SurroundVideo® G5 IP Megapixel Dome Cameras

H.264 All-in-One 180° Panoramic Motorized P-iris Lens True Day/Night Indoor/Outdoor Dome IP Cameras with WDR (Wide Dynamic Range) and STELLAR™ (Spatio Temporal Low Light Architecture) Models



The SurroundVideo G5 multi-sensor, multi-megapixel dome camera pushes the boundaries of next generation technology, providing users with four (4) integrated, Remote Focus P-iris lenses for an incredible 180° panoramic experience in a single indoor/outdoor housing. SurroundVideo G5 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.

The SurroundVideo G5 multi-megapixel camera series delivers 5-, 12-, or 20-megapixel resolutions. For added flexibility, users can view the camera's four (4) sensors individually or as a smooth transition of all images blended together for a full 180° panoramic view. The camera is factory aligned with a slight image overlap to ensure you never miss a thing. For an optimal image, each sensor can be individually adjusted for the best exposure ratio per sensor (AV12586PM WDR model).

The series combines a day/night mechanical IR cut filter for the highest image quality at any time of day. The SurroundVideo G5 camera features four (4) factory-installed Remote Focus P-iris lenses, ensuring the best possible depth of field and image clarity for precise performance from each individual sensor. 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 missing critical information from a 180° scene.

For challenging low-light applications, the 5MP STELLAR, "Spatio Temporal Low Light Architecture" model offers best-in-class light sensitivity capturing details in extreme low-light. The 12MP SurroundVideo G5 camera (AV12586PM) features Wide Dynamic Range (WDR) to produce clear images in harsh lighting conditions.

SurroundVideo G5 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.



180° Panoramic



True Day/Night with IR Cut Filter



Dual Encoder H.264/MJPEG



Integrated Motorized Lenses with Remote Focus



P-Iris Control for Best Depth of Field and Image Clarity



STELLAR™ Low Light Technology on 5MP Models



Wide Dynamic Range on 12MP Models



Pixel Binning Mode on 12 and 20MP Models



Impact / Weather Resistant IK-10 and IP66 Rated

Series Features

- 5-, 12-, 20MP Models
- Individual or Seamless Situational Awareness
- True Day/Night Functionality with Mechanical IR Cut Filter
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control and Multi-Streaming
- Four (4) Integrated Motorized P-iris Lenses with Remote Focus
- Easily Adjustable 2-Axis Camera Gimbal with 360° Pan and 90° Tilt
- +/- 5° Electrical Vertical Alignment to Locate Each Sensor Position
- PoE and Auxiliary Power: 18-48V DC, 24V AC

Model Dependent Features

- STELLAR (Spatio Temporal Low Light Architecture) Reduces Motion Blur, Noise and Storage Requirements, While Enhancing Contrast and Allowing Color Imaging in Near Complete Darkness on 5MP Models
- True WDR up to 100dB at Full Resolution Available on 12MP Models: See Clearly in Shaded and Bright Light Conditions Simultaneously
- Binning Mode for Strong Low Light Performance in 12MP and 20MP Resolutions

Camera Specifications

Model		AV5585PM	AV12585PM	AV12586PM	AV20585PM
Image Sensor		5MP* = 1.2MP x 4	12MP = 3MP x 4	12MP = 3MP x 4	20MP = 5MP x 4
H-FOV		180°	180°	180°	180°
Optical Format		1/3" CMOS	1/3" CMOS	1/3.2" CMOS	1/2.5" CMOS
Pixel Pitch		3.75µm	2.2µm	2.2µm	2.2µm
Minimum Illumination	Color (Day Mode)	0.02 Lux	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)	0.002 Lux, IR sensitive	0.02 Lux, IR sensitive	0.02 Lux, IR sensitive	0.02 Lux, IR sensitive
Full FOV Resolution	Total	5120 H x 960 V	8192 H x 1536 V	8192 H x 1536 V	10240 H x 1920 V
	Per Sensor	1280 H x 960 V	2048 H x 1536 V	2048 H x 1536 V	2560 H x 1920 V
1/4 Resolution	Total	2560 H x 480 V	4096 H x 768 V	4096 H x 768 V	5120 H x 960 V
	Per Sensor	640 H x 480 V	1024 H x 768 V	1024 H x 768 V	1280 H x 960 V
Dynamic Range		83.5dB	69.5dB	WDR up to 100dB	70.1dB
Frame Rates	At Max Resolution	12fps @ 5120 x 960	10fps @ 8192 x 1080	10fps @ 8192 x 1080	7fps @ 10240 x 1920
	1/4 Resolution	30fps @ 2560 x 480	14 fps @ 4096 x 768	14 fps @ 4096 x 768	10fps @ 5120 x 960
	Binning Mode	-	29 fps @ 4096 x 768	14 fps @ 4096 x 768	24fps @ 5120 x 960
Lens (Remote Focus & P-iris)		CS, F1.2, 5.6mm x 4, IR, H-FOV = 47°	CS, F1.2, 5.3mm x 4, IR, H-FOV = 47°	CS, F1.2, 5.3mm x 4, IR, H-FOV = 47°	CS, F1.2, 6.7mm x 4, IR, H-FOV = 47°
Max Auxiliary Power Consumption		10 W	11.2 W	14.4 W	13.9 W
Heater	Switch On/Off	On: 17°C (62.6°F), Off: 30°C (86°F)	On: 17°C (62.6°F), Off: 30°C (86°F)	On: 17°C (62.6°F), Off: 30°C (86°F)	On: 17°C (62.6°F), Off: 30°C (86°F)
	Voltage Input	12V to 35V DC / 24V AC (separate power required)	12V to 35V DC / 24V AC (separate power required)	12V to 35V DC / 24V AC (separate power required)	12V to 35V DC / 24V AC (separate power required)

* STELLAR™ Model

SituationalPlus™

Model	Lens	View Angle	Distance to pixel density (ft.)(m)		
			30ppf (98ppm)	60ppf (197ppm)	90ppf (295ppm)
AV5585PM	Built In RF-P iris	45° x4	50' (15.2m)	23' (7.0m)	12' (3.7m)
AV12585PM	Built In RF-P iris	45° x4	82' (25.0m)	39.5' (12.0m)	24.5' (7.5m)
AV20585PM	Built In RF-P iris	45° x4	105' (32.0m)	51' (15.5m)	32.5' (9.9m)

Programmability

Optics	Remote focus and P-iris control	
Low Light Performance	STELLAR	5MP models
	Pixel Binning Mode	12MP and 20MP models
Picture-in-Picture	Simultaneous delivery of full field-of-view and zoomed images	
Programmable Shutter Speed	Controls motion blur	
Motion Detection	On-camera real-time, 1024 detection zones (per sensor)	
Privacy Masking	1024 Zone (per sensor)	
Flexible Cropping	Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264	
Backlight Compensation	Yes	
Flicker Control	50/60Hz selectable	
Sensor Position	+/-5° Digital Vertical Alignment to adjust images	
Image Rotation	180° image flip	
Wide Dynamic Range	Auto switch control adjustment between WDR and LDR modes (AV12586PM)	
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	
	Electronic pan, tilt, zoom (PTZ)	

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

Compliance

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, IK10 (EN62262), IP66 (EN60529)
CoO	Made in the USA

Environmental

Operating temperature	-40°C (-40°F) to +50°C (122°F) w/Heater
	0°C (32°F) to +50°C (122°F) w/o Heater
Humidity	0% to 90% (non-condensing)
Storage temperature	-40°C (-40°F) to +60°C (140°F)
Motorized lens operating temperature	-20°C (-4°F) to +50°C (122 °F)

Electrical

Alarm Input/Output		General purpose opto-coupled, 1 input/1 output
Power Over Ethernet		PoE 802.3af, Class 3
Auxiliary Power		18-48V DC, 24V AC
Heater	Voltage Input	12V to 35V DC / 24V AC (separate power required)*
	Power Consumption	11 Watts (Max DC Power) / 13 Watts (Max AC Power)

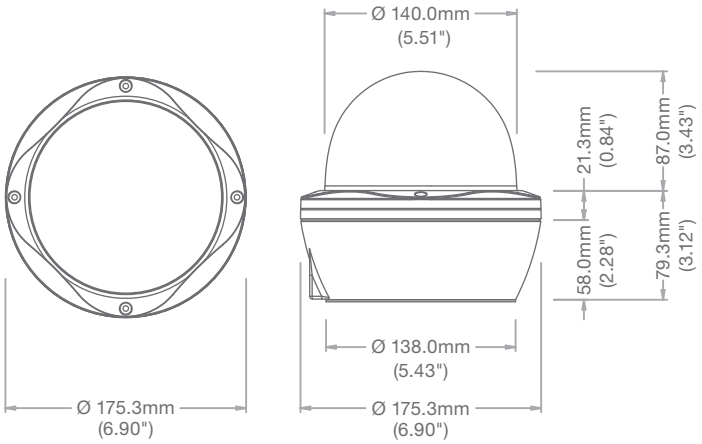
* Products shipped before 6/1/16 will only support 10V to 35V DC

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Mechanical

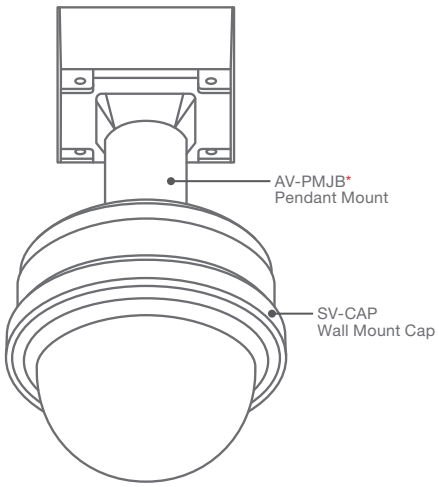
Casing	Die-cast aluminum chassis with 5.5" (140mm) polycarbonate dome bubble	
Gimbal	Easily adjustable, 2-axis w/360° pan and 90° tilt	
Dimensions *(See Dimensions)*	**Unit**	Ø6.9" (175mm) x 6.55" H (166mm)
	Bubble Only	Ø5.5" (140mm) x 3.4" H (87mm)
	Packaged	8.5" W (215mm) x 8.5" L (215mm) x 8.5" H (215mm)
Weight	**Unit**	3.54 lbs (1.6kg)
	Packaged	4.37 lbs (1.98kg)

Dimensions

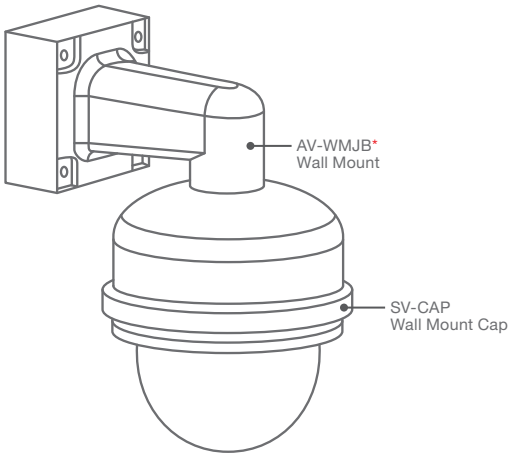


Mounting Options

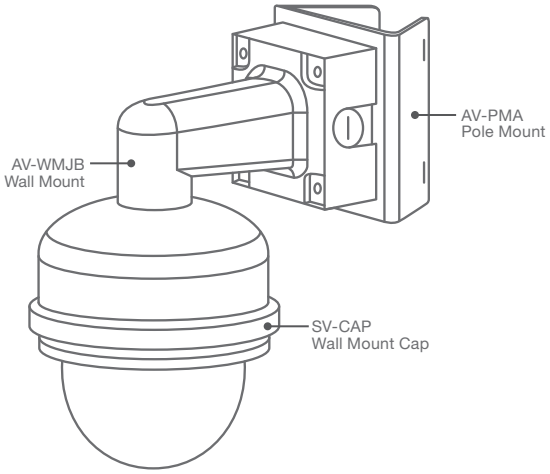
Ceiling Mount



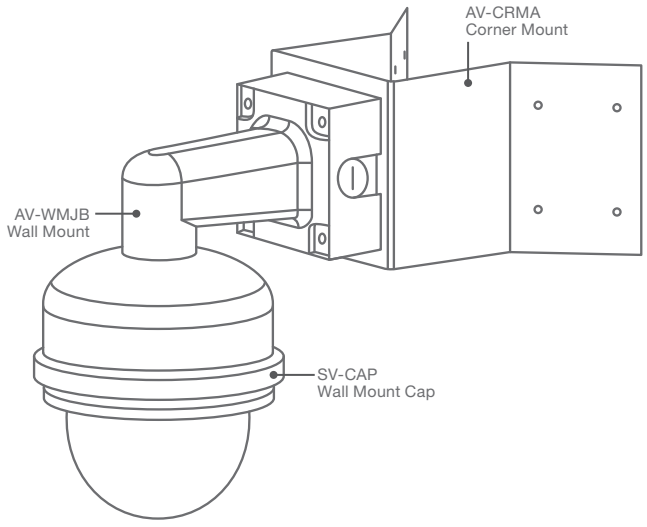
Wall Mount



Pole Mount



Corner Mount



* Includes Junction Box

Ordering Information



Accessories (Sold Separately)

AV-CRMA	Corner Mount Adapter
AV-EBA	Electrical Box Adapter
AV-JBA	Junction Box Adapter (Fit 3/4" NPT Conduit)
AV-PMA	Pole Mount Adapter
AV-PMJB	Pendant Mount Bracket with Junction Box (Fits Cap 1.5" NPT, Box Fits 3/4" NPT)
AV-WMJB	Wall Mount Bracket with Junction Box (Fits Cap 1.5" NPT, Box Fits 3/4" NPT)
SV-CAP	Wall Mount Cap Only w/1.5" NPT
SV-FMA	Flush Mount Adapter

Model Specific Features

Model	Resolution	Configuration	Frame Rate	Features	
AV5585PM	5MP (1.2MPx4)	180° Panoramic	12fps	-	STELLAR™
AV12585PM	12MP (3MPx4)	180° Panoramic	10fps	-	Binning
AV12586PM	12MP (3MPx4)	180° Panoramic	10fps	WDR	Binning
AV20585PM	20MP (5MPx4)	180° Panoramic	7fps	-	Binning

Configuration



180° Panoramic

Create Your Model (Example: AV12586PM)

	Megapixel Resolution	Generation	Body Type	Compression	Lens
AV	5 / 12 / 20	5	8*	5 Standard / 6 WDR**	PM Motorized P-Iris Lens, True Day/Night

* "8" represents SurroundVideo product line
** WDR for AV12586 models only

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