

# SurroundVideo® Omni G2 IP Megapixel Cameras

12MP or 20MP H.264 All-in-One Remote Focus Omni-Directional User-Configurable Multi-Sensor True Day/Night Indoor/Outdoor Dome IP Cameras



The SurroundVideo Omni G2, new generation multi-sensor camera design, meets the highest level of flexibility. The unique, future-proof platform provides organizations of all sizes the flexibility to deploy a security system that truly matches their current video surveillance needs, and the simplicity to make changes if you need to in the future.

With its ground-breaking flexibility such as the ability to easily move each of the four sensors around the magnetic 70+ placement-point Omni track, the 3-axis gimbals for an increased range of motion when positioning the sensors, and the ability to interchange the remote focus modular lenses for a customized field of view, the SurroundVideo Omni G2 provides customers with the confidence in a future-proof investment.

The SurroundVideo Omni G2 series features a choice of 12- or 20-megapixel resolution options. These cameras include four individual true day/night sensors that provide an all-in-one solution for capturing wide area video surveillance while maximizing the field-of-view and reducing the total number of cameras required.

Regardless of time-of-day, this camera is ideal for applications with challenging lighting conditions. For applications with bright or over saturated lighting conditions, the optional wide dynamic range feature delivers up to 100dB at full resolution (12MP models only). 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.

Once mounted, the operator can quickly focus the camera remotely, eliminating the need to adjust the camera on-site. No more hassle individually installing multiple cameras to cover a wide area, manually focusing lenses, or risk of missing critical information.

SurroundVideo Omni G2 is designed for demanding environments. Subjected and certified to rigorous dust and water tests, the IP66 rating, and its extended operating temperature range make it ideal for outdoor applications. The IK-10 rated, rugged dome housing is perfect for deterring vandals since it can withstand the equivalent of 55 kg (120 lbs) of force.

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 Power-over-Ethernet compliant network cable or with power from a 12-48V DC/24V AC power supply.

The camera's interface allows for an intuitive, fast, and easy configuration. The Free AV IP Utility tool allows users to quickly configure multiple cameras at one time. The SurroundVideo Omni G2 is PSIA (Physical Security Interoperability Alliance) compliant, providing interoperability between network video products regardless of manufacturer.



Interchangeable Lenses with Motorized Remote Focus



Omni-Directional Track with 4 Customizable Sensors



270° FOV Capable



Wide Dynamic Range on 12MP Models



True Day/Night with IR Cut Filter



Pixel Binning Mode



Ultra Low Profile Design



3-Axis Gimbal



Impact / Weather Resistant IK-10 and IP66 Rated

## Series Features

- 12MP and 20MP Resolution Options
- True Day/Night Functionality with Mechanical IR Cut Filter
- True WDR up to 100dB at Full Resolution (Select 12MP Models)
- Binning Mode for Strong Low Light Performance
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control and Multi-Streaming, Forensic Zooming
- Dual Encoder H.264/MJPEG
- Faster Frame Rates vs. Previous Generation
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices

- PoE and Auxiliary Power: 12–48V DC/24V AC
- 3-Axis Gimbal – Up to 4 Individual Camera Gimbals can be Independently Placed in Any Orientation Around a 360° Track
- Remote Focus Modules
- Four (4) Interchangeable Lens Options (2.1mm\* up to 16mm)
- Ultra Discrete, Low-Profile Housing
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing

\*2.1mm lens only compatible with 12MP models



Camera Specifications

Model		AV12275DN	AV12276DN	AV20275DN
Image Sensor		4 x 3MP CMOS		4 x 5MP CMOS
Optical Format		1/3"		1/2.5"
Pixel Pitch		2.2µm		2.2µm
Minimum Illumination	Color (Day Mode)	0.2 Lux		0.3 Lux
	Color Binning (Day Mode)	0.1 Lux		0.15 Lux
	B/W (Night Mode)	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		70.1dB
Frame Rates*	At Max Resolution	10fps (8192x1536)		7fps (10240x1920)
	1/4 Resolution	14fps (4096x768)		10fps (5120x960)
	Binning Mode	29fps (4096x768)		24fps (5120x960)
Lens	2.8mm Lens Option (-28 Models)	2.8mm, F1.8, H-FOV = 88°		2.8mm, F1.6, H-FOV = 114°
	8mm Lens Option (-08 Models)	8mm, F1.6, H-FOV = 33°		8mm, F1.6, H-FOV = 43°

\*Per Sensor

Programmability

Optics	Remote focus
	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)
Efficiency	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
	Simultaneous delivery of full field-of-view and zoomed images
	Electronic pan, tilt, zoom (PTZ)
	Auto Exposure (AE) and Gain Control (AGC) > 120dB
	Programmable shutter speed to help control motion blur

SituationalPlus™

Model	Lens	View Angle	Distance to pixel density (ft.)(m)		
			30ppf (98ppm)	60ppf (197ppm)	90ppf (295ppm)
AV12275DN-28	MPM2.8A	89°	34' (10.4m)	15.5' (4.7m)	8' (2.4m)
AV12275DN-08	MPM8.0	33°	114.5' (34.9m)	56' (17.1m)	37.5' (11.4m)
AV12276DN-28	MPM2.8A	89°	34' (10.4m)	15.5' (4.7m)	8' (2.4m)
AV12276DN-08	MPM8.0	33°	114.5' (34.9m)	56' (17.1m)	37.5' (11.4m)
AV20275DN-28	MPM2.8A	113°	27' (8.2m)	12' (3.7m)	5' (1.5m)
AV20275DN-08	MPM8.0	42°	114' (34.7m)	56' (17.1m)	36' (11.0m)

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
Network Interface	100Base-T Ethernet
Multi-Streaming	8 non-identical streams

Compliance

Industry Standard	PSIA 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)

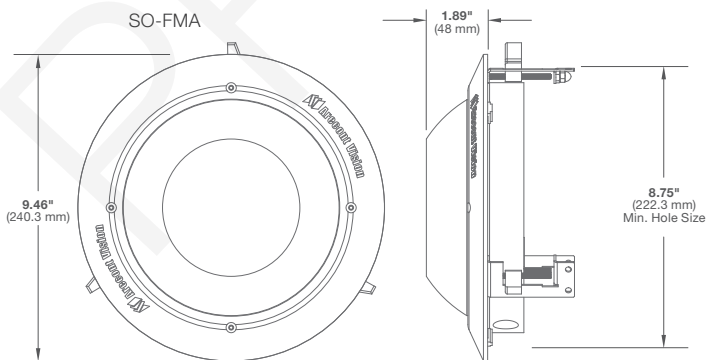
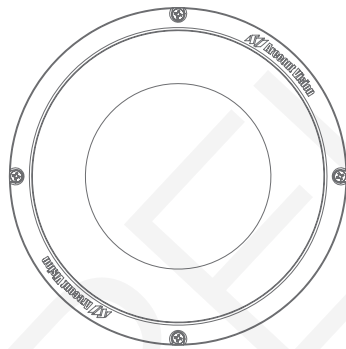
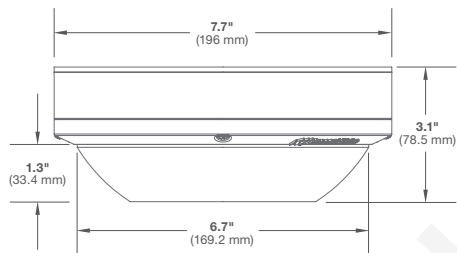
Electrical

<b>Alarm Input/Output</b>	1 input/1 output
<b>Power Over Ethernet</b>	PoE 802.3af, Class 3
<b>Auxiliary Power</b>	12–48V DC, 24V AC
<b>Maximum Power Consumption</b>	14 Watts Max (Aux)

Mechanical

<b>Casing</b>	Die-cast aluminum chassis with polycarbonate dome bubble	
	IP66 weather proof standard	
	Impact resistant, IK-10 rated	
<b>Gimbal</b>	Easily adjustable, 3-axis w/360° pan, 90° tilt, and 360° z-axis	
<b>Dimensions</b> <i>(See Dimensions)</i>	<b>Unit</b>	Ø 7.7" (196mm) x 3.1" H (78.5mm)
	<b>Bubble Only</b>	Ø 6.7" (169.2mm) x 1.3" H (33.4mm)
	<b>Packaged</b>	8" W (203mm) x 8" L (203mm) x 4" H (102mm)
<b>Weight</b>	<b>Unit</b>	2.8lbs (1.27kg)
	<b>Packaged</b>	3.4lbs (1.54kg)

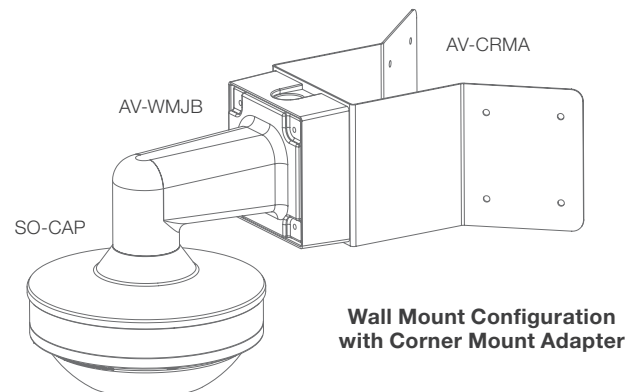
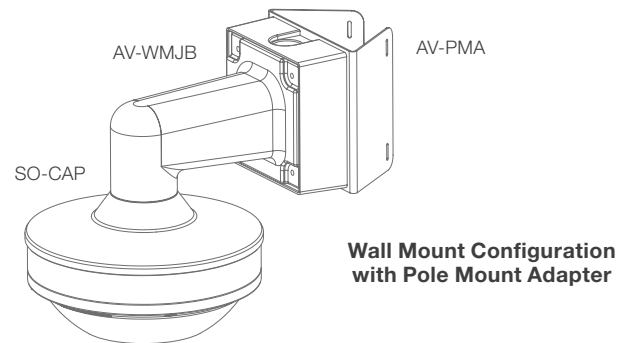
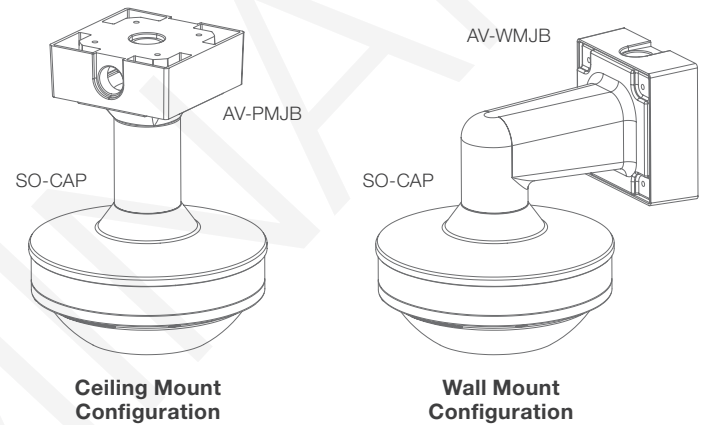
Dimensions



Flush Mount Adapter

Accessories (Sold Separately)

<b>AV-CRMA</b>	Corner Mount Adapter
<b>AV-EBA</b>	Electrical Box Adapter
<b>AV-JBA</b>	Junction Box Adapter
<b>AV-PMA</b>	Pole Mount Adapter
<b>AV-PMJB</b>	Pendant Mount Bracket with Junction Box
<b>AV-WMJB</b>	Wall Mount Bracket with Junction Box
<b>SO-CAP</b>	Cap for SurroundVideo Omni
<b>SO-FMA</b>	Flush Mount Adapter



# Ordering Information



### Model Specific Features

Model	Resolution	Frame Rate*	Features	
AV12275DN	12MP	10fps	-	Binning
AV12276DN	12MP	10fps	WDR	Binning
AV20275DN	20MP	7fps	-	Binning

\*Per Sensor

### Model Numbers

12MP	AV12275DN-NL	
	AV12275DN-28	
	AV12275DN-08	
	AV12276DN-NL	WDR
	AV12276DN-28	WDR
	AV12276DN-08	WDR
20MP	AV20275DN-NL	
	AV20275DN-28	
	AV20275DN-08	

### Options

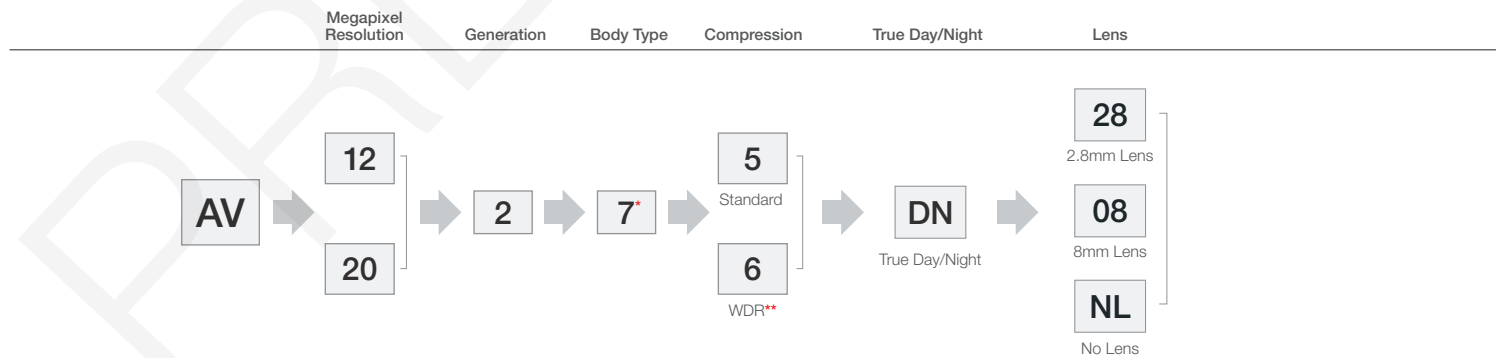
-NL	No Lenses (User Configurable and Ordered Separately)
-28	Configured with 2.8mm Lenses*
-08	Configured with 8mm Lenses**

\* Good option for a 270° Corner Mount configuration  
 \*\* Good configuration option for a hallway intersection

### Lens Options

Manual Fixed Focal	Options
MPM2.1 (2.1mm) Ordered Separately	<input type="checkbox"/> 3MP
MPM2.8A (2.8mm) Standard (-28 Models)	<input type="checkbox"/> 3MP <input type="checkbox"/> 5MP
MPM4.0A (4mm) Ordered Separately	<input type="checkbox"/> 3MP <input type="checkbox"/> 5MP
MPM6.0 (6mm) Ordered Separately	<input type="checkbox"/> 3MP <input type="checkbox"/> 5MP
MPM8.0 (8mm) Standard (-08 Models)	<input type="checkbox"/> 3MP <input type="checkbox"/> 5MP
MPM12.0A (12mm) Ordered Separately	<input type="checkbox"/> 3MP <input type="checkbox"/> 5MP
MPM16.0 (16mm) Ordered Separately	<input type="checkbox"/> 3MP <input type="checkbox"/> 5MP

### Create Your Model (Example: AV12276DN-28)



\* "7" represents SurroundVideo Omni product line  
 \*\* WDR for AV12276 models only