**AV3236DN**  **3 Megapixel /1.2 Megapixel H.264/MJPEG DayNight (Dual Sensor) WDR + B&W Camera, 2048x1536 / 1280 x 960, Compact, PoE**

This A&E specification is written according to Construction Specifications Institute (CSI) 3-Part Format, based on MasterFormat™ (2009 Edition) and The Project Resource Manual – CSI Manual of Practice. [www.csinet.org/masterformat](http://www.csinet.org/masterformat).

Manufacturer is responsible for the accuracy of the technical data included in this specification.

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**Division 28 – Electric Safety and Security**

**Section 28.23.29 – Video Surveillance – Remote Devices and Sensors**

**Part 1 General**

## 1.1 General Requirements

The camera shall be of manufacturer’s official product line, designed for continuous commercial or industrial use.

The camera shall be based on standard parts and components and utilize proven technology using open and published protocols.

All camera installation, configuration, setup, programming and all related work shall be performed by electronic technicians thoroughly trained in the installation and service of the equipment provided and in complete compliance with all local codes and regulations.

All equipment provided shall be backed by a three-year manufacturer warranty.

##  Certifications and Standards

1. European Community Directives:

2004/108/EC (EMC Directive);

2006/95/EC (Low Voltage Directive);

2011/65/EU (RoHS Directive)

 1907/2006/EC (REACH Directive)

 2002/96/EC (WEEE Directive)

1. European EMC Standards to which conformity is declared:

 EN 55022:2010 Class A

 EN 55024:2010

 EN 61000-3-2:2006+A1:2009+A2:2009

 EN61000-3-3: 2008

 EN60950-1:2006+A11:2009+A1:2010+A12:2011

 

1. FCC Standard Compliance:

 Title 47, Part 15 (47 CFR 15) Subpart B Class A

1. Video Compression Technology

H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC

1. Networking Standard:

 IEEE 802.3af-2003 PoE Standard, Class 3

 IPv4

1. Interoperability Standard

PSIA compliant

1. Country of Origin

FTC “Made in USA” standard compliant

## Part 2 Products

**2.1 Manufacturer**

**Arecont Vision, LLC**

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**2.2 General**

The AV3236DN MegaVideo® Compact Dual Sensor 3 megapixel wide dynamic range (WDR) and 1.2 megapixel monochrome series network camera is part of Arecont Vision’s full line of H.264 MegaView® cameras. This fully compliant implementation of H.264 (MPEG 4, Part 10) provides wide dynamic range at a resolution of 2048x1536 and superior low light sensitivity at a resolution of 1280x960 using dual megapixel sensor technology at full video frame rates of 18/40 frames per second (fps) respectively.

With the features of dual sensor technology, simultaneous streaming of both sensors, up-scaling from 1.2 megapixel resolution to 3 megapixel resolution on the monochrome sensor, PSIA compliance, auto adjustment between WDR and LDR modes, privacy mask, extended motion detection and flexible cropping, the AV3236DN is a high sensitivity, PoE (IEEE 802.3af) compliant Day/Night camera with two independent sensors. 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.

**2.3 Hardware**

* The camera shall utilize a high sensitivity 3 Megapixel color CMOS sensor with 1/3.2” optical format, 2.2um x 2.2um pixel size, progressive scan and Active Pixel Count: 2048(H) x 1536(V) pixel array and a high sensitivity 1.2 Megapixel monochrome CMOS sensor with 1/3” optical format, 3.75um x 3.75um pixel size, progressive scan and Active Pixel Count: 1280(H) x 960(V) pixel array.
* The camera shall have a ¼-20 threaded hole for mounting to standard industry box camera mounts.
* The camera shall have aluminum enclosure.
* The camera’s power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard.
* The camera shall be utilized for indoor applications and will have the ability to obtain an IP-66 rating by using optional housings offered by Arecont Vision.

**2.4 Imaging**

* The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
* The camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control to minimize motion blur, programmable resolution, brightness, saturation, gamma, sharpness and tint.
* The camera’s shutter speed shall be 1ms - 500ms.
* The camera shall feature selectable 50/60 Hz flicker control, windowing, 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 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 have wide dynamic range up to 100dB and a maximum SNR of 49dB.
* The camera shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video.
* 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 have extended motion detection grid, a higher granularity grid of 1024 distinct motion detection zones. 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 feature streaming of the full field of view (FOV) and simultaneous multiple regions of interest (ROI) for forensic zooming.
* The camera shall provide 21 levels of compression quality for optimal viewing and archiving.
* The cameras H.264 implementation shall maintain full real time video frame rates.
* The camera shall support simultaneous streaming of both sensors at once resulting in a reduction in frame rate down to 11 frames per second (FPS) per stream at full resolution of 2048x1536 (color) / 1280x960 (monochrome)
* The camera shall support up-scaling of the monochrome sensor image from 1.2 megapixel resolution to 3 megapixel resolution (1280x960 up-scaled to 2048x1536) resulting in a frame rate reduction on the monochrome sensor from 40 frames per second (FPS) to 18 frames per second (FPS).
* The camera shall support simultaneous streaming of both sensors at once when the monochrome sensor is in the up-scaled state from 1.2 megapixel resolution to 3 megapixel resolution resulting in a reduction in frame rate down to 8 frames per second (FPS) per stream at full resolution of 2048x1536 (color) / 2048x1536 (monochrome up-scaled)
* The camera shall output at a maximum resolution of 2048(H) x 1536(V) pixels at a maximum frame rate of 18 frames per second (FPS) on the color WDR sensor OR the camera shall output at a maximum resolution of 1280(H) x 960(V) pixels at a maximum frame rate of 40 frames per second (FPS) on the monochrome sensor OR the camera shall output at an up-scaled maximum resolution of 2048(H) x 1535(V) pixels at a maximum frame rate of 18 frames per second (FPS) on the monochrome sensor OR the camera shall output a dual stream of 2048(H) x 1536(V) (color) and 1280(H) x 960(V) (monochrome) simultaneously at a maximum frame rate of 11 frames per second on each sensor OR the camera shall output a dual stream of 2048(H) x 1536(V) (color) and 2048(H) x 1536(V) (monochrome up-scaled) resolution simultaneously at a maximum frame rate of 8 frames per second on each sensor.
* The camera shall provide flexible cropping (Resolution windowing down to 1x1 pixels for JPEG and 2x2 pixels for H.264)
* The camera shall be able to save bandwidth & storage by running at 1/4 full resolution
* The camera shall have an Auto Exposure (AE), Gain Control (AGC), Bit Rate and Bandwidth Limit Control
* The camera shall feature MoonLight™ mode - extended exposure and noise cancellation
* The camera shall be able to support Picture-in-Picture: simultaneous delivery of full field of view and zoomed images

**2.5 Video**

Color WDR sensor video frame rate (up to):

18fps @ 2048x1536

11fps @ 2048x1536 (Simultaneous Streaming)

 8fps @ 2048x1536 (Simultaneous Streaming w/ Up-Scaling Monochrome Sensor)

Monochrome sensor video frame rate (up to):

40fps @ 1280x960

18fps @ 1280x960 up-scaled to 2048x1536

11fps @ 1280x960 (Simultaneous Streaming)

 8fps @ 1280x960 (Simultaneous Streaming w/ Up-Scaling Monochrome Sensor)

**2.6 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 support both unicast and multicast communication protocol.
* The camera shall support RTSP, RTP over TCP, RTP over UDP (Unicast/Multicast), HTTP1.0, HTTP1.1, TFTP
* 100 Base-T Ethernet Network Interface
* Multi-streaming: 8 non-identical streams

**2.7 Electrical**

General purpose opto-coupled input and output

Power over Ethernet (PoE): PoE 802.3af

Power consumption: PoE – Class 3

**2.9 Networking**

The camera shall be equipped with a 100 Mbps LAN connector.

**2.10 Environmental**

Operating temperature: -5˚C (23 °F) to +50˚C (122 °F)

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

Storage temperature 0˚C (0°F) to +50˚C (122 °F)

Humidity 0% to 90% (non-condensing)

**2.11 Minimum Illumination**

Color (Day Mode): 0.2 Lux @ F1.2

Color Binning (Day Mode): 0.15 Lux @ F1.2

B/W (Night Mode): 0 Lux, IR sensitive



[www.megapixelvideo.com](http://www.megapixelvideo.com) info@arecontvision.com © 2005 Arecont Vision

**2.12 Packaging**

Unit Dimensions:

 2.5" H (63.5mm) x 3" W (76mm) x 1.25" D (32mm) / Weight: 5.8 oz (164 g) (w/o lens)

Packaged Dimensions:

3.7" H (94mm) x 4" W (102mm) x 4" D (102mm) / Weight: 7.5 oz (213 g)

**2.14 Compatible Accessories**

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| HSG2  | Outdoor PoE, IP67 Housing |
| DOME4-O | Outdoor 4” Vandal Resistant Dome with Heater |
| DOME4-I | Indoor 4” Vandal Resistant Dome  |

**2.15 Related Documents**

AV MegaVideo® Compact Dual Sensor Datasheet

AV MegaVideo® Compact Dual Sensor Installation Manual

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