

# SurroundVideo® G5 Mini IP Megapixel Cameras

H.264 All-in-One 180° or 360° Panoramic True Day/Night Indoor/Outdoor Dome IP Cameras with WDR (Wide Dynamic Range) Models



The SurroundVideo® G5 Mini is an H.264 all-in-one total PoE panoramic IP camera solution available in 12 megapixel (12MP) or 20MP resolutions for both 180° or 360° configurations. Wide Dynamic Range (WDR) is optional on 12MP models, featuring a dynamic range of up to 100dB at full resolution. With a dual encoder (H.264 and MJPEG), an impact-resistant dome, and a size roughly 50% smaller than previous SurroundVideo models,

the SurroundVideo G5 Mini delivers excellent performance and versatility. Additionally, the SurroundVideo G5 Mini has faster frame rates than ever before. 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.



180° Panoramic



360° Panoramic

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

- 12 and 20MP Models
- True Day/Night Functionality with Electro-Mechanical IR Cut Filter
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices
- Optional True WDR up to 100dB at Full Resolution Available on Select 12MP Models: See Clearly in Shaded and Bright Light Conditions
- Binning Mode for Strong Low Light Performance
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control, Multi-Streaming, Multicasting, and Forensic Zooming
- Total PoE Solution 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
- Dual Encoder H.264/MJPEG

## Camera Imaging Specifications

| Model                |                 | AV12586DN                      | AV12566DN                      | AV12585DN                | AV12565DN                | AV20585DN                | AV20565DN                |
|----------------------|-----------------|--------------------------------|--------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Image Sensor (CMOS)  |                 | 12MP = 3MP x 4                 | 12MP = 3MP x 4                 | 12MP = 3MP x 4           | 12MP = 3MP x 4           | 20MP = 5MP x 4           | 20MP = 5MP x 4           |
| H-FOV                |                 | 180°                           | 360°                           | 180°                     | 360°                     | 180°                     | 360°                     |
| Optical Format       |                 | 1/3.2" Progressive Scan        | 1/3.2" Progressive Scan        | 1/3" Progressive Scan    | 1/3" Progressive Scan    | 1/2.5" CMOS              | 1/2.5" CMOS              |
| Pixel Pitch          |                 | 2.2µm                          | 2.2µm                          | 2.2µm                    | 2.2µm                    | 2.2µm                    | 2.2µm                    |
| Minimum Illumination | Color           | 0.2 Lux                        | 0.1 Lux                        | 0.2 Lux                  | 0.2 Lux                  | 0.3 Lux                  | 0.3 Lux                  |
|                      | Color Binning   | 0.1 Lux                        | 0.1 Lux                        | 0.1 Lux                  | 0.1 Lux                  | 0.15 Lux                 | 0.15 Lux                 |
|                      | True Day/Night  | 0.02 Lux                       | 0.02 Lux                       | 0.02 Lux                 | 0.02 Lux                 | 0.03 Lux                 | 0.03 Lux                 |
| Full FOV Resolution  | 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          |
| 1/4 Resolution       | 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           |
| Dynamic Range        |                 | Up to 100dB at Full Resolution | Up to 100dB at Full Resolution | 69.5dB                   | 69.5dB                   | 70.1dB                   | 70.1dB                   |
| Frame Rates          | 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    | 14fps (5120 x 960)             | 14fps (5120 x 960)             | 29fps (5120 x 960)       | 29fps (5120 x 960)       | 24fps (5120 x 960)       | 24fps (5120 x 960)       |
| Lens                 |                 | 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

|                            |                                                                          |
|----------------------------|--------------------------------------------------------------------------|
| Optics                     | Pixel Binning Mode                                                       |
| Programmable Shutter Speed | Controls motion blur                                                     |
|                            | 1ms – 500ms                                                              |
| Motion Detection           | Real-time, privacy mask, 1024 detection zones per sensor                 |
| MoonLight™ Mode            | Extended exposure and proprietary noise cancellation                     |
| Flexible Cropping          | Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264 |
| Backlight Compensation     | Auto multi-matrix white balance                                          |
| Flicker Control            | 50/60Hz selectable                                                       |
| Image Alignment            | +/-5° digital vertical alignment to adjust images (180° models)          |
| Wide Dynamic Range         | Auto switch control adjustment between WDR and LDR modes (WDR models)    |
| Noise Reduction            | Low light noise filter control                                           |
| 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)                                         |
|                            | Simultaneous delivery of full field-of-view and zoomed images            |

## 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)   |

## 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 |
| Mechanical     | IP66 (EN60529)                                                     |

## 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)                |
| Storage temperature   | -40°C (-40°F) to +60°C (140°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 and 24V AC                             |
| Power Consumption   | 12.1 Watts Max DC Power                          |

## Mechanical

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

## Ordering Information



### Model Specific Features

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

### Configurations



180° Panoramic



360° Panoramic

### Model Numbers

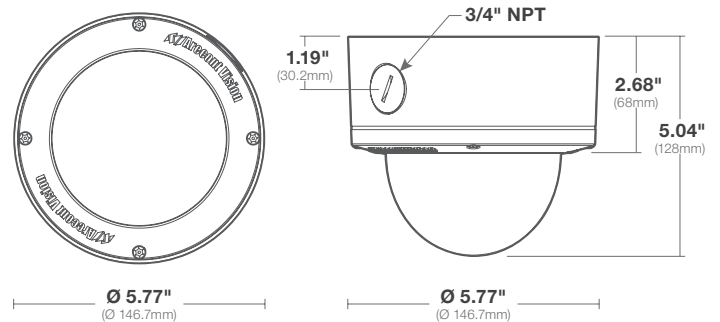
|      |           |     |           |     |
|------|-----------|-----|-----------|-----|
| 12MP | AV12586DN | WDR | AV12566DN | WDR |
|      | AV12585DN |     | AV12565DN |     |
| 20MP | AV20585DN |     | AV20565DN |     |

### Accessories

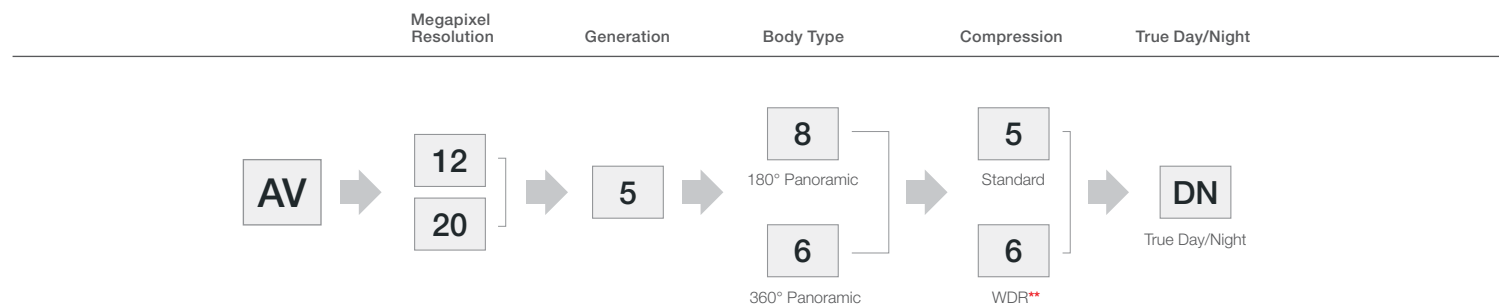
|         |                                                              |
|---------|--------------------------------------------------------------|
| AV-CRMA | Corner mount adapter                                         |
| AV-FMA  | Flush mount for MegaDome® Series and SurroundVideo® G5 Mini  |
| AV-JBA* | Junction box adapter                                         |
| AV-PMA  | Pole mount adapter                                           |
| AV-PMJB | Pendant mount with 1.5" NPT standard                         |
| AV-WMJB | Wall mount with 1.5" NPT standard                            |
| 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)



\*\* WDR for 12MP models only