

## **AV2825IR HD 1080p H.264 IP MegaView™ Day/Night w/ IR illuminator Camera**

## **AV2825DN HD 1080p H.264 IP MegaView™ Day/Night Camera**

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

#### **1.0 Description**

The AV2825 MegaView™ series network camera is part of Arecont Vision's full line of H.264 megapixel cameras. This fully compliant implementation of H.264 (MPEG 4, Part 10) provides HD 1080p megapixel resolution at full video frame rates of 24fps. The MegaView™ camera line provides an all-in-one solution with integrated 2.07 megapixel camera, 4.5-10mm lens, heater/blower, vandal resistant aluminum cylindrical (Bullet-style) enclosure with IP66 weatherproofing standard, and IR illuminator option. With external lens adjustment feature, the AV2825 MegaView™ camera line is plug-n-play and no need to open camera for installation. Using MegaVideo® technology, these cameras offer bandwidth and storage efficiency of up to 10X on average over traditional megapixel counterparts

With the features of PSIA compliance, privacy mask, extended motion detection grid and flexible cropping, the AV2825 is a high sensitivity, PoE (IEEE 802.3af) compliant camera with Day/Night only and Day/Night w/ IR illuminator configurations. Built with Arecont Vision's proprietary massively-parallel MegaVideo® technology, the AV2825 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 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 2.07 Megapixel CMOS sensor with 1/2.7" optical format.
- The camera shall have and integrated 4.5-10mm megapixel IR corrected varifocal lens F1.6.
- The camera shall have motorized Day/Night switcher for both IR and DN versions and optional IR LED board for IR version only.
- The camera shall have vandal resistant aluminum cylindrical (Bullet-style) enclosure with IP66 weatherproofing standard.
- The camera shall have external lens adjustments, including focus, iris and zoom (Field of View), and no need to open camera for installation.
- The camera shall have a 3-axis easily adjustable bracket with 360° pan 90° tilt and 180° rotation for easy and accurate positioning.
- The IR version camera shall contain IR LED board with 48 pcs 850nm IR LEDs, 25 meter IR distance, 45° IR angle and 3 watts power consumption.
- The camera shall be wall/ceiling mount with an optional electrical box adaptor, MV-EBA, pole mount adapter, MD-PMA, and corner mount adapter, MD-CRMA.
- The camera shall have an auxiliary power input, AC24V and DC12-48V to support IR illuminator, heater and blower (not for camera support).
- The camera's primary power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard and provide at most 4.5 W of power.
- The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
- The camera is fully compatible with PSIA industry standard and passes PSIA conformance tests.
- 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 provide finer image size cropping compared to previously support cropping.
- 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 cameras H.264 implementation shall maintain full real time video frame rates.
- The camera shall output at a maximum resolution of 1920(H) x 1080(V) pixels at a maximum frame rate of 24 frames per second (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 50 Megabits per second (50 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.
- 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 0.1 Lux @ F1.4 in day mode.
- The camera shall support an IR sensitive minimum illumination of 0 Lux in night mode.
- 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
- The camera shall have dimensions of: 4"W (102 mm) x 4.3"H (111 mm) x 11.5"L (293mm) weighing 2Kg (4.4lbs).

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## 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 Bayer mosaic RGB filter
Active Pixel Count	1920(H) x 1080(V) pixel array
Minimum illumination	Day mode: 0.1 Lux@ F1.4 Night mode: 0 Lux, IR sensitive

## A&amp;E Specifications

Rev 091210

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 2 pixels in H.264 and 1 pixel in JPEG

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 50Mbps

bit rate control from 100Kbps to 10Mbps

## Video frame rate up to:

24fps @ 1920x1080

32fps @ 1280x1024

## Compression type

H.264 (MPEG4, Part 10)

Motion JPEG

21 levels of quality

## Transmission protocols

HTTP, RTSP, TRP over TCP, RTP over UDP, TFTP

100 Base-T Ethernet Network Interface

Multi-streaming: 8 non-identical streams

**Programmability**

Flexible cropping

Privacy mask

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

On-camera real-time motion detection with 1024 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 & storage savings by running at 1/4 resolution

**Electrical**

General purpose opto-coupled input and output (DN version only)  
General purpose opto-coupled input (IR version only)  
Power over Ethernet (PoE): PoE 802.3af for camera  
Auxiliary power 12-48V DC, 24V AC for IR illuminator, heater and blower  
Power consumption:  
    4.9 Watts maximum (DN version)  
    7.9 Watts maximum (IR version)

**Mechanical**

Easily adjustable 3-axis camera gimbal  
Vandal resistant aluminum cylindrical ( Bullet-style) housing  
External lens adjustments, including iris, zoom and focus  
Total unit dimension:  
    Dimensions(H x W x D)..... 4"W (102 mm) x 4.3"H (111 mm) x 11.5"D (293mm)  
    Weight.....2Kg (4.4lbs)

**Lens**

4.5 - 10 mm vari-focal lens with IR corrected  
    Max Aperture: F 1.6  
    Horizontal F.O.V. = 34°-73°

**Heater and Blower Electrical**

Voltage Input: 12V to 48V DC or 24V AC (separate power required)  
Power Output:  
    10W Max (DC12V)  
    28.8 W Max ( AC24V)  
Switch: On: 4C° (39.2 °F), Off: 7°C (44.6 °F)

**IR Illuminator**

Voltage Input: 12V to 48V DC or 24V AC (separate power required)

48 pcs 850nm LEDs

25 meter IR distance (max)

45° IR angle

3 watts power consumption

**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)

**Regulatory**

FCC, Class A

CE and RoHS compliant

**Industry Standard**

PSIA compliance

**MegaView™ Accessories**

MV-EBA: Electrical Box Adaptor

MD-PMA: Pole Mount Adaptor

MD-CRMA: Corner Mount Adaptor

**Related Documentation**

1. AV User Manual
2. AV2825 Network Camera Specification

**4.0 Model Numbers**

The camera shall be Arecont Vision model AV2825IR, HD 1080p H.264 IP MegaView™ Day/Night w/ IR illuminator Camera

The camera shall be Arecont Vision model AV2825DN, HD 1080p H.264 IP MegaView™ Day/Night Camera

**5.0 Warranty**

Minimum 1 Year parts and labor

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