

MegaDome® 2 IP Megapixel Cameras

1.2, 1.3, 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), WDR (Wide Dynamic Range), STELLAR™ (Spatio Temporal Low Light Architecture), and IR LED Models



MegaDome® 2 second 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, 1.3, 1080p, 3, 5, or 10-megapixel (MP) sensor with fast frame rates together with an IR corrected motorized

wide angle or telephoto vari-focal lens. It is IP66 environmental rated and IK-10 impact-resistant. Remote focus and remote zoom make MegaDome® 2 easy to install and manage. MegaDome® 2 cameras are also available in manual lens models.

Integrated Motorized Lens with Remote Focus and Zoom (PM Models)	P-Iris Control for Best Depth of Field and Image Clarity (PM Models)	SNAPstream™ Technology	Wide Dynamic Range Available on Select 1080p and 3MP Models	Dual Mode: 1080p/10MP on 10MP Models	STELLAR™ Low Light Technology on 1.2MP Models	Wide Angle or Telephoto Lens Option	IR LEDs (IR Models)	Impact / Weather Resistant IK-10 and IP66 Rated	
True Day/Night with IR Cut Filter	All-in-One Dome Solution	Pixel Binning Mode on 3, 5, and 10MP Models	Non-Integer Scaling	CorridorView™ with 90° Image Flip	SDHC Card Slot (-S Models)	Dual Encoder H.264/MJPEG	Casino Mode™ Maintains at Least 30fps on Select 1080p Models	Audio Input/Output (-A Models)	Heater (-H Models)

Series Features

- 1.2, 1.3, 1080p, 3, 5, and 10MP Models
- Remote Focus/Zoom Motorized, P-Iris Lens (PM Models)
- SNAPstream™ Technology Reduces Bandwidth without Impacting Image Quality†
- P-Iris Control to Get Best Depth of Field and Image Clarity (PM Models)
- 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
- Optional True WDR up to 100dB at Full Resolution Available on Select 1080p and 3MP Models: See Clearly in Shaded and Bright Light Conditions Simultaneously
- 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, Forensic Zooming, and Non-Integer Scaling
- 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 802.1x†, DHCP, 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

† SNAPstream and 802.1x not available on "-S" models

Camera Specifications

Model	AV1255		AV2255	AV2256	AV3255	AV3256	AV5255	AV10255	
Image Sensor (CMOS)	1.2MP*	1.3MP**	1080p	1080p**	3MP**	3MP	5MP	10MP	
Day/Night	True Day/Night with Automatic Removable IR Cut Filter								
Optical Format	1/3"	1/2.7"	1/2.7"	1/3.2"	1/2.5"	1/3.2"	1/2.5"	1/2.3"	
Pixel Pitch	3.75µm	3µm	3µm	2.2µm	2.2µm	2.2µm	2.2µm	1.67µm	
Minimum Illumination	Color (Day Mode)	0.02 Lux	0.1 Lux	0.1 Lux	0.2 Lux	0.3 Lux	0.2 Lux	0.3 Lux	0.42 Lux
	Color Binning (Day Mode)	-	-	-	-	0.15 Lux	0.1 Lux	0.15 Lux	0.21 Lux
	B/W (Night Mode)	0.002 Lux, IR sensitive	0.01 Lux, IR sensitive	0.01 Lux, IR sensitive	0.02 Lux, IR sensitive	0.03 Lux, IR sensitive	0.02 Lux, IR sensitive	0.03 Lux, IR sensitive	0.04 Lux, IR sensitive
Full FOV Resolution	1280 H x 960 V	1280 H x 1024 V	1920 H x 1080 V	1920 H x 1080 V	2048 H x 1536 V	2048 H x 1536 V	2592 H x 1944 V	3648 H x 2752 V	
1/4 Resolution	640 H x 480 V	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	1296 H x 972 V	1824 H x 1376 V	
Scaling (See Scaling Resolution Chart Below)	-	-	Yes (-S Models)	Yes (-S Models)	Yes (-S Models)	Yes (-S Models)	Yes (-S Models)	Yes (-S Models)	
Dynamic Range	83.5dB	69dB	69dB	WDR up to 100dB	70.1dB	WDR up to 100dB	70.1dB	57.2dB	
Maximum SNR	54dB	45dB	45dB	49dB	45dB	49dB	45dB	40dB	
Frame Rates†	At Max Resolution	37fps (1280 x 960)	42fps (1280 x 1024)	30fps (1920 x 1080)	30fps (1920 x 1080)	21fps (2048 x 1536)	21fps (2048 x 1536)	14fps (2592 x 1944)	7fps (3648 x 2752)
	Cropped	-	-	42fps (1280 x 1024)	30fps (1280 x 1024)	29fps (1920 x 1080) 30fps (1280 x 1024)	30fps (1920 x 1080) 30fps (1600 x 1200) 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 (1296 x 972) 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 (PM/PMIR Models)	3–9mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 101°–32°	-	2.8–8mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 120°–44°	2.8–8mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 86°–32°	2.8–8mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 94°–34°	2.8–8mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 104°–39°	3–8mm, 1/2.5", F1.4, RZ, RF, P-iris, H-FOV = 113°–43°	4–8mm, 1/2.3", F1.6, RZ, RF, P-iris, H-FOV = 89°–47°
	Telephoto Motorized (PMTIR Models)	-	-	8–22mm, 1/2.7", F1.6, RZ, RF, P-iris, Telephoto, H-FOV = 42°–16°	8–22mm, 1/2.7", F1.6, RZ, RF, P-iris, Telephoto, H-FOV = 30°–12°	8–22mm, 1/2.7", F1.6, RZ, RF, P-iris, Telephoto, H-FOV = 29°–12°	8–22mm, 1/2.7", F1.6, RZ, RF, P-iris, Telephoto, H-FOV = 32°–12°	9–22mm, 1/2.5", F2.0, RZ, RF, P-iris, Telephoto, H-FOV = 38°–16°	12–22mm, 1/2.3", F2.2, RZ, RF, P-iris, Telephoto, H-FOV = 30°–17°
	Manual Lens (DN Models)	-	3.4–10.5mm, 1/2.5", F1.6, H-FOV = 62°–24°	3.4–10.5mm, 1/2.5", F1.6, H-FOV = 93°–36°	3.4–10.5mm, 1/2.5", F1.6, H-FOV = 68°–26°	3.4–10.5mm, 1/2.5", F1.6, H-FOV = 73°–28°	3.4–10.5mm, 1/2.5", F1.6, H-FOV = 72°–28°	3.4–10.5mm, 1/2.5", F1.6, H-FOV = 92°–36°	-

* STELLAR™ Model ** Effective

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

† Maximum with H.264 compression

‡ SNAPstream and 802.1x not available on "-S" models

Programmability

Optics	Remote focus, remote zoom, P-iris (PM Models)
Low Light Performance	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)
Casino Mode™	Maintains 30fps or higher (AV2255 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, 50/60Hz (-S models)
Image Rotation	CorridorView™ (90°, 180° and 270° image rotation)
Wide Dynamic Range	Auto adjustment between WDR and LDR modes (WDR models only)
Noise Reduction	Low light noise filter control
Efficiency	SNAPstream™ (Smart Noise Adaptation and Processing)‡
	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)

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, 802.1x [†]	
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, IPv4, 802.1x [†]
Mechanical	IK-10 (EN62262), IP66 (EN60529)
CoO	Made in the USA

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	AV1255		AV2255	AV2256/AV3256	AV3255/AV5255	AV10255
	1.2MP	1.3MP				
DN	-	-	-	6.6	-	-
DN-H	-	10.2	10.2	-	9.9	-
PM	-	-	-	11.3	-	-
PM-H	-	-	12.2	-	11.9	-
PM-S	10.9	-	-	-	-	-
PMIR-S	11.9	-	-	12.7	-	-
PMIR-SA	-	-	-	- / 12.7	-	-
PMIR-SAH	-	-	12.1	-	- / 12.1	-
PMIR-SH	-	-	12.1	-	12.1	13.0
PMTIR-S	-	-	-	14.2	-	-
PMTIR-SH	-	-	14.5	-	14.4	13.8

[†] SNAPstream and 802.1x not available on "-S" models

IR Illuminator (IR Models Only)

PMIR	24 pcs 850nm LEDs / 50ft (15m) IR distance (max) / 40° IR angle
PMTIR	24 pcs 850nm LEDs / 120ft (36m) IR distance (max) / 30° 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

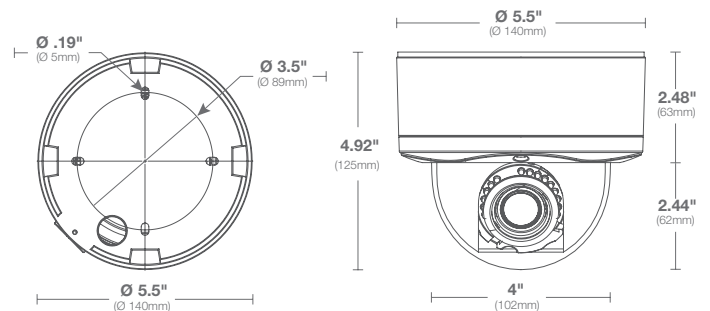
Heater Electrical (-H and -AH Models Only)

Power Consumption	2.28 W max
Switch	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, 90° tilt and 360° z-axis	
Dimensions <i>(See Dimensions)</i>	Unit	Ø 5.5" (140mm) x 4.9" H (125mm)
	Packaged	6" H (152mm) x 8" W (203mm) x 7.5" L (190mm)
Weight	Unit	2.25lbs (1.02kg)
	Packaged	2.85lbs (1.27kg)
On Board Storage	SDHC slot up to 32GB (Card not included)	

Dimensions



Ordering Information



Model Numbers

1.2MP	AV1255PM-S	STELLAR™
	AV1255PMIR-S	STELLAR™
1.3MP	AV1255DN-H	
1080p	AV2255DN-H	
	AV2255PM-H	
	AV2255PMIR-SAH	
	AV2255PMIR-SH	
	AV2255PMTIR-SH	
	AV2256DN	WDR
	AV2256PM	WDR
	AV2256PMIR-S	WDR
3MP	AV2256PMTIR-S	WDR
	AV3255DN-H	
	AV3255PM-H	
	AV3255PMIR-SH	
	AV3255PMTIR-SH	
	AV3256DN	WDR
	AV3256PM	WDR
	AV3256PMIR-S	WDR
5MP	AV3256PMIR-SA	WDR
	AV3256PMTIR-S	WDR
	AV5255DN-H	
	AV5255PM-H	
	AV5255PMIR-SH	
10MP	AV5255PMIR-SAH	
	AV5255PMTIR-SH	
	AV10255PMIR-SH	Dual Mode
	AV10255PMTIR-SH	Dual Mode

Model Specific Features

Model	Resolution	Frame Rate†	Features		
AV1255	1.2MP	37fps	-	-	STELLAR™
	1.3MP	42fps	-	-	-
AV2255	1080p	30fps	-	Casino Mode™	-
AV2256	1080p	30fps	WDR	-	-
AV3255	3MP	21fps	-	-	Binning
AV3256	3MP	21fps	WDR	-	Binning
AV5255	5MP	14fps	-	-	Binning
AV10255	10MP	7fps	-	-	Binning

Configurations



Motorized Lens with IR LEDs



Motorized Lens

Options

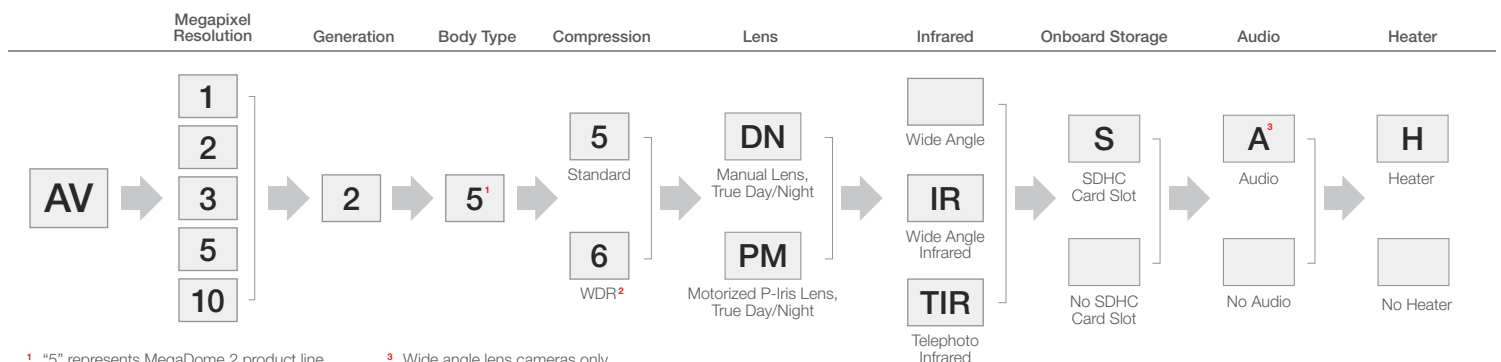
DN	Manual Lens, True Day/Night
PM	Wide Angle Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night
PMT	Telephoto Lens w/ Remote Focus/Zoom, P-Iris, True Day/Night
IR	IR LEDs
-S	SDHC Card Slot, Non-Integer Scaling
-A	Audio
-H	Heater (Non-WDR and Non-STELLAR™ Models Only)

Note: Not all options available on all models.

Accessories (Sold Separately)

AV-CRMA	Corner Mount Adapter
AV-EBAR	Round Electrical Box Adapter
AV-EBAS	Square Electrical Box Adapter
AV-FMA	Flush Mount Adapter
AV-JBA	Junction Box Adapter
AV-PMA	Pole Mount Adapter
AV-PMJB	Pendant Mount with Junction Box <i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i>
AV-WMJB	Wall Mount Bracket with Junction Box <i>(Fits Cap 1.5" NPT, Box Fits 3/4" NPT)</i>
MD-2HK	Heater Kit for MegaDome® 2
MD-CAP	Mounting Cap for MegaDome Series and SurroundVideo® G5 Mini
MD-JBA	Junction Box Adapter for MegaDome Series and SurroundVideo G5 Mini

Create Your Model (Example: AV10255PMTIR-SH)



¹ "5" represents MegaDome 2 product line
² WDR for AV2256 and AV3256 models only
³ Wide angle lens cameras only
[†] Maximum with H.264 compression