

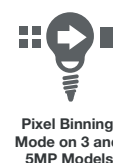
MegaBall® IP Megapixel Cameras

1.3, 1080p, 3, and 5 Megapixel (MP) H.264 All-in-One Manual Vari-Focal Lens True Day/Night Indoor IP Cameras with SNAPstream™ (Smart Noise Adaptation and Processing) and WDR (Wide Dynamic Range) Models



Stylish MegaBall® multi-megapixel cameras provide ample resolution to zoom-in for details in live or recorded video. These indoor all-in-one solutions integrate a 1.3, 1080p, 3 or 5-megapixel camera with fast frame rates and an IR corrected 3.3–10mm vari-focal lens with flush and surface mount dome housing. H.264 compression reduces network bandwidth and storage requirements

while delivering full frame rates and full resolution without sacrificing image quality. True Day/Night functionality allows for 24-hour surveillance. WDR (Wide Dynamic Range) up to 100dB at full resolution balances light and dark areas in the same scene (1080p and 3MP). Binning mode for increased low light sensitivity is available for 3MP and 5MP cameras.



Series Features

- 1.3, 1080p, 3, or 5MP Models
- 3.3–10mm Vari-Focal Lens
- 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
- True WDR up to 100dB at Full Resolution Available 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, Forensic Zooming, and Non-Integer Scaling
- Dual Encoder H.264/MJPEG
- Network Protocols Include 802.1x, IPv6, QoS, DHCP, and More
- Tamper-Resistant Housing
- Installer Friendly Cable Management, 3-Axis Adjustment, In-Ceiling and Surface Mount Options
- All-in-One 3" Ball H.264 PoE Solution with Auxiliary Power: 12–48V DC/24V AC
- Integrated Microphone and Audio Out (-A Models Only)

* Dome can be configured with or without a dome bubble

† Maximum with H.264 compression

Camera Imaging Specifications

Model		AV1145	AV2145	AV2146	AV3145	AV3146	AV5145
Image Sensor		1.3MP**	1080p (2.1MP)	1080p (2.1MP)**	3MP**	3MP	5MP
Day/Night		True Day/Night with automatic removable IR cut filter					
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 (Day Mode)	0.1 Lux	0.1 Lux	0.2 Lux	0.3 Lux	0.2 Lux	0.3 Lux
	Color Binning (Day Mode)	-	-	-	0.15 Lux	0.1 Lux	0.15 Lux
	B/W (Night Mode)	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
Maximum SNR		45dB	45dB	49dB	45dB	49dB	45dB
Frame Rates†	At Max Resolution	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	-	30fps (1280 x 1024)	30fps (1280 x 1024)	29fps (1920 x 1080) 30fps (1280 x 1024)	21fps (1920 x 1080) 21fps (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	Vari-Focal Lens	3.3–10mm, 1/2.5", F1.6, IR corrected, integrated					
	H-FOV	62°–24°	93°–36°	68°–26°	73°–28°	72°–28°	92°–36°

** Effective

SituationalPlus™

Model	Lens	View Angle	Distance to pixel density (ft.)(m)					
			30ppf-T	30ppf-W	60ppf-T	60ppf-W	90ppf-T	90ppf-W
AV1145DN	3.3–10mm	62°–24°	107' (32.6m)	37.5' (11.4m)	54' (16.5m)	14.5' (4.4m)	36.5' (11.1m)	4' (1.2m)
AV2145DN	3.3–10mm	93°–36°	98' (29.9m)	28' (8.5m)	48' (14.6m)	9.5' (2.9m)	32' (9.8m)	N/A Less than 1' (0.3m)
AV2146DN	3.3–10mm	68°–26°	140' (42.7m)	46' (14m)	69' (21m)	20.5' (6.2m)	46' (14m)	10.5' (3.2m)
AV3145PM	3.3–10mm	73°–28°	139' (42.4m)	44' (13.4m)	68' (20.7m)	19.5' (5.9m)	45.5' (13.9m)	9.5' (2.9m)
AV3146PM	3.3–10mm	72°–28°	139' (42.4m)	45' (13.7m)	68' (20.7m)	20.5' (6.2m)	45.5' (13.9m)	10' (3m)
AV5145PM	3.3–10mm	92°–36°	134' (40.8m)	40' (12.2m)	65' (19.8m)	17' (5.2m)	42.5' (13m)	7' (2.1m)

Programmability

Low-Light Performance	Pixel Binning Mode	3MP and 5MP models
Programmable Shutter Speed	Controls motion blur, 1ms–500ms	
Motion Detection	Real-time, 1024 detection zones	
Privacy Masking	Unlimited	
Casino Mode™	Maintains 30fps or higher (AV2145 model)†	
Flexible Cropping	Resolution windowing down to 1x1 pixel for JPEG and 2x2 pixels for H.264	
Backlight Compensation	Auto 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)	
Noise Reduction	Low light noise filter control	
Efficiency	SNAPstream™ (Smart Noise Adaptation and Processing)	
	Bit rate and bandwidth limitation control	

(Programmability Cont.)

Sharpness	Selectable enhancement level
Miscellaneous	Programmable resolution, brightness, saturation, gamma, tint
	Electronic pan, tilt, zoom (PTZ)
Password	16-digit ASCII character password

Data Transmission

Compression Type	H.264 (MPEG-4, Part 10)/Motion JPEG
	21 levels of quality
Transmission Protocols	RTSP, RTP/TCP, RTP/UDP, HTTP, TFTP, DHCP, IPv4, IPv6, QoS, 802.1x
	100Base-T Ethernet network interface
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

Environmental

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

General Electrical

Alarm Input	General purpose opto-coupled
Alarm Output	General purpose opto-coupled (except -A models)***
Power Over Ethernet	PoE 802.3af, Class 2 Total PoE solution (no external power requirement)
Auxiliary Power	12-48V DC, 24V AC

*** No alarm trigger available via the alarm output

Max Power Consumption (Watts DC power)

Model Number	DN
AV1145 / AV2145	5.0W
AV3145 / AV5145	5.3W
AV2146 / AV3146	6.0W

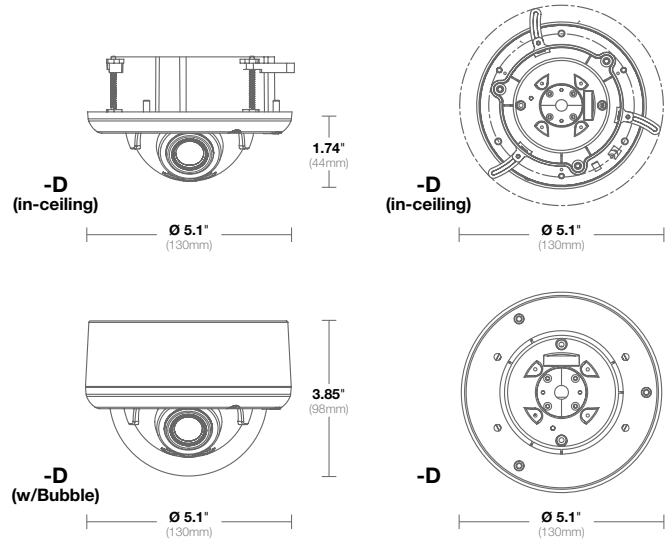
Audio Electrical (-A models only)

Streaming	Two-way
Compression	G.711 PCM 8 kHz
Input/Output	Integrated microphone / line output

Mechanical

Casing	Plastic surface/in-ceiling dome with acrylic bubble	
Lens	External lens adjustment for zoom, focus, and iris	
Gimbal	Easy 3-axis camera adjustment with 360° pan, 90° tilt and 360° z-axis	
Dimensions <i>(See Dimensions)</i>	-D (in-ceiling)	Ø 5.1" (130mm) x 1.74" H (44mm)
	-D (surface w/ bubble)	Ø 5.1" (130mm) x 3.85" H (98mm)
Weight	Camera Unit	Packaged
	1.2lbs (0.54kg)	1.9lbs (0.86kg)
Dome Color	Light gray dome	

Dimensions



See Next Page for Ordering Information

Ordering Information



Model Specific Features

Model	Resolution	Frame Rate [†]	Features		
AV1145	1.3MP**	42fps	-	-	-
AV2145	1080p	30fps	-	Casino Mode™	-
AV2146	1080p**	30fps	WDR	-	-
AV3145	3MP**	21fps	-	-	Binning
AV3146	3MP	21fps	WDR	-	Binning
AV5145	5MP	14fps	-	-	Binning

Build-to-Order Options

-A	Audio
-D	Dome or Recessed Dome Model
-LG	Light Gray Dome Housing
DN-3310	3.3mm–10mm Vari-Focal Lens with True Day/Night

Model Numbers

1.3MP	AV1145DN-3310-D-LG
1080p	AV2145DN-3310-D-LG
	AV2145DN-3310-DA-LG
	AV2146DN-3310-D-LG WDR
3MP	AV3145DN-3310-D-LG
	AV3146DN-3310-D-LG WDR
	AV3146DN-3310-DA-LG WDR
5MP	AV5145DN-3310-D-LG
	AV5145DN-3310-DA-LG

Configurations

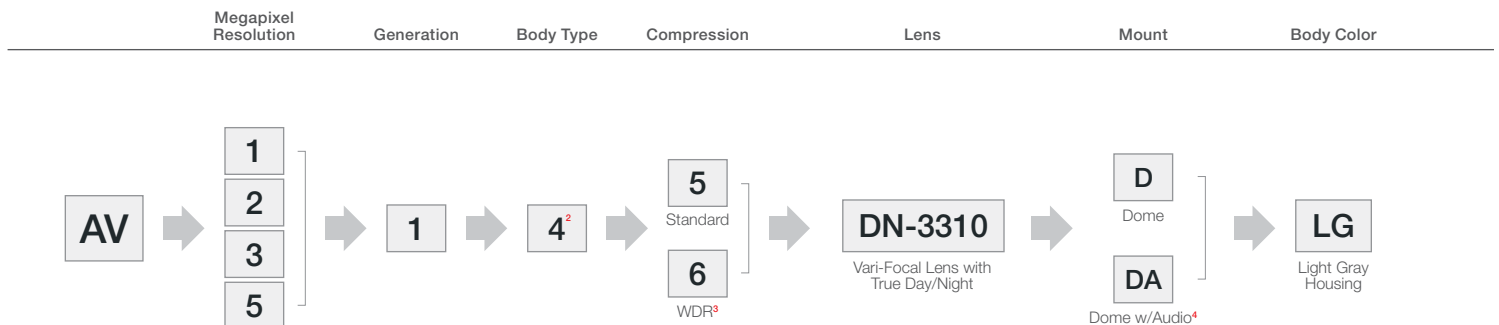


DN-3310-D-LG[†]

Accessories

AV-EBAR	Round Electrical Box Adapter
AV-CRMA	Corner Mount Adapter
AV-PMA	Pole Mount Adapter
AV-SPMJB	Small Pendant Mount with Junction Box Adapter (1/2" NPT Standard)
AV-SWMJB	Small Wall Mount with Junction Box Adapter (1/2" NPT Standard)

Create Your Model (Example: AV3146DN-3310-D-LG)



[†] Maximum with H.264 compression

** Effective

¹ Can be configured as a surface mount or flush mount

² "4" Represents MegaBall product line—which is then defined by "D" for body style

³ WDR for AV2146 and AV3146 models only

⁴ Audio only available on some models