**AV5456PMIR-S 5MP CONTERA IP® OUTDOOR DOME EX 2592X1944 H.265/H.264/M-JPEG, WDR 120DB, NIGHTVIEW™, SNAPSTREAM+™, 2.7-12MM P-IRIS LENS, 30FPS, REMOTE ZOOM, REMOTE FOCUS, SMART IR, SD CARD, DEFOG, AUDIO, IP66, IK-10, ONVIF, POE/DC 12-48V/AC 24V**

This A&E specification is written according to Construction Specifications Institute (CSI) 3-Part Format, based on MasterFormat™ (2009 Edition) and The Project Resource Manual – CSI Manual of Practice. [www.csinet.org/masterformat](http://www.csinet.org/masterformat).

Manufacturer is responsible for the accuracy of the technical data included in this specification.

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**Division 28 – Electric Safety and Security**

**Section 28.23.29 – Video Surveillance – Remote Devices and Sensors**

**Part 1 General**

## 1.1 General Requirements

The camera shall be of manufacturer’s official product line, designed for continuous commercial or industrial use.

The camera shall be based on standard parts and components and utilize proven technology using open and published protocols.

All camera installation, configuration, setup, programming and all related work shall be performed by electronic technicians thoroughly trained in the installation and service of the equipment provided and in complete compliance with all local codes and regulations.

All equipment provided shall be backed by a three-year manufacturer warranty.

## Certifications and Standards

1. European Community Directives:

2004/108/EC (EMC Directive);

2006/95/EC (Low Voltage Directive);

2011/65/EU (RoHS Directive)

1907/2006/EC (REACH Directive)

2002/96/EC (WEEE Directive)

1. European EMC Standards to which conformity is declared:

EN 55022:2010 Class A

EN 55024:2010

EN 61000-3-2:2006+A1:2009+A2:2009

EN 61000-3-3: 2008

EN 60950-1: 2006+A11:2009+A1:2010+A12:2011



1. UL Listing

CB Test Report (IEC 60950-1 (ed. 2) and IEC 60950-22 (ed. 1))



1. FCC Standard Compliance:

Title 47, Part 15 (47 CFR 15) Subpart B Class A

1. Mechanical Standards:

ANSI/IEC 60529-2004 - IP66 dust/water Ingress protection rating

EN62262:2002 – IK-10 impact rating

1. Video Compression Technology

H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC

1. Networking Standard:

IEEE 802.3af-2003 PoE Standard, Class 3

## Part 2 Products

**2.1 Manufacturer**

**Arecont Vision Costar, LLC**

**400 N. Brand boulevard. #860**

**Glendale, CA 91203**

**Phone: 818-937-0700**

**877-226-3728**

[**www.arecontvision.com**](http://www.arecontvision.com)

**2.2 General**

The ConteraIP® Outdoor Dome EX megapixel camera features 5-megapixel (MP) resolution for optimum performance. The ConteraIP® Outdoor Dome combines a day/night mechanical IR cut filter with an integrated motorized remote focus and zoom precision iris (P-iris) lens for excellent, optimal image quality. The ConteraIP® Outdoor Dome EX is ONVIF (Open Network Video Interface Forum) Profile S, G, Q and T compliant, providing interoperability between network video products regardless of manufacturer. The inclusion of on camera video analytics gives the ConteraIP® Outdoor Dome EX the ability to increase situational awareness and gather data for business intelligence. Alarm conditions can be setup to alert security for observed behaviors. Several of the analytic behaviors can also be used for business intelligence data gathering, such as the loitering behavior for tracking dwell time in retail environments. Regardless of the time of day, the ConteraIP® Outdoor Dome EX is prepared for any lighting condition. Enhanced WDR™ (wide dynamic range) at 120dB provides the best visual balance to shaded and bright light conditions, NightView™ offers strong low-light sensitivity for capturing details in extremely poor-lit scenes, and built-in Smart IR LED illumination automatically adjusts output in response to the distance of an object in view to prevent over-exposure when the object is very close to the camera. Arecont Vision® was the first to bring H.264 to the mainstream market and recently developed SNAPstream™ (Smart Noise Adaptation and Processing) technology for reducing bandwidth without impacting image quality. Today we are proud to offer our next generation H.265 with SNAPstream+™ smart codec capable of delivering high quality video while saving over 50% of the data rate to reduce or prevent strain on the network. The microSD card slot supports up to 256GB of storage capacity for convenient onboard storage. The camera’s power can be supplied via a Power-over-Ethernet (PoE - IEEE 802.3af) compliant network cable connection. The ConteraIP® Outdoor Dome EX is IP66 rated for both indoor and outdoor applications. All models feature an impact resistant cast-aluminum housing capable of withstanding the equivalent of 55 kg (120 lbs) of force.

**2.3 Hardware**

* The camera shall utilize a high sensitivity 6 Megapixel CMOS sensor with 1/2.9” optical format, 1.62um x 1.62um pixel size, progressive scan and Active Pixel Count: 2592(H) x 1944(V) pixel array.
* The camera shall have and integrated 2.7-12 mm, megapixel IR corrected vari-focal lens with P-iris F1.3 lens and horizontal field of view of 81°-24°.
* The camera shall have die-cast aluminum chassis with IK-10 vandal resistant dome. Entire enclosure to be rated minimum IP66 for water and dust protection.
* The camera shall have a 3-axis gimbal with 360˚ pan, 77˚ tilt and 180˚ Z-rotation for easy and accurate positioning.
* The camera’s power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard to support IR illuminator and camera.
* The camera shall have an auxiliary power input, AC24V and DC12-48V.
* The camera shall have SDHC card slot for onboard storage up to 256GB, class 10 and UHS-1.
* The camera shall be utilized for indoor and outdoor applications.

**2.4 Imaging**

* The camera shall have standard compression support with simultaneous streaming of H.265, H.264 and MJPEG formats.
* The camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control to minimize motion blur, programmable brightness, saturation, sharpness, contrast and hue.
* The camera’s shutter speed shall be 0.1ms - 500ms.
* The camera shall feature 5-255Hz flicker control, windowing, simultaneous delivery of full-field view and zoomed images at video frame rate, instantaneous electronic zoom, pan and tilt.
* The camera shall have multi-streaming support of up to two H.265/ H.264 streams and one M-JPEG stream.
* The camera shall have wide dynamic range up to 120dB and a maximum SNR of 45dB.
* The camera shall have privacy masking, the ability to select multiple regions of an arbitrary shape to block the video.
* 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 have extended motion detection grid, a higher granularity grid of 1024 distinct motion detection zones. 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 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 cameras H.265/ H.264 implementation shall maintain full real time video frame rates.
* The camera shall output at a maximum resolution of 2592(H) x 1944(V) pixels up to frame rate of 30 frames per second (FPS).
* It shall be possible to program the camera to output a variety of lower resolution image, i.e. 2048(H) x 1536(V) pixels at 30 FPS.
* The camera shall provide flexible cropping (Resolution windowing down to 1x1 pixels for JPEG and 2x2 pixels for H.264)
* The camera shall be able to save bandwidth & storage by running at 1/4 full resolution, and Bandwidth Limit Control.
* The camera shall be able to have below scaled resolutions: 2592x1944, 2048x1536, 1920x1080, 1296x972, 1280x720, 640x480, 640x360, 320x240.
* The camera shall feature MoonLight™ mode - extended exposure and noise cancellation
* This camera shall have SNAPstream+™ (Smart Noise Adaptation and Processing) capability to reduce bandwidth without impacting image quality.
* The camera shall have CorridorView™ (90°, 180°, and 270° image rotation) + mirror.
* The camera shall support Smart IR and Defog function.

**2.5 Video**

* Video frame rate (up to):

30fps @ 2592x1944

15fps @ 2592x1944 + 10fps @ 2592x1944

30fps @ 1920x1080 + 30fps @ 1280x720 + 30fps @ 640x480

*\*\*Max frames per second (FPS) with Enhanced WDR™ turned on will be up to 50% of listed*

* **FPS**
  + Scaled Resolution:

2592x1944, 2048x1536, 1920x1080, 1296x972, 1280x720, 640x480, 640x360, 320x240

* **Advanced Video Analytics**
  + Intrusion Detection
  + Line crossing
  + Loitering
* **Optional Advanced Video Analytic**
  + Object Classification (Person/Vehicle)
  + Object Left/Removed
  + People/Vehicle Counting

***NOTE!*** *Requires Optional Advanced Video Analytic License*

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| *AV-CADVVA1* | *Enables Optional Advanced Video Analytic Behaviors on ConteraIP® EX Cameras* |

**2.6 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 support both unicast and multicast communication protocol.
* The camera shall support SNMP, IPv6, IPv4, HTTP, HTTPS, SSL, TCP/IP, UPnP, UDP, RTCP, RTSP, RTP, SMTP, NTP, DHCP, FTP, 802.1x, Zero Configure.
* 10/100 Base-T Ethernet Network Interface, RJ45

**2.7 Electrical**

Alarm Input(Wet Contact) and Alarm Output(Wet Contact)

Power over Ethernet (PoE): PoE 802.3af, Class 3

Auxiliary Power 12-48V DC, 24V AC

Power consumption: PoE – Class 3; 6.5 Watts maximum

**2.8 IR Illuminator**

12 pcs 850µm LEDs/ 66ft (20m) IR distance (max)

Total PoE Solution (No external power requirement)

**2.9 Audio Electrical**

Streaming Two-way

Compression G.711 PCM 8kHz

Input/Output Microphone in or Line in / Line out

**2.10 Networking**

The camera shall be equipped with a 100 Mbps LAN connector.

**2.11 Environmental**

Operating temperature: -20°C (-4°F) to +50°C (122°F)

Storage temperature: -40°C (-40°F) to +60˚C (140 °F)

Humidity 0% to 90% (non-condensing)

**2.12 Minimum Illumination**

Color (Day Mode): 0.1 Lux

B/W (Night Mode): 0.01 Lux, 3

[www.megapixelvideo.com](http://www.megapixelvideo.com) [info@arecontvision.com](mailto:info@arecontvision.com) © 2005 Arecont Vision

**2.13 Packaging**

Unit Dimensions Ø 5.77" (146.7mm) x 5.42" H (137.6mm) Weight: 2.65 lbs (1.2 kg)

Packaged Dimensions (H x W x L) 6" H (150mm) x 7.5" W (190mm) x 8" L (200mm) Weight: 3.31 lbs (1.5kg)

**2.14 Optional Advanced Video Analytic License**

AV-CADVVA1 Enables Optional Advanced Video Analytic Behaviors on ConteraIP® EX Cameras

**2.15 Compatible Accessories**

AV-1AK ConteraIP® Outdoor Dome Optional Audio Kit

AV-CRMA-W Corner Mount Adapter (Arecont Vision® White)

AV-FMA Flush Mount Adapter (White)

AV-PMA-W Pole Mount Adapter (Arecont Vision® White)

AV-PMJB-W Pendant Mount Bracket with Standard Junction Box (Arecont Vision® White)

*(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)*

AV-WMJB-W Wall Mount Bracket with Standard Junction Box (Arecont Vision® White)

*(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)*

MD-CAP-W Mounting Cap for ConteraIP® Outdoor Dome (Arecont Vision® White)

AV-JBA-W Round Junction Box for ConteraIP® Outdoor Dome (Arecont Vision® White)

*(Fits 3/4" NPT)*

AV-CADVVA1 Enables Optional Advanced Video Analytic Behaviors on ConteraIP® EX Cameras

**2.16 Related Documents**

ConteraIP® Outdoor Dome EX Datasheet

ConteraIP® Outdoor Dome EX Installation Manual