

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

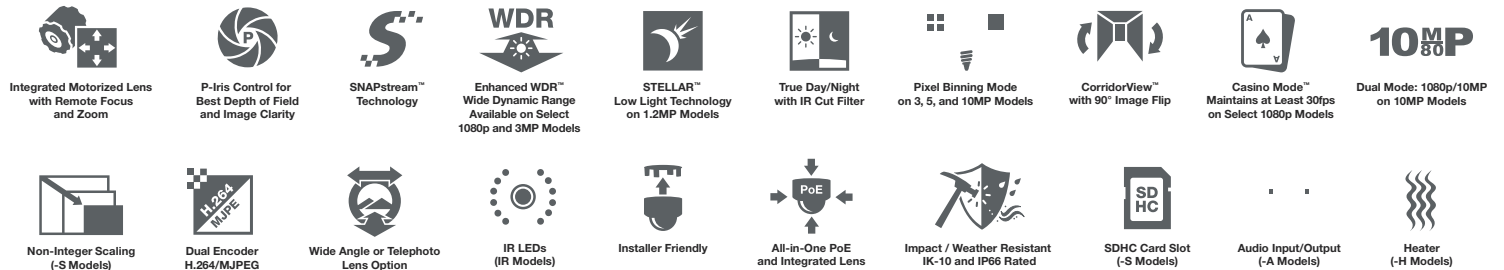


Motorized Lens with IR LEDs

Motorized Lens

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

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

Max Power Consumption (Watts DC power)

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

IR Illuminator (IR models only)

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

Audio Electrical (-A and -AH models only)

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

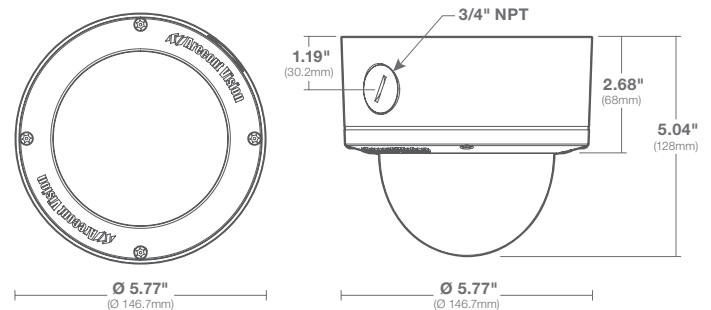
Heater Electrical (-H and -AH models only)

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

Mechanical

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

Dimensions



Scaling Resolution Chart****

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

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

See Next Page for Ordering Information



Model Numbers

1.2MP	AV1355PM-S	STELLAR™
	AV1355PMIR-S	STELLAR™
1080p	AV2355PM-H	
	AV2355PMIR-SAH	Audio
	AV2355PMIR-SH	
	AV2355PMTIR-SH	
	AV2356PM	WDR
	AV2356PMIR-S	WDR
3MP	AV3356PMTIR-S	WDR
	AV3355PM-H	
	AV3355PMIR-SH	
	AV3355PMTIR-SH	
	AV3356PM	WDR
	AV3356PMIR-S	WDR
5MP	AV3356PMIR-SA	Audio WDR
	AV3356PMTIR-S	WDR
	AV5355PM-H	
	AV5355PMIR-SAH	Audio
10MP	AV5355PMIR-SH	
	AV5355PMTIR-SH	
	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

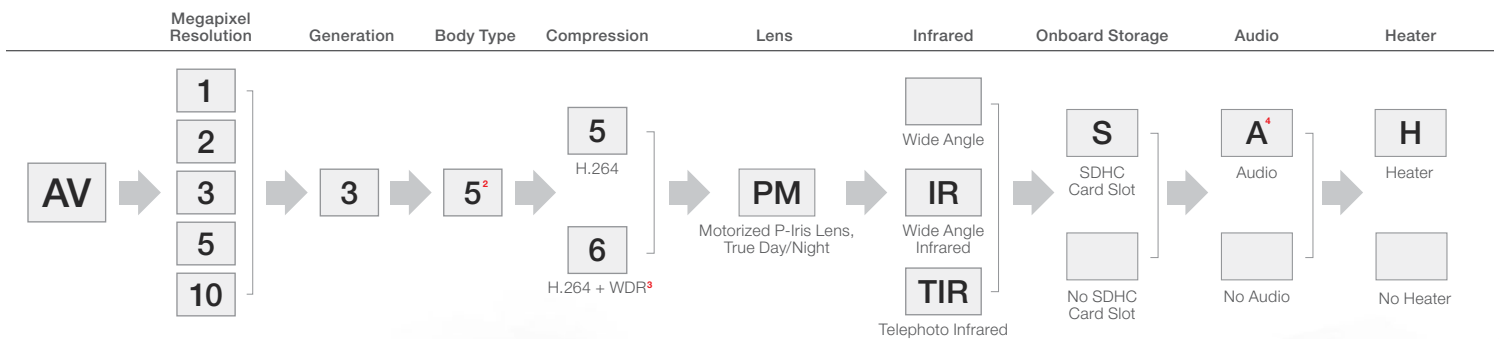
PM	Wide Angle Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night
PMT	Telephoto Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night
IR	IR LEDs
-S	SDHC Card Slot, Non-Integer Scaling, HTTPS*
-A	Audio
-H	Heater (Non-WDR and Non-STELLAR Models Only)

* 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-JBA¹	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)



¹ Replacement part for AV-PMJB and AV-WMJB ³ WDR for AV2356 and AV3356 models only
² "5" represents MegaDome G3 product line ⁴ Wide angle lens cameras only