1.2–5 Megapixel

MegaBall® G2 IP Megapixel Cameras

1.2, 1080p, 3, and 5 Megapixel (MP) H.264 All-in-One Motorized P-Iris or Panomorph Lens True Day/Night Indoor IP Cameras with SNAPstream™ (Smart Noise Adaptation and Processing), WDR (Wide Dynamic Range), STELLAR™ (Spatio Temporal Low Light Architecture), and Adjustable IR Models

The MegaBall G2 megapixel camera series fuses optimum performance with outstanding aesthetics. These stylish indoor cameras feature a choice of 1.2-, 1080p-, 3-, or 5-megapixel (MP) resolution options. 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 with an integrated P-iris lens for precise, optimal image quality. For applications with poor lighting conditions optional wide dynamic range is available on some 1080p and 3MP models.

For low-light color images without IR, the 1.2MP STELLAR, “Spatio Temporal Low Light Architecture” model offers best-in-class light sensitivity capturing details in near complete darkness. For additional low light capabilities Binning Mode is available on 3MP and 5MP camera models.

MegaBall G2 IR models are integrated with an Adjustable Infrared Illuminator, providing clear images in extreme, low-light scenes. Infrared camera models offer the ability to manually adjust the IR’s level of intensity, providing the flexibility to ensure the scene is illuminated uniformly. For applications that require the camera to be mounted in close proximity to the target, an optional manual lens with an ImmerVision Enables® panomorph system offers 180° and 360° views (5MP models).

The camera offers advanced streaming capabilities and is designed on an efficient H.264 encoding platform capable of delivering high quality video without straining the network.

The SD card slot supports up to 32GB of storage capacity for convenient onboard storage. The camera’s power can be supplied via a Power-over-Ethernet (PoE) compliant network cable connection or with power from a 12–48V DC/24V AC power supply.

The MegaBall G2 is ONVIF Profile S (Open Network Video Interface Forum) compliant, providing interoperability between network video products regardless of manufacturer.

Series Features

- 1.2, 1080p, 3, or 5MP Models
- Remote Focus/Zoom Motorized P-Iris Lens
- P-Iris Control to Get Best Depth of Field and Image Clarity
- SNAPstream™ Capability to Reduce Bandwidth without Impacting Image Quality†
- STELLAR™ (Spatio Temporal Low Light Architecture) on 1.2MP Models
- True Day/Night Functionality with Mechanical IR Cut Filter
- Binning Mode for Strong Low Light Performance on 3MP and 5MP Cameras
- True WDR up to 100dB at Full Resolution Available on Select 1080p and 3MP Models
- Casino Mode™ Maintains 30fps or Higher Required by Gaming Industry Regulations (Select 1080p Models)
- CorridorView™ Allows 90° Image Rotation for Better Coverage in Hallways and Corridors
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control, Multi-Streaming, Multicasting, Forensic Zooming, and Non-Integer Scaling
- Dual Encoder H.264/MJPEG
- Network Protocols Include 802.1x, IPv6, QoS, DHCP, and More
- Tamper-Resistant Housing
- Installer Friendly Cable Management, 3-Axis Adjustment, In-Ceiling and Surface Mount Options
- All-in-One H.264 PoE Solution with Auxiliary Power: 12–48V DC/24V AC
- Adjustable IR Illumination with Variable Illumination Ensures that IR Light is Evenly Dispersed up to 50ft (15m) for Scenes with Low or No Ambient Light (IR Models)
- Integrated Panomorph Solution for 180° and 360° Fields of View (-01 Models)
- Integrated Microphone and Audio Out (-A Models Only)
- SDHC Card Slot for Onboard Storage (-S Models)

Made in the USA

+1.818.937.0700 | www.arecontvision.com | avsales@arecontvision.com
## Camera Imaging Specifications

<table>
<thead>
<tr>
<th>Model</th>
<th>AV1245PM</th>
<th>AV2245PM</th>
<th>AV2246PM</th>
<th>AV3245PM</th>
<th>AV3246PM</th>
<th>AV5245PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Image Sensor</td>
<td>1.2MP***</td>
<td>2.07MP</td>
<td>2.07MP</td>
<td>3MP</td>
<td>3MP</td>
<td>5MP</td>
</tr>
<tr>
<td>Optical Format</td>
<td>1/3&quot;</td>
<td>1/3&quot;</td>
<td>1/3.2&quot;</td>
<td>1/3&quot;</td>
<td>1/3.2&quot;</td>
<td>1/2.5&quot;</td>
</tr>
<tr>
<td>Pixel Pitch</td>
<td>3.75μm</td>
<td>2.2μm</td>
<td>2.2μm</td>
<td>2.2μm</td>
<td>2.2μm</td>
<td>2.2μm</td>
</tr>
</tbody>
</table>

### Minimum Illumination

<table>
<thead>
<tr>
<th>Color (Day Mode)</th>
<th>0.02 Lux</th>
<th>0.2 Lux</th>
<th>0.2 Lux</th>
<th>0.2 Lux</th>
<th>0.2 Lux</th>
<th>0.3 Lux</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color Binning (Day Mode)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B/W (Night Mode)</th>
<th>0.002 Lux, IR sensitive</th>
<th>0.02 Lux, IR sensitive</th>
<th>0.02 Lux, IR sensitive</th>
<th>0.02 Lux, IR sensitive</th>
<th>0.02 Lux, IR sensitive</th>
<th>0.03 Lux, IR sensitive</th>
</tr>
</thead>
</table>

### Full FOV Resolution

<table>
<thead>
<tr>
<th>1280 x 960 V</th>
<th>1920 x 1080 V</th>
<th>2048 x 1536 V</th>
<th>2048 x 1536 V</th>
<th>1024 x 768 V</th>
<th>1024 x 768 V</th>
<th>1296 x 972 V</th>
</tr>
</thead>
</table>

### Frame Rates

- At Max Resolution: 37fps (1280 x 960), 30fps (1920 x 1080), 30fps (1920 x 1080), 21fps (2048 x 1536), 21fps (2048 x 1536), 14fps (2592 x 1944)
- Cropped: 30fps (1280 x 1024), 30fps (1280 x 1024), 30fps (1280 x 1024), 30fps (1280 x 1024), 30fps (1280 x 1024), 30fps (1280 x 1024)
- Binning Mode: 46fps (1024 x 768), 64fps (960 x 540), 21fps (1024 x 768), 21fps (800 x 600), 21fps (960 x 540), 21fps (640 x 512), 34fps (1024 x 768), 46fps (1024 x 768), 64fps (960 x 540)

### Lens

- Motorized Lens: 2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=102-34°, 2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=88-30°, 2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=88-30°, 2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=94-32°, 2.8-8.5mm, F1.2, RZ, RF, P-iris, HFOV=94-32°, 3.3-8.5mm, F1.2, RZ, RF, P-iris, HFOV=95-41°

### Distances to pixel density (ft./m)

<table>
<thead>
<tr>
<th>Model</th>
<th>Lens</th>
<th>View Angle</th>
<th>Distance to pixel density (ft./m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>30ppf-T</td>
</tr>
<tr>
<td>AV1245PM</td>
<td>2.8-8.5mm</td>
<td>102°~34°</td>
<td>68' (20.7m)</td>
</tr>
<tr>
<td>AV2245PM</td>
<td>2.8-8.5mm</td>
<td>88°~30°</td>
<td>120' (36.6m)</td>
</tr>
<tr>
<td>AV2246PM</td>
<td>2.8-8.5mm</td>
<td>88°~30°</td>
<td>120' (36.6m)</td>
</tr>
<tr>
<td>AV3245PM</td>
<td>2.8-8.5mm</td>
<td>94°~32°</td>
<td>120' (36.6m)</td>
</tr>
<tr>
<td>AV3246PM</td>
<td>2.8-8.5mm</td>
<td>94°~32°</td>
<td>120' (36.6m)</td>
</tr>
<tr>
<td>AV5245PM</td>
<td>3.3-8.5mm</td>
<td>95°~41°</td>
<td>115' (35.1m)</td>
</tr>
</tbody>
</table>

### Programmability

#### Optics
- Remote focus, remote zoom, and P-iris control (PM models)

#### Low-Light Performance
- STELLAR Technology
- 1.2MP models
- Pixel Binning Mode: 3MP and 5MP models
- Adjustable IR: IR models - beam angle and LED intensity manually changeable

#### Programmable Shutter Speed
- Controls motion blur, 1ms-500ms

#### Motion Detection
- Real-time, 1024 detection zones

#### Privacy Masking
- Unlimited

#### Casino Mode
- Maintains 30fps or higher (AV2245 model)

#### Flexible Cropping
- Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264

#### Backlight Compensation
- Auto multi-matrix white balance

#### Flicker Control
- 5Hz-255Hz adjustable

#### Image Rotation
- CorridorView™ (90°, 180° and 270° image rotation)

#### Scaling
- Non-integer scaling down to 128x96

### Data Transmission

#### Compression Type
- H.264 (MPEG-4, Part 10)/Motion JPEG
- 21 levels of quality

#### Transmission Protocols
- RTSP, RTP/UDP, HTTP, TFTP, DHCP, IPv4, IPv6, QoS, 802.1x†
- 100Base-T Ethernet network interface

#### Multi-Streaming
- 8 non-identical streams

### Made in the USA
## Specifications

### Compliance

<table>
<thead>
<tr>
<th>Industry Standard</th>
<th>ONVIF Profile 5 conformant</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Listings</strong></td>
<td>UL (C8)</td>
</tr>
<tr>
<td><strong>FCC Compliance</strong></td>
<td>47 CFR 15 Class A</td>
</tr>
<tr>
<td><strong>Environmental</strong></td>
<td>RoHS, REACH, WEEE</td>
</tr>
<tr>
<td><strong>Markings</strong></td>
<td>(C8) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950</td>
</tr>
</tbody>
</table>

### Environmental

<table>
<thead>
<tr>
<th>Operating temperature</th>
<th>-5°C (-23°F) to +50°C (122°F)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Humidity</td>
<td>0% to 90% (non-condensing)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-20°C (-4°F) to +60°C (140°F)</td>
</tr>
</tbody>
</table>

### General Electrical

<table>
<thead>
<tr>
<th>Alarm Input</th>
<th>General purpose opto-coupled (Except PMIR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alarm Output</td>
<td>General purpose opto-coupled (Except 01-DA)***</td>
</tr>
<tr>
<td>Power Over Ethernet</td>
<td>PoE 802.3af, Class 3</td>
</tr>
<tr>
<td></td>
<td>Total PoE Solution (No external power requirement)</td>
</tr>
<tr>
<td>Auxillary Power</td>
<td>12–48V DC, 24V AC</td>
</tr>
</tbody>
</table>

*** No alarm trigger available via the alarm output

### Max Power Consumption (Watts DC Power)

<table>
<thead>
<tr>
<th>Model Number</th>
<th>PM</th>
<th>PMIR</th>
<th>01-D (Panomorph)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV1245</td>
<td></td>
<td>8.2 W</td>
<td></td>
</tr>
<tr>
<td>AV2245 / AV3245</td>
<td>6.7 W</td>
<td>8.1 W</td>
<td></td>
</tr>
<tr>
<td>AV2246 / AV3246</td>
<td>7.8 W</td>
<td>9.4 W</td>
<td></td>
</tr>
<tr>
<td>AV5245</td>
<td>7.1 W</td>
<td>8.7 W</td>
<td>5.7 W</td>
</tr>
</tbody>
</table>

### IR Illuminator (PMIR Models)

<table>
<thead>
<tr>
<th>LEDs</th>
<th>12 pcs 850nm Adjustable LEDs with Adjustable IR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projection Distance</td>
<td>50ft (15m) max</td>
</tr>
<tr>
<td>Projection Angle</td>
<td>60° and 80°</td>
</tr>
</tbody>
</table>

### Audio Electrical (A Models Only)

<table>
<thead>
<tr>
<th>Streaming</th>
<th>Two-way</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression</td>
<td>G.711 PCM 8 kHz</td>
</tr>
<tr>
<td>Input/Output</td>
<td>Integrated microphone / line output</td>
</tr>
</tbody>
</table>

### Scaling Resolution Chart

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

§ All scaled resolutions are available on all cameras that support scaling

---

See Next Page for Mechanical Specs
Specifications

Mechanical

<table>
<thead>
<tr>
<th>Casing</th>
<th>-B</th>
<th>Surface mount with die-cast aluminum housing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-D</td>
<td>Plastic surface/in-ceiling dome with acrylic bubble</td>
</tr>
</tbody>
</table>

Gimbal

Easy 3-axis camera adjustment with 360° pan, 90° tilt and 360° z-axis

Dimensions (See Dimensions)

<table>
<thead>
<tr>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>-B (bell)</td>
</tr>
<tr>
<td>-D (in-ceiling)</td>
</tr>
<tr>
<td>-D (surface w/ bubble)</td>
</tr>
</tbody>
</table>

Weight

<table>
<thead>
<tr>
<th>Weight</th>
<th>Camera Unit</th>
<th>Packaged</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-B</td>
<td>1.15lbs (0.52kg)</td>
</tr>
<tr>
<td></td>
<td>-D</td>
<td>1.15lbs (0.52kg)</td>
</tr>
</tbody>
</table>

Dome Color

Light Gray Dome

Dimensions:

-B (bell)
-Ø 3" (76.2mm)
-0.73" (18.5mm)

-D (in-ceiling)
-Ø 5.1" (130mm)
-1.74" (44mm)

-D (w/ Bubble)
-Ø 5.1" (130mm)
-3.85" (98mm)

See Next Page for Ordering Information
Model Specific Features

<table>
<thead>
<tr>
<th>Model</th>
<th>Resolution</th>
<th>Frame Rate‡</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV1245</td>
<td>1.2MP</td>
<td>37fps</td>
<td>-</td>
</tr>
<tr>
<td>AV2245</td>
<td>1080p</td>
<td>30fps</td>
<td>-</td>
</tr>
<tr>
<td>AV2246</td>
<td>1080p</td>
<td>30fps</td>
<td>WDR</td>
</tr>
<tr>
<td>AV3245</td>
<td>3MP</td>
<td>21fps</td>
<td>-</td>
</tr>
<tr>
<td>AV3246</td>
<td>3MP</td>
<td>21fps</td>
<td>WDR</td>
</tr>
<tr>
<td>AV5245</td>
<td>5MP</td>
<td>14fps</td>
<td>-</td>
</tr>
</tbody>
</table>

Build-to-Order Options

- **A** Audio
- **B** Bell Mount
- **D** Dome or Recessed Dome Model
- **LG** Light Gray Dome
- **PM** Remote Zoom, Remote Focus, P-Iris, True Day/Night
- **PMIR** Wide Angle Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night, IR LEDs
- **S** SDHC Card Slot, Non-Integer Scaling
- **01** Manual Panomorph Lens, True Day/Night

Configurations

Select from the options available to create your desired model configuration.

Create Your Model (Example: AV5245PMIR-SBA-LG)

- **AV**
- **1** 1.2MP
- **2** 3MP
- **3** 5MP
- **4** 1080p
- **5** 3MP
- **5**

Model Numbers

<table>
<thead>
<tr>
<th>Resolution</th>
<th>Model</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2MP</td>
<td>AV1245</td>
<td>STELLAR™</td>
</tr>
<tr>
<td>1080p</td>
<td>AV2245</td>
<td>Audio</td>
</tr>
<tr>
<td></td>
<td>AV2246</td>
<td>WDR</td>
</tr>
<tr>
<td></td>
<td>AV3245</td>
<td>WDR</td>
</tr>
<tr>
<td></td>
<td>AV3246</td>
<td>WDR, Audio</td>
</tr>
<tr>
<td>3MP</td>
<td>AV3245</td>
<td>Audio</td>
</tr>
<tr>
<td></td>
<td>AV3246</td>
<td>WDR</td>
</tr>
<tr>
<td>5MP</td>
<td>AV5245</td>
<td>Audio</td>
</tr>
<tr>
<td></td>
<td>AV5246</td>
<td>WDR, Audio</td>
</tr>
</tbody>
</table>

Accessories

- **AV-EBAR** Round Electrical Box Adapter Plate
- **MB2-JBA** Junction Box for MegaBall Series "Bell" Style Cameras
- **AV-CRMA** Corner Mount Adapter
- **AV-PMA** Pole Mount Adapter
- **AV-SPMJB** Small Pendant Mount with Junction Box (1/2" NPT Standard)
- **AV-SWMJB** Small Wall Mount with Junction Box (1/2" NPT Standard)

Ordering Information

<table>
<thead>
<tr>
<th>Model Numbers</th>
<th>Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV1245PMIR-SB-LG</td>
<td>STELLAR™</td>
</tr>
<tr>
<td>AV2245PM-D-LG</td>
<td>Audio</td>
</tr>
<tr>
<td>AV2245PM-B-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV2245PMIR-SB-LG</td>
<td>Audio</td>
</tr>
<tr>
<td>AV2246PM-D-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV2246PM-B-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV2246PMIR-SB-LG</td>
<td>Audio</td>
</tr>
<tr>
<td>AV3245PM-D-LG</td>
<td>Audio</td>
</tr>
<tr>
<td>AV3245PM-B-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV3245PMIR-SB-LG</td>
<td>Audio</td>
</tr>
<tr>
<td>AV3245PMIR-SBA-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV3246PM-D-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV3246PM-B-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV3246PMIR-SB-LG</td>
<td>Audio</td>
</tr>
<tr>
<td>AV3246PMIR-SBA-LG</td>
<td>WDR</td>
</tr>
<tr>
<td>AV5245DN-01-D-LG</td>
<td>Panomorph</td>
</tr>
<tr>
<td>AV5245DN-01-DA-LG</td>
<td>Audio</td>
</tr>
</tbody>
</table>

† Can be configured as a surface mount or flush mount
‡ "4" Represents MegaBall product line—which are then defined by “B” or “D” for body style
§ WDR for AV2246 and AV3246 models only
¶ Manual Panomorph Lens only available for 5MP models
∥ Audio only available on some models
★ Maximum with H.264 compression

© 2017 Arecont Vision®. All rights reserved. Arecont Vision, the Arecont Vision logo, and MegaBall are registered trademarks of the company. Casino Mode, CorridorView, SNAPstream, STELLAR, and SituationalPlus are business use trademarks of the company. ImmerVision Enables and the ImmerVision Enables logo are registered trademarks of ImmerVision Inc.

+1.818.937.0700 | www.arecontvision.com | avsales@arecontvision.com

Made in the USA