Arecont Vision®

Leading the Way in Megapixel Video™

SurroundVideo® Omni

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

Multi-Sensor Omni

Camera Models

12 Megapixel	20 Megapixel
AV12176DN-NL	AV20175DN-NL
AV12176DN-28	AV20175DN-28
AV12176DN-08	AV20175DN-08

Description:

Delivering revolutionary flexibility, Arecont Vision SurroundVideo® Omni multi-sensor, multi-megapixel cameras provide ample resolution to zoom-in for details in live and recorded video. With multiple imagers, each with a choice of an IR corrected lens, one SurroundVideo® Omni can replace 4 standard cameras, requiring just a single installation with only one ethernet cable.

A unique track design allows four individual sensor gimbals to be independently placed in nearly any configuration. Popular uses of SurroundVideo® Omni IP66 rated / IK-10 impact-resistant cameras are to cover the intersection of hallways or to provide a 270° view at the corner of a building.

SurroundVideo® Omni cameras are available in total resolutions of 12 megapixels (MP) or 20 megapixels. Optional lenses can be selected from a choice of 2.8, 4, 6, 8, 12 and 16mm. Wide Dynamic Rage (WDR) that delivers up to 100dB at full resolution is available in the 12MP model. H.264 compression reduces bandwidth and storage requirements, while delivering full frame rates and resolution, without sacrificing image quality.

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	Dual Encoder H.264/MJPEG	Ultra Low Profile Design	Impact / Weather Resistant IK-10 and IP66 Rated

Features:

- 12MP WDR and 20MP Configurations
- 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 2.8mm up to 16mm
- True WDR up to 100dB at Full Resolution: See Clearly in Shaded and Bright Light Conditions Simultaneously
- True Day/Night Functionality with Mechanical IR Cut Filter
- Binning Mode for Strong Low Light Performance
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices
- Fast Frame Rates
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control and Multi-Streaming
- Dual Encoder H.264/MJPEG
- PoE and Auxiliary Power: 12–48V DC/24V AC
- Ultra Discrete, Low-Profile Housing
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- Complete Mounting Options
- Reduced Overall System Cost
- Made in the USA

Model Specific Features

Model	Resolution	Frame Rate	Features	
AV12176DN-NL	12MP	5.2fps	WDR	Binning
AV12176DN-28	12MP	5.2fps	WDR	Binning
AV12176DN-08	12MP	5.2fps	WDR	Binning
AV20175DN-NL	20MP	3.5fps		Binning
AV20175DN-28	20MP	3.5fps		Binning
AV20175DN-08	20MP	3.5fps		Binning

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

Camera Imaging

Model		AV12176DN	AV20175DN
Image Sensor		4 x 3MP CMOS	4 x 5MP CMOS
Optical Format		1/3.2"	1/2.5"
Pixel Pitch		2.2μm	2.2μm
Minimum Illumination	Color	0.5 Lux	Color — 0.3 Lux
	Color Binning	0.15 Lux	Color Binning — 0.15 Lux
	Day/Night	0 Lux, IR sensitive	Day/Night — 0 Lux, IR sensitive
Full Field of View (FOV) Resolution	Total	8192 H x 1536 V	Total — 10240 H x 1920 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 — 5120 H x 960 V
	Per Sensor	1024 H x 768 V	Per Sensor — 1280 H x 960 V
Dynamic Range		Up to 100dB at Full Resolution	70.1dB
Lens	2.8mm Lens Option (-28 Models)	2.8mm, F/1.6", H-FOV = 88°	2.8mm, F/1.6", H-FOV = 114°
	8mm Lens Option (-08 Models)	8mm, F/1.6", H-FOV = 33°	8mm, F/1.6", H-FOV = 43°
Video Frame Rates	Max	5.2fps (8192 x 1536)	Max — 3.5fps (10240x1920)
		16.7fps (4096 x 768)	11fps (5120x960)

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
Network Interface	100Base-T Ethernet
Multi-Streaming	8 non-identical streams (2 per sensor)

Programmability

- Auto adjustment between WDR and LDR modes (12MP Models)
- Binning Mode
- Privacy mask
- Flexible Cropping (resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264)
- Auto Exposure (AE) and Gain Control (AGC) > 120dB
- On-camera real-time motion detection with up to 1024 detection zones (per sensor)
- Auto multi-matrix white balance
- 50/60Hz selectable flicker control
- Electronic pan, tilt, zoom (PTZ)
- Programmable shutter speed to help control motion blur
- MoonLight™ Mode: extended exposure and proprietary noise cancellation
- Programmable resolution, brightness, saturation, gamma, sharpness, tint
- Simultaneous delivery of full field-of-view and zoomed images
- Bandwidth and storage savings by running at 1/4 resolution
- Bit rate and bandwidth limit control

Compliance

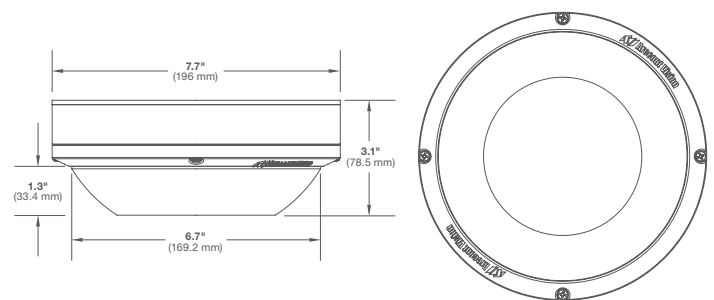|	
Listings	UL (CB)
FCC Compliance	47 CFR 15 Class A
Environmental	RoHS, REACH, WEEE

Environmental

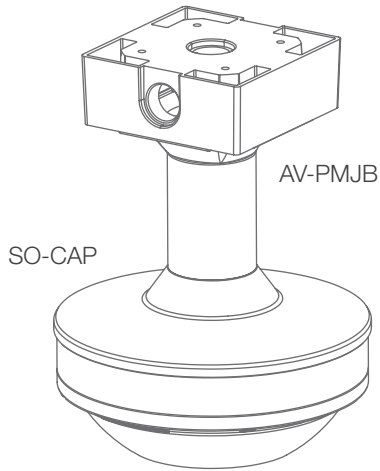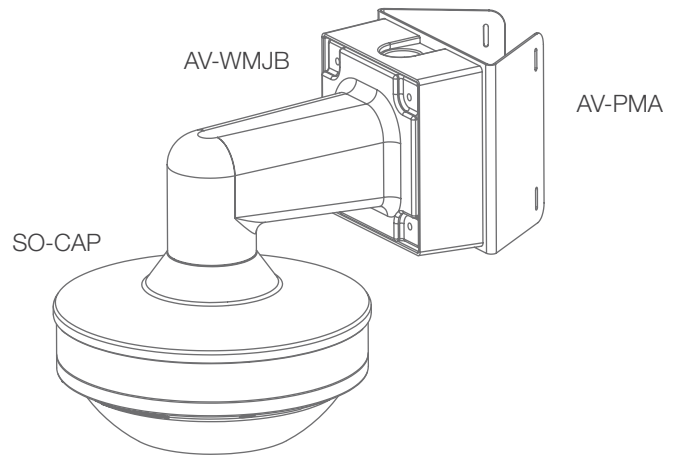|	
Protection Ratings	IP66 water/dust protection rating
	IK-10 impact-resistant polycarbonate dome
Operating temperature	-40°C (-40°F) to +50°C (122°F)
Humidity	0% to 90% (non-condensing)
Stable image temperature	0°C (32°F) to +50°C (122°F)
Storage temperature	-40°C (-40°F) to +60°C (140°F)

Electrical

Input/Output	General purpose opto-coupled
Power Over Ethernet	PoE 802.3af, Class 3
Auxiliary Power	12–48V DC and 24V AC
Max Power Consumption	14 Watts Max (Auxiliary Power)

Mechanical

Casing		Die-cast aluminum chassis with polycarbonate dome bubble
		IP66 weather proof standard
		Impact resistant, IK-10 rated
Gimbal		Easily adjustable, 2-axis w/360° pan and 90° tilt
Total Unit 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)
Weight	Unit	2.8lbs (1.27kg)
	Packaged	3.4lbs (1.54kg)

Lens Options

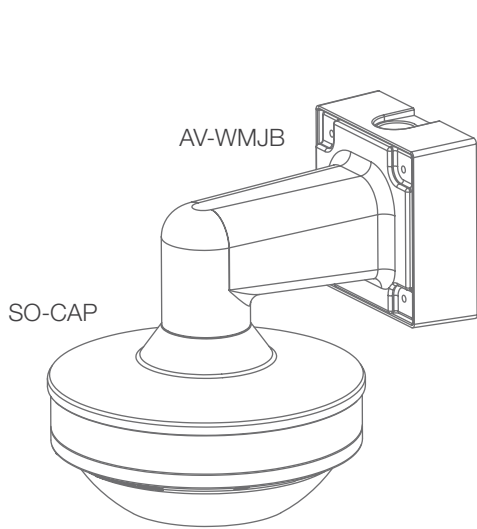| Focal Length		2.8mm	4mm	6mm	8mm	12mm	16mm
Horiz. FOV	3MP WDR	88	63	45	33	20	16
	5MP	114	83	58	43	29	22
F Rating		F/1.6	F/1.6	F/1.6	F/1.6	F/1.6	F/1.6
Part Number		MPM2.8	MPM4.0	MPM6.0	MPM8.0	MPM12.0	MPM16.0

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Accessories

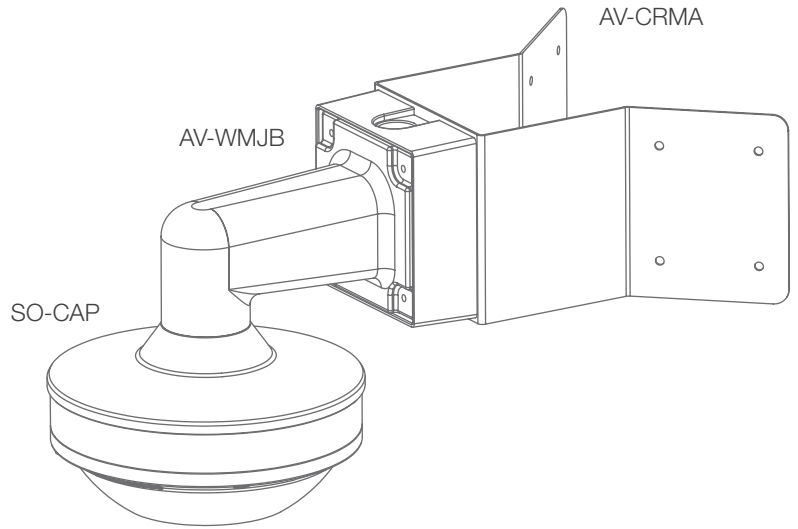|	
SO-CAP	Cap for SurroundVideo® Omni
AV-WMJB	Wall Mount Bracket with Junction Box
AV-PMJB	Pendant Mount Bracket with Junction Box
AV-PMA	Pole Mount Adapter
AV-CRMA	Corner Mount Adapter
SV-EBA	Electrical Box Adapter

AV-PMJB

SO-CAP

Ceiling Mount Configuration

AV-WMJB

AV-PMA

SO-CAP

**Wall Mount Configuration
with Pole Mount Adapter**

AV-WMJB

SO-CAP

Wall Mount Configuration

AV-CRMA

AV-WMJB

SO-CAP

**Wall Mount Configuration
with Corner Mount Adapter**

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