

## 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

### 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. Arecont Vision integrates up to four imagers, each with a choice of IR corrected lens, into an IP66 rated / IK-10 impact resistant dome housing. A unique track design allows up to four individual sensor gimbals to be independently placed in nearly any configuration, including at the intersection of hallways or in a 270-degree view at the corner

of a building. SurroundVideo Omni cameras are available in total resolutions of 12-megapixels (MP) WDR or 20MP, all with fast frame rates. 2.8mm, 4mm, 6mm, 8mm, 12mm and 16mm lens options are available. H.264 compression reduces bandwidth and storage requirements while delivering full frame rates and full resolution without sacrificing image quality. Wide Dynamic Range (WDR) up to 100dB at full resolution is available in the 12MP model.



Omni-Directional Track with 4 Customizable Sensors



Ultra Low Profile Design



True Day/Night with IR Cut Filter



270° FOV Capable



Impact / Weather Resistant IK-10 and IP66 Rated



Pixel Binning Mode



Wide Dynamic Range on 12MP Models



Dual Encoder H.264/MJPEG

### Features:

- 12MP WDR and 20MP Configurations
- Multiple Lens Options in a Single Camera Housing from 2.8mm up to 16mm
- Up to 4 Individual Camera Gimbals can be Independently Placed in Any Orientation Around a 360° Track with Extra Positions for Looking Straight Down
- True WDR up to 100dB at Full Resolution: See Clearly in Shaded and Bright Light Conditions Simultaneously
- Ultra Discrete, Low-Profile Housing
- True Day/Night Functionality with Mechanical IR Cut Filter
- Complete Mounting Options
- 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
- PoE and Auxiliary Power: 12–48V DC/24V AC
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- Bit Rate Control and Multi-Streaming
- Dual Encoder H.264/MJPEG
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control and Multi-Streaming
- Fast Frame Rates
- 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)

Electrical

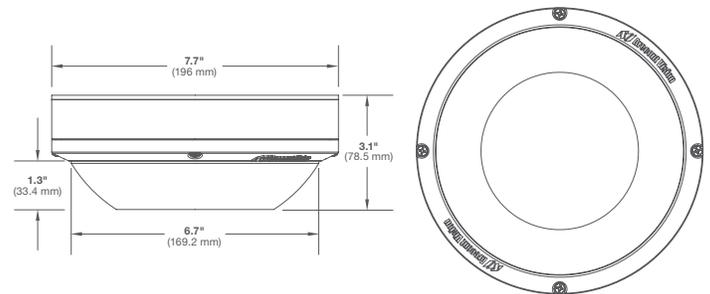
Input/Output	General purpose opto-coupled
Power Over Ethernet	PoE 802.3af, Class 3
Auxiliary Power	12-48V DC and 24V AC
Max Power Consumption	14 Watts Max (Auxiliary Power)

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

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)



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)

Lens Options

Focal Length	2.8mm	4mm	6mm	8mm	12mm	16mm
Horiz. FOV	3MP WDR	88	63	45	33	20
	5MP	114	83	58	43	29
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