

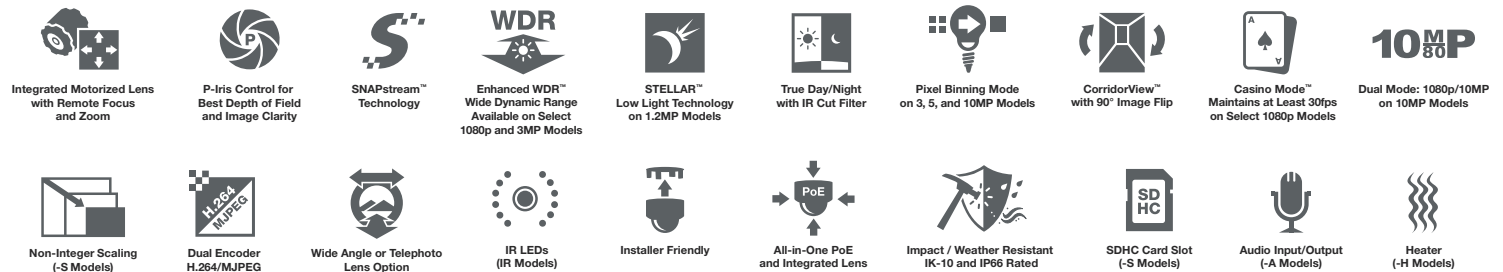
# MegaDome® G3 IP Megapixel Cameras

1.2, 1080p, 3, 5, and 10 Megapixel (MP) H.264 All-in-One Motorized P-Iris Lens True Day/Night Indoor/Outdoor Dome IP Cameras with SNAPstream™ (Smart Noise Adaptation and Processing), Enhanced WDR™ (Wide Dynamic Range), STELLAR™ (Spatio Temporal Low Light Architecture), and IR LED Models



MegaDome® G3 third generation multi-megapixel cameras provide ample resolution to zoom-in for details in live or recorded video. These indoor/outdoor all-in-one solutions integrate a 1.2, 1080p, 3, 5 or 10-megapixel (MP) sensor with fast frame rates, and SNAPstream™ (Smart Noise Adaptation and Processing) technology to reduce bandwidth without impacting image quality. Together with an IR corrected motorized, P-iris wide angle or telephoto varifocal lens, remote focus and remote zoom make MegaDome G3 easy

to install and manage. The installer-friendly housing is IP66 environmental rated and IK-10 impact-resistant. MegaDome G3 is feature-loaded, and select models include STELLAR™ (Spatio Temporal Low Light Architecture) for best-in-class light sensitivity capturing details in near complete darkness, or Enhanced WDR™ wide dynamic range for applications with bright or over saturated lighting conditions.



## Series Features

- 1.2, 1080p, 3, 5, and 10MP Models
- Remote Focus/Zoom Motorized, P-Iris Lens
- SNAPstream™ Capability to Reduce Bandwidth without Impacting Image Quality
- P-Iris Control to Get Best Depth of Field and Image Clarity
- Wide Angle or Telephoto Lens Options
- 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 1.2MP Models
- Enhanced WDR™ up to 100dB at Full Resolution: See Clearly in Shaded and Bright Light Conditions Simultaneously on Select 1080p and 3MP Models
- True Day/Night Functionality with Mechanical IR Cut Filter and Optional IR LEDs
- Binning Mode for Strong Low Light Performance on 3MP, 5MP, and 10MP Cameras
- Casino Mode™ Guarantees Continuous 30fps Frame Rate Required by Gaming Industry Regulations on Select 1080p Models
- CorridorView™ Allows 90° Image Rotation for Better Coverage in Hallways and Corridors
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control, Multi-Streaming, Multicasting, and Forensic Zooming
- Non-Integer Scaling (-S Models at 1080p Resolution or Higher)
- Dual Encoder H.264/MJPEG
- Heater and Optional Audio and IR LEDs (No Heater Required for WDR and STELLAR Models)
- SDHC Card Slot for Onboard Storage (-S Models)
- Network Protocols Include HTTPS\*, 802.1x, DHCP, QoS, IPv6 and More
- Total PoE Solution (No External Power Required for Heater and IR LEDs), PoE and Auxiliary Power: 12–48V DC/24V AC
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- Easily Adjustable 3-Axis Gimbal

\* HTTPS is for "-S" models only and cannot be used with STELLAR or audio functionality

Camera Imaging Specifications

Model		AV1355	AV2355	AV2356	AV3355	AV3356	AV5355	AV10355
Image Sensor (CMOS)		1.2MP**	1080p (2.1MP)	1080p (2.1MP)**	3MP***	3MP	5MP	10MP
Day/Night		True Day/Night with Automatic Removable IR Cut Filter						
Optical Format		1/3"	1/3" (-S), 1/2.7" (Non-S)	1/3.2"	1/3" (-S), 1/2.5" (Non-S)	1/3.2"	1/2.5"	1/2.3"
Pixel Pitch		3.75µm	2.2µm (-S), 3µm (Non-S)	2.2µm	2.2µm	2.2µm	2.2µm	1.67µm
Minimum Illumination	Color (Day Mode)	0.02 Lux	0.2 Lux (-S), 0.1 Lux (Non-S)	0.2 Lux	0.2 Lux (-S), 0.3 Lux (Non-S)	0.2 Lux	0.3 Lux	0.42 Lux
	Color Binning (Day Mode)	-	-	-	0.1 Lux (-S), 0.15 Lux (Non-S)	0.1 Lux	0.15 Lux	0.21 Lux
	B/W (Night Mode)	0.002 Lux, IR sensitive	0.02 Lux, IR sensitive (-S) 0.01 Lux, IR sensitive (Non-S)	0.02 Lux, IR sensitive	0.02 Lux, IR sensitive (-S) 0.03 Lux, IR sensitive (Non-S)	0.02 Lux, IR sensitive	0.03 Lux, IR sensitive	0.04 Lux, IR sensitive
Full FOV Resolution		1280 H x 960 V	1920 H x 1080 V	1920 H x 1080 V	2048 H x 1536 V	2048 H x 1536 V	2560 H x 1920 V	3648 H x 2746 V
1/4 Resolution		640 H x 480 V	960 H x 540 V	960 H x 540 V	1024 H x 768 V	1024 H x 768 V	1280 H x 960 V	1824 H x 1373 V
Scaling <small>(See Scaling Resolution Chart on Page 3)</small>		-	Yes (-S only)	Yes (-S only)	Yes (-S only)	Yes (-S only)	Yes (-S only)	Yes
Dynamic Range		83.5dB	69.5dB (-S) 69dB (Non-S)	WDR up to 100dB	69.5dB (-S) 70.1dB (Non-S)	WDR up to 100dB	70.1dB	57.2dB
Maximum SNR		54dB	45dB	49dB	45dB	49dB	45dB	40dB
Frame Rates†	At Max Resolution	37fps (1280 x 960)	30fps (1920 x 1080)	30fps (1920 x 1080)	21fps (2048 x 1536)	21fps (2048 x 1536)	14fps (2560 x 1920)	7fps (3648 x 2752)
	Cropped	-	30fps (1280 x 1024) (-S) 42fps (1280 x 1024) (Non-S)	30fps (1280 x 1024)	30fps (1920 x 1080) 30fps (1280 x 1024)	30fps (1920 x 1080) 30fps (1280 x 1024)	21fps (2048 x 1536) 29fps (1920 x 1080) 41fps (1280 x 1024)	12fps (2592 x 1944) 18fps (2048 x 1536) 25fps (1920 x 1080) 37fps (1280 x 1024)
	Binning Mode	-	-	-	46fps (1024 x 768) 64fps (960 x 540)	21fps (1024 x 768) 21fps (800 x 600) 21fps (960 x 540) 21fps (640 x 512)	34fps (1280 x 960) 46fps (1024 x 768) 64fps (960 x 540)	29fps (1920 x 1080) 26fps (1824 x 1376) 43fps (1296 x 972) 54fps (1024 x 768)
Lens	Wide Angle Motorized (PMIR-S, PMIR-SH, PM-H, PM Models)	3–9mm, 1/2.7", F1.2, RF, RZ, P-iris	2.8–8mm, 1/2.7", F1.2, RF, RZ, P-iris	2.8–8mm, 1/2.7", F1.2, RF, RZ, P-iris	2.8–8mm, 1/2.7", F1.2, RF, RZ, P-iris	2.8–8mm, 1/2.7", F1.2, RF, RZ, P-iris	3–8mm, 1/2.5", F1.4, RF, RZ, P-iris	4–8mm, 1/2.3", F1.6, RF, RZ, P-iris
	H-FOV	101°–32°	88°–32° (-S), 120°–44° (Non-S)	88°–32°	94°–34°	94°–34°	113°–43°	89°–47°
	Telephoto Motorized (PMTIR-S Models)	-	8–22mm, 1/2.7", F1.6, RF, RZ, P-Iris, Telephoto	8–22mm, 1/2.7", F1.6, RF, RZ, P-Iris, Telephoto	8–22mm, 1/2.7", F1.6, RF, RZ, P-Iris, Telephoto	8–22mm, 1/2.7", F1.6, RF, RZ, P-Iris, Telephoto	9–22mm, 1/2.5", F2.0, RF, RZ, P-Iris, Telephoto	12–22mm, 1/2.3", F2.2, RF, RZ, P-Iris, Telephoto
	H-FOV	-	30°–12°	30°–12°	32°–12°	32°–12°	38°–16°	30°–17°

\*\* STELLAR™ Model \*\*\* Effective † Maximum with H.264 compression

Programmability

Optics	Remote focus, remote zoom, P-iris
Low Light Performance	STELLAR 1.2MP models
	Pixel Binning Mode 3, 5 and 10MP models
Programmable Shutter Speed	Controls motion blur, 1ms–500ms
Motion Detection	Real-time, 1024 detection zones
Privacy Masking	Unlimited
Scaling	Non-integer scaling down to 128x96 (-S models at 1080p resolution or higher)
Casino Mode™	Maintains 30fps or higher (AV2355 models)
Flexible Cropping	Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264
Backlight Compensation	Multi-matrix white balance
Flicker Control	5Hz–255Hz adjustable
Image Rotation	CorridorView™ (90°, 180°, and 270° image rotation)
Wide Dynamic Range	Auto adjustment between WDR and LDR modes (WDR models only)
Efficiency	SNAPstream™ (Smart Noise Adaptation and Processing)
	Bit rate and bandwidth limitation control
	Bandwidth and storage savings by running at 1/4 resolution

(Programmability Cont.)

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	HTTP, HTTPS*, IPv4, IPv6, QoS, 802.1x, RTSP, RTP/TCP, RTP/UDP, TFTP, DHCP
Network Interface	100Base-T Ethernet
Multi-Streaming	1.2–5MP Models 8 non-identical streams
	10MP Models 4 non-identical streams

Compliance

Industry Standard	ONVIF Profile S 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
Networking Standard	IEEE 802.3af-2003 PoE Standard, Class 3
Mechanical	IK-10 (EN62262), IP66 (EN60529)
CoO	Made in the USA

\* HTTPS is for "-S" models only and cannot be used with STELLAR or audio functionality

## Environmental

<b>Operating Temperature</b>	-40°C (-40°F) to +50°C (122°F) w/heater or WDR/STELLAR™ models w/o heater
<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>	12–48V DC, 24V AC

## Max Power Consumption (Watts DC power)

Model	AV1355	AV2355	AV2356	AV3355	AV3356	AV5355	AV10355
<b>PM</b>	-	-	11.3	-	11.3	-	-
<b>PM-H</b>	-	12.2	-	11.9	-	11.9	-
<b>PM-S</b>	10.9	-	-	-	-	-	-
<b>PMIR-S</b>	11.9	-	12.7	-	12.7	-	-
<b>PMIR-SA</b>	-	-	-	-	12.7	-	-
<b>PMIR-SAH</b>	-	12.1	-	-	-	12.1	-
<b>PMIR-SH</b>	-	12.1	-	12.1	-	12.1	13.0
<b>PMTIR-S</b>	-	-	14.2	-	14.2	-	-
<b>PMTIR-SH</b>	-	14.5	-	14.4	-	14.4	13.8

## IR Illuminator (IR models only)

<b>PMIR</b>	12 pcs 850nm LEDs / 50ft (15m) IR distance (max) / 60° and 80° IR angle
<b>PMTIR</b>	12 pcs 850nm LEDs / 120ft (36m) IR distance (max) / 40° IR angle
<b>Power Over Ethernet</b>	Total PoE solution (No external power requirement)

## Audio Electrical (-A and -AH models only)

<b>Streaming</b>	Two-way
<b>Compression</b>	G.711 PCM 8 kHz
<b>Input/Output</b>	Microphone in or line in/line output

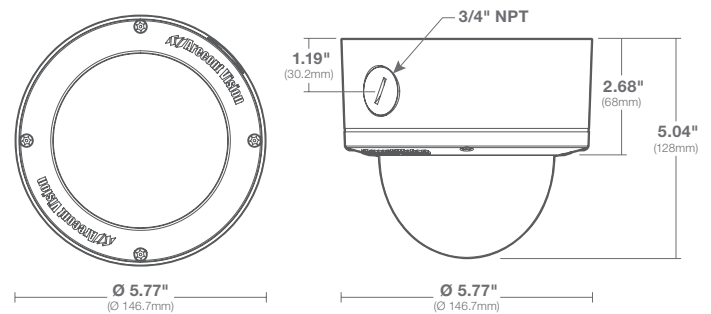
## Heater Electrical (-H and -AH models only)

<b>Power Consumption</b>	2.28W max
<b>Switch On/Off</b>	On: 4°C (32.9°F), Off: 6.5°C (43.7°F)
<b>Power Over Ethernet</b>	Total PoE solution (no external power requirement)

## Mechanical

<b>Casing</b>	Die-cast aluminum chassis with 4" polycarbonate dome bubble	
	IP66 weather proof standard	
	Impact resistant, IK-10 rated	
<b>Gimbal</b>	Easily adjustable 3-axis camera gimbal w/360° pan, 77° tilt and 180° z-axis	
<b>Dimensions</b> <i>(See Dimensions)</i>	<b>Unit</b>	Ø 5.77" (146.7mm) x 5" H (128mm)
	<b>Packaged</b>	6" H (150mm) x 7.5" W (190mm) x 8" L (200mm)
<b>Weight</b>	<b>Unit</b>	2.25lbs (1.02kg)
	<b>Packaged</b>	2.8lbs (1.27kg)
<b>On Board Storage</b>	SDHC slot up to 32GB (card not included)	

## Dimensions



## Scaling Resolution Chart\*\*\*\*

Scaled Resolution	Horizontal	Vertical	Pixel Count
<b>720p</b>	1280	720	921600
<b>XVGA</b>	1024	768	786432
<b>DVGA (16:9)</b>	1136	640	727040
<b>DVGA (3:2)</b>	960	640	614400
<b>SVGA</b>	800	600	480000
<b>D1 (PAL)</b>	720	576	414720
<b>4CIF (PAL)</b>	704	576	405504
<b>D1 (NTSC)</b>	720	480	345600
<b>4CIF (NTSC)</b>	704	480	337920
<b>VGA</b>	640	480	307200
<b>2CIF (PAL)</b>	704	288	202752
<b>HVGA (4:3)</b>	480	360	172800
<b>2CIF (NTSC)</b>	704	240	168960
<b>HVGA (8:3)</b>	640	240	153600
<b>HVGA (3:2)</b>	480	320	153600
<b>HVGA (16:9)</b>	480	272	130560
<b>CIF (PAL)</b>	352	288	101376
<b>CIF (NTSC)</b>	352	240	84480
<b>QVGA (SIF)</b>	320	240	76800
<b>QCIF (PAL)</b>	176	144	25344
<b>QCIF (NTSC)</b>	176	120	21120
<b>SQCIF</b>	128	96	12288

\*\*\*\* All scaled resolutions are available on all cameras that support scaling

See Next Page for Ordering Information



## Model Numbers

Resolution	Model	Features
1.2MP	AV1355PM-S	STELLAR™
	AV1355PMIR-S	STELLAR™
1080p	AV2355PM-H	
	AV2355PMIR-SAH	Audio
	AV2355PMIR-SH	
	AV2355PMTIR-SH	
	AV2356PM	WDR
	AV2356PMIR-S	WDR
3MP	AV3355PM-H	
	AV3355PMIR-SH	
	AV3355PMTIR-SH	
	AV3356PM	WDR
	AV3356PMIR-S	WDR
	AV3356PMIR-SA	Audio, WDR
5MP	AV5355PM-H	
	AV5355PMIR-SAH	Audio
	AV5355PMIR-SH	
	AV5355PMTIR-SH	
10MP	AV10355PMIR-SH	Dual Mode
	AV10355PMTIR-SH	Dual Mode

## Model Specific Features

Model	Resolution	Frame Rate†	Features		
AV1355	1.2MP	37fps	-	-	STELLAR™
AV2355	1080p	30fps	-	Casino Mode™	-
AV2356	1080p	30fps	WDR	-	-
AV3355	3MP	21fps	-	-	Binning
AV3356	3MP	21fps	WDR	-	Binning
AV5355	5MP	14fps	-	-	Binning
AV10355	10MP	7fps	-	-	Binning

† Maximum with H.264 compression

## Configurations



Motorized Lens with IR LEDs



Motorized Lens

## Options

PM	Wide Angle Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night
PMT	Telephoto Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night
IR	IR LEDs
-S	SDHC Card Slot, Non-Integer Scaling, HTTPS*
-A	Audio
-H	Heater (Non-WDR and Non-STELLAR Models Only)

\* HTTPS is for "-S" models only and cannot be used with STELLAR or audio functionality  
 Note: Not all options available on all models

## Accessories (Sold Separately)

AV-CRMA	Corner Mount Adapter
AV-FMA	Flush Mount Adapter
AV-JBA <sup>1</sup>	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-2HK	Heater Kit
MD-CAP	Mounting Cap for MegaDome® Series and SurroundVideo® G5 Mini
MD-JBA	Round Junction Box for MegaDome Series and SurroundVideo G5 Mini

## Create Your Model (Example: AV10355PMTIR-SH)

