 pcs 850nm LEDs

25 meter IR distance (max)

45° IR angle

3 watts power consumption

Environmental

IP66 weatherproofing standard

Operating temperature -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:**

AV1125IRv1: Class A FCC, Part 15; EN55022 Class A,

AV1125DNv1: 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 compliance

MegaView™ Accessories

MV-EBA: Electrical Box Adaptor

MD-PMA: Pole Mount Adaptor

MD-CRMA: Corner Mount Adaptor

Related Documentation

1. AV User Manual
2. AV1125 Network Camera Specification
3. MegaView Installation Manual

4.0 Model Numbers

The camera shall be Arecont Vision model AV1125IRv1, 1.3 Megapixel H.264 IP MegaView™ Day/Night w/ IR illuminator Camera

The camera shall be Arecont Vision model AV1125DNv1, 1.3 Megapixel H.264 IP MegaView™ Day/Night Camera

4.0 Warranty

Minimum 3 Year parts and labor

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