

AV2145DN-04-W	1080p Full HD H.264 Day/Night IP MegaBall™ camera with Wall Mount and 4mm Lens
AV2145DN-04-D	1080p Full HD H.264 Day/Night IP MegaBall™ Dome camera with 4mm Lens
AV2145DN-04-D-LG	1080p Full HD H.264 Day/Night IP MegaBall™ Dome camera with 4mm Lens and Light Gray Bezel/Can
AV2145DN-3310-W	1080p Full HD H.264 Day/Night IP MegaBall™ camera with Wall Mount and 3.3-10mm Lens
AV2145DN-3310-WA	1080p Full HD H.264 Day/Night IP MegaBall™ camera with Wall Mount and 3.3-10mm Lens and Audio
AV2145DN-3310-D	1080p Full HD H.264 Day/Night IP MegaBall™ Dome camera with 3.3-10mm Lens
AV2145DN-3310-DA	1080p Full HD H.264 Day/Night IP MegaBall™ Dome camera with 3.3-10mm Lens and Audio
AV2145DN-3310-D-LG	1080p Full HD H.264 Day/Night IP MegaBall™ Dome camera with 3.3-10mm Lens and Light Gray Bezel/Can
AV2145DN-3310-DA-LG	1080p Full HD H.264 Day/Night IP MegaBall™ Dome camera with 3.3-10mm Lens, Audio and Light Gray Bezel/Can

Bid-Spec

1.0 Description

The AV2145 MegaBall™ full HD 1080p network camera is part of Arecont Vision's full line of H.264 MegaBall™ cameras. This fully-compliant implementation of H.264 (MPEG-4, Part 10) provides full 1920 x 1080 megapixel resolution at full video frame rates of 31 frames per second (fps). The AV2145 camera line provides an all-in-one indoor 3" ball shape solution with integrated 1080p full HD camera, 4mm or 3.3-10mm IR corrected lens, wall mount or dome enclosure options. With the features of PSIA and ONVIF conformance, privacy masking, extended motion detection and flexible cropping, the AV2145 is a high sensitivity, PoE (IEEE 802.3af) compliant day/night camera with audio and light gray dome options.. Built with Arecont Vision's massively-parallel MegaVideo® processing technology, this camera offers more than 6-times the resolution of standard resolution IP cameras with the ability to output full real-time frame rates and deliver high-quality megapixel imaging.

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 an integrated 4mm with M12 mount, megapixel, IR corrected, fixed focal lens with 1/2.5" optical format, F1.6 and horizontal field-of-view of 82°. (-04 version only)
- The camera shall have an integrated 3.3-10mm with Ø14mm mount, megapixel, IR corrected, varifocal lens with 1/2.5" optical format, F1.6 and horizontal field-of-view of 31°- 90° at 3.3mm and 10mm. (-3310 version only)
- The camera shall has two-way streaming audio with G.711PCM 8kHz compression and integrated microphone and line output (-A version only)
- The camera color shall be black but with light grey dome option. i.e. bezel and can are light grey but ball and liner are black. (-LG version only)
- The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
- The camera shall be fully conformant with PSIA and ONVIF industry-standards and pass conformance tests.
- The camera shall have Casino Mode™ to maintain 30fps or higher under any condition.

- The camera shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video.
- The camera shall have an extended motion detection grid, a higher-granularity grid of 1024 distinct motion detection. The 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.
- The camera shall be able to be cropped to any resolution divisible by 2 and maintain H.264 compression. It shall be possible to crop the camera to output a variety of lower resolution images.
- The camera shall have multi-streaming support of up to 8 non-identical concurrent streams (different frame rate, bitrate, resolution, quality, and compression format).
- The camera shall output at a maximum resolution of 1920(H) x 1080(V) pixels at a maximum frame rate of 31(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's shutter speed shall be 1ms - 500ms.
- 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.
- 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 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°.
- 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 in color mode.
- The camera shall support an IR sensitive minimum illumination of 0 Lux in black and white (B/W) mode with an additional IR light source.
- The camera's primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard and provide at least 5.0W of power.
- The camera shall have the alternative option to be powered by a power source between 12V DC up to 48V DC or 24V AC.
- The camera shall be utilized for indoor use only.
- 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 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 RoHS Directive 2002/95/EC.
- The camera shall be compliant with REACH Directive EC1907/2006.
- The camera shall be compliant with FTC "Made in USA" standard.
- The camera shall have CE and UL listed markings.
- The camera shall have dimensions of:
 - ϕ 3" (76.2mm) x 5.76" (146.2mm) H (-04-W models)
 - ϕ 3" (76.2mm) x 6.15" (156.2mm) H (-3310-W models)
 - ϕ 5.1" (130mm) x 1.74" (44mm) H (-D models in-ceiling)
 - ϕ 5.1" (130mm) x 3.85" (98mm) H (-D models, surface with bubble)
- The camera shall weigh 1.2lb (0.58kg).

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
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 any resolution that is divisible by 2 pixels in H.264 and 1 pixel in MJPEG up to the maximum resolution of the camera. Example resolutions include but are not limited to the following:

1280x1024	1.3 MP
1280x720	HDTV - 720p
1024x768	XGA
800x600	SVGA
704x570	PAL
704x480	NTSC
640x480	VGA
352x288	CIF
320x240	SIF

Data Transmission

Video frame rate up to

31fps @ 1920x1080
42fps @ 1280x1024

Compression type

H.264 (MPEG-4, Part 10)
Motion JPEG (MJPEG)
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

Programmability

Casino Mode™, flexible cropping and low-light noise filter control

Shutter Speed: 1ms – 500ms

Backlight compensation and multi-matrix white balance

On-camera motion detection and privacy mask w/1024 detection zones

50/60Hz selectable flicker control

Electronic pan, tilt, zoom (PTZ) and image flip – 180° rotation

MoonLight™ mode – extended exposure and proprietary noise cancellation

Programmable resolution, brightness, saturation, gamma, sharpness and tint

Bitrate and bandwidth limitation control

Electrical

General purpose opto-coupled input and output
Power over Ethernet (PoE): PoE 802.3af for camera
Auxiliary power 12–48V DC, 24V AC
Power consumption: 5.0 Watts maximum DC power

Audio (-A models only)

Streaming: Two-way
Compression: G.711PCM 8kHz
Input/output: Integrated microphone and line output

Mechanical**Casing:**

- Die-cast aluminum 3" metal ball and bracket (–W models)
- Plastic surface/in-ceiling dome w/polycarbonate bubble (–D models)

Embedded in-ceiling mount (–D Models)

External lens adjustment for zoom, focus and iris (–3310 models)

Easy 3-axis camera adjustment w/360° pan, 90° tilt and 360° z-axis

Total Unit Dimensions:

- Ø 3" (76.2mm) x 5.76" H (146.2mm) (–04 models)
- Ø 3" (76.2mm) x 6.15" H (156.2mm) (–3310 models)
- Ø 5.1" (130mm) x 1.74" H (44mm) (–D models in-ceiling)
- Ø 5.1" (130mm) x 3.85" H (98mm) (–D models, surface w/bubble)

Weight: 1.2lbs (0.58kg)

Color :

- Standard color: Black
- -LG : Light Gray Dome

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)

Compliance Information

Class A FCC, Part 15; EN55022 Class A, EN55024, EN61000-3-2 and EN61000-3-3, EN60950-1
RoHS, REACH, CE Mark, UL Listed

Industry Standard

PSIA and ONVIF Conformance

Lenses:

4mm, F1.6, H-FOV: 82° (–04 models)
3.3–10mm, F1.6, H-FOV: 31°–90° (–3310 models)

Accessories:

D4S-WMT-B	Black Wall mount with 3/4" NPT standard
D4S-CMT-B	Black Ceiling mount with 3/4" NPT standard
D4S-WMT	Light Gray Wall mount with 3/4" NPT standard
D4S-CMT	Light Gray Ceiling mount with 3/4" NPT standard
SV-EBA	Electrical box adapter
SV-JBA	Junction box adapter

Related Documentation

AV2145 Camera Specification
Installation Manual

4.0 Model Numbers

The camera shall be Arecont Vision model AV2145DN-04-W, 1080p full HD H.264 day/night IP MegaBall™ camera with wall mount and 4mm lens.

The camera shall be Arecont Vision model AV2145DN-04-D, 1080p full HD H.264 day/night IP MegaBall™ dome camera with 4mm Lens.

The camera shall be Arecont Vision model AV2145DN-04-D-LG, 1080p full HD H.264 day/night IP MegaBall™ dome camera with 4mm Lens and gray light bezel/can.

The camera shall be Arecont Vision model AV2145DN-3310-W, 1080p full HD H.264 day/night IP MegaBall™ camera with wall mount and 3.3-10mm lens.

The camera shall be Arecont Vision model AV2145DN-3310-WA, 1080p full HD H.264 day/night IP MegaBall™ camera with wall mount and 3.3-10mm lens and audio.

The camera shall be Arecont Vision model AV2145DN-3310-D, 1080p full HD H.264 day/night IP MegaBall™ dome camera with 3.3-10mm Lens.

The camera shall be Arecont Vision model AV2145DN-3310-DA, 1080p full HD H.264 day/night IP MegaBall™ dome camera with 3.3-10mm Lens and audio.

The camera shall be Arecont Vision model AV2145DN-3310-D-LG, 1080p full HD H.264 day/night IP MegaBall™ dome camera with 3.3-10mm Lens, audio and Light Gray Bezel/Can.

The camera shall be Arecont Vision model AV2145DN-3310-DA-LG, 1080p full HD H.264 day/night IP MegaBall™ dome camera with 3.3-10mm Lens, audio and Light Gray Bezel/Can.

5.0 Warranty

Limited 3-Year Parts and Labor

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