**AV3215DN 3-Megapixel Compact H.264 Day/Night Camera**

***Bid-Spec***

1. **Description**

The AV3215DN 3-Megapixel compact H.264 network camera is part of Arecont Vision’s full line of H.264 MegaVideo® cameras. This fully compliant implementation of H.264 (MPEG-4, Part 10) provides full 2048 (H) x 1536 (V) megapixel resolution at full video frame rates of 21 frames per second (fps). With the features of ONVIF conformance, privacy masking, extended motion detection and flexible cropping, the AV3215DN is a high sensitivity, PoE (IEEE 802.3af) compliant camera with color, Day/Night and Day/Night with Auto-Iris configurations. Binning technique improves low-light performance, increases sensitivity and produces better SNR by combining and averaging pixels. Built with Arecont Vision’s massively-parallel MegaVideo® processing technology, this camera offers more than 10-times the resolution of standard resolution IP cameras with the ability to output full real-time frame rates and deliver high-quality megapixel imaging.

1. **Bid Specification**
* The camera shall utilize a high sensitivity 3 megapixel CMOS sensor with 1/3” optical format, 2.2um x 2.2um pixel size, progressive scan and Active Pixel Count: 1920(H) x 1080(V) pixel array
* 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 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.
* 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 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 and increase frame rate, i.e. 1920(H) x 1080(V) pixels at 30 FPS, or 1280(H) x 1024(V) pixels at 30 FPS.
* 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 at binned mode to output a variety of lower resolution image and increase frame rate, i.e. 1024(H) x 768(V) pixels at 46 FPS, or 960(H) x 540(V) pixels at 64 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’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 have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Apple QuickTime, VLC Player and others.
* The camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control, 5Hz-255Hz adjustable 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 0.2 Lux in color non-binned mode and 0.1 Lux in color binned mode.
* The camera shall support an IR sensitive minimum illumination of 0.02 Lux in black and white (B/W) mode with an additional IR light source.
* The camera’s primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard and provide at least 5.59W 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 source.
* 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 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 RoHS Directive 2011/96/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: 3” (76mm) W x 2.5” (63.5mm) H x 1.25” (31.7mm) D weighing 5.8oz (164g) without lens.
* The camera shall use a wide variety of C/CS mount 1/3” for 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. Megapixel quality lenses are the preferred choice for Arecont Vision’s entire camera line.)
* The camera has SNAPstream™, which is smart noise adaptation and processing.
* The camera shall have CorridorView™ (90°, 180°, and 270° image rotation).

#### Quick-Spec

1. **Minimum Performance Specification**

Megapixel camera must meet the following operating requirements

**Operational**

Imaging 3-Megapixel effective CMOS image sensor

1/3” optical format

Active Pixel Count 2048(H) x 1536(V) pixel array

Minimum illumination Color (non-binned): 0.2 Lux

Color (binned): 0.1 Lux

Day/Night: 0.02 Lux, IR sensitive

Dynamic range 69.5 dB

Maximum SNR 44 dB

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

2048x1536 (HxW) 3 megapixel

1024x768 (HxW) 1/4 resolution

**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:

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

31fps @ 1600x1200

29fps @ 1920x1080

41fps @ 1280x1024

In Binned Mode up to:

46fps @ 1024x768

64fps @ 800x600

64fps @ 860x540

64fps @ 640x512

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 and 802.1x

100 Base-T Ethernet Network Interface

Multi-streaming: 8 non-identical streams

**Programmability**

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

5Hz-255Hz Adjustable 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

**Electrical**

General purpose opto-coupled input and output

Power over Ethernet (PoE): PoE 802.3af for camera

Auxiliary power 12–48V DC, 24V AC

Power consumption: 5.59 Watts maximum

**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 +50˚C (122 °F)

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

Humidity 0% to 90% (non-condensing)

**Compliance Information**

Class A FCC, Part 15; EN55022 Class A, RoHS, REACH, EN55024, EN61000-3-2, EN61000-3-3, EN60950

CE Mark, UL Listed

**Industry Standard**

ONVIF Conformance

**Housing Accessories:**

D4F: Indoor 4" In-Ceiling Flush Mount Dome

D4SO: Outdoor 4" IP66, IK-10, Dome Housing

HSG2: Outdoor Ip67 Housing with Heater and Dual Fans

**Lenses:**

MPL1.55

MPL3.5

MPL4.0

MPL8.0

MPL33-12A

MPL4-10

MPL4-12

MPL8-16

MPL12-40

UHD7.2

UHD45-10

M118FM08

M118FM16

JHF25M-5MP

JHF35M-5MP

**Related Documentation**

AV3215DN Camera Specification

Installation Manual

**4.0 Model Numbers**

The camera shall be Arecont Vision model AV3215DN, 3-Megapixel Compact H.264 Color Camera

The camera shall be Arecont Vision model AV3215DN, 3-Megapixel Compact H.264 Day/Night Camera

The camera shall be Arecont Vision model AV3215DN, 3-Megapixel Compact H.264 Day/Night and 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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