MegaIP™

Arecont Vision®
A COSTAR COMPANY

SurroundVideo® Omni G2 IP Megapixel Cameras

12 or 20 Megapixel (MP) H.264 All-in-One Remote Focus Omni-Directional User-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 G2, next generation multi-sensor, multi-megapixel camera was built to withstand evolving customer change-requirements. The unique, future-proof platform of the SurroundVideo Omni G2 provides organizations of all sizes the flexibility to deploy a security system that truly matches their video surveillance needs now; and again if requirements change 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 changes when you do.

The SurroundVideo Omni G2 multi-megapixel camera series features a choice of 12- or 20-megapixel resolution options. These cameras 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 saving installers time and end users money.

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 for the highest image quality at any time of day. For applications with bright or over saturated lighting conditions, optional Enhanced WDR™ wide dynamic range delivers up to 100dB at full resolution and is available on select 12MP models. For applications with poor low 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 and position 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 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.

SurroundVideo Omni G2 models feature 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 Power-over-Ethernet compliant network cable or with power from a 18–48V DC/24V AC power supply.

The camera's interface allows for an intuitive, fast, and easy configuration; while the free AV IP Utility™ tool allows users to quickly configure multiple cameras at one time. SurroundVideo Omni G2 is ONVIF Profile S (Open Network Video Interface Forum) compliant, providing interoperability between network video products regardless of manufacturer.



Interchangeable Lenses with Remote Focus Module



Omni-Directional Track with 4 Customizable Sensors



SNAPstream™ Technology



270° FOV Capable



Enhanced WDR™ Wide Dynamic Range on Select 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 Models
- Remote Focus
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices
- 3-Axis Gimbal – Up to 4 Individual Camera Gimbals can be Independently Placed in Any Orientation Around a 360° Track with Extra Positions for Looking Straight Down
- Multiple Lens Options in a Single Camera Housing from 2.1mm up to 16mm
- SNAPstream™ Capability to Reduce Bandwidth without Impacting Image Quality
- Enhanced WDR™ up to 100dB at Full Resolution: See Clearly in Shaded and Bright Light Conditions Simultaneously on Select 12MP Models
- True Day/Night Functionality with Mechanical IR Cut Filter
- 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
- Ultra Discrete, Low-Profile Housing
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- Complete Mounting Options

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

ONVIF | S

Camera Imaging Specifications

Model		AV12275DN		AV12276DN		AV20275DN	
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	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		WDR up to 100dB		70.1dB	
Frame Rates*	At Max Resolution	10fps (8192x1536)		10fps (8192x1536)		7fps (10240x1920)	
	1/4 Resolution	14fps (4096x768)		14fps (4096x768)		10fps (5120x960)	
	Binning Mode	29fps (4096x768)		14fps (4096x768)		24fps (5120x960)	
Lens (x4)	2.8mm Lens Option (-28 Models)	2.8mm, F1.8, H-FOV = 89°		2.8mm, F1.8, H-FOV = 89°		2.8mm, F1.6, H-FOV = 113°	
	8mm Lens Option (-08 Models)	8mm, F1.6, H-FOV = 33°		8mm, F1.6, H-FOV = 33°		8mm, F1.6, H-FOV = 42°	

SituationalPlus™

Model	Lens	View Angle	Distance to pixel density (ft.)(m)		
			30ppf (98ppm)	60ppf (197ppm)	90ppf (295ppm)
AV12275DN-28	MPM2.8A	89° (x4)	34' (10.4m)	15.5' (4.7m)	8' (2.4m)
AV12275DN-08	MPM8.0	33° (x4)	114.5' (34.9m)	56' (17.1m)	37.5' (11.4m)
AV12276DN-28	MPM2.8A	89° (x4)	34' (10.4m)	15.5' (4.7m)	8' (2.4m)
AV12276DN-08	MPM8.0	33° (x4)	114.5' (34.9m)	56' (17.1m)	37.5' (11.4m)
AV20275DN-28	MPM2.8A	113° (x4)	27' (8.2m)	12' (3.7m)	5' (1.5m)
AV20275DN-08	MPM8.0	42° (x4)	114' (34.7m)	56' (17.1m)	36' (11.0m)

Programmability

Optics	M12 lens and remote focus module
Low Light Performance	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

(Programmability Cont.)

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

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

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

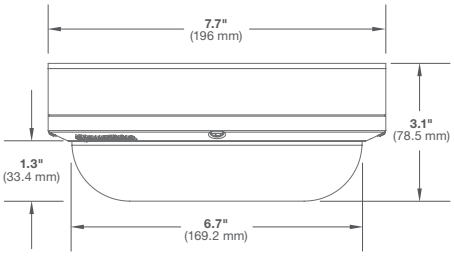
Electrical

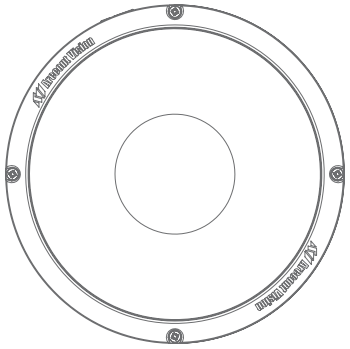
Alarm Input/Output	1 input/1 output
Power Over Ethernet	PoE 802.3af, Class 3
Auxiliary Power	18–48V DC, 24V AC
Power Consumption	14W max (auxiliary)

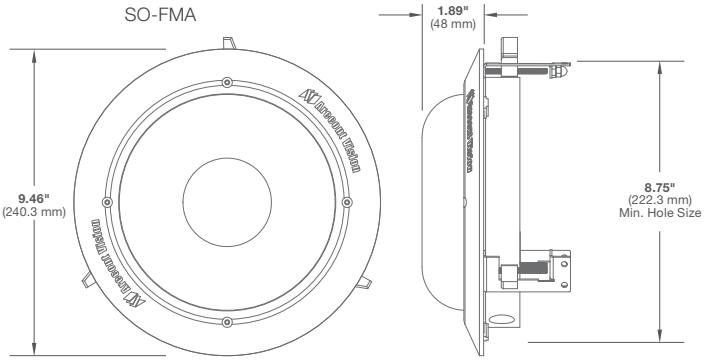
Mechanical

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

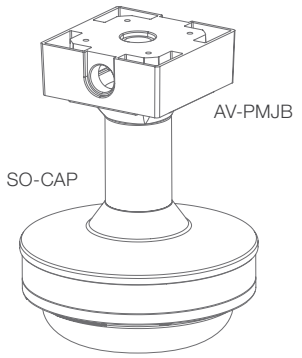
Dimensions



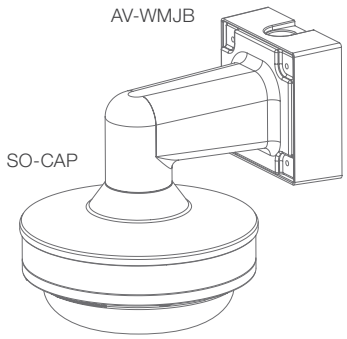




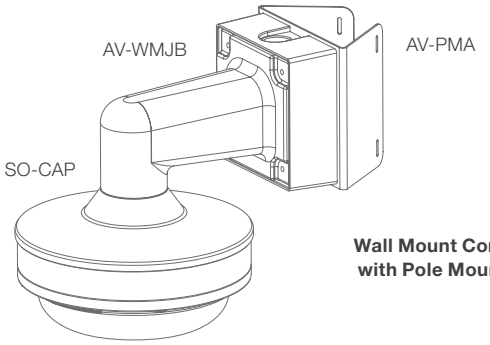
Flush Mount Adapter



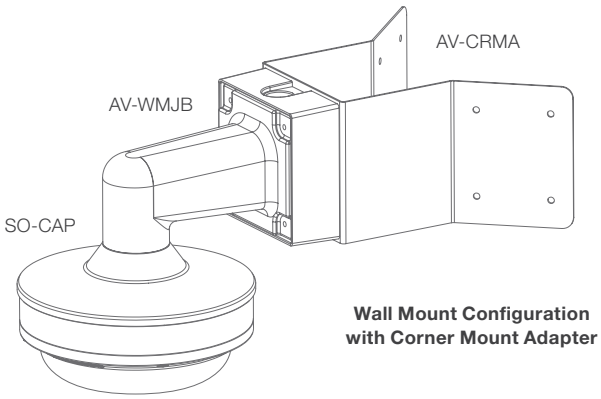
Ceiling Mount Configuration



Wall Mount Configuration



Wall Mount Configuration with Pole Mount Adapter



Wall Mount Configuration with Corner Mount Adapter

See Next Page for Ordering Information

SurroundVideo® Omni G2 IP Megapixel Cameras

Ordering Information



Model Specific Features

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

* Maximum with H.264 compression

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[1]
-08	Configured with 8mm Lenses[2]

[1] Good option for a 270° Corner Mount configuration
[2] Good configuration option for a hallway intersection

Lens Options (Sold Separately)

Model	Focal Length	Horizontal Field of View		
		3MP	3MP WDR	5MP
MPM2.1	2.1mm	121°	121°	-
MPM2.8A[3]	2.8mm	89°	89°	113°
MPM4.0A	4mm	63°	63°	80°
MPM6.0	6mm	43°	43°	56°
MPM8.0[3]	8mm	33°	33°	42°
MPM12.0A	12mm	22°	22°	28°
MPM16.0	16mm	16°	16°	20°

[3] MPM2.8A (2.8mm) is the default lens for "-28" models and MPM8.0 (8mm) is the default lens for "-08" models

Accessories (Sold Separately)

AV-CRMA	Corner Mount Adapter
AV-EBAR	Round Electrical Box Adapter Plate
AV-JBA[4]	Standard Junction Box
AV-PMA	Pole Mount Adapter
AV-PMJB	Pendant Mount Bracket with Standard Junction Box *(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)*
AV-WMJB	Wall Mount Bracket with Standard Junction Box *(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)*
SO-CAP	Mounting Cap for SurroundVideo® Omni Series[5]
SO-FMA	Flush Mount Adapter for SurroundVideo Omni Series[5]
SO-SSA	Sun Shield for SurroundVideo Omni Series[5]

[4] Replacement part for AV-PMJB and AV-WMJB
[5] SurroundVideo Omni and SurroundVideo Omni G2 only

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

Megapixel Resolution	Generation	Body Type	Compression	True Day/Night	Lens
AV	12 / 20	2	7[6]	5 H.264 / 6 H.264 + WDR[7]	DN True Day/Night	28 2.8mm Lens / 08 8mm Lens / NL No Lens

[6] "7" represents SurroundVideo Omni product line
[7] WDR for AV12276 models only

Arecont Vision®
A COSTAR COMPANY

425 E. Colorado St. 7th Floor | Glendale, CA USA 91205 | +1.818.937.0700 | www.arecontvision.com | avsales@arecontvision.com

© 2018 Arecont Vision Costar, LLC. All rights reserved. Arecont Vision, the Arecont Vision logo, and SurroundVideo are registered trademarks of the company.
AV IP Utility, Enhanced WDR, MegaIP, MoonLight, SituationalPlus, and SNAPstream are business use trademarks of the company.

Made in the USA

Rev 003.006