

AV8185DN 8 Megapixel H.264 Day/Night 180° Panoramic IP Camera
AV8185DN-HB 8 Megapixel H.264 Day/Night 180° Panoramic IP Camera
w/ Heater & Blower

Bid-Spec _____

1.0 Description

The AV8185DN SurroundVideo® series network camera is a dual encoder (H.264 & MJPEG), 8 Megapixel resolution, IP addressable 180 degree panoramic Day/Night IP camera. The AV8185DN SurroundVideo® camera line provides an all-in-one solution with integrated four high sensitivity 2 megapixel sensors, 8mm lens, vandal resistant dome enclosure with IP66 weatherproofing standard, and optional heater/blower. Using MegaVideo® technology, these cameras offer bandwidth and storage efficiency of up to 10X on average over traditional megapixel counterparts

The AV8185DN is a PoE (IEEE 802.3af) compliant camera with Day/Night and optional heater & blower configurations. Built with Arecont Vision's proprietary massively-parallel MegaVideo® technology, the AV8185DN 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 per sensor or 25 times the field of view across the entire panorama compared to standard resolution IP cameras.

2.0 Bid Specification

- The camera shall utilize four high sensitivity 2 Megapixel CMOS sensors each with 1/2" optical format.
- The camera shall integrate four 8mm megapixel IR corrected lenses and four motorized Day/Night switchers.
- The camera shall have vandal resistant dome enclosure with IP66 weatherproofing standard.
- The camera shall have a 2-axis easily adjustable gimbal with 360° pan 90° tilt for easy and accurate positioning.
- The camera shall contain both hard ceiling mount and surface mount and with optional pendant mount, SV-CMT, wall mount, SV-WMT, flush mount adapter, SV-FMA, electrical box adapter, MV-EBA, pole mount adapter, MD-PMA, and corner mount adapter, MD-CRMA.
- The camera shall have a +/- 5° vertical alignment to locate the vertical position of each sensor
- The camera shall be H.264 (MPEG4, Part 10) compliant.
- 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 privacy mask, 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 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 have Real Time Streaming Protocol (RTSP) support allowing for compatibility with media players such as 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 1600(H) x 1200(V) pixels per sensor for a total resolution of 6400(H) x 1200(V) 5.5 frames per second across all four sensors.
- The cameras maximum frame rate shall be 22 frames per second across all four sensors at the maximum resolution of 1600(H) x 1200(V) per sensor.
- The cameras maximum frame rate shall be 88 frames per second across all four sensors at the maximum resolution of 800(H) x 600(V) per sensor.
- The cameras overall imaging shall provide a 180 degree field of view.
- The camera shall feature streaming of the full field of view (FOV) and 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 a maximum data rate of up to 55 Megabits per second (55 Mbps).
- 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.
- Each sensor of the camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control, programmable brightness, saturation, gamma and sharpness.
- The camera shall also feature selectable 50/60 Hz flicker control, 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 0.2 Lux @ F2.0 in day mode and 0 Lux @ F2.0 in night mode.
- 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 a 12V DC up to 48V DC or 24V AC power source providing at least 9 W of power.
- The camera shall be utilized for indoor and outdoor applications.
- The camera's operating ambient temperature is -30°C (-22°F) to +55°C (131°F) and storage temperature -60°C (-76 °F) to +60°C (140 °F).
- The camera shall be FCC Part 15, Class A, 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: 6.9"H (176 mm) x 6.8" dia. (175 mm) weighing 2lbs (0.91kg).
- The camera shall have die-cast aluminum chassis with 5.5" vandal resistant polycarbonate dome bubble.

Quick-Spec

3.0 Minimum Performance Specification

Megapixel camera must meet the following operating requirements

Operational

Imaging	Four 2 megapixel CMOS image sensors 1/2" optical format Bayer mosaic RGB filter
Active Pixel Count	1600(H) x 1200(V) pixel array per sensor

	6400(H) x 1200(V) pixels across all four sensors
Minimum illumination	Day Mode: 0.2 Lux @ F2.0 Night Mode: 0 Lux @ F2.0, IR sensitive
Dynamic range	61 dB
Maximum SNR	50 dB

Full Field of View (FOV) Resolutions per Sensor

1600(H) x 1200(V)	2 megapixel
800(H) x 600(V)	1/4 resolution

Cropped Field of View Resolutions per Sensor

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
unthrottled bandwidth up to 55Mbps

Video frame rate up to:

88fps @ 800x600
22fps @ 1600x1200
5.5fps @ 6400x1200

Compression type

H.264 (MPEG4, Part 10)
Motion JPEG
21 levels of quality

TFTP, HTTP, RTSP, RTP over TCP, RTP over UDP image transmission protocols

100 Base-T Ethernet Network Interface

Multi-streaming: 8 non-identical streams

Programmability

+/- 5° electrical vertical alignment to adjust each sensor vertical position

Auto Exposure (AE) and Gain Control (AGC) >120dB

On-camera real-time motion detection with 1024 detection zones per sensor
Programmable 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 speed 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
DC input: auxiliary 12V-48V DC
AC input: auxiliary 24V AC
Power consumption 9 Watts maximum

Mechanical

2-axis easily adjustable gimbal with 360° pan 90° tilt
Die-cast aluminum chassis with 5.5" vandal resistant polycarbonate dome bubble
Hard ceiling mount and surface mount embedded
Dimensions(H x Dia) 6.9"H (176 mm) x 6.8" dia. (175 mm)
Weight 2 lbs (0.91kg)
Lens CS lens mount – Four 8mm lenses included

Environmental

IP66 weatherproofing standard
Operating temperature -30°C (-22 °F) to +55°C (131°F)
Storage temperature -60°C (-76 °F) to +60°C (140 °F).
Humidity 0% to 90% (non condensing)

Heater & Blower Electrical

Voltage Input: 12V to 20V DC/24VAC (separate power required)
Power Output: 11W Max (DC12V); 13W Max (AC24V)
Heater Switch: On: 17C° (62.6 °F), Off: 30 °C (86 °F)
Blower Switch: On: 10C° (50°F), Off: 15 °C (59 °F)
Blower Switch: On: 50C° (122 °F), Off: 45 °C (113°F)

Regulatory

FCC, Class A

CE and RoHS compliant

cULus

Accessories

SV-WMT: Wall Mount

SV-PMT: Pendant Mount

SV-FMA: Flush Mount

MD-PMA: Pole Mount

MD-CRMA: Corner Mount

MV-EBA: Electrical Box Adaptor

Related Documentation

1. AV User Manual
2. AV8185DN & AV8365DN Network Camera Specification

4.0 Model Numbers

The camera shall be Arecont Vision model AV8185DN, 8 Megapixel H.264 Day/Night 180°Panoramic IP Camera

The camera shall be Arecont Vision model AV8185DN-HB, 8 Megapixel H.264 Day/Night 180°Panoramic IP Camera w/ Heater & Blower

5.0 Warranty

Minimum 1 Year parts and labor

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