

## SurroundVideo®

H.264 All-in-One 180° and 360° Panoramic Day/Night Indoor/Outdoor Dome IP Cameras

### Camera Models

8MP Panoramic 180°	8MP Panoramic 360°	20MP Panoramic 180°	20MP Panoramic 360°	40MP Panoramic 180°
AV8185CO	AV8365CO	AV20185CO	AV20365CO	AV40185DN
AV8185CO-HB	AV8365CO-HB	AV20185CO-HB	AV 20365CO-HB	AV40185DN-HB
AV8185DN	AV8365DN	AV20185DN	AV20365DN	
AV8185DN-HB	AV8365DN-HB	AV20185DN-HB	AV20365DN-HB	



180° Panoramic

360° Panoramic

SurroundVideo® panoramic view megapixel IP cameras provide all-in-one solutions for wide area video surveillance. Four sensors and lenses are housed in an outdoor-rated IP66 and IK-10 impact-resistant dome enclosure. The cameras are available in 180° and 360° configurations and resolutions of 8-, 20- and 40-megapixels (MP). A single SurroundVideo® panoramic camera can replace multiple conventional cameras with the ability to zoom into multiple regions of interest. Their return on investment is easily measured any way you view it.

180° Panoramic at 8, 20 and 40MP

360° Panoramic at 8 and 20MP

True Day/Night with IR Cut Filter

All-in-One Dome Solution with Integrated Lens

Impact / Weather Resistant IK-10 and IP66 Rated

Pixel Binning Mode on 20 and 40MP Models

Heater/Blower Option

Dual Encoder H.264/MJPEG

### Features:

- Industry's First 8MP, 20MP and 40MP Panoramic Megapixel Cameras
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices
- Binning Mode for Strong Low Light Performance in 20MP and 40MP Resolutions
- True Day/Night Functionality with Mechanical IR Cut Filter (DN Models)
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- PoE and Auxiliary Power: 12–48V DC/24V AC
- Easily Adjustable 2-Axis Camera Gimbal with 360° Pan and 90° Tilt
- +/- 5° Electrical Vertical Alignment to Locate Each Sensor Position (180° Series)
- +/- 10° Mechanical Tilt Adjustment to Locate Each Sensor Angle (360° Series)
- Complete Mounting Options
- Dual Encoder H.264/MJPEG
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control and Multi-Streaming
- Fast Frame Rates
- PSIA Conformant
- Reduced Overall System Cost
- Made in the USA

### Model Specific Features

Model	Resolution	Field of View	Frame Rate	Features
AV8185	8MP	180°	6fps	-
AV8365	8MP	360°	6fps	-
AV20185	20MP	180°	3.5fps	Binning
AV20365	20MP	360°	3.5fps	Binning
AV40185	40MP	180°	1.5fps	Binning

### Build-to-Order Options

CO	Color
DN	Day/Night
-HB	Heater and Blower

Camera Imaging Specifications

Model	AV8185	AV8365	AV20185	AV20365	AV40185	
Image Sensor (CMOS)	8MP = 2MP x 4	8MP = 2MP x 4	20MP = 5MP x 4	20MP = 5MP x 4	40MP = 10MP x 4	
H-FOV	180°	360°	180°	360°	180°	
Optical Format	1/2"	1/2"	1/2.5"	1/2.5"	1/2.3"	
Pixel Pitch	4.2µm	4.2µm	2.2µm	2.2µm	1.67µm	
Minimum Illumination	Color	0.1 Lux	0.1 Lux	0.3 Lux	0.3 Lux	0.42 Lux
	Color Binning	-	-	0.15 Lux	0.15 Lux	0.21 Lux
	Day/Night (-DN Version)	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive
Full FOV Resolution	Total	6400 H x 1200 V	6400 H x 1200 V	10240 H x 1920 V	10240 H x 1920 V	14592 H x 2752 V
	Per Sensor	1600 H x 1200 V	1600 H x 1200 V	2560 H x 1920 V	2560 H x 1920 V	3648 H x 2752 V
1/4 Resolution	Total	3200 H x 600 V	3200 H x 600 V	5120 H x 960 V	5120 H x 960 V	7296 H x 1376 V
	Per Sensor	800 H x 600 V	800 H x 600 V	1280 H x 960 V	1280 H x 960 V	1824 H x 1376 V
Dynamic Range	61dB	61dB	70.1dB	70.1dB	57.2dB	
Frame Rates	Full Resolution	6fps (6400x1200)	6fps (6400x1200)	3.5fps (10240x1920) 4.2fps (10240x1600)	3.5fps (10240x1920) 4.2fps (10240x1600)	1.5fps (14592x2752)
	1/4 Resolution	20fps (3200x600)	20fps (3200x600)	11fps (5120x960)	11fps (5120x960)	5.5fps (7296x1376)
	Binning Mode	-	-	13fps (5120x960)	13fps (5120x960)	6.5fps (7296x1376)
Lens	CS, F1.8, 7.8mm, IR, H-FOV = 47°	CS, F1.8, 3.5mm, IR, H-FOV = 96°	CS, F1.8, 6.2mm, H-FOV = 47°	CS, F1.8, 3.5mm, H-FOV = 96°	CS, F2.4, 7.2mm, H-FOV = 47°	

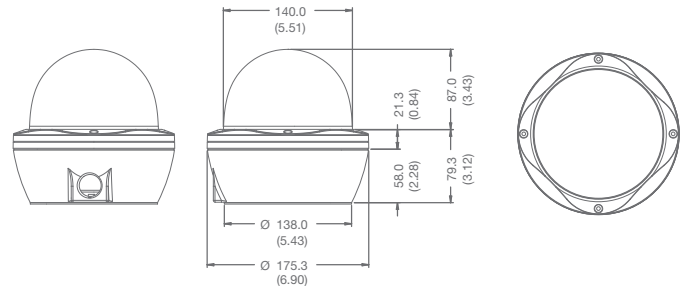
Data Transmission	Compression Type	H.264 (MPEG-4, Part 10)/Motion JPEG 21 levels of quality
	Network Protocols	RTSP, RTP/TCP, RTP/UDP, HTTP, DHCP, TFTP
	Network Interface	100Base-T Ethernet
	Multi-Streaming	Non-identical streams (2 per sensor)

Environmental	Operating temperature	-40°C (-40°F) to +50°C (122°F) w/Heater
	Humidity	0% to 90% (non-condensing)
	Stable image temperature	0°C (32°F) to +50°C (122°F)
	Storage temperature	-30°C (-22°F) to +60°C (140°F)

Programmability	On-camera real-time motion detection and privacy mask with up to 1024 detection zones (per sensor)
	Privacy mask
	Pixel Binning Mode (20 and 40MP)
	+/-5° Digital Vertical Alignment to adjust images (180° Model)
	Flexible Cropping (resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264)
	Low light noise filter control
	Bit rate and bandwidth limitation control
	Backlight compensation and auto multi-matrix white balance
	50/60Hz selectable flicker control
	Electronic pan, tilt, zoom (PTZ) and image flip 180°
	Programmable resolution, brightness, saturation, gamma, sharpness, tint
	Bandwidth and storage savings by running at 1/4 resolution
	Simultaneous delivery of full field-of-view and zoomed images
	Programmable shutter speed to help control motion blur

Mechanical	Casing	Die-cast aluminum chassis with 5.5" (140mm) 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	Ø6.9" (175mm) x 6.55" H (166mm)
		Bubble Only	Ø5.5" (140mm) x 3.4" H (87mm)
Packaged		8.5" (215mm) x 8.5" (215mm) x 8.5" (215mm)	
Weight	Unit	3.81 lbs (1.75kg)	
	Packaged	4.63 lbs (2.1kg)	

Compliance	Industry Standard	PSIA Conformant
	Listings	UL (CB)
	FCC Compliance	47 CFR 15 Class A
	Environmental	RoHS, REACH, WEEE
	Markings	(CE) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1
	Mechanical	IK-10 (EN62262), IP66 (EN60529)



Electrical	Input/Output	General purpose opto-coupled
	Power Over Ethernet	PoE 802.3af, Class 3
	Auxiliary Power	12-48V DC, 24V AC
	Power Consumption	AV8185/AV8365: 9 Watts DC Power AV20185/AV20365: 9 Watts DC Power AV40185: 11.7 Watts DC Power

Accessories	MD-PMA	Pole Mount Adapter
	MD-CRMA	Corner Mount Adapter
	SV-CMT	Ceiling Mount (Fit 1.5" NPT)
	SV-EBA	Electrical Box Adapter
	SV-FMA	Flush Mount Adapter
	SV-JBA	Junction Box Adapter (Fit 3/4" NPT Conduit)
SV-WMT	Wall Mount (Fit 1.5" NPT)	

Heater & Blower Electrical (-HB only)	Voltage Input	12V to 20V DC/24V AC (separate power required)
	Power Output	11W Max (DC 12V); 13W Max (AC 24V)
	Heater Switch	On: 17°C (62.6°F), Off: 30°C (86°F)
	Blower Switch	On: 10°C (50°F), Off: 15°C (59°F)
On: 50°C (122°F), Off: 45°C (113°F)		