

# MegaDome® 2 IP Megapixel Cameras

H.264 All-in-One Motorized P-Iris Lens True Day/Night IR Indoor/Outdoor Dome IP Cameras with WDR (Wide Dynamic Range) and STELLAR™ (Spatio Temporal Low Light Architecture) Models

## Camera Models

1.2 Megapixel STELLAR™	1.3 Megapixel	1080p	1080p WDR	3 Megapixel	3 Megapixel WDR	5 Megapixel	10 Megapixel
AV1255PM-S	AV1255DN-H	AV2255DN-H	AV2256DN	AV3255DN-H	AV3256DN	AV5255DN-H	AV10255PMIR-SH
AV1255PMIR-S		AV2255AM-H	AV2256PM	AV3255AM-H	AV3256PM	AV5255AM-H	AV10255PMTIR-SH
		AV2255PMIR-SH	AV2256PMIR-S	AV3255PMIR-SH	AV3256PMIR-S	AV5255PMIR-SH	
		AV2255PMTIR-SAH	AV2256PMTIR-S	AV3255PMTIR-SH	AV3256PMTIR-SA	AV5255PMTIR-SAH	
		AV2255PMTIR-SH			AV3256PMTIR-S	AV5255PMTIR-SH	

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 (AM/PM Version)

P-Iris Control for Best Depth of Field and Image Clarity (PM Models)

WDR  
Wide Dynamic Range Available on Some 1080p and 3MP Models

10MP80  
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

CorridorView™ with 90° Image Flip (-S Models)

SDHC Card Slot (-S Models)

Dual Encoder H.264/MJPEG

Casino Mode™  
Maintains at Least 30fps on AV2255 Models

Audio Input/Output (-A Models)

Heater (-H Models)

## Features:

- 1.2–10MP Models
- Remote Focus/Zoom Motorized Auto-Iris or P-Iris Lens (AM/PM Models)
- 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 Some 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 (AV2255 Models)
- CorridorView™ Allows 90° Image Rotation for Better Coverage in Hallways and Corridors
- Privacy Mask, Motion Detection, Flexible Cropping, Bit Rate Control, Multi-Streaming, 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)
- Total PoE Solution (No External Power Required for Heater and IR LEDs) with Auxiliary Power: 12–48V DC/24V AC
- Outdoor Rated IP66 and IK-10 Impact-Resistant Housing
- Easily Adjustable 3-Axis Gimbal

## 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

## Other Features and Options

Option	Description
AM	Remote Focus/Zoom, Auto-Iris, 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
DN	Manual Lens, True Day/Night
IR	IR LEDs
-S	SDHC Card Slot, CorridorView™ w/ 90° Image Flip, Non-Integer Scaling
-A	Audio
-H	Heater (Non-WDR and Non-STELLAR™ Models Only)

Camera Imaging 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	0.3 Lux	0.3 Lux	0.3 Lux	0.42 Lux	
	Color Binning (Day Mode)	-	-	-	-	0.15 Lux	0.15 Lux	0.21 Lux	
	B/W (Night Mode)	0.002 Lux, 0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 Lux, IR sensitive	0 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 512 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	See: Scaling Resolution Chart	See: Scaling Resolution Chart	See: Scaling Resolution Chart	See: Scaling Resolution Chart	See: Scaling Resolution Chart	
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 (1280x960)	42fps (1280x1024)	30fps (1920x1080)	30fps (1920x1080)	21fps (2048x1536)	21fps (2048x1536)	14fps (2592x1944)	7fps (3648x2752)
	Cropped	-	-	42fps (1280x1024)	41fps (1280x1024)	29fps (1920x1080) 41fps (1280x1024)	30fps (1920x1080) 31fps (1600x1200) 41fps (1280x1024)	21fps (2048x1536) 29fps (1920x1080) 41fps (1280x1024)	12fps (2592x1944) 18fps (2048x1536) 25fps (1920x1080) 37fps (1280x1024)
	Binning Mode	-	-	-	-	46fps (1024x768) 64fps (960x540)	21fps (1024x768) 27fps (800x600) 31fps (960x540) 32fps (640x512)	34fps (1296x972) 46fps (1024x768) 64fps (960x540)	29fps (1920x1080) 26fps (1824x1376) 43fps (1296x972) 54fps (1024x768)
Lens	Wide Angle Motorized (AM Models)	-	-	3-9mm, 1/2.7", F1.2, RZ, RF, Auto-iris, H-FOV = 115°-37°	-	3.6-9mm, 1/2.5", F1.8, RZ, RF, Auto-iris, H-FOV = 76°-28°	-	3.6-9mm, 1/2.5", F1.8, RZ, RF, Auto-iris, H-FOV = 96°-36°	-
	Wide Angle Motorized (PM/PMIR Models)	3-9mm, 1/2.7", F1.2, RZ, RF, P-iris H-FOV = 92°-31°	-	2.8-8mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 120°-44°	3-9mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 82°-27°	2.8-8mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 94°-34°	3-9mm, 1/2.7", F1.2, RZ, RF, P-iris, H-FOV = 113°-29°	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	H	V	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

Data Transmission

Compression Type	H.264 (MPEG-4, Part 10)/Motion JPEG	
	21 levels of quality	
Transmission Protocols	RTSP, RTP/TCP, RTP/UDP, HTTP, DHCP, TFTP	
	100Base-T Ethernet Network Interface	
Multi-Streaming	1.2MP-5MP models	8 non-identical streams
	10MP models	4 non-identical streams

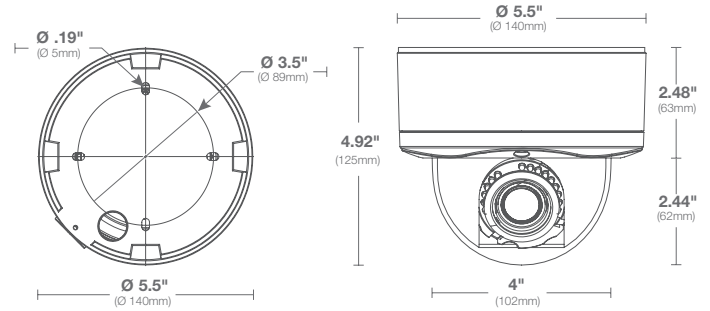
Programmability

Remote focus, remote zoom and auto-iris or P-iris (AM or PM models)
Motion detection and privacy mask with up to 1024 detection zones
Non-integer scaling down to 128x96 (-S models)
Auto adjustment between WDR and LDR modes (WDR models Only)
Programmable shutter speed to help control motion blur
Pixel Binning Mode (3, 5 and 10MP)
Casino Mode™ maintains 30fps (AV2255 model)
Flexible Cropping (resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264)
Low light noise filter control
Bit rate and bandwidth limitation control
Backlight compensation and multi-matrix white balance
50/60Hz selectable flicker control
Electronic pan, tilt, zoom (PTZ)
180° image flip or CorridorView™ (90°, 180° and 270° image rotation) on -S models
Programmable resolution, brightness, saturation, gamma, sharpness, tint

Compliance	<b>Industry Standard</b>	ONVIF Profile S and PSIA Conformant
	<b>Listings</b>	UL (CB)
	<b>FCC Compliance</b>	47 CFR 15 Class A
	<b>Environmental</b>	RoHS, REACH, WEEE
	<b>Markings</b>	(CE) EN55022 Class A, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1
	<b>Mechanical</b>	IK-10 (EN62262), IP66 (EN60529)

Environmental	<b>Operating temperature</b>	-40°C (-40°F) to +50°C (122°F) w/ Heater or WDR Models w/o Heater
	<b>Humidity</b>	0% to 90% (non-condensing)
	<b>Stable image temperature</b>	0°C (32°F) to +50°C (122°F)
	<b>Storage temperature</b>	-40°C (-40°F) to +60°C (140°F)

Electrical	<b>Alarm Input/Output</b>	General purpose opto-coupled
	<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)**

		DN	DN-H	AM-H	PM	PM-S	PMIR-S	PMIR-SH	PMTIR-S	PMTIR-SH
AV1255	1.2MP	-	-	-	-	10.9	11.9	-	-	-
	1.3MP	-	10.2	-	-	-	-	-	-	-
AV2255		-	10.2	10.2	-	-	-	12.1	-	14.5
AV2256/3256		6.6	-	-	11.3	-	12.7	-	14.2	-
AV3255/5255		-	9.9	9.9	-	-	-	12.1	-	14.4
AV10255		-	-	-	-	-	-	13.0	-	13.8

**Accessories**

AV-CRMA	Corner Mount Adapter
AV-EBA	Electrical Box Adapter
AV-JBA	Junction Box Adapter
AV-PMA	Pole Mount Adapter
AV-PMJB	Pendant Mount
AV-WMJB	Wall Mount Bracket
MD-2HK	Heater Kit
MD-CAP	Wall Mount and Cap Accessory
MD-FMA	Flush Mount Adapter

IR Illuminator (IR Models)	<b>AMIR/PMIR</b>	24 pcs 850nm LEDs / 50ft (15m) IR distance (max) / 40° IR angle
	<b>PMTIR</b>	24 pcs 850nm LEDs / 120ft (36m) IR distance (max) / 30° IR angle
	Total PoE Solution (No external power requirement)	

Audio Electrical (-A and -AH Models)	<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)	<b>Power Consumption</b>	2.28 W Max
	<b>Switch</b>	On: 4°C (32.9°F), Off: 6.5°C (43.7°F)
	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, 90° tilt and 360° z-axis	
	<b>Total Unit Dimensions</b>	Unit	Ø 5.5" (140mm) x 4.9" H (125mm)
		Packaged	8" W (203mm) x 7.5" L (190mm) x 6" H (152mm)
	<b>Weight</b>	Unit	2.25 lbs (1.02kg)
		Packaged	2.85 lbs (1.27kg)
	<b>On Board Storage</b>	SDHC slot up to 32GB (Card not included)	