

AV40185DN 40 Megapixel H.264 Day/Night 180° Panoramic IP Camera**AV40185DN-HB 40 Megapixel H.264 Day/Night 180° Panoramic IP Camera w/ Heater & Blower*****Bid-Spec*** _____**1.0 Description**

The AV40185 SurroundVideo® series network camera is a dual encoder (H.264 & MJPEG), 40 Megapixel resolution, IP addressable 180 degree panoramic Day/Night IP camera. The AV40185 SurroundVideo® camera line provides an all-in-one solution with integrated four high sensitivity 10 megapixel sensors, 7.2mm lens, vandal resistant dome enclosure with rated IP66 for water and dust protection, 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 AV40185 is a PoE (IEEE 802.3af) compliant day/night camera with optional heater & bower configurations. Built with Arecont Vision's proprietary massively-parallel MegaVideo® technology, the AV40185 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.

2.0 Bid Specification

- The camera shall utilize four high sensitivity 10 Megapixel CMOS sensors each with 1/2.3" optical format.
- The camera shall integrate four 7.2mm megapixel IR corrected lenses, 1/2.3", F2.4, Horizontal Field of View of 47°.
- The camera shall have vandal resistant dome enclosure with rated IP66 for water and dust protection.
- 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 or SV-EBA, pole mount adapter, MD-PMA, corner mount adapter, MD-CRMA, and junction box adapter, SV-JBA.
- The camera shall be H.264 (MPEG4, Part 10) compliant.
- The camera shall be fully conformant with ONVIF industry-standards and pass conformance tests.
- 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 privacy mask, the ability to select multiple regions of an arbitrary shape to block the video.
- 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.

- 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 3648(H) x 2752(V) pixels per sensor for a total resolution of 14592(H) x 2752(V) 1.5 frames per second across all four sensors.
 - The camera shall output at a resolution of 1824(H) x 1376(V) pixels per sensor for a total resolution of 7296 (H) x 1376(V) 1.5 frames per second across all four sensors.
 - It shall be possible to program the camera at binned mode to output 7296(H) x1376(V) pixels at 6.5 FPS.
 - The camera's shutter speed shall be 1ms - 500ms.
 - The cameras overall imaging shall provide a 180 degree horizontal 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 provide 21 levels of compression quality for optimal viewing and archiving.
 - The camera shall support at minimum RTSP, RTP/TCP, RTP/UDP (Unicast/Multicast), HTTP1.0, HTTP1.1, DHCP, 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 0.42 Lux @ F2.4 in day mode and 0.21 lux @ F2.4 in binned mode and 0 Lux @ F2.4 in night mode. (Day/Night version)
 - 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 11.7 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 +50°C (122°F) with heater and 0°C (32 °F) to +50°C (122°F) without heater.
 - The camera's stable image temperature is 0°C (32 °F) to +50°C (122°F) and storage temperature -30°C (-22 °F) to +60°C (140 °F).
 - The camera shall be compliant with EMI and EMC requirements, following European Standards EN55022 (Class A limits), EN55024 (IEC 61000-4-2, IEC 61000-4-3, IEC 61000-4-4, IEC 61000-4-5, IEC 61000-4-6, IEC 61000-4-8, IEC 61000-4-11), EN61000-3-2 and EN61000-3-3, EN60950-1.
 - The camera shall be compliant with EN62262 IK-10 Impact Rating and EN60529 IP66 Ingress Protection Rating.
 - The camera shall be compliant with RoHS Directive 2011/65/EU.
 - The camera shall be compliant with REACH Directive EC1907/2006.
 - The camera shall be compliant with FTC "Made in USA" Standard.
 - The camera shall bear CE mark and be UL listed.
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- 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 with IK10 rated.

Quick-Spec

3.0 Minimum Performance Specification

Megapixel camera must meet the following operating requirements

Operational

Imaging	Four 10 megapixel CMOS image sensors 1/2.3" optical format Bayer mosaic RGB filter
Active Pixel Count	3648(H) x 2752(V) pixel array per sensor 14592(H) x 2752(V) pixels across all four sensors
Minimum illumination	Color (non-binned): 0.42 Lux @ F2.4 Color (binned): 0.21 Lux @ F2.1 Day/Night: 0 Lux, IR sensitive (D/N version only)
Dynamic range	57.2 dB
Maximum SNR	40 dB

Full Field of View (FOV) Resolutions per Sensor

14592(H) x 2752(V)=3648(H) x4 x 2752(V)	40 megapixel
7296(H)x1376(V)=1824H) x4 x 1376(V)	10 megapixel 1/4 resolution

Data Transmission

Video frame rate up to:

1.5fps@14592x2752

5.5fps@7296x1376

Video frame rate in binned mode up to:

6.5fps@7296x1376

Compression type

H.264 (MPEG4, Part 10)

Motion JPEG

21 levels of quality

Network protocols

RTSP, RTP over TCP, RTP over UDP, HTTP1.0, HTTP1.1, DHCP, TFTP

100 Base-T Ethernet Network Interface

Multi-streaming: 8 non-identical streams

Note: Full panoramic image uses 4 streams

Programmability

Binned Mode

Privacy mask

+/- 5° Electrical Vertical Alignment to adjust sensor angle

On-camera real-time motion detection with 1024 detection zones per sensor

Backlight compensation and 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 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: 11.7 Watts maximum DC power

Mechanical

2-axis easily adjustable gimbal with 360° pan 90° tilt

Hard ceiling mount and surface mount included

Die-cast aluminum chassis with 5.5" vandal resistant polycarbonate dome bubble with IK10 rating

Dimensions(H x Dia) 6.9"H (176 mm) x 6.8" dia. (175 mm)

Weight 2 lbs (0.91kg)

Environmental

IP66 weatherproofing standard

Operating temperature

No Heater: 0°C (32 °F) to +50°C (122°F)

With Heater: -30°C (-22 °F) to +50°C (122°F)

Stable image temperature 0°C (32 °F) to +50°C (122°F)

Storage temperature -30°C (-22 °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 Approvals / Listings

Industry Standard ONVIF Conformant

Listings	UL (CB)
FCC Compliance	47 CFR 15 Class A
Environmental	RoHS, REACH, WEEE
Markings	(CE) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1
Mechanical	IK-10 (EN62262), IP66 (EN60529)

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

SV-EBA: Electrical Box Adapter

SV-JBA: Junction Box Adapter

Optics:

7.2mm, F2.4, Horizontal FOV=47°

Related Documentation

AV40185 Network Camera Specification

SurroundVideo® Installation Manual

4.0 Model Numbers

The camera shall be Arecont Vision model AV40185DN, 40 Megapixel H.264 Day/Night 180°Panoramic IP Camera

The camera shall be Arecont Vision model AV40185DN-HB, 40 Megapixel H.264 Day/Night 180°Panoramic IP Camera w/ Heater & Blower

4.0 Warranty

Minimum 3 Year parts and labor

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