**AV10115 10 Megapixel/1080p Dual Mode Compact H.264 Color IP Camera**

**AV10115DN 10 Megapixel/1080p Dual Mode Compact H.264 Day/Night IP Camera**

**AV10115AI 10 Megapixel/1080p Dual Mode Compact H.264 Auto-Iris IP Camera**

***Bid-Spec***

1. **Description**

The AV10115 series camera is a dual encoder (H.264 & MJPEG), 10 Megapixel and Full HD 1080P dual mode resolutions, IP addressable camera, designed to deliver full motion high definition progressive scan digital video across local area networks. With the new features of PSIA compliance, privacy mask, extended motion detection and flexible cropping, the AV10115 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with color and Day/Night configurations. Built with Arecont Vision’s proprietary massively-parallel MegaVideo® technology, the AV10115 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 thirty three times the resolution of standard resolution IP cameras with the ability to output full real time frame rates.

1. **Bid Specification**
* The camera shall utilize a high sensitivity 10 Megapixel CMOS sensor with 1/2.3” optical format.
* 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’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 have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Apple QuickTime, VLC Player and others.
* The cameras H.264 implementation shall maintain full real time video frame rates.
* The camera shall output at a maximum resolution of 3648(H) x 2752(V) pixels at a maximum frame rate of 7 frames per second (FPS) and 1920(H)x1080(V) pixels at a maximum frame rate of 32 frames per second (FPS).
* It shall be possible to program the camera to output a variety of lower resolution images, i.e. 2592(H) x 1944(V) pixels at 14 FPS, or 2048(H) x 1536(V) pixels at 19 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. 1920(H) x 1080(V) pixels at 32 FPS, or 1824(H) x 1376(V) pixels at 27 FPS.
* 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 1/2.3” or larger lenses. (Note that some CS lenses maybe require a washer and all C-mount lenses require a C/CS adaptor ring and maybe a washer. 10 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 TFTP, HTTP, RTSP, RTP/TCP and RTP/UDP 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 @ F1.4 in color non-binned mode and 0.21 Lux @ F1.4 in color binned mode.
* The camera shall support an IR sensitive minimum illumination of 0 Lux in B/W mode (D/N version only)
* The camera shall support a DC auto-iris lens when equipped with the auto-iris feature (AI version only). Megapixel resolution optics recommended.
* The camera’s primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard and provide at least 5W of power.
* The camera shall have the alternative option to be powered from between a 12V DC up to 48V DC or 24V AC power.
* This camera shall feature a durable aluminum housing that minimizes fire hazards. Camera should be mounted using a 1/4” x 20 threaded hole at the bottom of the housing.
* The camera shall be utilized for indoor use but can be used in outdoor applications with an appropriate enclosure.
* The camera’s operating ambient temperature is -5˚C (23 °F) to +60˚C(140 °F); stable image temperature is 0˚C (32 °F) to +50˚C (122 °F); storage temperature -20˚C (-4 °F) to +60˚C (140 °F).
* The 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: 3” (76mm) W x 2.5” (63.5mm) H x 1.25” (31.7mm) D weighing 5.8oz (164g) without lens.

#### Quick-Spec

1. **Minimum Performance Specification**

Megapixel camera must meet the following operating requirements

**Operational**

Imaging 10 megapixel CMOS image sensor

 Binned mode (2x2) ~ 2.5 MP improve low light performance

1/2.3” optical format

Bayer mosaic RGB filter

Maximum Resolutions

Mode 1: 3648(H) x 2752(V)

Mode 2: 1920(H) x 1080(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 2 pixels in H.264 and 1 pixel in JPEG

2944x1920 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**

Data rate

Bit rate control from 100Kbps to 10Mbps

Video frame rate up to: Video frame rate in binned mode up to:

7fps @ 3648x2752 30fps @ 1920x1080

14fps @ 2592x1944 27fps @ 1824x1376

19fps @ 2048x1536 47fps @ 1296x972

28fps @ 1920x1080 57fps @ 1024x768

39fps @ 1280x1024

Compression type

H.264 (MPEG4, Part 10)

Motion JPEG

21 levels of quality

Transmission protocols

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

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

Power over Ethernet (PoE): PoE 802.3af

Power consumption 4.5 Watts maximum

Auxiliary Power 12-48V DC, 24VAC

Optional DC AI connection (AV10115AI)

**Mechanical**

Dimensions(H x W x D)……….3”W (76 mm) x 2.5”H (63.5 mm) x 1.25”D (31.7mm) (w/o lens)

Weight…………………………..5.8oz (164g) (w/o lens)

Lens.…………………………….C/CS lens mount

**Environmental**

Operating temperature -5˚C (23 °F) to +60˚C (140 °F)

Stable image temperature 0˚C (32 °F) to +50˚C (122 °F)

Storage temperature -20˚C (-4 °F) to +60˚C (140 °F)

Humidity 0% to 90% (non condensing)

**Regulatory Approvals / Listings**

FCC, Class B

CE

RoHS and REACH compliant

UL

**Industry Standard**

PSIA compliance

**Housing Accessories:**

D4S: Indoor 4” Surface Mount Dome

D4F: Indoor 4” In-Ceiling Mount Dome

Dome 4-I - Indoor 4” Vandal Dome

Dome 4-O - Outdoor 4” Vandal Dome

Dome 5-I - Indoor 5” Recessed Dome

HSG1-O-W - Outdoor Environmental Housing w/Heater/Blower

**Lens:**

Ultra HD Lenses:

UHD8.0

UHD16.0

UHD25.0

UHD35.0

\*Please use Ultra HD lenses to get best image quality and resolution

**Related Documentation**

1. AV User Manual
2. AV10115 Network Camera Specification

**4.0 Model Numbers**

The camera shall be Arecont Vision model AV10115, ten megapixel/1080p Dual Mode Compact H.264 color camera

The camera shall be Arecont Vision model AV10115DN, ten megapixel/1080p Dual Mode Compact H.264 Day/Night camera

The camera shall be Arecont Vision model AV10115AI, ten megapixel/1080p Dual Mode Compact H.264 Auto-Iris camera

**5.0 Warranty**

Minimum 3 Year parts and labor

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



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