

AV2246PM-D-LG	1080p MegaBall® G2 WDR, True Day/Night, 1920x1080, 30 fps, MJPEG/H.264, 2.8-8.5mm, F1.2, Remote Focus, Remote Zoom P-Iris Lens, Dome Mount, Indoor, 12VDC/24VAC/PoE, CorridorView™, Scaling, Dome Color: Light Gray
AV2246PM-B-LG	1080p MegaBall® G2 WDR, True Day/Night, 1920x1080, 30 fps, MJPEG/H.264, 2.8-8.5mm, F1.2, Remote Focus, Remote Zoom P-Iris Lens, Bell Mount, Indoor, 12VDC/24VAC/PoE, CorridorView™, Scaling, Ball Color: Light Gray, Bell Mount Color: Light Gray
AV2246PMIR-SB-LG	1080p MegaBall® G2 WDR, True Day/Night, 1920x1080, 30 fps, MJPEG/H.264, Adjustable IR Illumination up to 15m (50ft.), 2.8-8.5mm, F1.2, Remote Focus, Remote Zoom P-Iris Lens, Bell Mount, Indoor, 12VDC/24VAC/PoE, SD Card Slot, CorridorView™, Scaling, Ball Color: Light Gray, Bell Mount Color: Light Gray

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) Video Compression Technology
H.264 MPEG-4, Part 10 ISO/IEC 14496-10 AVC
- f) Networking Standard:
IEEE 802.3af-2003 PoE Standard, Class 3
IPv4, IPv6
- g) Interoperability Standard
ONVIF Profile S and PSIA compliant
- h) 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
Phone: 818-937-0700
877-226-3728
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2.2 General

The AV2246 MegaBall® G2 1080p full HD wide dynamic range (WDR) network camera is part of Arecont Vision's full line of H.264 MegaBall® G2 cameras. This fully-compliant implementation of H.264 (MPEG-4, Part 10) provides full 1920 x 1080 megapixel resolution at full video frame rates of 30 frames per second (fps). The AV2246 camera

line provides an all-in-one indoor 3" ball shape solution with integrated 1080p WDR camera, remote focus, remote zoom, p-iris IR corrected lens and Bell mount or Dome enclosure options.

With the features of ONVIF Profile S and PSIA conformance, auto adjustment between WDR and LDR modes, privacy masking, extended motion detection and flexible cropping, the AV2246 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 6-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 applications.

2.3 Hardware

- The camera shall utilize a high sensitivity 2.07 Megapixel CMOS sensor with 1/3.2" optical format, 2.2um x 2.2um pixel size, progressive scan and Active Pixel Count: 1920(H) x 1080(V) pixel array.
- The camera shall have and integrated 2.8-8.5mm, Ø14mm Mount, Remote Zoom, Remote Focus, P-Iris, megapixel IR corrected vari-focal lens with 1/3.2" optical format, F1.2 and Horizontal Field of View of 88°-30°.
- The camera shall have a 3-axis gimbal with 360° pan, 90° tilt and 360° Z-rotation for easy and accurate positioning.
- The camera shall either have Bell Mount (-B models) or Dome Mount (-D models).
- The housing color shall be gray for the Bell Mount and Dome Mount options.

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, tint and sharpness with a selectable enhancement level. All PM Models have Remote Zoom, Remote Focus, and P-Iris Control.
- IR Models shall have Beam Angle and LED intensity that is manually changeable.
- IR Models shall have 12 pcs 850nm Adjustable LEDs with Adjustable IR.
- IR Models shall have 50ft (15m) max of projection distance.
- IR Models shall have 60 degrees and 80 degrees projection angle.
- 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 90, 180 and 270 degrees on -S models.
- 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 wide dynamic range up to 100dB and a maximum SNR of 49dB.
- 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 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 1920(H) x 1080(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 and increase frame rate, i.e. 1280(H) x 1024(V) pixels at 41 FPS.
- The camera shall provide flexible cropping (Resolution windowing down to 1x1 pixels for JPEG and 2x2 pixels for H.264).
- The camera shall have auto adjustment between WDR and LDR modes (WDR models only).
- The camera shall be able to save bandwidth & storage by running at 1/4 full resolution
- 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 with low light noise filter control.
- The camera shall be able to support Picture-in-Picture: simultaneous delivery of full field of view and zoomed images. The camera shall have non-integer scaling down to 128(H) x 96(V).
- The camera shall have CorridorView™ with 90°, 180° and 270° image rotation options.
- -S model cameras shall feature an SDHC card slot supporting up to 32GB of storage capacity for onboard storage.

2.5 Video

Video frame rate (up to):

30fps @ 1920x1080

41fps @ 1280x1024

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 (Except PMIR) and 1 output (except 01-SDA)

Power over Ethernet (PoE): PoE 802.3af

Auxiliary Power 12-48V DC, 24VAC

Power consumption: PoE – Class 3:

AV2246PM models are 7.8 Watts max (Auxiliary DC power)

AV2246PMIR models are 9.4 Watts max (Auxiliary DC power)

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)

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

Storage temperature -20°C (-4 °F) to +60°C (140 °F)

Humidity 0% to 90% (non-condensing)

2.10 Minimum Illumination

Color (Day Mode): 0.3 Lux @ F1.2

B/W (Night Mode): 0 Lux, IR sensitive (with additional IR light source)

2.11 Packaging

Unit Dimensions:

- B model: Ø 3.93" (100mm) x 3.24" H (87mm) / Weight: 1.15lbs (0.52kg)
- D model, in-ceiling: Ø 5.1" (130mm) x 1.74" H (44mm)
- D model, surface w/ bubble: Ø 5.1" (130mm) x 3.85" H (98mm) / Weight: 1.15lbs (0.52kg)

Packaged Dimensions:

- B model: (H x W x L) 7" (178mm) x 6.4" (163mm) x 6.4" (163mm) / Weight: 1.65 lbs (0.75kg)
- D model: (H x W x L) 6.3" (160mm) x 6.3" (160mm) x 6.85" (174mm) / Weight: 1.7 lbs (0.77kg)

2.12 Compatible Accessories

- MB2-JBA Light gray junction box adapter for MegaBall G2 Bell Mount
- AV-EBA Light gray electrical box adapter (Works with all Arecont Vision cameras and MB2-JBA bell mount)
- AV-SPMJB Light gray ceiling mount with 1/2" NPT standard
- AV-SWMJB Light gray wall mount with 1/2" NPT standard

2.13 Related Documents

- AV MegaBall® G2 Datasheet
- AV MegaBall® G2 Installation Manual