

# MicroDome® IP Megapixel Cameras

1.3, 1080p, 3, and 5 Megapixel (MP) H.264 All-in-One Ultra Low Profile True Day/Night Indoor/Outdoor Dome IP Cameras with SNAPstream™ (Smart Noise Adaptation and Processing) and Enhanced WDR™ (Wide Dynamic Range) Models



The MicroDome® multi-megapixel camera series delivers 1.3-, 1080p, 3-, or 5-megapixel resolutions. These true day/night cameras are available with a choice of lenses 2.8mm, 4mm, 6mm, 8mm, 12mm, and 16mm options. With a day/night mechanical IR cut filter this camera is ideal for applications with challenging lighting conditions, regardless the time of day.

The MicroDome megapixel IP camera series is available in an indoor, in-ceiling housing or in a surface mount IP66 rated version for indoor and outdoor applications. Surface and flush mount models feature a vandal resistant, IK-10 rated cast-aluminum housing with a polycarbonate bubble making it capable of withstanding the equivalent of 55 kg (120 lbs) of force.

MicroDome megapixel IP cameras deliver professional surveillance, with ease

of installation and set-up, for a variety of network surveillance requirements. The flush mount model features an innovative spring arm design makes in-ceiling installations a snap: simply slide the camera through the hole and secure the magnetized cover ring with a single screw. No additional hardware is required.

For applications with strong backlighting, reflections from wet flooring/puddles, or contrast due to fog, mist, or glare, Enhanced WDR™ wide dynamic range is available on select 1080p and 3MP models.

The MicroDome is ONVIF Profile S (Open Network Video Interface Forum) compliant, providing interoperability between network video products regardless of manufacturer.



Ultra Low Profile Design



SNAPstream™ Technology



Enhanced WDR™ Wide Dynamic Range on Select 1080p and 3MP Models



True Day/Night with Mechanical IR Cut Filter



CorridorView™ with 90° Image Flip



Pixel Binning Mode on 3 and 5MP Models



All-in-One PoE and Integrated Lens



Casino Mode™ Maintains at Least 30fps on Select 1080p Models



Impact / Weather Resistant IK-10 and IP66 Rated (-S Models)



Integrated Microphone (-F Models)

## Series Features

- 1.3, 1080p, 3, or 5MP Models
- SNAPstream™ Capability to Reduce Bandwidth without Impacting Image Quality
- True Day/Night Functionality with Mechanical IR Cut Filter
- Binning Mode for Strong Low Light Performance on 3MP and 5MP Cameras
- Enhanced WDR™ up to 100dB at Full Resolution: See Clearly in Shaded and Bright Light Conditions Simultaneously on Select 1080p and 3MP Models
- Casino Mode™ Maintains 30fps or Higher Required by Gaming Industry Regulations (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
- Multiple Lens Options Available (Sold Separately)
- Dual Encoder H.264/MJPEG
- Network Protocols Include 802.1x, IPv6, QoS, DHCP, and More
- All-in-One H.264 Total Power Over Ethernet (PoE) Solution
- Spring-Arm Design for Very Easy Installation (-F Models)
- Ultra Low Profile Design / Small Size
- Tamper-Resistant Housing
- IK-10 Impact-Resistant Housing Outdoor Rated IP66 (-S Models)
- Integrated Microphone (-F Models)

## Camera Imaging Specifications

Model		AV1455DN	AV2455DN	AV2456DN	AV3455DN	AV3456DN	AV5455DN
Image Sensor (CMOS)		1.3MP	1080p (2.1MP)	1080p (2.1MP)	3MP	3MP	5MP
Optical Format		1/2.7"	1/2.7"	1/3.2"	1/2.5"	1/3.2"	1/2.5"
Pixel Pitch		3µm	3µm	2.2µm	2.2µm	2.2µm	2.2µm
Minimum Illumination	Color	0.1 Lux	0.1 Lux	0.2 Lux	0.3 Lux	0.2 Lux	0.3 Lux
	Color Binning	-	-	-	0.15 Lux	0.1 Lux	0.15 Lux
	Day/Night	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
Full FOV Resolution		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
1/4 Resolution		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
Dynamic Range		69dB	69dB	WDR up to 100dB	70.1dB	WDR up to 100dB	70.1dB
Frame Rates*	At Max Res.	42fps (1280 x 1024)	30fps (1920 x 1080)	30fps (1920 x 1080)	21fps (2048 x 1536)	21fps (2048 x 1536)	14fps (2592 x 1944)
	Cropped	-	42fps (1280 x 1024)	30fps (1280 x 1024)	29fps (1920 x 1080) 41fps (1280 x 1024)	30fps (1920 x 1080) 30fps (1280 x 1024)	21fps (2048 x 1536) 29fps (1920 x 1080) 41fps (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)
Lens**	Fixed Iris	MPM2.8A 2.8mm, 1/2.5", F/1.8, IR corrected, M12-mount					
	H-FOV	75°	114°	83°	89°	89°	113°

\* Maximum with H.264 compression \*\* 2.8mm standard lens

## Programmability

Optics	M12 lens
Low Light Performance	Pixel Binning Mode 3MP and 5MP models
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
Casino Mode™	Maintains 30fps or higher (AV2455 model)
Flexible Cropping	Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264
Backlight Compensation	Custom 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)
Microphone	Integrated (-F models)
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)

## Audio Electrical

Compression	G.711 PCM 8 kHz
Input	Microphone in (integrated on -F models)

## Data Transmission

Compression Type	H.264 (MPEG-4, Part 10)/Motion JPEG
	21 levels of quality
Network Protocols	HTTP, IPv4, IPv6, QoS, 802.1x, RTSP, RTP/TCP, RTP/UDP, TFTP, DHCP
Network Interface	100Base-T Ethernet
Multi-Streaming	8 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
Mechanical	IP66 (EN60529) (-S model), IK-10
CoO	Made in the USA

## Environmental

Operating Temperature	-F Model	-5°C (23°F) to +50°C (122°F)
	-S Model	-40°C (-40°F) to +50°C (122°F)
Humidity	0% to 90% (non-condensing)	
Storage Temperature	-20°C (-4°F) to +60°C (140°F)	

## Electrical

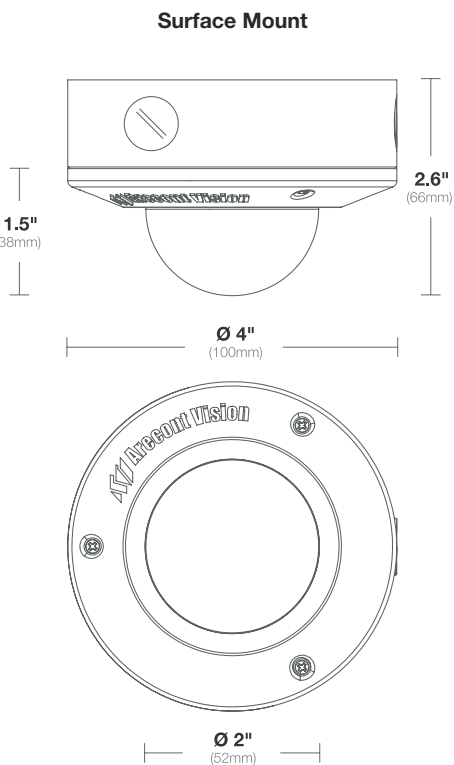
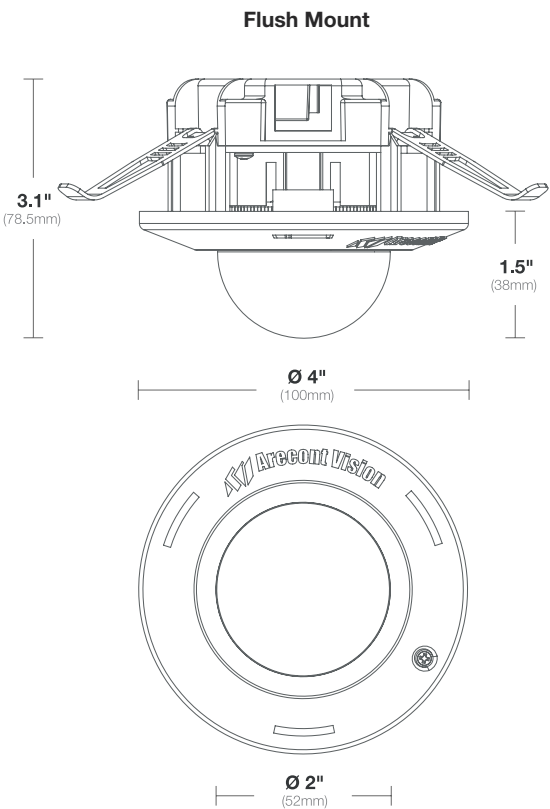
Alarm Input/Output	General purpose opto-coupled, 1 input/1 output
Power Over Ethernet	PoE 802.3af, Class 3
Power Consumption	5.59W max DC power

See Next Page for Mechanical Specs

Mechanical

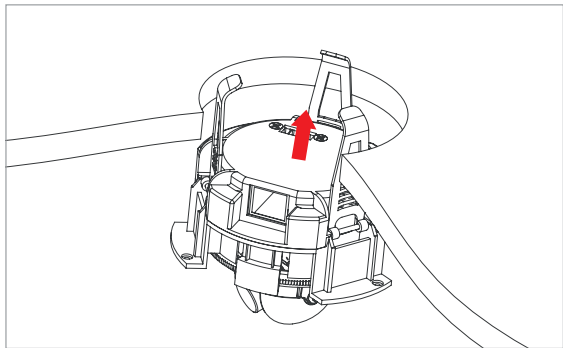
Casing	Tamper-resistant housing, IK-10 impact-resistant	
	-F Model	In-ceiling mount with die-cast aluminum cover and 2" polycarbonate dome bubble
	-S Model	Surface mount with die-cast aluminum housing and 2" polycarbonate dome bubble
		IP66 weather proof standard
Lens		2.8mm board mount (M12), fixed iris, F/1.8 (except -NL models)
		3/8" NPT w/ 1/2" NPT adapter included
Gimbal	Easy 2 axis camera adjustment w/ 359° pan and 90° tilt	
Dimensions <small>(See Dimensions)</small>	Unit	Ø 4" (100mm) x 3.1" H (78.5mm)
	Packaged	5.6" W (142mm) x 5.6" L (142mm) x 3.5" H (90mm)
Weight	Unit	0.7lbs (0.3kg)
	Packaged	1.3lbs (0.6kg)

Dimensions

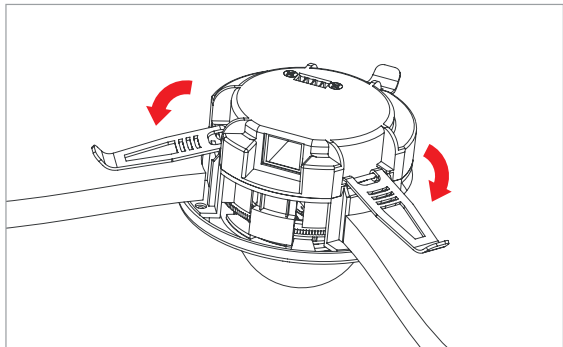


Quick Installation (Flush Mount Models)

- 1 Push the three spring actuated retention arms in the upward position.



- 2 The retention arms lock into place.



See Next Page for Ordering Information

## Ordering Information



## Model Specific Features

Model	Resolution	Frame Rate*	Features		
AV1455DN	1.3MP	42fps	-	-	-
AV2455DN	1080p	30fps	-	Casino Mode™	-
AV2456DN	1080p	30fps	WDR	-	-
AV3455DN	3MP	21fps	-	-	Binning
AV3456DN	3MP	21fps	WDR	-	Binning
AV5455DN	5MP	14fps	-	-	Binning

\* Maximum with H.264 compression

## Options

-F	Flush Mount
-S	Surface Mount
-NL	No Lens

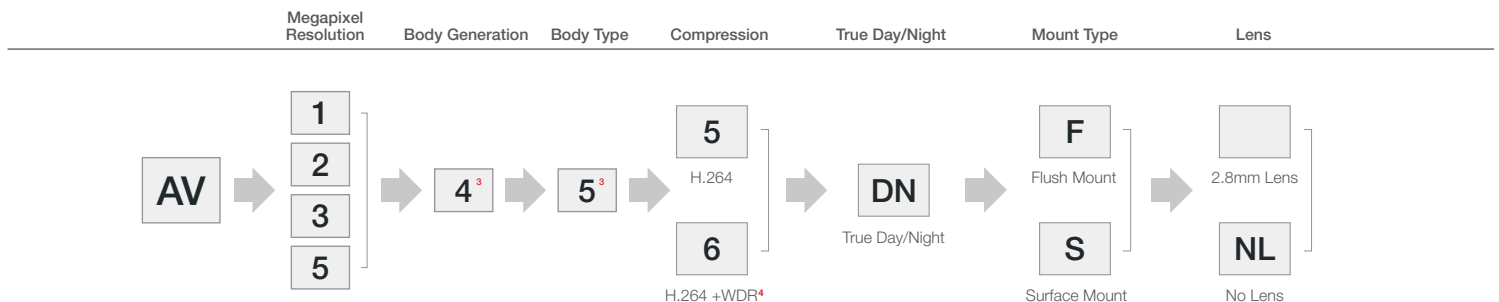
## Configurations



Flush Mount (-F)

Surface Mount (-S)

## Create Your Model (Example: AV2456DN-F-NL)

<sup>3</sup> "45" represents MicroDome product line<sup>4</sup> WDR for AV2456 and AV3456 models only

## Model Numbers

1.3MP	AV1455DN-F	AV1455DN-F-NL
	AV1455DN-S	AV1455DN-S-NL
1080p	AV2455DN-F	AV2455DN-F-NL
	AV2455DN-S	AV2455DN-S-NL
	AV2456DN-F	AV2456DN-F-NL
	AV2456DN-S	AV2456DN-S-NL
3MP	AV3455DN-F	AV3455DN-F-NL
	AV3455DN-S	AV3455DN-S-NL
	AV3456DN-F	AV3456DN-F-NL
	AV3456DN-S	AV3456DN-S-NL
5MP	AV5455DN-F	AV5455DN-F-NL
	AV5455DN-S	AV5455DN-S-NL

## Lens Options (Sold separately)

Model	Focal Length	Horizontal Field of View					
		1.3MP	1080p	1080p WDR	3MP	3MP WDR	5MP
MPM2.1	2.1mm	102°	-	113°	121°	121°	-
MPM2.8A <sup>1</sup>	2.8mm	75°	114°	83°	89°	89°	113°
MPM4.0A	4mm	53°	81°	59°	63°	63°	80°
MPM6.0	6mm	36°	56°	40°	43°	43°	55°
MPM8.0	8mm	28°	42°	30°	33°	33°	40°
MPM12.0A	12mm	18°	28°	20°	22°	22°	28°
MPM16.0	16mm	13°	20°	15°	16°	16°	20°

<sup>1</sup> Standard lens for MicroDome except on "-NL" models

## Accessories (-S models only)

AV-CRMA	Corner Mount Adapter
AV-JBA <sup>2</sup>	Standard Junction Box
AV-PMA	Pole Mount Adapter
MCD-CMT	Pendant Mount with 1/2" NPT Standard for MicroDome® Series
MCD-CRMT	In-room Corner Mount Adapter for MicroDome Series
MCD-EBA	Round Electrical Box Adapter Plate for MicroDome Series
MCD-JBAS	Mount Plate for MicroDome Series for use with AV-JBA
MCD-WMT	Wall Mount with 1/2" NPT Standard for MicroDome Series
MCD-4S	Electrical Box Surface Mount Cover Fits 3rd Party 4-inch Square Box 2-1/8 Inch Deep (e.g. Lowe's® Item # 4788) for MicroDome Series

<sup>2</sup> Use with MCD-JBAS