

SurroundVideo® Omni G2 IP Megapixel Cameras

12 or 20 Megapixel (MP) H.264 All-in-One Remote Focus Omni-Directional User-Configurable Multi-Sensor True Day/Night Indoor/Outdoor Dome IP Cameras with WDR (Wide Dynamic Range) Models



The SurroundVideo Omni G2, next generation multi-sensor, multi-megapixel camera was built to withstand evolving customer change-requirements. The unique, future-proof platform of the SurroundVideo Omni G2 provides organizations of all sizes the flexibility to deploy a security system that truly matches their video surveillance needs now; and again if requirements change in the future. With its ground-breaking flexibility such as the ability to easily move each of the four sensors around the magnetic 70+ placement-point Omni track, the 3-axis gimbals for an increased range of motion when positioning the sensors, and the ability to interchange the remote focus modular lenses for a customized field of view, the SurroundVideo Omni G2 provides customers with the confidence in a future-proof investment. The SurroundVideo Omni G2 changes when you do.

The SurroundVideo Omni G2 multi-megapixel camera series features a choice of 12- or 20-megapixel resolution options. These 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 saving installers time and end users money.

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 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.

Once mounted, the operator can quickly focus and position 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.

SurroundVideo Omni G2 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.

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. The SurroundVideo Omni G2 is PSIA (Physical Security Interoperability Alliance) compliant, providing interoperability between network video products regardless of manufacturer.



Interchangeable Lenses with Remote Focus Module



Omni-Directional Track with 4 Customizable Sensors



270° FOV Capable



Wide Dynamic Range on 12MP Models



True Day/Night with IR Cut Filter



Pixel Binning Mode



Ultra Low Profile Design



3-Axis Gimbal



Impact / Weather Resistant IK-10 and IP66 Rated

Series Features

- 12MP WDR and 20MP Models
- Remote Focus
- 3-Axis Gimbal – Up to 4 Individual Camera Gimbals can be Independently Placed in Any Orientation Around a 360° Track with Extra Positions for Looking Straight Down
- Multiple Lens Options in a Single Camera Housing from 2.1mm up to 16mm
- True Day/Night Functionality with Mechanical IR Cut Filter
- Forensic Zooming – Zoom Live or After the Event While Recording Full Field-of-View in HD – Replace PTZ Devices
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control and Multi-Streaming
- Dual Encoder H.264/MJPEG
- PoE and Auxiliary Power: 18–48V DC/24V AC
- Ultra Discrete, Low-Profile Housing
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- Complete Mounting Options
- True WDR up to 100dB at Full Resolution: See Clearly in Shaded and Bright Light Conditions Simultaneously
- Binning Mode for Strong Low Light Performance



Camera Specifications

| Model | | AV12275DN | AV12276DN | AV20275DN |
|----------------------|--------------------------------|--------------------------|-------------------|---------------------------|
| Image Sensor | | 4 x 3MP CMOS | | 4 x 5MP CMOS |
| Optical Format | | 1/3" | | 1/2.5" |
| Pixel Pitch | | 2.2µm | | 2.2µm |
| Minimum Illumination | Color (Day Mode) | 0.2 Lux | | 0.3 Lux |
| | Color Binning (Day Mode) | 0.1 Lux | | 0.15 Lux |
| | B/W (Night Mode) | 0.02 Lux, IR sensitive | | 0.03 Lux, IR sensitive |
| Full FOV Resolution | Total | 8192 H x 1536 V | 8192 H x 1536 V | 10240 H x 1920 V |
| | Per Sensor | 2048 H x 1536 V | 2048 H x 1536 V | 2560 H x 1920 V |
| 1/4 Resolution | Total | 4096 H x 768 V | 4096 H x 768 V | 5120 H x 960 V |
| | Per Sensor | 1024 H x 768 V | 1024 H x 768 V | 1280 H x 960 V |
| Dynamic Range | | 69.5dB | | 70.1dB |
| Frame Rates | At Max Resolution | 10fps (8192x1536) | 10fps (8192x1536) | 7fps (10240x1920) |
| | 1/4 Resolution | 14fps (4096x768) | 14fps (4096x768) | 10fps (5120x960) |
| | Binning Mode | 29fps (4096x768) | 14fps (4096x768) | 24fps (5120x960) |
| Lens | 2.8mm Lens Option (-28 Models) | 2.8mm, F1.8, H-FOV = 88° | | 2.8mm, F1.6, H-FOV = 114° |
| | 8mm Lens Option (-08 Models) | 8mm, F1.6, H-FOV = 33° | | 8mm, F1.6, H-FOV = 43° |

Programmability

| | |
|----------------------------|--|
| Optics | Remote focus |
| | Pixel Binning Mode |
| Picture-in-Picture | Simultaneous delivery of full field-of-view and zoomed images |
| Programmable Shutter Speed | Controls motion blur, 1ms–500ms |
| Motion Detection | Real-time, 1024 detection zones |
| Privacy Masking | Unlimited |
| MoonLight™ Mode | Extended exposure and 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 |
| Wide Dynamic Range | Auto switch control adjustment between WDR and LDR modes (WDR models) |
| 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 |
| | Simultaneous delivery of full field-of-view and zoomed images |
| | Electronic pan, tilt, zoom (PTZ) |
| | Auto Exposure (AE) and Gain Control (AGC) > 120dB |
| | Programmable shutter speed to help control motion blur |

SituationalPlus™

| Model | Lens | View Angle | Distance to pixel density (ft.)(m) | | |
|--------------|---------|------------|------------------------------------|----------------|----------------|
| | | | 30ppf (98ppm) | 60ppf (197ppm) | 90ppf (295ppm) |
| AV12275DN-28 | MPM2.8A | 89° | 34' (10.4m) | 15.5' (4.7m) | 8' (2.4m) |
| AV12275DN-08 | MPM8.0 | 33° | 114.5' (34.9m) | 56' (17.1m) | 37.5' (11.4m) |
| AV12276DN-28 | MPM2.8A | 89° | 34' (10.4m) | 15.5' (4.7m) | 8' (2.4m) |
| AV12276DN-08 | MPM8.0 | 33° | 114.5' (34.9m) | 56' (17.1m) | 37.5' (11.4m) |
| AV20275DN-28 | MPM2.8A | 113° | 27' (8.2m) | 12' (3.7m) | 5' (1.5m) |
| AV20275DN-08 | MPM8.0 | 42° | 114' (34.7m) | 56' (17.1m) | 36' (11.0m) |

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, IPv6, QoS |
| Network Interface | 100Base-T Ethernet |
| Multi-Streaming | 8 non-identical streams |

Compliance

| | |
|-------------------|--|
| Industry Standard | PSIA Conformant |
| Listings | UL (CB) |
| FCC Compliance | 47 CFR 15 Class A |
| Environmental | RoHS, REACH, WEEE |
| Markings | (CE) EN 55022:2010 Class A, EN 55024:2010, EN 61000-3-2:2006+A1:2009+A2:2009, EN61000-3-3: 2008, EN60950-1:2006+A11:2009+A1:2010+A12:2011, (UL) IEC 60950-1 (ed. 2) and IEC 60950-22 (ed. 1) |
| CoO | Made in the USA |

Environmental

| | |
|-----------------------|--------------------------------|
| 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) |

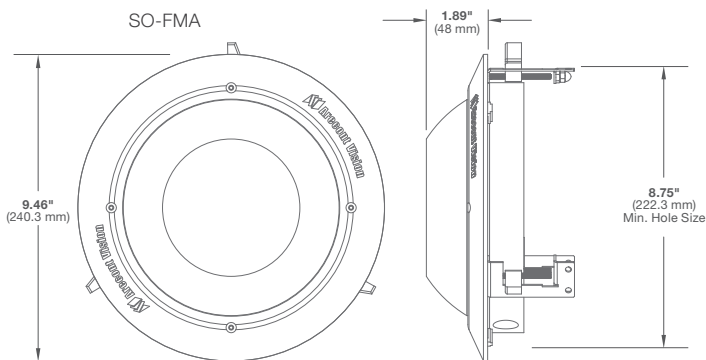
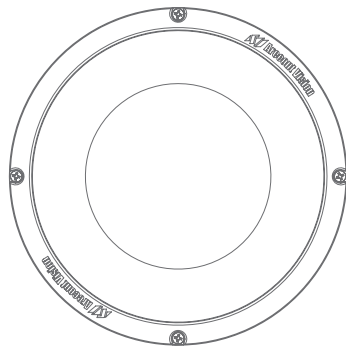
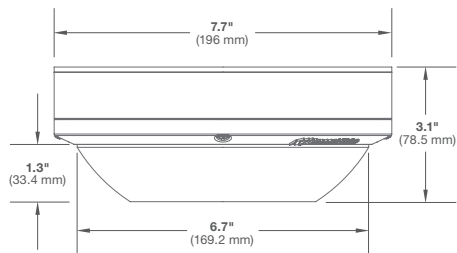
Electrical

| | |
|----------------------------------|----------------------|
| Alarm Input/Output | 1 input/1 output |
| Power Over Ethernet | PoE 802.3af, Class 3 |
| Auxiliary Power | 18–48V DC, 24V AC |
| Maximum Power Consumption | 14 Watts Max (Aux) |

Mechanical

| | | |
|--|---|--|
| Casing | Die-cast aluminum chassis with polycarbonate dome bubble | |
| | IP66 weather proof standard | |
| | Impact resistant, IK-10 rated | |
| Gimbal | Easily adjustable, 3-axis w/360° pan, 90° tilt, and 360° z-axis | |
| Dimensions <i>(See Dimensions)</i> | Unit | Ø 7.7" (196mm) x 3.1" H (78.5mm) |
| | Bubble Only | Ø 6.7" (169.2mm) x 1.3" H (33.4mm) |
| | Packaged | 8" W (203mm) x 8" L (203mm) x 4" H (102mm) |
| Weight | Unit | 2.8lbs (1.27kg) |
| | Packaged | 3.4lbs (1.54kg) |

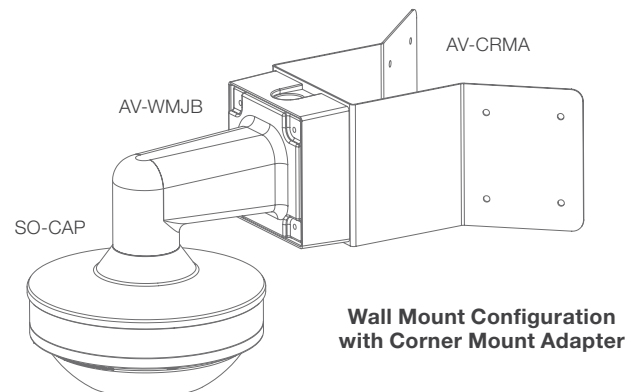
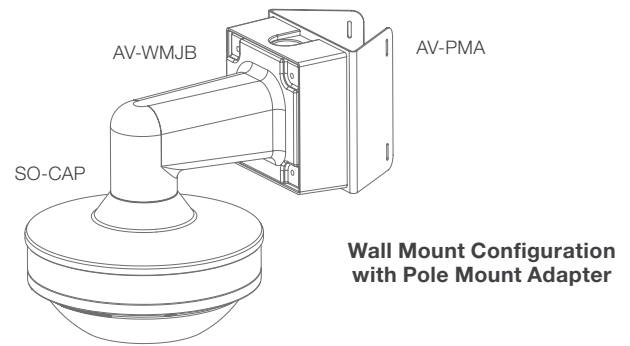
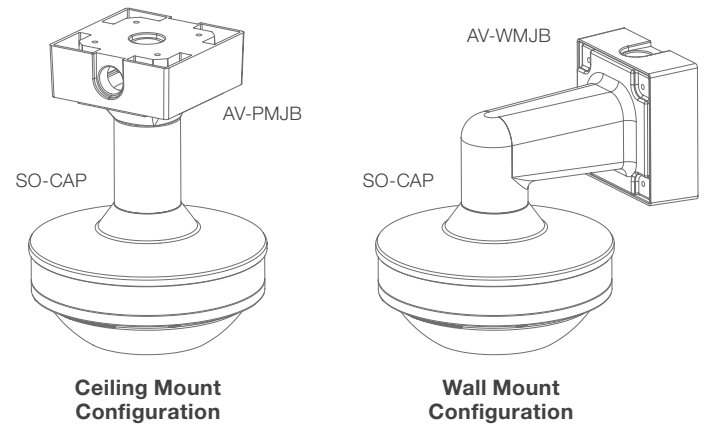
Dimensions



Flush Mount Adapter

Accessories (Sold Separately)

| | |
|----------------|---|
| AV-CRMA | Corner Mount Adapter |
| AV-EBA | Electrical Box Adapter |
| AV-JBA | Junction Box Adapter |
| AV-PMA | Pole Mount Adapter |
| AV-PMJB | Pendant Mount Bracket with Junction Box |
| AV-WMJB | Wall Mount Bracket with Junction Box |
| SO-CAP | Cap for SurroundVideo Omni |
| SO-FMA | Flush Mount Adapter |



Ordering Information



Model Specific Features

| Model | Resolution | Frame Rate | Features | |
|-----------|------------|------------|----------|---------|
| AV12275DN | 12MP | 10fps | - | Binning |
| AV12276DN | 12MP | 10fps | WDR | Binning |
| AV20275DN | 20MP | 7fps | - | Binning |

Model Numbers

| | | |
|-------------|--------------|-----|
| 12MP | AV12275DN-NL | |
| | AV12275DN-28 | |
| | AV12275DN-08 | |
| | AV12276DN-NL | WDR |
| | AV12276DN-28 | WDR |
| | AV12276DN-08 | WDR |
| 20MP | AV20275DN-NL | |
| | AV20275DN-28 | |
| | AV20275DN-08 | |

Options

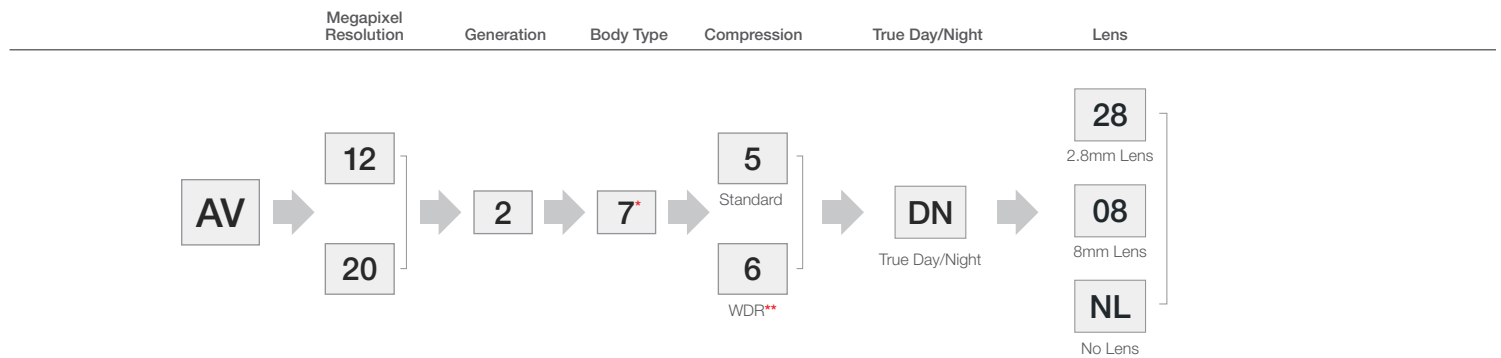
| | |
|------------|--|
| -NL | No Lenses (User Configurable and Ordered Separately) |
| -28 | Configured with 2.8mm Lenses* |
| -08 | Configured with 8mm Lenses** |

* Good option for a 270° Corner Mount configuration
 ** Good configuration option for a hallway intersection

Lens Options

| Manual Fixed Focal | Resolution Options |
|---------------------------------------|--------------------|
| MPM2.1 (2.1mm) Ordered Separately | 3MP |
| MPM2.8A (2.8mm) Standard (-28 Models) | 3MP 5MP |
| MPM4.0A (4mm) Ordered Separately | 3MP 5MP |
| MPM6.0 (6mm) Ordered Separately | 3MP 5MP |
| MPM8.0 (8mm) Standard (-08 Models) | 3MP 5MP |
| MPM12.0A (12mm) Ordered Separately | 3MP 5MP |
| MPM16.0 (16mm) Ordered Separately | 3MP 5MP |

Create Your Model (Example: AV12276DN-28)



* "7" represents SurroundVideo Omni product line
 ** WDR for AV12276 models only