

# SurroundVideo® G5 Mini IP Megapixel Cameras

12 or 20 Megapixel (MP) H.264 All-in-One 180° or 360° Panoramic True Day/Night Indoor/Outdoor Dome IP Cameras with SNAPstream™ (Smart Noise Adaptation and Processing) and Enhanced WDR™ (Wide Dynamic Range) Models



180° Panoramic

360° Panoramic

The SurroundVideo® G5 Mini is an all-in-one total PoE panoramic IP camera solution available in 12-megapixel (12MP) or 20MP resolutions for both 180°-view or 360°-view configurations. A SurroundVideo camera can replace multiple fixed or PTZ cameras by recording the entire panoramic field of view with the ability to zoom into multiple regions of interest for a return on investment that's easily measured.

Featuring an installer-friendly dome housing and a size roughly 50% smaller than previous SurroundVideo models, the SurroundVideo G5 Mini delivers excellent versatility for installation. Additionally, the SurroundVideo G5 Mini has improved performance with faster frame rates than ever before.

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.

SurroundVideo G5 Mini 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 G5 Mini 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 G5 Mini is ONVIF Profile S (Open Network Video Interface Forum) compliant, providing interoperability between network video products regardless of manufacturer.



180° Panoramic



360° Panoramic

SNAPstream™  
TechnologyEnhanced WDR™  
Wide Dynamic Range  
on Select 12MP ModelsTrue Day/Night  
with IR Cut Filter

Pixel Binning Mode



Installer Friendly

Impact / Weather  
Resistant IK-10  
and IP66 RatedAll-in-One PoE  
and Integrated LensesDual Encoder  
H.264/MJPEG

## Series Features

- 12MP and 20MP Models
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices
- 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 Electromechanical 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
- Easily Adjustable 2-Axis Camera Gimbal with 360° Pan and 90° Tilt
- +/- 5° Electrical Vertical Alignment to Locate Each Sensor Position (180° Series)
- +/- 7° Mechanical Tilt Adjustment to Locate Each Sensor Angle (360° Series)
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing

Camera Imaging Specifications

Model		AV12585DN	AV12565DN	AV12586DN	AV12566DN	AV20585DN	AV20565DN
<b>Image Sensor (CMOS)</b>		12MP (4 x 3MP)	12MP (4 x 3MP)	12MP (4 x 3MP)	12MP (4 x 3MP)	20MP (4 x 5MP)	20MP (4 x 5MP)
<b>H-FOV</b>		180°	360°	180°	360°	180°	360°
<b>Optical Format</b>		1/3" Progressive Scan	1/3" Progressive Scan	1/3.2" Progressive Scan	1/3.2" Progressive Scan	1/2.5" CMOS	1/2.5" CMOS
<b>Pixel Pitch</b>		2.2µm	2.2µm	2.2µm	2.2µm	2.2µm	2.2µm
<b>Minimum Illumination</b>	Color (Day Mode)	0.2 Lux	0.2 Lux	0.2 Lux	0.1 Lux	0.3 Lux	0.3 Lux
	Color Binning (Day Mode)	0.1 Lux	0.1 Lux	0.1 Lux	0.1 Lux	0.15 Lux	0.15 Lux
	B/W (Night Mode)	0.02 Lux	0.02 Lux	0.02 Lux	0.02 Lux	0.03 Lux	0.03 Lux
<b>Full FOV Resolution</b>	Total	8192 H x 1536 V	8192 H x 1536 V	8192 H x 1536 V	8192 H x 1536 V	10240 H x 1920 V	10240 H x 1920 V
	Per Sensor	2048 H x 1536 V	2048 H x 1536 V	2048 H x 1536 V	2048 H x 1536 V	2560 H x 1920 V	2560 H x 1920 V
<b>1/4 Resolution</b>	Total	4096 H x 768 V	4096 H x 768 V	4096 H x 768 V	4096 H x 768 V	5120 H x 960 V	5120 H x 960 V
	Per Sensor	1024 H x 768 V	1024 H x 768 V	1024 H x 768 V	1024 H x 768 V	1280 H x 960 V	1280 H x 960 V
<b>Dynamic Range</b>		69.5dB	69.5dB	Up to 100dB at Full Resolution	Up to 100dB at Full Resolution	70.1dB	70.1dB
<b>Frame Rates*</b>	Full Resolution	10fps (8192 x 1536)	10fps (8192 x 1536)	10fps (8192 x 1536)	10fps (8192 x 1536)	7fps (10240 x 1920)	7fps (10240 x 1920)
	1/4 Resolution	14fps (4096 x 768)	14fps (4096 x 768)	14fps (4096 x 768)	14fps (4096 x 768)	10fps (5120 x 960)	10fps (5120 x 960)
	Binning Mode	29fps (5120 x 960)	29fps (5120 x 960)	14fps (5120 x 960)	14fps (5120 x 960)	24fps (5120 x 960)	24fps (5120 x 960)
<b>Lens (x4)</b>		5.4mm, M12, F2.0, 1/3.2"	2.6mm, M12, F2.0, 1/2.5"	5.4mm, M12, F2.0, 1/3.2"	2.6mm, M12, F2.0, 1/2.5"	6.7mm, M12, F2.0, 1/2.5"	3.6mm, M12, F1.8, 1/2.5"

Programmability

<b>Low Light Performance</b>	Pixel Binning Mode
<b>Programmable Shutter Speed</b>	Controls motion blur
	1ms–500ms
<b>Motion Detection</b>	Real-time, privacy mask, 1024 detection zones per sensor
<b>MoonLight™ Mode</b>	Extended exposure and proprietary noise cancellation
<b>Flexible Cropping</b>	Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264
<b>Backlight Compensation</b>	Auto multi-matrix white balance
<b>Flicker Control</b>	5Hz–255Hz adjustable
<b>Image Alignment</b>	+/-5° digital vertical alignment to adjust images (180° models)
<b>Wide Dynamic Range</b>	Auto switch control adjustment between WDR and LDR modes (WDR models)
<b>Efficiency</b>	SNAPstream™ (Smart Noise Adaptation and Processing)
	Bit rate and bandwidth limitation control
	Bandwidth and storage savings by running at 1/4 resolution
<b>Sharpness</b>	Selectable enhancement level
<b>Miscellaneous</b>	Programmable resolution, brightness, saturation, gamma, tint
	Electronic pan, tilt, zoom (PTZ)
	Simultaneous delivery of full field-of-view and zoomed images

Data Transmission

<b>Compression Type</b>	H.264 (MPEG-4, Part 10)/Motion JPEG
	21 levels of quality
<b>Network Protocols</b>	HTTP, IPv4, 802.1x, RTSP, RTP/TCP, RTP/UDP, TFTP, DHCP
<b>Network Interface</b>	100Base-T Ethernet
<b>Multi-Streaming</b>	8 non-identical streams (2 per sensor)

\* Maximum with H.264 compression

Compliance

<b>Industry Standard</b>	ONVIF Profile S conformant
<b>Listings</b>	UL (CB)
<b>FCC Compliance</b>	47 CFR 15 Class A
<b>Environmental</b>	RoHS, REACH, WEEE
<b>Markings</b>	(CE) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1
<b>Mechanical</b>	IP66 (EN60529)
<b>CoO</b>	Made in the USA

Environmental

<b>Protection Ratings</b>	IP66 water/dust protection rating
	IK-10 impact-resistant polycarbonate dome
<b>Operating Temperature</b>	-40°C (-40°F) to +50°C (122°F)
<b>Humidity</b>	0% to 90% (non-condensing)
<b>Storage Temperature</b>	-40°C (-40°F) to +60°C (140°F)

Electrical

<b>Alarm Input/Output</b>	General purpose opto-coupled, 1 input / 1 output
<b>Power Over Ethernet</b>	PoE 802.3af, Class 3
<b>Auxiliary Power</b>	18–48V DC and 24V AC
<b>Power Consumption</b>	12.1W max DC power

Mechanical

<b>Casing</b>	Die-cast aluminum cover and 4" (102mm) polycarbonate dome bubble	
	IP66 weather proof standard	
	Impact resistant, IK-10 rated	
<b>Gimbal</b>	Easily adjustable, 2-axis w/360° pan and 90° tilt	
<b>Dimensions</b> <i>(See Dimensions on Page 3)</i>	<b>Unit</b>	Ø 5.77" (146.7mm) x 5" H (128mm)
	<b>Bubble Only</b>	Ø 4.0" (102mm) x 2.4" H (62mm)
	<b>Packaged</b>	6.7" W (170mm) x 6.7" L (170mm) x 5.7" H (145mm)
<b>Weight</b>	<b>Unit</b>	3.0lbs (1.36kg)
	<b>Packaged</b>	3.6lbs (1.63kg)



## Model Specific Features

Model	Resolution	Configuration	Frame Rate*	Features	
AV12585DN	12MP	180° Panoramic	10fps	-	Binning
AV12565DN	12MP	360° Panoramic	10fps	-	Binning
AV12586DN	12MP	180° Panoramic	10fps	WDR	Binning
AV12566DN	12MP	360° Panoramic	10fps	WDR	Binning
AV20585DN	20MP	180° Panoramic	7fps	-	Binning
AV20565DN	20MP	360° Panoramic	7fps	-	Binning

\* Maximum with H.264 compression

## Configurations



180° Panoramic



360° Panoramic

## Model Numbers

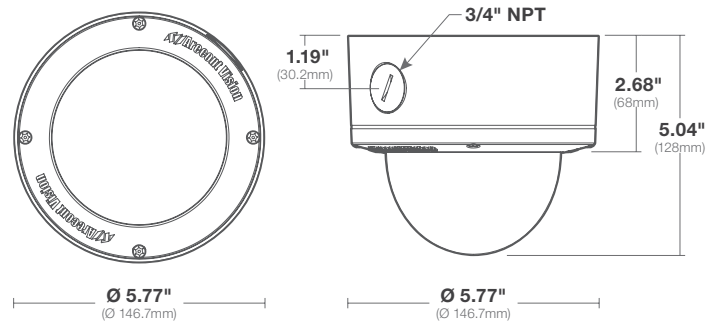
12MP	AV12585DN	AV12565DN
	AV12586DN <b>WDR</b>	AV12566DN <b>WDR</b>
20MP	AV20585DN	AV20565DN

## Accessories (Sold Separately)

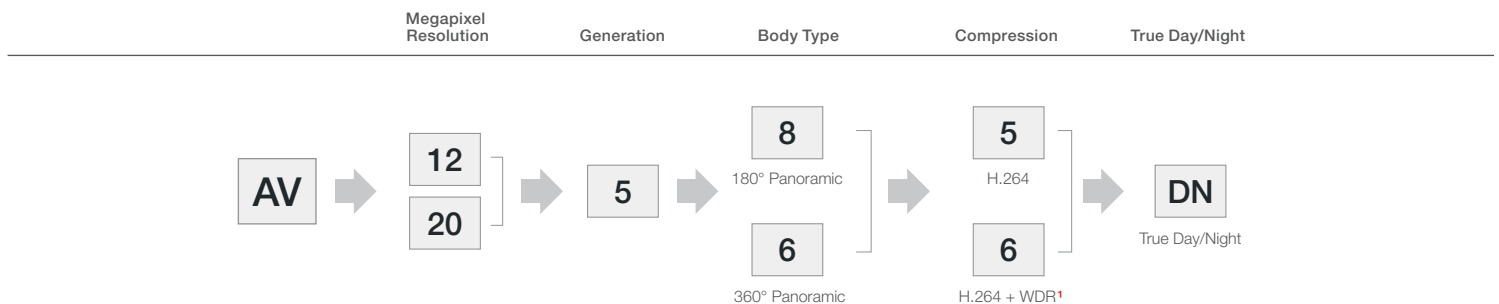
AV-CRMA	Corner Mount Adapter
AV-FMA	Flush Mount for MegaDome® Series and SurroundVideo® G5 Mini
AV-JBA**	Standard Junction Box
AV-PMA	Pole Mount Adapter
AV-PMJB	Pendant Mount Bracket with Standard Junction Box <i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i>
AV-WMJB	Wall Mount Bracket with Standard Junction Box <i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i>
MD-CAP	Mounting Cap for MegaDome Series and SurroundVideo G5 Mini

\*\* Replacement part for AV-PMJB and AV-WMJB

## Dimensions



## Create Your Model (Example: AV12586DN)



<sup>1</sup> WDR for AV12566 and AV12586 models only