

AV20585PM 20 Megapixel 180° Panoramic H.264 Day/Night Camera w/ Remote Focus and P-Iris

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



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



- d) FCC Standard Compliance:
Title 47, Part 15 (47 CFR 15) Subpart B Class A
- e) Mechanical Standards:
ANSI/IEC 60529-2004 - IP66 dust/water Ingress protection rating
EN62262:2002 – IK-10 impact rating
- f) Video Compression Technology
H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC
- g) Networking Standard:
IEEE 802.3af-2003 PoE Standard, Class 3
IPv4
- h) Interoperability Standard
- i) Country of Origin
FTC “Made in USA” standard compliant

Part 2 Products

2.1 Manufacturer

Arecont Vision, LLC
425 E. Colorado St. #700
Glendale, CA 91205
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877-226-3728
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2.2 General

The AV20585PM SurroundVideo® G5 Non-WDR network camera is part of Arecont Vision’s full line of H.264 SurroundVideo® cameras. This fully compliant implementation of H.264 (MPEG 4, Part 10) provides an all-in-one solution with four integrated 5-Megapixel resolution at full video frame rates of 7fps.

With the features of remote focus, P-iris control, unlimited privacy masking, extended motion detection and flexible cropping, the AV20585PM is a high sensitivity, PoE (IEEE 802.3af) compliant true Day/Night camera. Built with Arecont Vision’s massively-parallel MegaVideo® processing technology, this camera offers more than fifty three times the resolution of standard resolution IP cameras with the ability to output full real-time frame rates and deliver the high quality megapixel imaging for indoor and outdoor applications.

2.3 Hardware

- The camera shall utilize four high sensitivity 5-Megapixel CMOS sensors with 1/2.5” optical format, 2.2um x 2.2um pixel size, progressive scan and Active Pixel Count: 2560(H) x 1920(V) pixel array (Per Sensor)
- The camera shall integrate four 6.7mm CS mount, IR corrected lenses, with F1.2 and ½.5” optical format, Horizontal Field of View of 47°.
- 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, 24VAC and 18-48VDC
- 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 2-axis easily adjustable gimbal with 360° pan and 90° tilt for easy and accurate positioning.
- Alarm Input/Output : General purpose opto-coupled, 1 Input/1 Output

2.4 Imaging

1. The camera shall combine four images for a 180 degree horizontal field of view.
2. The camera shall have dual standard compression support with simultaneous streaming of both H.264 and MJPEG formats.
3. Each sensor of 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.
4. The camera's shutter speed shall be 1ms - 500ms.
5. 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
6. The camera shall have +/-5° digital vertical alignment to adjust images.
7. 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).
8. The camera shall have dynamic range up to 70.1 dB and a maximum SNR of 45dB.
9. 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 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.
10. The camera shall feature streaming of the full field of view (FOV) and simultaneous multiple regions of interest (ROI) for forensic zooming.
11. The camera shall provide 21 levels of compression quality for optimal viewing and archiving.
12. The camera shall output at a maximum resolution of 10240(H) X 1920 (V) pixels up to frame rate of 7 frame per second (FPS)
13. It shall be possible to program the camera in binning mode to output lower resolution images: i.e. 5120(H) x 960(V) pixels (1/4 full resolution) at 10 FPS.
14. The camera shall provide flexible cropping (Resolution windowing down to 1x1 pixels for JPEG and 2x2 pixels for H.264)
15. The camera shall be able to save bandwidth & storage by running at 1/4 full resolution
16. The camera shall have an Auto Exposure (AE), Gain Control (AGC), Bit Rate and Bandwidth Limit Control
17. The camera shall feature MoonLight™ mode - extended exposure and noise cancellation
18. The camera shall be able to support Picture-in-Picture: simultaneous delivery of full field of view and zoomed images

2.5 Video

Video frame rate (up to):

7fps @ 10240x1920

10 FPS @ 5120x960

Video frame rate in binning mode up to:

24 FPS @ 5120x960

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, QoS, and IPv4
- 100 Base-T Ethernet Network Interface
- Multi-streaming: 8 non-identical streams (2 active connections to each sensor)

2.7 Electrical

General purpose opto-coupled 1 input and 1 output

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

Auxiliary Power 18-48V DC, 24VAC

Power consumption: PoE – Class 3

13.9 Watts (Auxiliary DC Power) PoE Class 3

2.8 Heater Electrical

- External Power Consumption 10W Max
- Switch On: 17°C (62.6°F), Off: 30°C (86°F)
- Voltage Input: 12V to 35V DC, 24 VAC (separate power required)
- Power Consumption of 11 Watts (Max DC Power) / 13 Watts (Max AC Power)

2.9 Networking

The camera shall be equipped with a 100 Mbps LAN connector

2.10 Environmental

Operating temperature -40°C (-40 °F) to +50°C (122 °F)

Stable image temperature 0°C (32 °F) to +50°C (122 °F)

Motorized lens operating temperature -20°C (-4°F) to +50°C (122 °F) w/ heater

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

Humidity 0% to 90% (non-condensing)

2.11 Illumination

Color (non-binning): 0.3 Lux @ F1.2

Color (binning): 0.15 Lux @ F1.2

B/W: 0.02 Lux, IR sensitive (with additional IR light source)

2.12 Packaging

Unit Dimensions (H x Dia) 6.55”H (166 mm) x 6.9” dia. (175 mm) Weight: 3.54 lbs (1.6kg)

Packaged Dimensions (H x W x L) 8.5” (215mm) x 8.5” (215mm) x 8.5” (215mm) Weight: 4.37 lbs (1.98kg)

2.13 Compatible Accessories

AV-CRMA – Corner Mount Adapter

AV-JBA – Junction Box Adapter

AV-PMA – Pole Mount Adapter

AV-PMJB – Pendant Mount Bracket with Junction Box

AV-WMJB – Wall Mount Bracket with Junction Box

SV-CAP – Wall Mount Cap Only

AV-EBA – Electrical Box Adapter

SV-FMA - Flush Mount Adapter

2.14 Related Documents

AV SurroundVideo® G5 Datasheet

AV SurroundVideo® G5 Installation Manual