**AV12CPD-236 CONTERAIP FISHEYE 12MP, 4000X3000, 1.8MM F2.4 FISHEYE LENS, 15FPS, H.265/H.264/M-JPEG, WDR, NIGHTVIEW, SNAPSTREAM+, IR, DEFOG, BUILD IN MICROPHONE/SPEAKER, IP66, IK-10, ONVIF, POE/ 12V DC**

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);

2014/35/EU (Low Voltage Directive);

2011/65/EU (RoHS Directive)

 1907/2006/EC (REACH Directive)

 2012/19/EU (WEEE Directive)

1. European EMC Standards to which conformity is declared:

 EN 55024:2010

 EN 55032:2015

 EN 55024:2010+A1:2015

 EN 61000-3-2:2014

 EN 61000-3-3: 2013

 

1. UL Listing

CB Test Report (IEC 60950-1) E489591

 

1. FCC Standard Compliance:

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

1. Mechanical Standards:

EN60529:2001 - 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 0

## Part 2 Products

**2.1 Manufacturer**

**Arecont Vision Costar, LLC**

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**2.2 General**

The ConteraIP® Fisheye megapixel camera features 12-megapixel (MP) resolution for optimum performance. The ConteraIP Fisheye camera can replace multiple fixed or PTZ cameras by recording an entire 360° panoramic field of view, without blindspots, and the ability to zoom into multiple regions of interest for a return on investment that’s easily measured. The ConteraIP Fisheye combines a day/night mechanical IR cut filter with an integrated lens

for excellent, optimal image quality.

Regardless of time-of-day, this camera is ideal for applications with challenging lighting conditions. The series combines a day/night mechanical IR cut filter for the highest image quality at any time of day. For clear color images in low-light, NightView™ offers strong low-light sensitivity for capturing details in extremely poor-lit scenes, which is further enhanced by integrated LED illumination.

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 microSDXC 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 Fisheye is ONVIF (Open Network Video Interface Forum) Profile S, G, and T compliant, providing interoperability between network video products regardless of manufacturer.

**2.3 Hardware**

* The camera shall utilize a high sensitivity 12 Megapixel CMOS sensor with 1/1.7” optical format, 1.85um x 1.85um pixel size, progressive scan and Active Pixel Count: 2720(H) x 2720(V) pixel array
* The camera shall have and integrated 1.8mm, megapixel IR corrected fisheye lens with F2.4 and horizontal field of view of 176.8°.
* 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’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, DC 12V.
* 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, noise reduction, and gain control.
* The camera’s shutter speed shall be 1/100000s – 1s.
* The camera shall feature 50/60 Hz flicker control.
* 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 70.7dB and a maximum SNR of 55dB.
* The camera shall have privacy masking up to eight areas, the ability to select multiple regions of an arbitrary shape to block the video.
* The camera shall have motion detection with eight definable detection areas or motion detection grid.
* The camera shall have three basic video analytics functions: Audio Detection, Motion Detection, and Camera Tamper.
* The cameras H.265/ H.264 implementation shall maintain full real time video frame rates.
* The camera shall support three Capture Modes: 12MP, 9MP(3000x3000), and 6MP(2560x2560).
* The camera shall output at a maximum resolution of 4000(H) x 3000(V) pixels up to frame rate of 15 frames per second (FPS).
* It shall be possible to program the camera to output a variety of lower resolution image, i.e. 2560(H) x 2560(V) pixels at 25 FPS.
* The camera shall be able to save bandwidth & storage by Bandwidth Limit Control.
* The camera shall support three Mounting Modes: Ceiling, Wall, and Desktop.
* The camera shall support three Display Modes: Fisheye, 4PTZ, and Panorama.
* The camera shall have eleven view modes on camera web interface: Original Fisheye, Panoramic, Panoramic + 3PTZ, Panoramic + 4PTZ, Panoramic + 8PTZ, 360°Panoramic + 1PTZ, 360°Panoramic + 6PTZ, 180°Panoramic, Fisheye + 3PTZ, Fisheye + 4PTZ, and Fisheye + 8PTZ. (Combining different Display Modes and Preview Modes)
* The camera shall be able to have below scaled resolutions: 4000x3000, 3000x3000, 3000x2000(Panorama Mode), 2560x2560, 2000x2000, 3000x1500(Panorama Mode),2000x1500, 720x576, 320x288.
* The camera shall support image rotation (Flip Vertical, Flip Horizontal, and 180°) and On-Screen Display (OSD).
* The camera shall support on-board dewarping to convert a native fisheye image into a full video image without distortion.
* The camera shall support eight RTSP steam options: Fisheye main stream, Fisheye sub stream, Fisheye third stream, PTZ1 stream, PTZ2 stream, PTZ3 stream, PTZ4 stream, and Panoramic stream.
* This camera shall have SNAPstream+™ (Smart Noise Adaptation and Processing) capability to reduce bandwidth without impacting image quality.
* The camera shall support Smart IR and Defog function.
* The camera shall be ONVIF (Open Network Video Interface Forum) Profile S, G, and T compliant.

**2.5 Video**

Video frame rate (up to):

|  |  |
| --- | --- |
| **Single Stream** | Up to 15fps (12MP) / 25fps (6MP) |
| **Fisheye Mode** | **12MP** | Up to 15fps (12MP) + 15fps (3MP) + 15fps (720x576) |
| **9MP** | Up to 15fps (9MP) + 15fps (4MP) + 15fps (720x576) |
| **6MP** | Up to 25fps (6MP) + 25fps (4MP) + 25fps (720x576 |
| **4PTZ Mode** | **12MP** | Up to 15fps (3MP) + 15fps (1080P) + 15fps (1080P) + 15fps (1080P) + 15fps (1080P) |
| **9MP** | Up to 15fps (4MP) + 15fps (1080P) + 15fps (1080P) + 15fps (1080P) + 15fps (1080P) |
| **6MP** | Up to 25fps (4MP) + 15fps (1080P) + 15fps (1080P) + 15fps (1080P) + 15fps (1080P) |
| **Panorama** | **12MP** | Up to 15fps (12MP) + 15fps (3MP) |
| **9MP** | Up to 15fps (6MP) + 15fps (4MP) |
| **6MP** | Up to 25fps (6MP) + 25fps (4MP) |

**Scaled Resolution:**

4000x3000, 3000x3000, 3000x2000(Panorama Mode), 2560x2560, 2000x2000, 3000x1500(Panorama Mode), 2000x1500, 720x576, 320x288.

**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 IPv4, IGMP, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTP, RTSP, RTCP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, SMTP, 802.1x, SNMP, QoS
* 100 Base-T Ethernet Network Interface

**2.7 Electrical**

2x Alarm Input

1x Alarm Output

1x Video Output: 1 BNC, impedance 75Ω; amplitude 1V [p-p]

1x Serial RS485 Interface

Power over Ethernet (PoE): PoE 802.3af

Auxiliary Power 12DC

Power consumption: PoE – Class 0; 9.6 Watts maximum

**2.8 IR Illuminator**

3 pcs 850nm LEDs/ 33ft (10m) IR distance (max)

Total PoE Solution (No external power requirement)

**2.9 Audio Electrical**

Streaming Two-way

Compression G.711 PCM 8kHz

Input: impedance 35 kΩ; amplitude 2 V [p-p]

Output: impedance 600 Ω; amplitude 2 V \*p-p]

Input/Output Line In / Line Output / Built-in Mic / Built-in Speaker

**2.10 Networking**

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

**2.11 Environmental**

Operating temperature: -35°C (-31°F) to +60°C (142°F)

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

Humidity 10% to 90% (non-condensing)

**2.12 Minimum Illumination**

Color (Day Mode): 0.05 Lux

B/W (Night Mode): 0.005 Lux, IR sensitive

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

**2.13 Packaging**

Unit Dimensions (H x Dia) Ø 5.87" (149mm) x 2.17" H (55mm) Weight: 1.1 lbs (0.5 kg)

Packaged Dimensions (H x W x L) 6.9" H (170mm) x 6.9" W (170mm) x 4.1" L (105mm) Weight: 3.6 lbs (1.65kg)

**2.14 Compatible Accessories**

AV-CRMA-W Corner Mount Adapter (White)

AV-PMA-W Pole Mount Adapter (White)

AV-PMJB-W Pendant Mount (White)

AV-WMJB-W Wall Mount Bracket (White)

CF-CAP-W Wall Mount and Cap Accessory (white)

**2.15 Related Documents**

ConteraIP® Fisheye Datasheet

ConteraIP® Fisheye Installation Manual