

# SurroundVideo® Omni G3 IP Megapixel Cameras

12 or 20 Megapixel (MP) H.264 All-in-One Remote Setup Omni-Directional Remote-Configurable Multi-Sensor True Day/Night Indoor/Outdoor Dome IP Cameras with SNAPstream™ (Smart Noise Adaptation and Processing) and Enhanced WDR™ (Wide Dynamic Range) Models



The SurroundVideo® Omni G3 is an industry-game-changing first-of-its-kind omni-directional, remote-configurable, multi-sensor, multi-megapixel camera built to provide outstanding high resolution video coverage for a wide range of applications. The unmatched coverage and capabilities of the SurroundVideo Omni G3 provides organizations of all sizes the flexibility to deploy a surveillance camera system that truly matches their current and future requirements for complete situational awareness.

SurroundVideo Omni G3 is available with a choice of 12- or 20-megapixel (MP) resolutions. The number of cameras required for a project can be dramatically reduced with a single SurroundVideo Omni G3, thanks to its four customizable remote sensor gimbals. Installation is fast and easy. Install the hinged mounting plate, connect the PoE (Power-over-Ethernet) IP cable, and then remotely configure the camera. Select a preset choice for 180°, 270°, or 360° views, or use the intuitive interface to remotely pan, tilt, zoom, and focus each sensor. Two custom presets created by the user can be saved to memory. The camera is integrated with the industry's leading VMS/NVR platforms.

SurroundVideo Omni G3 is ideal for applications with normal to challenging lighting conditions. The Omni combines a day/night mechanical IR cut filter for the highest image quality at any time of day. For applications with bright or over saturated lighting conditions, Enhanced WDR™ wide dynamic range delivers up to 120dB at full resolution on select 12MP models. For applications with poor lighting conditions,

Binning Mode increases the camera's low light performance by combining pixels so that more light can be collected. SurroundVideo Omni G3 includes SNAPstream™ (Smart Noise Adaptation and Processing) technology to reduce bandwidth without impacting image quality. 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. Power can be supplied via a single PoE Class 3 compliant network cable or via an 18–48V DC/24V AC power supply.

SurroundVideo Omni G3 is designed for demanding environments, able to operate indoors and out in an extended operational temperature range. Certified to rigorous dust and water tests, the camera carries an IP66 rating. The rugged dome housing is IK-10 rated to withstand the equivalent of 55 kg (120 lbs) of force for vandal-prone applications.

The camera interface or the configuration utility can be used for setup and updates, as can many MegaLab™-certified VMS/NVR platforms. Using the camera interface or the configuration utility™, security updates and both new or enhanced features can be applied to the cyber-hardened SurroundVideo Omni's Massively Parallel Image Processing (MPIP) architecture. This in house developed architecture runs on the Field Programmable Gate Array (FPGA) integrated circuit that is at the core of every Arecont Vision camera. The SurroundVideo Omni G3 is ONVIF Profile S (Open Network Video Interface Forum) compliant, providing interoperability between network video products regardless of manufacturer.



Remote Setup



SNAPstream™ Technology



Omni-Directional Track with 4 Customizable Sensors



Presets 180°/270°/360°



Custom Presets



Motorized Pan &amp; Tilt Capable



Enhanced WDR™ Wide Dynamic Range on Select 12MP Models



True Day/Night with IR Cut Filter



Pixel Binning Mode



Impact / Weather Resistant IK-10 and IP66 Rated



Dual Encoder H.264/MJPEG

## Series Features

- 12MP and 20MP Models
- No Touch Setup: 4 Individual Camera Gimbals Each with a Varifocal Motorized Lens That Can be Remotely Setup in Any Position Around a 360° Track
- Preset Positions to Create a 360°, 270°, or 180° Field of View, or Save Custom Presets
- SNAPstream™ Advanced Compression Algorithm Reduces Bandwidth without Impacting Image Quality
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices
- True Day/Night Functionality with Mechanical IR Cut Filter
- Enhanced WDR™ up to 120dB at Full Resolution: See Clearly in Shaded and Bright Light Conditions Simultaneously on Select 12MP Models
- Binning Mode for Strong Low Light Performance
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control, Multi-Streaming, and Multicasting
- Dual Encoder H.264/MJPEG
- Network Protocols Include 802.1x, IPv4, DHCP, and More
- PoE and Auxiliary Power: 18–48V DC/24V AC
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing

Camera Imaging Specifications

| Model                |                          | AV12375RS                      | AV12376RS                      | AV20375RS                         |
|----------------------|--------------------------|--------------------------------|--------------------------------|-----------------------------------|
| Image Sensor (CMOS)  |                          | 12MP (4 x 3MP)                 | 12MP (4 x 3MP)                 | 20MP (4 x 5MP)                    |
| Optical Format       |                          | 1/3"                           | 1/3.2"                         | 1/2.5"                            |
| Pixel Pitch          |                          | 2.2µm                          | 2.2µm                          | 2.2µm                             |
| Minimum Illumination | Color (Day Mode)         | 0.2 Lux                        | 0.2 Lux                        | 0.3 Lux                           |
|                      | Color Binning (Day Mode) | 0.1 Lux                        | 0.1 Lux                        | 0.15 Lux                          |
|                      | B/W (Night Mode)         | 0.02 Lux, IR sensitive         | 0.02 Lux, IR sensitive         | 0.03 Lux, IR sensitive            |
| Full FOV Resolution  | Total                    | 8192 H x 1536 V                | 8192 H x 1536 V                | 10240 H x 1920 V                  |
|                      | Per Sensor               | 2048 H x 1536 V                | 2048 H x 1536 V                | 2560 H x 1920 V                   |
| 1/4 Resolution       | Total                    | 4096 H x 768 V                 | 4096 H x 768 V                 | 5120 H x 960 V                    |
|                      | Per Sensor               | 1024 H x 768 V                 | 1024 H x 768 V                 | 1280 H x 960 V                    |
| Dynamic Range        |                          | 69.5dB                         | WDR up to 120dB                | 70.1dB                            |
| Frame Rates*         | At Max Resolution        | 10fps (8192x1536)              | 10fps (8192x1536)              | 7fps (10240x1920)                 |
|                      | 1/4 Resolution           | 14fps (4096x768)               | 10fps (4096x768)               | 10fps (5120x960)                  |
|                      | Binning Mode             | 29fps (4096x768)               | 10fps (4096x768)               | 24fps (5120x960)                  |
| Lens (x4)            |                          | 2.8–6mm, F2.0, H-FOV = 45°–94° | 2.8–6mm, F2.0, H-FOV = 45°–94° | 3.3–6.6mm, F1.7, H-FOV = 53°–102° |

Programmability

|                            |  |
|----------------------------|--|
| Optics                     | Remote focus / zoom  |
|                            | Pixel Binning Mode   |
| Picture-in-Picture         | Simultaneous delivery of full field-of-view and zoomed images            |
| Programmable Shutter Speed | Controls motion blur, 1ms–500ms  |
| Motion Detection           | Real-time, 1024 detection zones  |
| Privacy Masking            | Unlimited  |
| MoonLight™ Mode            | Extended exposure and noise cancellation                                 |
| 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   |
| Wide Dynamic Range         | Auto switch control adjustment between WDR and LDR modes (WDR models)    |
| Efficiency                 | SNAPstream™ (Smart Noise Adaptation and Processing)                      |
|                            | Bit rate and bandwidth limitation control                                |
|                            | Bandwidth and storage savings by running at 1/4 resolution               |
| Sharpness                  | Selectable enhancement level   |
| Miscellaneous              | Programmable resolution, brightness, saturation, gamma, tint             |
|                            | Electronic pan, tilt, zoom (PTZ)   |
|                            | Auto Exposure (AE) and Gain Control (AGC) > 120dB                        |
|                            | Programmable shutter speed to help control motion blur                   |

Data Transmission

|                   |  |
|-------------------|--|
| Compression Type  | H.264 (MPEG-4, Part 10)/Motion JPEG                    |
|                   | 21 levels of quality                                   |
| Network Protocols | HTTP, IPv4, 802.1x, RTSP, RTP/TCP, RTP/UDP, TFTP, DHCP |
| Network Interface | 100Base-T Ethernet                                     |
| Multi-Streaming   | 8 non-identical streams                                |

Compliance

|                   |  |
|-------------------|--|
| Industry Standard | ONVIF Profile S conformant   |
| Listings          | UL (CB)  |
| FCC Compliance    | 47 CFR 15 Class A  |
| Environmental     | RoHS, REACH, WEEE  |
| Markings          | (CE) 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, (UL) IEC 60950-1 (ed. 2) and IEC 60950-22 (ed. 1) |
| CoO               | Made in the USA  |

Environmental

|                       |                                |
|-----------------------|--------------------------------|
| Operating Temperature | -40°C (-40°F) to +50°C (122°F) |
| Humidity              | 0% to 90% (non-condensing)     |
| Storage Temperature   | -40°C (-40°F) to +60°C (140°F) |

\* Maximum with H.264 compression

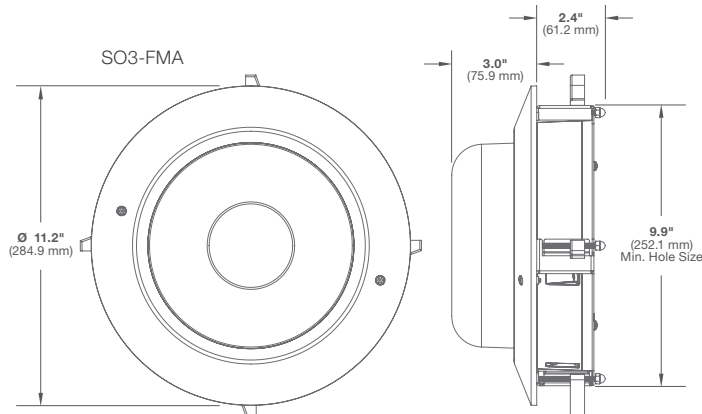
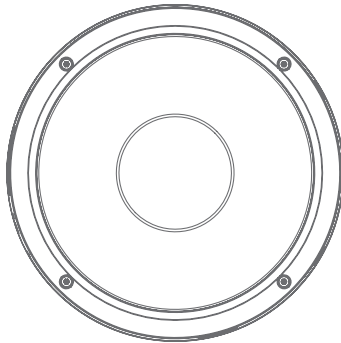
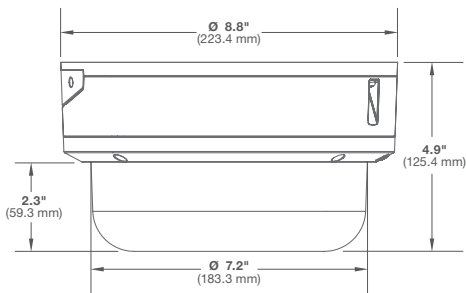
## Electrical

|                            |                      |
|----------------------------|----------------------|
| <b>Alarm Input/Output</b>  | 1 input /1 output    |
| <b>Power Over Ethernet</b> | PoE 802.3af, Class 3 |
| <b>Auxiliary Power</b>     | 18–48V DC, 24V AC    |
| <b>Power Consumption</b>   | 12W max              |

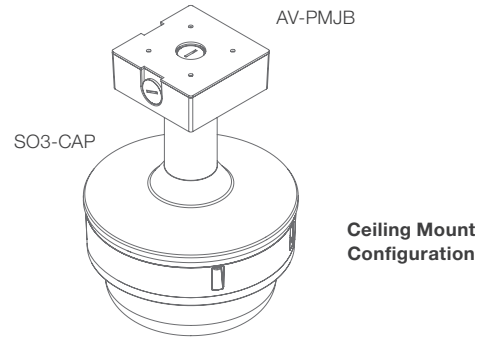
## Mechanical

|  |  |  |
|--|--|--|
| <b>Casing</b>                                | Die-cast aluminum chassis with polycarbonate dome bubble |  |
|  | IP66 weather proof standard                              |  |
|  | Impact resistant, IK-10 rated                            |  |
| <b>Gimbal</b>                                | Remotely adjustable, 3-axis w/360° pan, 135° tilt        |  |
| <b>Dimensions</b><br><i>(See Dimensions)</i> | <b>Unit</b>  | Ø 8.8" (223.4mm) x 4.9" H (125.4mm)                |
|  | <b>Bubble Only</b>                                       | Ø 7.2" (183.3mm) x 2.3" H (59.3mm)                 |
|  | <b>Packaged</b>  | 11.1" W (281mm) x 11.1" L (281mm) x 7.4" H (188mm) |
| <b>Weight</b>                                | <b>Unit</b>  | 5.2lbs (2.36kg)                                    |
|  | <b>Packaged</b>  | 5.9lbs (2.68kg)                                    |

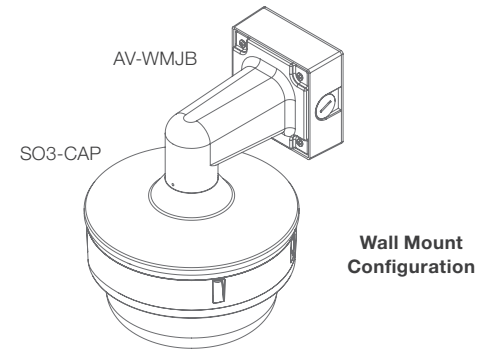
## Dimensions



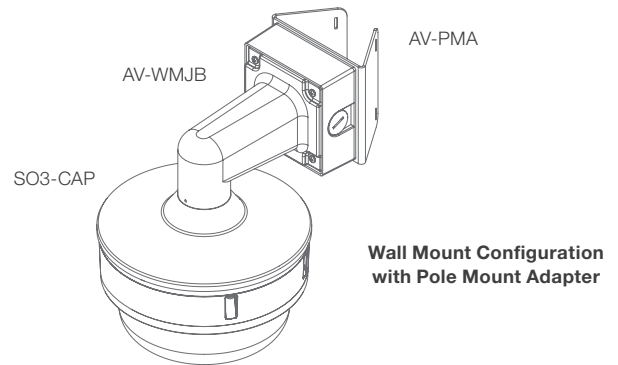
**Flush Mount Adapter**



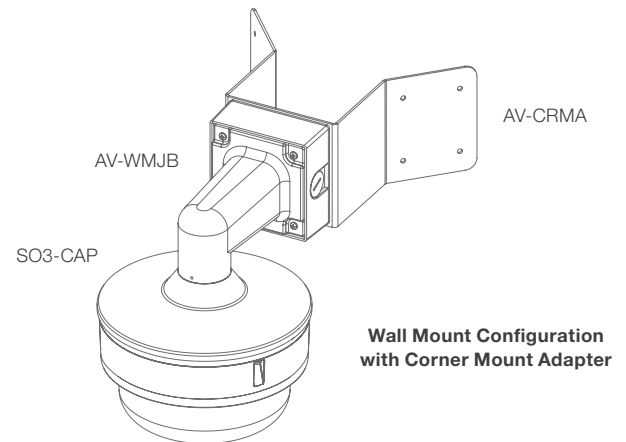
**Ceiling Mount Configuration**



**Wall Mount Configuration**



**Wall Mount Configuration with Pole Mount Adapter**



**Wall Mount Configuration with Corner Mount Adapter**

See Next Page for Ordering Information



Accessories (Sold Separately)

|                |   |
|----------------|---|
| <b>AV-CRMA</b> | Corner Mount Adapter  |
| <b>AV-JBA</b>  | Standard Junction Box   |
| <b>AV-PMA</b>  | Pole Mount Adapter  |
| <b>AV-PMJB</b> | Pendant Mount Bracket with Standard Junction Box<br><i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i> |
| <b>AV-WMJB</b> | Wall Mount Bracket with Standard Junction Box<br><i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i>    |
| <b>SO3-CAP</b> | Cap for SurroundVideo® Omni G3  |
| <b>SO3-FMA</b> | Flush Mount Adapter for SurroundVideo Omni G3   |

Model Specific Features

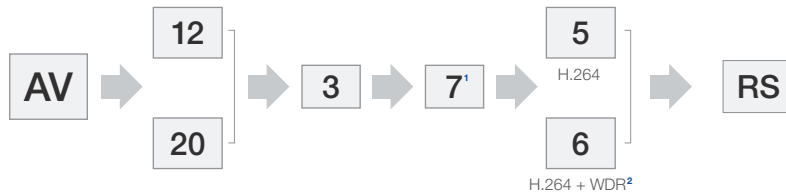
| Model            | Resolution | Frame Rate* | Features |         |
|------------------|------------|-------------|----------|---------|
| <b>AV12375RS</b> | 12MP       | 10fps       | -        | Binning |
| <b>AV12376RS</b> | 12MP       | 10fps       | WDR      | Binning |
| <b>AV20375RS</b> | 20MP       | 7fps        | -        | Binning |

Model Numbers

|             |   |
|-------------|---|
| <b>12MP</b> | AV12375RS   |
|             | AV12376RS <span style="float: right; border: 1px solid black; padding: 2px;">WDR</span> |
| <b>20MP</b> | AV20375RS   |

Create Your Model (Example: AV12375RS)

|  | Megapixel Resolution | Generation | Body Type | Compression | Remote Setup |
|--|----------------------|------------|-----------|-------------|--------------|
|--|----------------------|------------|-----------|-------------|--------------|



1 "7" represents SurroundVideo Omni product line  
 2 WDR for AV12376 models only  
 \* Maximum with H.264 compression

