

**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. 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 shall have bit rate control for full view, multi view, and archiving
- 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 cameras 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 cameras shall feature precision motion detection with a minimum of 64 detection zones
- 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
- 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

2944x1920	5 MP
2560x1600	WQXGA
2048x1536	3 MP
1920x1200	WUXGA
1920x1080	HDTV-1080p
1600x1200	2 MP
1280x1024	1.3 MP

**A&E Specifications**

Rev 041910

AV10005

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  
bit rate control available for full view, multi view, and archive

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

6fps @ 3648x2752	30fps @ 1920x1080
11fps @ 2944x1920	25fps @ 1824x1376
13fps @ 2560x1600	41fps @ 1472x960
18fps @ 2048x1536	54fps @ 1280x800
27fps @ 1600x1200	57fps @ 1024x768
36fps @ 1280x1024	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**

Auto Exposure (AE) and Gain Control (AGC) >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 32x32 pixels window  
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

Auxiliary power 12-48V DC, 24V AC

Power consumption 5 Watts maximum

**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)

A&E Specifications  
Humidity 0% to 90% (non condensing)

Rev 041910

AV10005

**Regulatory**

FCC, Class B  
CE and RoHS compliant

**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.*