

<b>AV1115</b>	<b>1.3 Megapixel Compact H.264 Color Camera</b>
<b>AV1115DN</b>	<b>1.3 Megapixel Compact H.264 Day/Night Camera</b>
<b>AV1115AI</b>	<b>1.3 Megapixel Compact H.264 Auto-Iris Camera</b>

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

### **1.0 Description**

The AV1115 compact series camera is a dual encoder (H.264 & MJPEG), 1.3 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 and flexible cropping, the AV1115 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with color, Day/Night and Auto-Iris configurations. Built with Arecont Vision's massively-parallel MegaVideo<sup>®</sup> technology, the AV1115 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 four 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 1.3 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 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 camera's H.264 implementation shall maintain full real time video frame rates.
- The camera shall output at a maximum resolution of 1280(H) x 1024(V) pixels at a maximum frame rate of 42 frames per second (FPS).
- It shall be possible to program the camera to output a variety of lower resolution image and increase frame rate.
- 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 1/2.7" 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. 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 least 4.5W 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 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 support a DC auto-iris lens when equipped with the auto-iris feature (AI version only). Megapixel resolution optics recommended.
- 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 50°C (122°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.

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## Quick-Spec

### 3.0 Minimum Performance Specification

Megapixel camera must meet the following operating requirements

#### Operational

Imaging	1.3 megapixel CMOS image sensor Optical format: 1/2.7" Pixel Size: 3 um x 3 um Bayer mosaic RGB filter
Active Pixel Count	1280(H) x 1024(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**

1280x1024 (HxW) 1.3 megapixel

640x512 (HxW) 1/4 resolution

**Cropped Field of View Resolutions**

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

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

42fps @ 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  
Auxiliary Power 12-48V DC, 24VAC  
Optional DC AI connection (AV1115AI)

**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)  
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

**Lenses:**

MPL4-10

MPL4-12

MPL8-16

MPL4.0

MPL6.0

MPL8.0

MPL12-40

LENS4-13

LENS4-10AI

**Related Documentation**

1. AV User Manual
2. AV1115 Network Camera Specification

**4.0 Model Numbers**

The camera shall be Arecont Vision model AV1115, 1.3 Megapixel Compact H.264 Color Camera

The camera shall be Arecont Vision model AV1115DN, 1.3 Megapixel Compact H.264 Day/Night Camera

The camera shall be Arecont Vision model AV1115AI, 1.3 Megapixel Compact H.264 Auto-Iris Camera

**5.0 Warranty**

Minimum 1 Year parts and labor

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

**AV2115 Full HD 1080p Compact H.264 Color Camera**  
**AV2115DN Full HD 1080p Compact H.264 Day/Night Camera**  
**AV2115AI Full HD 1080p Compact H.264 Auto-Iris Camera**

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

### **1.0 Description**

The AV2115 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 and flexible cropping, the AV2115 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with color, Day/Night and Auto-Iris configurations. Built with Arecont Vision's massively-parallel MegaVideo® technology, the AV2115 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 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 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 32 frames per second (FPS).
- It shall be possible to program the camera to output a variety of lower resolution image and increase frame rate, i.e. 1280(H) x 1024(V) pixels at 42 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 1/2.7" 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. 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 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 4.5W 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 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's operating ambient temperature is -5°C (23 °F) to 50°C (122°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.

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## 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

Bit rate control from 100Kbps to 10Mbps

## Video frame rate up to:

32fps @ 1920x1080

42fps @ 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  
Auxiliary Power 12-48V DC, 24VAC  
Optional DC AI connection (AV2115AI)

**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)  
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

**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

**Lenses:**

MPL4-10

MPL4-12

MPL8-16

MPL4.0

MPL6.0

MPL8.0

MPL12-40

LENS4-13

LENS4-10AI

### **Related Documentation**

1. AV User Manual
2. AV2115 Network Camera Specification

### **4.0 Model Numbers**

The camera shall be Arecont Vision model AV2115, HD 1080p Compact H.264 Color Camera

The camera shall be Arecont Vision model AV2115DN, HD 1080p Compact H.264 Day/Night Camera

The camera shall be Arecont Vision model AV2115AI, HD 1080p Compact H.264 Auto-Iris Camera

### **5.0 Warranty**

Minimum 1 Year parts and labor

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