

AV2815 HD 1080p Compact H.264 Color Camera

AV2815DN HD 1080p Compact H.264 Day/Night Camera

Bid-Spec _____

1.0 Description

The AV2815 series camera is a dual encoder (H.264 & MJPEG), HD 1080p Megapixel resolution, IP addressable camera, designed to deliver full motion high definition progressive scan digital video across local area networks in a compact package. With the features of PSIA compliance, privacy masking, extended motion detection grid and flexible cropping, the AV2815 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with color and Day/Night configurations. Built with Arecont Vision's massively-parallel MegaVideo® technology, the AV2815 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 six 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 2.07 Megapixel CMOS sensor with 1/2.7" 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 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 shall have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as Windows Media Player, 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 1920(H) x 1080(V) pixels at a maximum frame rate of 24 frames per second (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 and can deliver image data at an unthrottled maximum data rate of up to 50 Megabits per second (50 Mbps).
- The camera shall use a wide variety of C/CS mount 1/2" lenses. (Note that some CS lenses and all C-mount lenses may require an adaptor ring. Megapixel quality lenses are the preferred choice for Arecont Vision's 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 0.1 Lux @ F1.4 in color mode.
- The camera shall support an IR sensitive minimum illumination of 0 Lux in B/W mode (D/N version only).
- The camera's primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard and provide at most 4.5 W of 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 0°C (32°F) to 50°C (122°F).
- The camera shall be FCC Part 15, Class B, CE and RoHS compliant
- 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

3.0 Minimum Performance Specification

Megapixel camera must meet the following operating requirements

Operational

Imaging	2.07 megapixel CMOS image sensor 1/2.7" optical format Bayer mosaic RGB filter
Active Pixel Count	1920(H) x 1080(V) pixel array
Minimum illumination	Color: 0.1 Lux@ F1.4 Day/Night: 0 Lux, IR sensitive
Dynamic range	69 dB
Maximum SNR	45 dB

Full Field of View (FOV) Resolutions

1920x1080 (HxW) HDTV -1080P

960x540 (HxW) 1/4 resolution

Cropped Field of View Resolutions

Flexible Cropping: Crop to 2 pixels in H.264 and 1 pixel in JPEG

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

- unthrottled up to 50Mbps

- bit rate control from 100Kbps to 10Mbps

Video frame rate up to:

- 24fps @ 1920x1080

- 32fps @ 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 masking

- 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

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 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

FCC, Class B

CE and RoHS compliant

Industry Standard

PSIA compliance

Housing Accessories:

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

Lenses:

MPL4-10

MPL4-12

MPL8-16

MPL4.0

MPL6.0

MPL8.0

LENS4-13

Related Documentation

1. AV User Manual
2. AV1315 Network Camera Specification

4.0 Model Numbers

The camera shall be Arecont Vision model AV2815, HD 1080p Compact H.264 Color Camera

The camera shall be Arecont Vision model AV2815DN, HD 1080p Compact H.264 Day/Night Camera

5.0 Warranty

Minimum 1 Year parts and labor

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