

## **AV3125IR 3MP H.264 IP MegaView™ Day/Night w/ IR illuminator Camera** **AV3125DN 3MP H.264 IP MegaView™ Day/Night Camera**

### ***Bid-Spec*** \_\_\_\_\_

#### **1.0 Description**

The AV3125 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 3 megapixel resolution at full video frame rates of 21fps. The MegaView™ camera line provides an all-in-one solution with integrated 3 megapixel camera, 4.5-10mm lens, heater/blower, vandal resistant aluminum cylindrical (Bullet-style) enclosure with IP66 weatherproofing standard, and IR illuminator option. With external lens adjustment feature, the AV3125 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 features of PSIA compliance, privacy mask, extended motion detection and flexible cropping, the AV3125 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with Day/Night only and Day/Night w/ IR illuminator configurations. Built with Arecont Vision's proprietary massively-parallel MegaVideo® technology, the AV3125 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. Binning technique improves low-light performance, increases sensitivity and produces better SNR by combining and averaging pixels. This camera offers over ten 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 3 Megapixel CMOS sensor with 1/2.5" 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, heater and blower (not for camera support).
- The camera's power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard and provide at least 4.5 W of power.
- 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 masking, 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. 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 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 shall output at a maximum resolution of 2048(H) x 1536(V) pixels at a maximum frame rate of 21 frames per second (FPS).
- It shall be possible to program the camera to output a variety of lower resolution images, i.e. 1600(H) x 1200(V) pixels at 31 FPS, or 1920(H) x 1080(V) pixels at 29 FPS.
- It shall be possible to program the camera at binned mode to output a variety of lower resolution image and increase frame rate, i.e. 1024(H) x 768(V) pixels at 47 FPS, or 800(H) x 600(V) pixels at 64 FPS.
- 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 1/1000 s to 1/2 s.
- 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 use a wide variety of C/CS mount 1/2.5" lenses. (Note that some CS lenses and all C-mount lenses may require an adaptor ring. Megapixel quality lenses are the preferred choice for our entire camera line).
- 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 0.3 Lux @ F1.4 in color non-binned mode and 0.15 Lux @ F1.4 in color binned mode.
- The camera shall support an IR sensitive minimum illumination of 0 Lux in B/W mode (DN version only).
- The camera shall be utilized for indoor and outdoor applications.
- The camera's operating ambient temperature is -40°C (-40°F) to +60°C (140 °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 AV3125IR camera shall be FCC Part 15, Class A, CE, RoHS and REACH compliant.
- The AV3125DN camera shall be FCC Part 15, Class B, CE RoHS and REACH compliant.
- The camera shall be 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).

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## Quick-Spec

### 3.0 Minimum Performance Specification

Megapixel camera must meet the following operating requirements

#### Operational

Imaging	3 megapixel CMOS image sensor 1/2.5" optical format Bayer mosaic RGB filter
Active Pixel Count	2048(H) x 1536(V) pixel array
Minimum illumination	Color (non-binned): 0.3 Lux @ F1.4 Color (binned): 0.15 Lux @ F1.4 Day/Night: 0 Lux, IR sensitive
Dynamic range	70.1 dB
Maximum SNR	44.1 dB

**Full Field of View (FOV) Resolutions**

2048x1536 (HxW) 3 megapixel

1024x768 (HxW) 1/4 resolution

**Cropped Field of View Resolutions**

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

21fps @ 2048x1536

29fps @ 1920x1080

31fps @ 1600x1200

41fps @ 1280x1024

Video frame rate in binned mode up to

47fps @ 1024x768

64fps @ 800x600

64fps @ 860x540

64fps @ 640x512

**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

100 Base-T Ethernet Network Interface

Multi-streaming: 8 non-identical streams

**Programmability**

Flexible cropping

Privacy masking

Binning

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 camera

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

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. = 26°-56°

### Heater and Blower Electrical

Voltage Input: 12V to 48V DC or 24V AC (separate power required)

Power Output:

10W Max (DC12V)

28.8 W Max ( AC24V)

Switch: On: 4C° (39.2 °F), Off: 7°C (44.6 °F)

### IR Illuminator

Voltage Input: 12V to 48V DC or 24V AC (separate power required)

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 +60°C (140°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)

### Regulatory Approvals / Listings

FCC, Class A (AV3125IR)

FCC, Class B (AV3125DN)

CE

RoHS and REACH compliant

UL

### 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. AV3125 Network Camera Specification
3. MegaView™ Installation Manual

### **4.0 Model Numbers**

The camera shall be Arecont Vision model AV3125IR, three megapixel IP MegaView™ Day/Night w/ IR illuminator Camera

The camera shall be Arecont Vision model AV3125DN, three megapixel IP MegaView™ Day/Night Camera

### **5.0 Warranty**

Minimum 1 Year parts and labor

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