

**AV10005**      **10 Megapixel Full HD Dual Mode Color Camera**  
**AV10005DN**    **10 Megapixel Full HD Dual Mode Day/Night Camera**

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

**1.0 Description**

The AV10005 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 grid and flexible cropping, the AV10005 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 AV10005 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.

**2.0 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 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 3648(H) x 2752(V) pixels at a maximum frame rate of 6 frames per second (FPS) and 1920(H)x1080(V) pixels at a maximum frame rate of 30 frames per second (FPS).
- It shall be possible to program the camera to output a variety of lower resolution images, i.e. 2944(H) x 1920(V) pixels at 11 FPS, or 2560(H) x 1600(V) pixels at 13 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 30 FPS, or 1824(H) x 1376(V) pixels at 25 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 70 Megabits per second (70 Mbps).
- The camera shall use high resolution of C/CS mount lenses. (Note that some CS lenses and all C-mount lenses may require an adaptor ring. 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 is fully compatible with PSIA industry standard and passes PSIA conformance tests.
- The camera shall have extended motion detection grid, a higher granularity grid of 1024 distinct motion detection zones in contrast to 64 zones supported earlier. User can select between the old 64 zone based motion detection and new extended motion detection to provide backward

compatibility with the existing NVR integration. This feature will be supported both in HTTP and TFTP, as well as the on-camera web interface.

- The camera shall provide finer image size cropping compared to previously support cropping.
- 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 0.6 Lux @ F1.4 in color non-binned mode and 0.15 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's primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard.
- The camera shall have the alternative option to be powered from between a 12V DC up to 48V DC or 24V AC power source providing at most 5W 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 or top 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.
- This camera is Listed to following UL and CSA Standards and requirements by Underwriters Laboratories Inc.: UL 60950-1, 2nd Edition, 2007-03-27 (Information Technology Equipment - Safety - Part 1: General Requirements), CSA C22.2 No. 60950-1-07, 2nd Edition, 2007-03 (Information Technology Equipment - Safety - Part 1: General Requirements).
- The camera shall have dimensions of: 3" (76mm)W x 2.5" (63.5mm) H x 2.25" (57mm)D weighing 8.6oz (243g) without lens.

## Quick-Spec

### 3.0 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): 0.6 Lux @ F1.4 Color (binned): 0.15 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**

unthrottled up to 70Mbps

bit rate control from 100Kbps to 10Mbps

**Video frame rate up to:**

6fps @ 3648x2752

11fps @ 2944x1920

13fps @ 2560x1600

18fps @ 2048x1536

27fps @ 1600x1200

36fps @ 1280x1024

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

30fps @ 1920x1080

25fps @ 1824x1376

41fps @ 1472x960

54fps @ 1280x800

57fps @ 1024x768

60fps @ 800x600

**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

**Programmability**

Flexible cropping

Privacy mask

Auto Exposure (AE) and Gain Control (AGC) &gt;120dB

On-camera real-time motion detection with 64 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 &amp; storage savings by running at 1/4 resolution

**Electrical**

General purpose opto-coupled input and output

Power over Ethernet (PoE): PoE 802.3af

Auxiliary power 12-48V DC, 24V AC

Power consumption 5 Watts maximum

**Industry Standard**

PSIA compliance

**Mechanical**

Dimensions(H x W x D).....3"W (76 mm) x 2.5"H (63.5 mm) x 2.25"D (57mm) (w/o lens)

Weight.....8.6 oz (243 grams) (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

cULus

**Related Documentation**

1. AV User Manual
2. AV Software Developer Kit Manual
3. AV1305, AV2105, AV3105, AV5105, AV10005 Network Camera Specification

**4.0 Model Numbers**

The camera shall be Arecont Vision model AV10005, ten megapixel color camera

The camera shall be Arecont Vision model AV10005DN, ten megapixel day night camera

**5.0 Warranty**

Minimum 1 Year parts and labor

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