

# 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 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, Wide Dynamic Range (WDR) delivers up to 100dB 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 AV IP Utility can be used for setup and updates, as can many MegaLab-certified VMS/NVR platforms. Using the camera interface or the AV IP 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.



Remote Setup



SNAPstream™ Technology



Omni-Directional Track with 4 Customizable Sensors



Presets 180°/270°/360°



Custom Presets



Motorized Pan &amp; Tilt Capable



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
- True WDR up to 100dB 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, IPv6, QoS, DHCP, and More
- PoE and Auxiliary Power: 18–48V DC/24V AC
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing

## Camera Specifications

Model		AV12375RS		AV12376RS		AV20375RS	
Image Sensor		4 x 3MP CMOS		4 x 3MP CMOS		4 x 5MP CMOS	
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	Total	8192 H x 1536 V	Total	10240 H x 1920 V
		Per Sensor	2048 H x 1536 V	Per Sensor	2048 H x 1536 V	Per Sensor	2560 H x 1920 V
1/4 Resolution		Total	4096 H x 768 V	Total	4096 H x 768 V	Total	5120 H x 960 V
		Per Sensor	1024 H x 768 V	Per Sensor	1024 H x 768 V	Per Sensor	1280 H x 960 V
Dynamic Range		69.5dB		100dB		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		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°	

## SituationalPlus™

Lens Model	Lens Range	View Angle	Distance to pixel density (ft.)(m)					
			30ppf-T (100ppm)	30ppf-W (100ppm)	60ppf-T (200ppm)	60ppf-W (200ppm)	90ppf-T (300ppm)	90ppf-W (300ppm)
AV12375RS	2.8–6mm	45°–94°	83' (25.3m)	31' (9.4m)	40.5' (12.3m)	13.5' (4.1m)	26.5' (8.1m)	7' (2.1m)
AV12376RS	2.8–6mm	45°–94°	83' (25.3m)	31' (9.4m)	40.5' (12.3m)	13.5' (4.1m)	26.5' (8.1m)	7' (2.1m)
AV20375RS	3.3–6.6mm	53°–102°	85' (25.9m)	34' (10.4m)	42' (12.8m)	15.5' (4.7m)	27.5' (8.4m)	8.5' (2.6m)

## 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	50/60Hz selectable
Wide Dynamic Range	Auto switch control adjustment between WDR and LDR modes (WDR models)
Noise Reduction	Low light noise filter control
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	RTSP, RTP/TCP, RTP/UDP, HTTP, DHCP, TFTP, IPv4, IPv6, QoS, 802.1x
Network Interface	100Base-T Ethernet
Multi-Streaming	8 non-identical streams

## Compliance

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

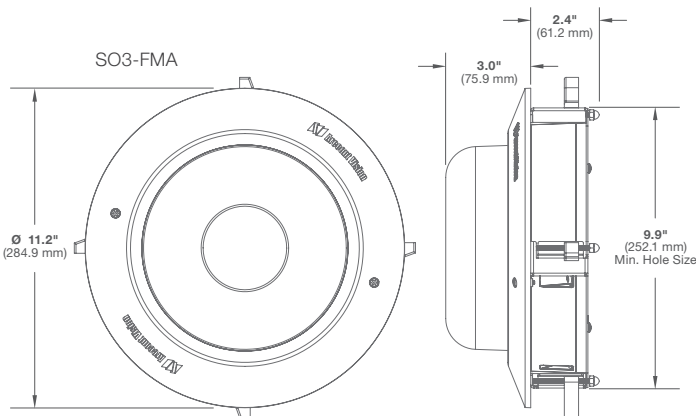
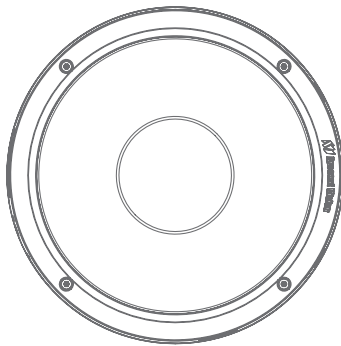
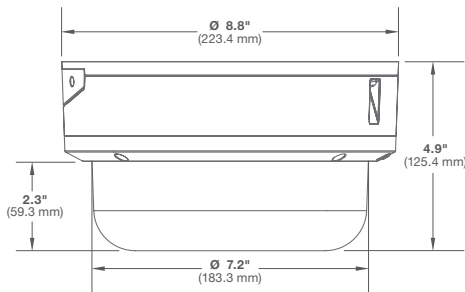
### Electrical

<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>Maximum Power Consumption</b>	12 Watts

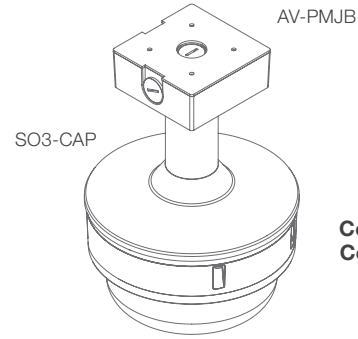
### Mechanical

<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> <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)

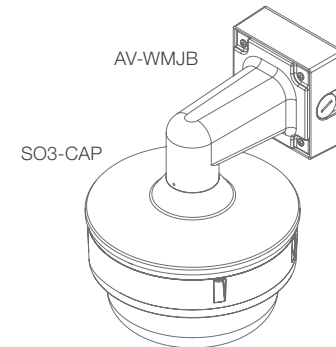
### Dimensions



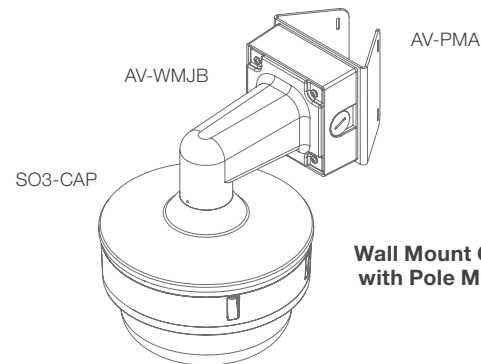
**Flush Mount Adapter**



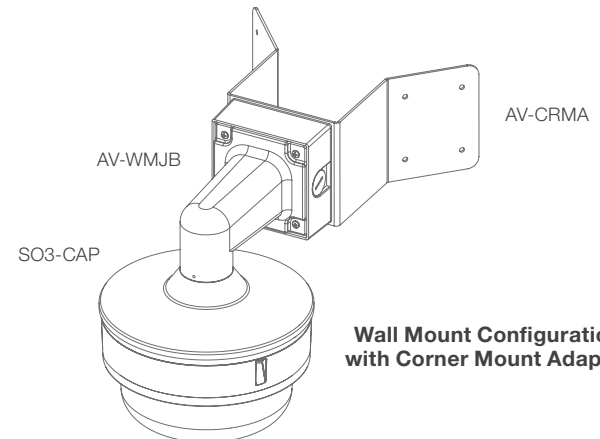
**Ceiling Mount Configuration**



**Wall Mount Configuration**



**Wall Mount Configuration with Pole Mount Adapter**



**Wall Mount Configuration with Corner Mount Adapter**

See Next Page for Ordering Information

Ordering Information



Accessories (Sold Separately)

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
SO3-CAP	Cap for SurroundVideo Omni
SO3-FMA	Flush Mount Adapter

Model Specific Features

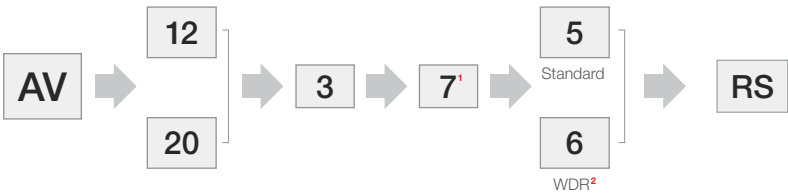
Model	Resolution	Frame Rate <sup>†</sup>	Features	
AV12375RS	12MP	10fps	-	Binning
AV12376RS	12MP	10fps	WDR	Binning
AV20375RS	20MP	7fps	-	Binning

Model Numbers

12MP	AV12375RS
	AV12376RS <div>WDR</div>
20MP	AV20375RS

Create Your Model (Example: AV12375RS)

Megapixel Resolution	Generation	Body Type	Compression	Remote Setup
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<sup>1</sup> "7" represents SurroundVideo Omni product line  
<sup>2</sup> WDR for AV12376 models only  
<sup>†</sup> Maximum with H.264 compression