AV10215PM-S **10 Megapixel H.264 IP MegaVideo® G5 Day/Night Camera with Remote Zoom, Remote Focus, P-Iris and SDHC Card**

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

.

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.

1.2 Certifications and Standards

a) 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)

b) 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
EN61000-3-3: 2008
EN60950-1:2006+A11:2009+A1:2010+A12:2011

CE

c) FCC Standard Compliance:
Title 47, Part 15 (47 CFR 15) Subpart B Class A

d) Mechanical Standards:

e) Video Compression Technology
H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC

f) Networking Standard:

- IEEE 802.3af-2003 PoE Standard, Class 2
- IPv4
- IPv6

g) Interoperability Standard
ONVIF Profile S and PSIA compliant

h) Country of Origin
FTC "Made in USA" standard compliant

i) UL Listing

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

Part 2 Products

2.1 Manufacturer

Arecont Vision, LLC
425 E. Colorado St. #700
Glendale, CA 91205
Phone: 818-937-0700
877-226-3728
Fax: 818-937-0464
www.arecontvision.com

2.2 General

The AV10215 MegaVideo® G5 10-Megapixel/1080p dual mode network camera is part of Arecont Vision's full line of H.264 MegaVideo® cameras. This fully compliant implementation of H.264 (MPEG-4, Part 10) provides full 3648 x 2752 megapixel resolution at full video frame rates of 7 frames per second (fps) at 10-megapixel and 29fps in 1080p binned mode. The AV10215PM-S camera provides a 10 megapixel camera solution with remote focus, remote zoom, P-Iris lens and SDHC card capabilities.

With the features of CorridorView™ for 90°, 180° and 270° image rotation, scaling (-S model), ONVIF Profile S and PSIA compliance, binning mode, unlimited privacy mask, extended motion detection and flexible cropping, the AV10215 is a high sensitivity, PoE (IEEE 802.3af) true Day/Night camera. Built with Arecont Vision's massively-parallel MegaVideo® processing technology, this camera offers more than 30-times the resolution of standard resolution IP cameras with the ability to output full real-time frame rates and deliver high-quality megapixel imaging for indoor and outdoor applications (for outdoor applications, a qualified Arecont Vision housing is necessary).

2.3 Hardware

- The camera shall utilize a high sensitivity 10 megapixel CMOS sensor with 1/2.3" optical format, 1.67um x 1.67um pixel size, progressive scan and Active Pixel Count: 3648(H) x 2752(V) pixel array.
- The camera's power source shall be Power over Ethernet (PoE) complying with the IEEE 802.3af standard.
- The camera shall have an auxiliary power input, AC24V and DC12-48V
- The camera shall be utilized for indoor applications.
- The camera shall have SDHC card slot for onboard storage up to 32GB, class 10 and UHS-1. (-S models).
- Alarm Input/Output : General purpose opto-coupled, 1 input/1 output

2.4 Imaging

- The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
- The camera shall feature automatic exposure, automatic multi-matrix white balance, shutter speed control to minimize motion blur, programmable resolution, brightness, saturation, gamma, sharpness and tint.
- The camera's shutter speed shall be 1ms - 500ms.
- The camera shall feature selectable 50/60 Hz flicker control, windowing, 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 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 dynamic range up to 57.2dB and a maximum SNR of 40dB.
- The camera shall have unlimited 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 1024 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 simultaneous 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.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 up to 7fps and 1920 (H) x 1080 (V) pixels at a maximum frame rate of 29fps.
- It shall be possible to program the camera to output a variety of lower resolution images, i.e. 2592 (H) x 1944 (V) pixels at 12fps, or 2048 (H) x 1536 (V) pixels at 18fps.
- It shall be possible to program the camera at binning mode to improve low light performance and output a variety of lower resolution image, i.e. 1920 (H) x 1080 (V) pixels at 29fps, or 1824 (H) x 1376 (V) pixels at 26fps.
- 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
- The camera shall be able to have below scaled resolutions: 720p, XVGA, DVGA (16:9), DVGA (3:2), SVGA, D1 (PAL), 4CIF (NTSC), VGA, 2CIF (PAL), HVGA (4:3), 2CIF (NTSC), HVGA (8:3), HVGA (3:2), HVGA (16:9), CIF (PAL), CIF (NTSC), QVGA (SIF), QCIF (PAL), QCIF (NTSC) and SQCIF. (-S models)
- The camera shall have an Auto Exposure (AE), Gain Control (AGC), Bit Rate and Bandwidth Limit Control
- The camera shall feature MoonLight™ mode - extended exposure and noise cancellation

- The camera shall be able to support Picture-in-Picture: simultaneous delivery of full field of view and zoomed images
- The camera shall have SDHC card slot for onboard storage up to 32GB, class 10 and UHS-1.

2.5 Video

Video frame rate (up to):

7fps (3648 x 2752)
12fps (2592 x 1944)
18fps (2048 x 1536)
25fps (1920 x 1080)
37fps (1280 x 1024)

Video frame rate in binned mode (up to):

29fps (1920 x 1080)
26fps (1824 x 1376)
43fps (1296 x 972)
54fps (1024 x 768)

Scaled Resolution:

Scaled Resolution	H	V	Pixel Count	Notes
720p	1280	720	921600	
XVGA	1024	768	786432	ipad 2/ipad mini
DVGA (16:9)	1136	640	727040	iphone 5
DVGA (3:2)	960	640	614400	iphone 4S
SVGA	800	600	480000	
D1 (PAL)	720	576	414720	
4CIF (PAL)	704	576	405504	
D1 (NTSC)	720	480	345600	
4CIF (NTSC)	704	480	337920	
VGA	640	480	307200	
2CIF (PAL)	704	288	202752	
HVGA (4:3)	480	360	172800	
2CIF (NTSC)	704	240	168960	
HVGA (8:3)	640	240	153600	
HVGA (3:2)	480	320	153600	
HVGA (16:9)	480	272	130560	
CIF (PAL)	352	288	101376	
CIF (NTSC)	352	240	84480	
QVGA (SIF)	320	240	76800	
QCIF (PAL)	176	144	25344	
QCIF (NTSC)	176	120	21120	
SQCIF	128	96	12288	

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 RTSP, RTP over TCP, RTP over UDP (Unicast/Multicast), HTTP1.0, HTTP1.1, TFTP, DHCP, IPv4, IPv6 and QoS.
- 100 Base-T Ethernet Network Interface
- Multi-streaming: 8 non-identical streams

2.7 Electrical

General purpose opto-coupled 1 input and 1 output
Power over Ethernet (PoE): PoE 802.3af
Auxiliary Power 12-48V DC, 24VAC
Power consumption: PoE – Class 2AV10215PM-S 6.6 Watt Max (Auxiliary DC Power) PoE Class 2 W/O Lens

2.8 Networking

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

2.9 Environmental

Operating temperature -5˚C (23 °F) to +50˚C (122 °F)
Operating Temperature -5˚C (23°F) to + 40°C (104°F) in Dome4/D4SO housings
Storage temperature -20˚C (-4 °F) to +60˚C (140 °F)
Humidity 0% to 90% (non-condensing)

2.10 Minimum Illumination

Color (Day Mode): 0.42 Lux @ F1.2
Color Binning (Day Mode) : 0.21 Lux
B/W (Night Mode): 0.03 Lux, IR sensitive

2.11 Packaging

Unit Dimensions:
3”W (76 mm) x 2.5”H (63.5 mm) x 1.25”D (31.7mm) (w/o lens) / Weight 0.6 lb(w/o lens)
Packaged Dimensions:
4”W (102 mm) x 3.7”H (94 mm) x 4”D (102 mm) / Weight 0.7 lb

2.12 Compatible Lenses

UHD45-10
UHD7.2
JHF25-5MP
JHF35-5MP

2.13 Compatible Accessories

HSG2 Outdoor IP67 Housing with heater and Dual Fans
Dome4 Indoor/Outdoor 4” vandal resistant dome, dome for single/dual sensor cameras, IP66 (Arecont Vision fixed focal lenses only)
D4SO DOME, 4", Surface Mount, Outdoor

2.14 Related Documents

AV MegaVideo® G5 Datasheet
AV MegaVideo® G5 Installation Manual