

# 2016 SELECTION GUIDE

End-to-end Solutions from Security to Business Management



# ACTi

## UNIFIED SOLUTION



Cameras



VMS



Video Analytics



Cloud Media Services



Access Control



POS Integration



Encoders & Decoders



Digital Signage



Tools & Utilities



Accessories

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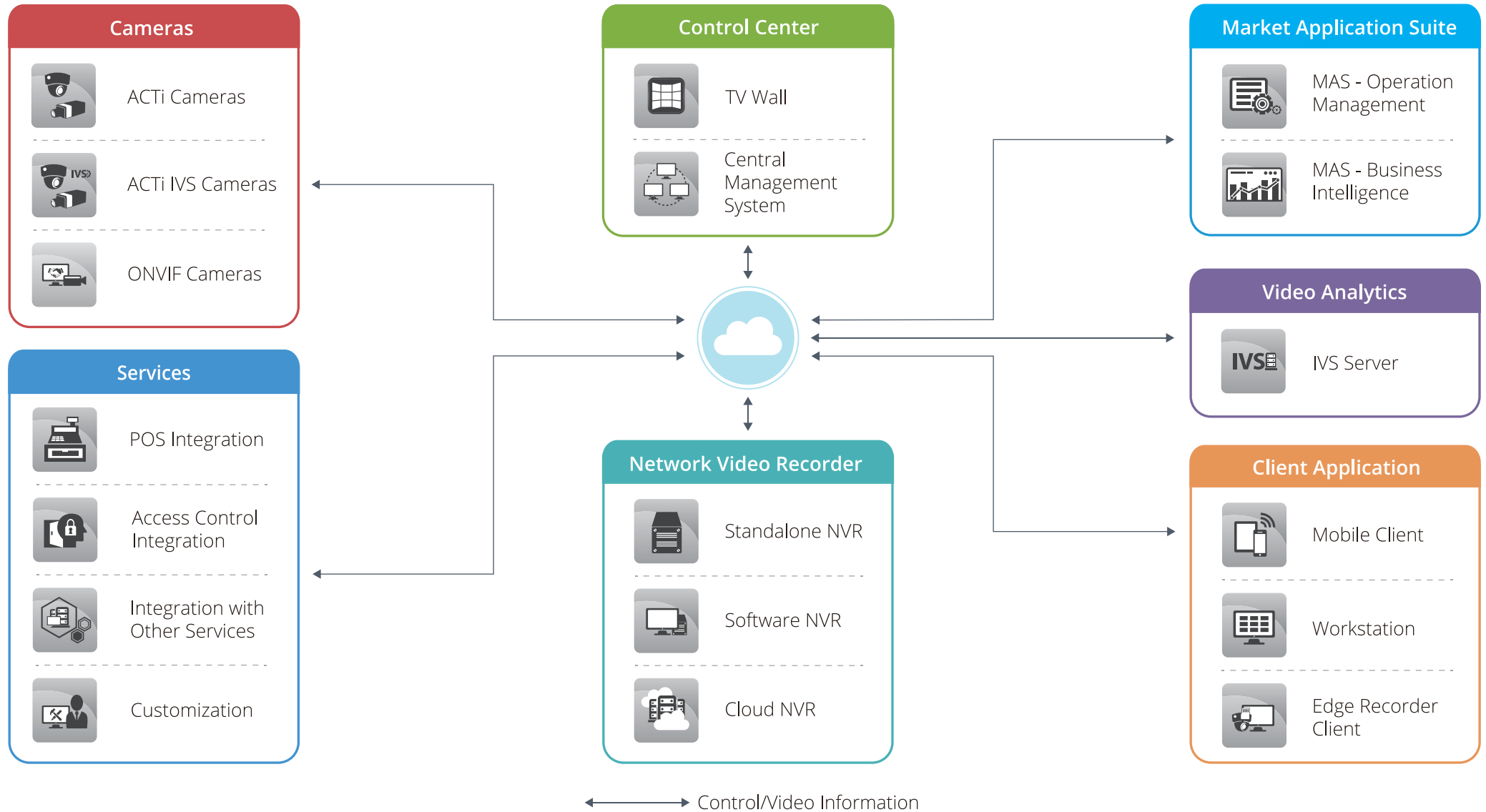
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# ACTi SOLUTION DIAGRAM





# ACTi Q22 Micro Box Camera Introduction



## Audio Recording

Q22 is equipped with a powerful microphone that can discern between a normal conversational volume and an abnormal one. Whenever it detects sounds surpassing a user defined limit, it will send a notification to alert management of the situation.

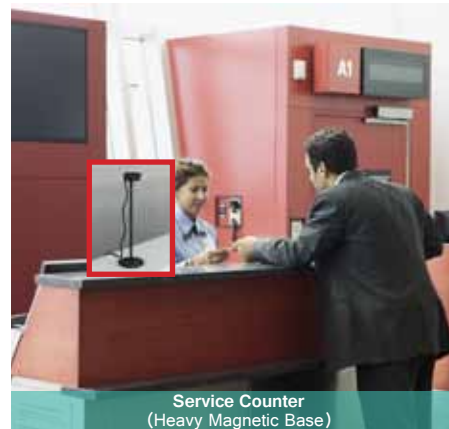


## Key Features

- ▶ 2 Megapixel with 1080p
- ▶ Omnidirectional Built-in Microphone
- ▶ Fixed Lens with f2.55mm / F2.2
- ▶ Superior Low Light Sensitivity
- ▶ Basic WDR (75dB)
- ▶ Super Wide Angle
- ▶ Weatherproof (IP68) and Vandal Proof (IK10)
- ▶ Desktop Stand with Magnetic Base, Pole Mount, or Clamp Mounting Options for Flexible Installation

## Applications and Installations

ACTi's Q22 Micro Box Camera is about half the size of a deck of cards, weighs a little under 0.5 kg (1 lb) and has a sturdy IK10 rated casing. It can be installed at any service counter or wherever critical interactions take place.



Service Counter  
(Heavy Magnetic Base)

Popular Product: Q22-K1



Security Check  
(Edge Clamp)



Patient Monitoring  
(Pole Mount)



# ACTi Covert Camera Introduction



## Key Features

- ▶ Up to 5 megapixel with 1080p
- ▶ General covert, fisheye covert, pinhole covert and L-shaped pinhole covert
- ▶ Superior low light sensitivity
- ▶ WDR
- ▶ Super wide angle
- ▶ 2-way audio
- ▶ Digital input / output
- ▶ Local storage
- ▶ Vibration proof (EN50155)
- ▶ 12-meter long lens cable

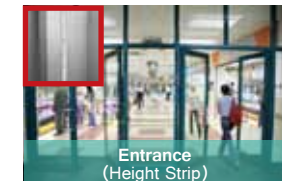
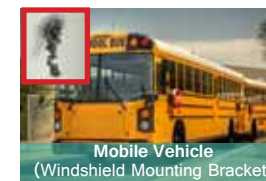
## Discreet Monitoring and Facial Identification

Covert camera, as the name implies, is discreet and difficult to be discovered. Installed at eye level, it will capture a perfect view of a person's face even if he/she is wearing a hood or cap without causing negative feelings.



## Applications and Installations

ACTi's covert cameras come with various shapes and wide range of disguise accessories to fit in all installation locations. They are ideal for retail stores, mobile vehicles, banks, and private places such as offices where the cameras are not welcomed.





## Covert Camera and Microphone Kit Disguised as Speaker

## Micro Box Kit

## Micro Box



Model	Q112-K1	Q14-K1	Q22-K1	Q22
<b>Maximum Resolution</b>	5MP	2MP	2MP	2MP
<b>Bundled Accessories</b>	Tiltable Flush Mount (PMAx-1017)	Tiltable Flush Mount (PMAx-1017)	Gooseneck Bracket (PMAx-1110), Desktop Mount (PMAx-0901)	Bracket
<b>Application Environment</b>	Indoor	Indoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Sensor Size</b>	1/3.2 "	1/2.8 "	1/2.8 "	1/2.8 "
<b>Low Light Sensitivity</b>	Standard	Superior	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux at F2.5	Color: 0.1 lux at F2.5	Color: 0.1 lux at F2.2	Color: 0.1 lux at F2.2
<b>Horizontal Resolution</b>	1350 TVL	1100 TVL	1100 TVL	1100 TVL
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB
<b>Lens</b>	Fixed focal, f3.7mm / F2.5, Fixed iris, Fixed focus	Fixed focal, f3.7mm / F2.5, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus
<b>Lens Mount</b>	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 2m from main unit	RJ12 connector up to 2m from main unit
<b>Horizontal Viewing Angle</b>	70.2°	84.5°	112.7°	112.7°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1920 x 1080	30 fps at 1920 x 1080	30 fps at 1920 x 1080
<b>Multi-Streaming</b>	Simultaneous dual streams	Simultaneous dual streams	Simultaneous dual streams	Simultaneous dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (75 dB)	Basic WDR (75 dB)	Basic WDR (75 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR
<b>Audio Type</b>	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Mic-in, Line-in, Line-out)
<b>Ethernet Port</b>	RJ-45	RJ-45	RJ-45	RJ-45
<b>Serial Port</b>	RS-232	RS-232	RS-232	RS-232
<b>Digital Input/Output</b>	1/1	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC, MicroSDXC (card not included)	MicroSDHC, MicroSDXC (card not included)	MicroSDHC, MicroSDXC (card not included)	MicroSDHC, MicroSDXC (card not included)
<b>Power Source</b>	DC 12V, PoE Class 2	DC 12V, PoE Class 2	DC 12V, PoE Class 2	DC 12V, PoE Class 2
<b>Power Consumption</b>	4.32 W (PoE)	4.32 W (PoE)	6.49 W (PoE)	6.49 W (PoE)
<b>Environmental Casing</b>	<b>Q112:</b> Vibration proof (EN50155)	<b>Q14:</b> Vibration proof (EN50155)	<b>Q22:</b> Weatherproof (IP68), Vandal proof metal casing (IK10), Vibration proof (EN50155)	Weatherproof (IP68), Vandal proof metal casing (IK10), Vibration proof (EN50155)
<b>Mount Type</b>	Tiltable Flush Mount	Tiltable Flush Mount	Desktop Mount	Desktop Mount, Wall Mount, Ceiling Bracket, Corner Mount, Pole Mount, Edge Clamp
<b>Operating Temperature</b>	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes
<b>Approvals</b>	Camera: CE, FCC, EN50155	Camera: CE, FCC, EN50155	Camera: CE, FCC, IP68, EN50155, IK10 (metal casing)	CE, FCC, IP68, EN50155, IK10 (metal casing)

**Covert****Pinhole Covert****L-Shaped Pinhole Covert****Fisheye Covert**

Model	Q11	Q12	Q19	Q110	Q14	Q112	Q113	Q115	Q13	Q111
<b>Maximum Resolution</b>	2MP	2MP	5MP	5MP	2MP	5MP	2MP	5MP	2MP	5MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	No	No	No	No	No	No	No	No	No	No
<b>Low Light Sensitivity</b>	Superior	Superior	Standard	Standard	Superior	Standard	Superior	Standard	Superior	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux at F1.85	Color: 0.1 lux at F2.2	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.8	Color: 0.1 lux at F2.5	Color: 0.1 lux at F2.5	Color: 0.1 lux at F2.5	Color: 0.1 lux at F2.5	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0
<b>Mechanical IR Cut Filter</b>	No	No	No	No	No	No	No	No	No	No
<b>IR LED</b>	No	No	No	No	No	No	No	No	No	No
<b>Lens</b>	Fixed focal, f3.6mm / F1.85, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f3.7mm / F2.5, Fixed iris, Fixed focus	Fixed focal, f3.7mm / F2.5, Fixed iris, Fixed focus	Fixed focal, f3.7mm / F2.5, Fixed iris, Fixed focus	Fixed focal, f3.7mm / F2.5, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus
<b>Lens Mount</b>	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit	RJ12 connector up to 12m from main unit
<b>Horizontal Viewing Angle</b>	86.6°	110.3° (overview area), 67.3° (high detail area)	82.3°	126.9° (overview area), 77.4° (high detail area)	84.5°	70.2°	84.5°	70.2°	182° (overview area), 111° (high detail area)	189.67° (overview area), 115.7° (high detail area)
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1920 x 1080	30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1440 x 1080	15 fps at 2592 x 1944
<b>Horizontal Resolution</b>	1100 TVL	1100 TVL	1350 TVL	1350 TVL	1100 TVL	1350 TVL	1100 TVL	1350 TVL	1100 TVL	1350 TVL
<b>View Mode</b>	-	-	-	-	-	-	-	-	Fisheye View	Fisheye View
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (75 dB)	Basic WDR (75 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (75 dB)	Basic WDR (74 dB)	Basic WDR (75 dB)	Basic WDR (74 dB)	Basic WDR (75 dB)	Basic WDR (74 dB)
<b>Digital Noise Reduction</b>	DNR	2D+3D DNR	DNR	2D+3D DNR	DNR	DNR	2D+3D DNR	DNR	DNR	2D+3D DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
<b>Serial Port</b>	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232	RS-232
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2
<b>Environmental Casing</b>	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)	Vibration proof (EN50155)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)
<b>Approvals</b>	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155	CE, FCC, EN50155



## People Counting Camera

## Heat Map Camera



3x  
Optical Zoom



3x  
Optical Zoom



Fixed Focal



Fixed Focal



Fixed Focal

Model	Q61	Q81	Q91	Q92	Q51
Maximum Resolution	2MP	2MP	2MP	2MP	6MP
Application Environment	Indoor	Outdoor	Outdoor	Indoor	Indoor
Product Application	People Counting	People Counting	People Counting	People Counting	Heat Map
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	No	Yes	Yes
Low Light Sensitivity	Superior	Superior	Superior	Superior	Superior
Minimum Illumination	Color: 0.1 lux at F 1.3; B/W: 0 lux at F 1.3 (IR LED on)	Color: 0.1 lux at F 1.3; B/W: 0 lux at F 1.3 (IR LED on)	Color: 0.1 lux, B/W: 0.1 lux at F2.2 (IR LED on)	Color: 0.1 lux at F2.2; B/W: 0 lux at F2.2	Color: 0.1 lux at F2.6; B/W: 0 lux at F2.6 (IR LED on)
Mechanical IR Cut Filter	Yes	Yes	No	Yes	Yes
IR LED	Adaptive IR LED	Adaptive IR LED	No	Adaptive IR LED	Adaptive IR LED
IR Working Distance	4m	4m	No	No	20m
Lens	Zoom, f3-9mm / F1.3-2.2, DC iris, Auto focus	Zoom, f3-9mm / F1.3-2.2, DC iris, Auto focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus	Fixed focal, f1.65mm /F2.8, Fixed iris, Fixed focus
Zoom Ratio	3x optical	3x optical	-	-	-
Zoom Application	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	-	-	-
Viewing Angle Adjustment	Pan: -175°-175°; Tilt: 5°-175°; Rotation: -175°-175°	Pan: -175°-175°; Tilt: 5°-170°; Rotation: -175°-175°	Pan: ±90°, Tilt: 0°-90°	No	-
Horizontal Viewing Angle	102.1°-36°	102.1°-36°	110.3°	112.7°	187°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	60 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080	<b>Fisheye View:</b> 20 fps at 3072 x 2048 30 fps at 2048 x 2048 <b>DeWarped View:</b> 24 fps at 1920 x 1920 30 fps at 1920 x 1080
Multi-Streaming	Triple streams	Triple streams	Triple streams	Triple streams	Triple streams
Wide Dynamic Range	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (130 dB)
Digital Noise Reduction	2D+3D DNR	2D+3D DNR	2D + 3D DNR	2D + 3D DNR	2D + 3D DNR
Digital Image Stabilizer	Yes	Yes	Yes	Yes	No
Defogging	Yes	Yes	Yes	Yes	Yes
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	1-way (Mic-in, Line-in)	No	2-way (Mic-in, Line-in, Line-out)
Digital Input / Output	2/2	2/2	RJ-45	No	1/1
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	DC 12V; PoE Class 3	DC 12V; PoE Class 3	PoE Class 2	DC 12V, PoE Class 2	DC 12V; PoE Class 3
Environmental Casing	Vandal resistant (IK09)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	No	No
Built-in Analytics	Yes	Yes	Yes	Yes	Yes
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes
Heater	Yes	Yes	No	No	No
Fan	No	No	No	No	No
Operating Temperature	-20°C ~ 50°C (-4°F ~ 122°F)	-40 °C ~ 50 °C (-40 °F ~ 122 °F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
Approvals	CE, FCC, IK09	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC	CE, FCC





## PTZ



30x  
HD



30x  
HD



30x  
HD



30x  
HD



33x  
HD



18x  
HD

Model	I91	I92	I93	I94	I912	KCM-8211
<b>Maximum Resolution</b>	1MP	2MP	1MP	2MP	4MP	2MP
<b>Application Environment</b>	Indoor	Indoor	Outdoor	Outdoor	Indoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Extreme	Extreme	Extreme	Extreme	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Lens</b>	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.5 - 148.5mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.7-84.6mm / F1.6-2.8, DC iris, Auto focus
<b>Zoom Ratio</b>	30x optical, 16x digital	30x optical, 16x digital	30x optical, 16x digital	30x optical, 16x digital	33x optical	18x optical, 16x digital
<b>Zoom Application</b>	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation
<b>Panning and Tilting Range</b>	Pan: 0°-360° (with Auto-flip); Tilt: 0°-180°	Pan: 0°-360° (with Auto-flip); Tilt: 0°-180°	Pan: 0°-360° (with Auto-flip); Tilt: -20°-200°	Pan: 0°-360° (with Auto-flip); Tilt: 0°-180°	Pan: 0°-360° (with Auto-flip); Tilt: 0°-180°	Pan: 0°-360° (with Auto-flip); Tilt: 0°-180°
<b>Horizontal Viewing Angle</b>	66.4°-2.68°	66.4°-2.68°	66.4°-2.68°	66.4°-2.61°	58.78°-2.35°	48.9°-3.6°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MPEG-4 SP, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	30 fps at 1920 x 1080	30 fps at 1280 x 720	30 fps at 1920 x 1080	15 fps at 2688 x 1520 30 fps at 1920 x 1080	15 fps at 1920 x 1080 30 fps at 1280 x 720
<b>Horizontal Resolution</b>	1450 TVL	1800 TVL	1450 TVL	1800 TVL	1850 TVL	-
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Advanced WDR (75 dB)	Advanced WDR (80 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>Digital Image Stabilizer</b>	Yes	Yes	Yes	Yes	Yes	No
<b>Defogging</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>S/N Ratio</b>	56 dB	56 dB	56 dB	56 dB	56 dB	-
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	2/2	2/2	4/2	4/2	2/2	2/2
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	No
<b>Power Source</b>	DC 12V; High PoE	DC 12V; High PoE	AC 24V; High PoE	AC 24V; High PoE	DC 12V; High PoE	DC 12V; High PoE
<b>Environmental Casing</b>	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Weatherproof (IP67); Vandal proof casing (IK10); Bundled dome cover (IK09); Optional dome cover (IK10)	Weatherproof (IP67); Vandal proof casing (IK10); Bundled dome cover (IK09); Optional dome cover (IK10)	Vandal Resistant (IK09)	Weatherproof (IP66); Vandal proof (IK10)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	No
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	No	No	Yes	Yes	No	Yes
<b>Fan</b>	No	No	Yes	Yes	No	Yes
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-40°C ~ 45°C (-40°F ~ 113°F)
<b>Approvals</b>	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IP67, IK09 (default), IK10 (optional), NEMA 4X, ETL Listed	CE, FCC, IP67, IK09 (default), IK10 (optional), NEMA 4X, ETL Listed	CE, FCC, IK09	CE, FCC, IP66, IK10



## Mini PTZ



10x  
HD



10x  
Full HD  
1080P



10x  
Full HD  
1080P



10x  
Full HD  
1080P



10x  
Full HD  
1080P



10x  
Full HD  
1080P

Model	B94A	B95A	B96A	B97A	B910	B914
<b>Maximum Resolution</b>	1.3MP	2MP	5MP	3MP	4MP	3MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Superior	Superior	Standard	Standard	Standard	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux at F1.6; B/W: 0.05 lux at F1.6
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Lens</b>	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.7-47mm / F1.6-F3.0, DC iris, Auto focus
<b>Zoom Ratio</b>	10x optical	10x optical	10x optical	10x optical	10x optical	10x optical
<b>Zoom Application</b>	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera Installation; Auto Zoom by Event; Manual Operation
<b>Panning and Tilting Range</b>	Pan: -175°-175°; Tilt: 0°-180° (with E-flip)	Pan: -175°-175°; Tilt: 0°-180° (with E-flip)	Pan: -175°-175°; Tilt: 0°-180° (with E-flip)	Pan: -175°-175°; Tilt: 0°-180° (with E-flip)	Pan: -175°-175°; Tilt: 0°-180° (with E-flip)	Pan: -175°-175°; Tilt: 0°-180° (with E-flip)
<b>Horizontal Viewing Angle</b>	52.1°-5.9°	57.8°-6.9°	49.7°-5.8°	49.6°-5.6°	54.13°-6.65°	60.9° - 6.43°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 960 60 fps at 1280 x 720	30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2688 x 1520 30 fps at 1920 x 1080	30 fps at 2048 x 1536 60 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1400 TVL	1450 TVL	1450 TVL	1500 TVL	1500 TVL	1450 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Triple streams
<b>Wide Dynamic Range</b>	Basic WDR (88 dB)	Basic WDR (75 dB)	Basic WDR (74 dB)	Superior WDR (110 dB)	Basic WDR (70 dB)	Extreme WDR (145 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	56 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
<b>Environmental Casing</b>	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Fan</b>	Yes	Yes	Yes	Yes	Yes	No
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP67, NEMA 4X, IK10	CE, FCC, IP67, NEMA 4X, IK10	CE, FCC, IP67, NEMA 4X, IK10	CE, FCC, IP67, NEMA 4X, IK10	CE, FCC, IP67, NEMA 4X, IK10	CE, FCC, IP67, NEMA 4X, IK10



## Speed Dome



30x  
HD



30x  
Full HD  
1080P



33x  
Full HD  
1080P



33x  
Full HD  
1080P













33x  
Full HD  
1080P

Model	I95	I96	I97	I98	I910
Maximum Resolution	1MP	2MP	2MP	2MP	4MP
Application Environment	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes	Yes
Low Light Sensitivity	Extreme	Extreme	Superior	Superior	Superior
Minimum Illumination	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.05 lux, B/W: 0 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes	Yes
IR LED	No	No	No	Adaptive IR LED	No
IR Working Distance	-	-	-	160m	-
Lens	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.5-148.5mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.5-148.5mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.5 - 148.5mm / F1.6-5.0, DC iris, Auto focus
Zoom Ratio	30x optical, 16x digital	30x optical, 16x digital	33x optical, 10 x digital	33x optical, 10x digital	33x optical
Zoom Application	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation
Panning and Tilting Range	Pan: 0°-360° endless; Tilt: -20°-200°	Pan: 0°-360° endless; Tilt: -20°-200°	Pan: 0°-360° endless; Tilt: -20°-200°	Pan: 0°-360° endless; Tilt: -20°-200°	Pan: 0°-360° endless; Tilt: -20°-200°
Horizontal Viewing Angle	66.4°-2.68°	66.4°-2.61°	69.3°-3°	69.3°-3°	58.78°-2.35°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1280 x 720	30 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080	15 fps at 2688 x 1520 30 fps at 1920 x 1080
Horizontal Resolution	1450 TVL	1800 TVL	1800 TVL	1800 TVL	1850 TVL
Multi-Streaming	Dual streams	Dual streams	Triple streams	Triple streams	Dual streams
Wide Dynamic Range	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Advanced WDR (75 dB)
Digital Noise Reduction	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
Digital Image Stabilizer	Yes	Yes	Yes	Yes	Yes
Defogging	Yes	Yes	Yes	Yes	Yes
S/N Ratio	56 dB	56 dB	56 dB	56 dB	56 dB
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Line-in, Line-out)
Digital Input / Output	4/2	4/2	4/2	4/2	4/2
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	AC 24V; High PoE	AC 24V; High PoE	AC 24V; High PoE	AC 24V; High PoE	AC 24V; High PoE
Environmental Casing	Weatherproof (IP67); Vandal proof casing (IK10); Bundled dome cover (IK09); Optional dome cover (IK10)	Weatherproof (IP67); Vandal proof casing (IK10); Bundled dome cover (IK09); Optional dome cover (IK10)	Weatherproof (IP67); Vandal proof casing (IK10); Bundled dome cover (IK09); Built-in dehumidifier, Optional dome cover (IK10)	Weatherproof (IP66); Vandal proof metal casing (IK10); Scratch-resistant and water-repellent lens glass	Weatherproof (IP67); Vandal proof casing (IK10); Bundled dome cover (IK09); Optional dome cover (IK10)
Dehumidifier	No	No	Yes	Yes	No
Built-in Analytics	No	No	Yes	Yes	No
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes
Heater	Yes	Yes	Yes	Yes	Yes
Fan	Yes	Yes	Yes	Yes	Yes
Operating Temperature	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-52°C ~ 60°C (-61.6°F ~ 140°F)	-40°C ~ 55°C (-40°F ~ 131°F)	-40°C ~ 50°C (-40°F ~ 122°F)
Approvals	CE, FCC, IP67, IK09 (default), IK10 (optional), NEMA 4X, ETL Listed	CE, FCC, IP67, IK09 (default), IK10 (optional), NEMA 4X, ETL Listed	CE, FCC, IP67, IK09 (IK10 option), NEMA 4X	CE, FCC, IP66, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, IK09 (IK10 option), NEMA 4X



## Speed Dome

	 <b>B916</b> 	 <b>B917</b> 	 <b>B934</b> 	 <b>B945</b> 	 <b>B949</b> 
<b>Model</b>	<b>B916</b>	<b>B917</b>	<b>B934</b>	<b>B945</b>	<b>B949</b>
<b>Maximum Resolution</b>	2MP	2MP	2MP	2MP	2MP
<b>Application Environment</b>	Outdoor	Outdoor	Indoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Superior	Superior	Superior	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux at F1.6; B/W: 0.05 lux at F1.6	Color: 0.1 lux at F1.6; B/W: 0.05 lux at F1.6	Color: 0.1 lux at F1.6 (30 IRE , 2400 K); B/W: 0.05 lux at F1.6 (30 IRE, 2400 K)	Color: 0.1 lux at F1.6 (30 IRE, 2400 K); B/W: 0 lux at F1.6 (IR LED on)	Color: 0.1 lux at F1.6 (30 IRE, 2400 K); B/W: 0 lux at F1.6 (IR LED on)
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	No	No	No	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	-	-	-	100m	150m
<b>Lens</b>	Zoom, f4.7-94mm / F1.6-F3.5, DC iris, Auto focus	Zoom, f4.5-135mm / F1.6-F4.4, DC iris, Auto focus	Zoom, f4.5-135mm / F1.6-F4.4, DC iris, Auto focus	Zoom, f4.7-94mm / F1.6-F3.5, DC iris, Auto focus	Zoom, f4.5-135mm / F1.6-F4.4, DC iris, Auto focus
<b>Zoom Ratio</b>	20x optical	30x optical	30x optical	20x optical	30x optical
<b>Zoom Application</b>	Camera Installation; Auto Zoom by Event, Manual Operation	Camera Installation; Auto Zoom by Event, Manual Operation	Camera Installation, Auto Zoom by Event, Manual Operation	Camera Installation, Auto Zoom by Event, Manual Operation	Camera Installation, Auto Zoom by Event, Manual Operation
<b>Panning and Tilting Range</b>	Pan: 0°-360° endless; Tilt: -20°-200°	Pan: 0°-360° endless; Tilt: -20°-200°	Pan: 0°-360° endless; Tilt: 0°~180°	Pan: 0°-360° endless; Tilt: -20°-200°	Pan: 0°-360° endless; Tilt: -20°-200°
<b>Horizontal Viewing Angle</b>	60.8° - 3.4°	59.8° - 2.34°	59.8° - 2.34°	60.8° - 3.4°	59.8° - 2.34°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	60 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1450 TVL	1450 TVL	1450 TVL	1450 TVL	1450 TVL
<b>Multi-Streaming</b>	Triple streams	Triple streams	Triple streams	Triple streams	Triple streams
<b>Wide Dynamic Range</b>	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)
<b>Digital Noise Reduction</b>	2D + 3D DNR	2D + 3D DNR	2D + 3D DNR	2D + 3D DNR	2D + 3D DNR
<b>Digital Image Stabilizer</b>	Yes	Yes	Yes	Yes	Yes
<b>Defogging</b>	Yes	Yes	Yes	Yes	Yes
<b>S/N Ratio</b>	56 dB	56 dB	56 dB	56 dB	56 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	4/2	4/2	2/2	4/2	4/2
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	AC 24V; High PoE	AC 24V; High PoE	DC 12V, High PoE	AC 24V, High PoE	AC 24V, High PoE
<b>Environmental Casing</b>	Weatherproof (IP67), Vandal proof (IK10), Built-in dehumidifier	Weatherproof (IP67), Vandal proof (IK10), Built-in dehumidifier	Vandal resistant (IK09)	Weatherproof (IP66), Vandal proof metal casing (IK10), Built-in dehumidifier, Scratch-resistant and water-repellent lens glass	Weatherproof (IP66), Vandal proof metal casing (IK10), Built-in dehumidifier, Scratch-resistant and water-repellent lens glass
<b>Dehumidifier</b>	Yes	Yes	No	Yes	Yes
<b>Built-in Analytics</b>	Yes	Yes	Yes	Yes	Yes
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	Yes	Yes	Yes	Yes	Yes
<b>Fan</b>	Yes	Yes	No	Yes	Yes
<b>Operating Temperature</b>	-52°C ~ 60°C (-61.6°F ~ 140°F) @ AC 24V -40°C ~ 60°C (-40°F ~ 140°F) for High PoE	-52°C ~ 60°C (-61.6°F ~ 140°F) @ AC 24V -40°C ~ 60°C (-40°F ~ 140°F) @ High PoE	-20°C ~ 50°C (-4°F ~ 122°F)	-40°C ~ 55°C (-40°F ~ 131°F)	-40°C ~ 55°C (-40°F ~ 131°F)
<b>Approvals</b>	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IK09	CE, FCC, IP66, NEMA 4X, IK10 (metal casing)	CE, FCC, IP66, NEMA 4X, IK10 (metal casing)



## Outdoor Mini Dome



Model	E918	E918M	E920	E920M	E922	E922M	E936	E936M
<b>Maximum Resolution</b>	3MP	3MP	5MP	5MP	10MP	10MP	2MP	2MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	No	No	No	No	No	No	No	No
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Standard	Standard	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux at F2.8	Color: 0.1 lux at F2.8	Color: 0.1 lux at F2.8	Color: 0.1 lux at F2.8	Color: 0.1 lux at F1.8	Color: 0.1 lux at F1.8	Color: 0.1 lux at F2.2; B/W: 0.1 lux at F2.2	Color: 0.1 lux at F2.2; B/W: 0.1 lux at F2.2
<b>Mechanical IR Cut Filter</b>	No	No	No	No	No	No	No	No
<b>IR LED</b>	No	No	No	No	No	No	No	No
<b>Lens</b>	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°
<b>Horizontal Viewing Angle</b>	126.4° (overview area), 77.1° (high detail area)	126.4° (overview area), 77.1° (high detail area)	126.9° (overview area), 77.4° (high detail area)	126.9° (overview area), 77.4° (high detail area)	101.4°	101.4°	110.3°	110.3°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	20 fps at 2048 x 1536 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1250 TVL	1250 TVL	1350 TVL	1350 TVL	1450 TVL	1450 TVL	1100 TVL	1100 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Triple streams	Triple streams
<b>Wide Dynamic Range</b>	Superior WDR (110 dB)	Superior WDR (110 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (70 dB)	Basic WDR (70 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	DNR	2D+3D DNR	2D+3D DNR
<b>Digital Image Stabilizer</b>	No	No	No	No	No	No	Yes	Yes
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	56 dB	56 dB
<b>Audio</b>	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)
<b>Network Connector</b>	RJ-45	M12	RJ-45	M12	RJ-45	M12	RJ-45	M12
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)
<b>Built-in Analytics</b>	No	No	No	No	No	No	Yes	Yes
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155



## Outdoor Mini Dome

Model	E924	E924M	E926	E926M
<b>Maximum Resolution</b>	5MP	5MP	10MP	10MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor
<b>Product Application</b>	-	-	-	-
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux at F2.0 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F2.0 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	15m	15m	15m	15m
<b>Lens</b>	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to 3.85°)	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to 3.85°)	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to -1.85°)	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to -1.85°)
<b>Horizontal Viewing Angle</b>	82.3°	82.3°	101.4°	101.4°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1350 TVL	1350 TVL	1450 TVL	1450 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (70 dB)	Basic WDR (70 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>Digital Image Stabilizer</b>	No	No	No	No
<b>Defogging</b>	No	No	No	No
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)
<b>Network Connector</b>	RJ-45	M12	RJ-45	M12
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)
<b>Built-in Analytics</b>	No	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-20°C ~ 50°C (-4°F ~ 122°F)	-30°C ~ 55°C (-22°F ~ 131°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155



## Outdoor Mini Dome



FULL HD  
1080P



FULL HD  
1080P



FULL HD  
1080P



FULL HD  
1080P

Model	E928	E928M	E933	E933M
<b>Maximum Resolution</b>	3MP	3MP	2MP	2MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux at F2.0 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F2.0 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F2.2 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F2.2 (IR LED on)
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	15m	15m	15m	15m
<b>Lens</b>	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus	Fixed focal, f2.55mm / F2.2, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to 2.7°)	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to 2.7°)	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to 3.65°)	Pan: ±90°; Tilt: 35°-90° (lens FOV from horizon up to 3.65°)
<b>Horizontal Viewing Angle</b>	85.7°	85.7°	110.3°	110.3°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	20 fps at 2048 x 1536 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1250 TVL	1250 TVL	1100 TVL	1100 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Triple streams	Triple streams
<b>Wide Dynamic Range</b>	Superior WDR (110 dB)	Superior WDR (110 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>Digital Image Stabilizer</b>	No	No	Yes	Yes
<b>Defogging</b>	No	No	Yes	Yes
<b>S/N Ratio</b>	52 dB	52 dB	56 dB	56 dB
<b>Audio</b>	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)
<b>Network Connector</b>	RJ-45	M12	RJ-45	M12
<b>Local Storage</b>	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)
<b>Built-in Analytics</b>	No	No	Yes	Yes
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155



## Outdoor Mini Fisheye Dome



Model	E919	E919M	E921	E921M	E923	E923M
<b>Maximum Resolution</b>	3MP	3MP	5MP	5MP	10MP	10MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	No	No	No	No	No	No
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0
<b>Mechanical IR Cut Filter</b>	No	No	No	No	No	No
<b>IR LED</b>	No	No	No	No	No	No
<b>Lens</b>	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.37mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.37mm / F2.0, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°
<b>Horizontal Viewing Angle</b>	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	20 fps at 2048 x 1536	20 fps at 2048 x 1536	15 fps at 2592 x 1944	15 fps at 2592 x 1944	7 fps at 3648 x 2736	7 fps at 3648 x 2736
<b>Horizontal Resolution</b>	1250 TVL	1250 TVL	1350 TVL	1350 TVL	1450 TVL	1450 TVL
<b>View Mode</b>	Fisheye View	Fisheye View	Fisheye View	Fisheye View	Fisheye View	Fisheye View
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Superior WDR (110 dB)	Superior WDR (110 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (70 dB)	Basic WDR (70 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)
<b>Network Connector</b>	RJ-45	M12	RJ-45	M12	RJ-45	M12
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 1	PoE Class 1	PoE Class 1	PoE Class 1	PoE Class 1	PoE Class 1
<b>Environmental Casing</b>	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155





## Outdoor Mini Fisheye Dome



Model	E925	E925M	E927	E927M	E929	E929M
<b>Maximum Resolution</b>	5MP	5MP	10MP	10MP	3MP	3MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	15m	15m	10m	10m	15m	14m
<b>Lens</b>	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.37mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.37mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°	Rotate: ±90°
<b>Horizontal Viewing Angle</b>	189° (overview area), 115.3° (high detail area)	189° (overview area), 115.3° (high detail area)	187° (overview area), 114.1° (high detail area)	187° (overview area), 114.1° (high detail area)	189° (overview area), 115.3° (high detail area)	189° (overview area), 115.3° (high detail area)
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944	15 fps at 2592 x 1944	7 fps at 3648 x 2736	7 fps at 3648 x 2736	20 fps at 2048 x 1536	20 fps at 2048 x 1536
<b>Horizontal Resolution</b>	1350 TVL	1350 TVL	1450 TVL	1450 TVL	1250 TVL	1250 TVL
<b>View Mode</b>	Fisheye View	Fisheye View	Fisheye View	Fisheye View	Fisheye View	Fisheye View
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (70 dB)	Basic WDR (70 dB)	Superior WDR (110 dB)	Superior WDR (110 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)	1-way (Mic-in, Line-in)
<b>Network Connector</b>	RJ-45	M12 (female, D-Coding, PoE Type A)	RJ-45	M12 (female, D-Coding, PoE Type A)	RJ-45	M12 (female, D-Coding, PoE Type A)
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)	Weatherproof (IP68); Vandal proof (IK10); Vibration proof (EN50155)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155	CE, FCC, IP68, IK10, NEMA 4X, EN50155



## Indoor Mini Dome



**HD**



**4MP FULL HD 1080P**



**4MP FULL HD 1080P**



**4MP FULL HD 1080P**



**4MP FULL HD 1080P**



**4MP FULL HD 1080P**

Model	E91	E92	E93	E95	E97	E913
<b>Maximum Resolution</b>	1MP	3MP	5MP	2MP	10MP	3MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	No	No	No	No	No	No
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Superior	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.8	Color: 0.1 lux at F1.85	Color: 0.1 lux at F1.8	Color: 0.1 lux at F2.8
<b>Mechanical IR Cut Filter</b>	No	No	No	No	No	No
<b>IR LED</b>	No	No	No	No	No	No
<b>Lens</b>	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.85, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°
<b>Horizontal Viewing Angle</b>	72.0°	83.3°	126.9° (overview area), 77.4° (high detail area)	87.5°	101.4°	126.4° (overview area)
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	700 TVL	1350 TVL	1350 TVL	1100 TVL	1450 TVL	1250 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (75 dB)	Basic WDR (70 dB)	Superior WDR (110 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	2D+3D DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	No	No	No	No	No	No
<b>Digital Input / Output</b>	No	No	No	No	No	No
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 1	PoE Class 1	PoE Class 1	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Vandal Resistant (IK08)	Vandal Resistant (IK08)	Vandal Resistant (IK08)	Vandal Resistant (IK08)	Vandal Resistant (IK08)	Vandal Resistant (IK08)
<b>Built-in Analytics</b>	No	No	No	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 45°C (14°F ~ 113°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IK08	CE, FCC, IK08	CE, FCC, IK08	CE, FCC, IK08	CE, FCC, IK08	CE, FCC, IK08



### Indoor Mini Dome

### Indoor Mini Fisheye Dome



HD



1080P



Model	D91	D92	E96	E98
Maximum Resolution	1MP	3MP	5MP	10MP
Application Environment	Indoor	Indoor	Indoor	Indoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	No	No	No	No
Low Light Sensitivity	Standard	Standard	Standard	Standard
Minimum Illumination	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0
Mechanical IR Cut Filter	No	No	No	No
IR LED	No	No	No	No
Lens	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.37mm / F2.0, Fixed iris, Fixed focus
Viewing Angle Adjustment	Pan: ±90°; Tilt: 0°-90°	Pan: ±90°; Tilt: 0°-90°	Rotation: ±90°	Rotation: ±90°
Horizontal Viewing Angle	72.0°	83.3°	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944	7 fps at 3648 x 2736
Horizontal Resolution	700 TVL	1350 TVL	1350 TVL	1450 TVL
View Mode	-	-	Fisheye View	Fisheye View
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams
Wide Dynamic Range	No	No	Basic WDR (74 dB)	Basic WDR (70 dB)
Digital Noise Reduction	DNR	DNR	DNR	DNR
S/N Ratio	52 dB	52 dB	52 dB	52 dB
Audio	No	No	No	No
Digital Input / Output	No	No	No	No
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	PoE Class 1	PoE Class 1	PoE Class 1	PoE Class 1
Environmental Casing	Vandal Resistant (IK08)	Vandal Resistant (IK08)	Vandal Resistant (IK08)	Vandal Resistant (IK08)
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 45°C (14°F ~ 113°F)
Approvals	CE, FCC, IK08	CE, FCC, IK08	CE, FCC, IK08	CE, FCC, IK08



## Outdoor Zoom Dome



**3x**  
1920 x 1080  
1080 FPS



**2.4x**  
1920 x 1080  
1080 FPS



**2.4x**  
1920 x 1080  
1080 FPS



**3x**  
1920 x 1080  
1080 FPS  
**HD**



**3x**  
1920 x 1080  
1080 FPS



**3x**  
1920 x 1080  
1080 FPS

Model	B81	B82	B83	B84	B85	B87
<b>Maximum Resolution</b>	5MP	5MP	2MP	1.3MP	2MP	3MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Superior	Superior	Superior	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.2	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux at F1.3; B/W: 0 lux at F1.3 (IR LED on)	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.2	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.2	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.2
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	40m	43.7m	40m	40m	40m	40m
<b>Lens</b>	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus	Zoom, f9-22mm / F1.6-2.3, DC iris, Auto focus	Zoom, f3.0-9mm / F1.3-F2.2, DC iris, Auto focus	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus
<b>Zoom Ratio</b>	3x optical	2.4x optical	3x optical	3x optical	3x optical	3x optical
<b>Zoom Application</b>	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 5°-170°; Rotate: 0°-350°	Pan: -175°-175°; Tilt: 5°-170°; Rotate: -175°-175°	Pan: -175°-175°; Tilt: 5°-170°, Rotation: -175°-175°	Pan: 0°-350°; Tilt: 5°-170°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-170°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-170°; Rotate: 0°-350°
<b>Horizontal Viewing Angle</b>	85.7°-30.5°	29.5°-13°	102.1° - 36°	90.6°-31.8°	103.6°-36.2°	84.5°-29.8°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	60 fps at 1920 x 1080	30 fps at 1280 x 960 60 fps at 1280 x 720	30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1500 TVL	1500 TVL	1450 TVL	1400 TVL	1450 TVL	1450 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Triple streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Extreme WDR (145 dB)	Basic WDR (88 dB)	Basic WDR (75 dB)	Superior WDR (110 dB)
<b>Digital Noise Reduction</b>	DNR	2D+3D DNR	2D + 3D DNR	DNR	DNR	DNR
<b>Digital Image Stabilizer</b>	No	No	Yes	No	No	No
<b>Defogging</b>	No	No	Yes	No	No	No
<b>S/N Ratio</b>	52 dB	52 dB	56 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	2/2	2/2	2/2	2/2	2/2	2/2
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
<b>Environmental Casing</b>	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67), Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)
<b>Built-in Analytics</b>	No	No	Yes	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Fan</b>	No	No	No	No	No	No
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X



	Outdoor Zoom Dome					Outdoor Zoom Dome with H.265	
Model	E815	E816	E817	E822	KCM-7311	A81	A82
Maximum Resolution	5MP	10MP	3MP	1.3MP	4MP	3MP	5MP
Application Environment	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Low Light Sensitivity	Standard	Standard	Standard	Standard	Superior	Superior	Superior
Minimum Illumination	Color: 0.1 lux, B/W: 0 lux at F1.4 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.4 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.4 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.4 (IR LED on)	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.05 lux, B/W: 0.005 lux at F 1.4 (IR LED on)	Color: 0.1 lux, B/W: 0.05 lux at F 1.5 (AGC on)
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	No	Adaptive IR LED	Adaptive IR LED
IR Working Distance	30m	30m	30m	30m	-	30m	30m
Lens	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.3-12mm / F1.4-2.9, P-Iris, Auto focus	Zoom, f2.8-12mm / F1.4-2.8, P-Iris, Auto focus	Zoom, f3.6-10mm / F1.5-F2.8, P-Iris, Auto focus
Zoom Ratio	4.3x optical	4.3x optical	4.3x optical	4.3x optical	3.6x optical	4.3x optical	2.8x optical
Zoom Application	Camera installation	Camera installation	Camera installation	Camera installation	Camera installation; Auto zoom by event; Manual operation	Camera installation	Camera Installation
Viewing Angle Adjustment	Pan: -175°-175°, Tilt: 5°-175°, Rotation: -175°-175°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 0°-180°; Rotate: 0°-350°	Pan: -135°-135°; Tilt: 0°-90°; Rotation: -90°-90°	Pan: -135°-135°; Tilt: -90°-90°
Horizontal Viewing Angle	64.74°-25.8°	90.6°-34.3°	64.4°-26.4°	64.4°-26.4°	77.2°-22.6°	88°-25°	90° - 40°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MPEG-4 SP, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
Frame Rate vs. Resolution	15 fps at 2592 x 1944 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	30 fps at 1280 x 960	8 fps at 2032 x 1920 30 fps at 1280 x 720	30 fps at 2048 x 1536	30 fps at 2592 x 1944
Horizontal Resolution	1350 TVL	1450 TVL	1250 TVL	1000 TVL	1422 TVL	1280TVL	1650 TVL
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Triple streams
Wide Dynamic Range	Basic WDR (74 dB)	Basic WDR (70 dB)	Superior WDR (110 dB)	Superior WDR (110 dB)	Advanced WDR (80 dB)	Extreme WDR (130 dB)	Extreme WDR (90 dB)
Digital Noise Reduction	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D + 3D DNR
Digital Image Stabilizer	No	No	No	No	No	Yes	Yes
Defogging	No	No	No	No	Yes	Yes	Yes
S/N Ratio	52 dB	52 dB	52 dB	52 dB	-	56 dB	56 dB
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)
Digital Input / Output	2/2	2/2	2/2	2/2	2/2	1/1	1/1
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	PoE Class 3	PoE Class 3	PoE Class 3	PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
Environmental Casing	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof	Weatherproof (IP66); Vandal proof (IK10)	Weatherproof (IP66); Vandal proof (IK10)
Built-in Analytics	No	No	No	No	No	Yes	Yes
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting	No	No	No
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Heater	Yes	Yes	Yes	Yes	No	No	No
Fan	No	No	No	No	No	No	No
Operating Temperature	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
Approvals	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67	CE, FCC, IP66, IK10	CE, FCC, IP66, IK10



## Indoor Zoom Dome



3x  
F1.2 F1.2  
1080P



2.4x  
F1.2 F1.2  
1080P



2.4x  
F1.2 F1.2  
1080P



3x  
HD



3x  
F1.2 F1.2  
1080P



3x  
F1.2 F1.2  
1080P

Model	B61	B62	B63	B64	B65	B67
<b>Maximum Resolution</b>	5MP	5MP	2MP	1.3MP	2MP	3MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Superior	Superior	Superior	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.2	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux at F1.3; B/W: 0 lux at F1.3 (IR LED on)	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.2	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.2	Color: 0.1 lux, B/W: 0.5 lux (IR LED on) at F1.2
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	40m	40m	40m	40m	40m	40m
<b>Lens</b>	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus	Zoom, f9-22mm / F1.6-2.3, DC iris, Auto focus	Zoom, f3-9mm / F1.3-F2.2, DC iris, Auto focus	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus	Zoom, f3-9mm / F1.2-2.1, DC iris, Auto focus
<b>Zoom Ratio</b>	3x optical	2.4x optical	3x optical	3x optical	3x optical	3x optical
<b>Zoom Application</b>	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: -175°-175°; Tilt: 5°-175°; Rotate: -175°-175°	Pan: -175°-175°, Tilt: 5°-170°, Rotation: -175°-175°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°
<b>Horizontal Viewing Angle</b>	85.7°-30.5°	29.5°-13°	102.1° - 36°	90.6°-31.8°	103.6°-36.2°	84.5°-29.8°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	60 fps at 1920 x 1080	30 fps at 1280 x 960 60 fps at 1280 x 720	30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1500 TVL	1500 TVL	1450 TVL	1400 TVL	1450 TVL	1450 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Triple streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Extreme WDR (145 dB)	Basic WDR (88 dB)	Basic WDR (75 dB)	Superior WDR (110 dB)
<b>Digital Noise Reduction</b>	DNR	2D+3D DNR	2D + 3D DNR	DNR	DNR	DNR
<b>Digital Image Stabilizer</b>	No	No	Yes	No	No	No
<b>Defogging</b>	No	No	Yes	No	No	No
<b>S/N Ratio</b>	52 dB	52 dB	56 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	2/2	2/2	2/2	2/2	2/2	2/2
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
<b>Environmental Casing</b>	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)
<b>Built-in Analytics</b>	No	No	Yes	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	No	No	Yes	No	No	No
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09



## Indoor Zoom Dome



4.3x  
FULL HD  
1080P



4.3x  
FULL HD  
1080P



4.3x  
FULL HD  
1080P



4.3x  
HD



3.6x  
FULL HD  
1080P

Model	E616	E617	E618	E621	KCM-3311
<b>Maximum Resolution</b>	5MP	10MP	3MP	1.3MP	4MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Product Application</b>	-	-	-	-	-
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	No
<b>IR Working Distance</b>	30m	30m	30m	30m	-
<b>Lens</b>	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f3.3-12mm / F1.4-2.9, P-Iris, Auto focus
<b>Zoom Ratio</b>	4.3x optical	4.3x optical	4.3x optical	4.3x optical	3.6x optical
<b>Zoom Application</b>	Camera installation	Camera installation	Camera installation	Camera installation	Camera installation; Auto zoom by event; Manual operation
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 0°-180°; Rotate: 0°-350°
<b>Horizontal Viewing Angle</b>	64.74°-25.8°	90.6°-34.3°	64.4°-26.4°	64.4°-26.4°	77.2°-22.6°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MPEG-4 SP, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	30 fps at 1280 x 960	8 fps at 2032 x 1920 30 fps at 1280 x 720
<b>Horizontal Resolution</b>	1350 TVL	1450 TVL	1250 TVL	1000 TVL	1422 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (70 dB)	Superior WDR (110 dB)	Superior WDR (110 dB)	Advanced WDR (80 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>Defogging</b>	No	No	No	No	Yes
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	-
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	No
<b>Digital Input / Output</b>	2/2	2/2	2/2	2/2	No
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	No
<b>Power Source</b>	PoE Class 3	PoE Class 3	PoE Class 3	PoE Class 3	PoE Class 3
<b>Environmental Casing</b>	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	No
<b>Built-in Analytics</b>	No	No	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	No
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	Yes	Yes	Yes	Yes	No
<b>Fan</b>	No	No	No	No	No
<b>Operating Temperature</b>	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC



## Outdoor Vari-Focal Dome



Model	E81A	E82A	E83A	E84A	E85A	E86A	E89	D81A	D82A
<b>Maximum Resolution</b>	1MP	3MP	5MP	2MP	1MP	3MP	10MP	1MP	3MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Superior	Standard	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	30m	30m	30m	30m	30m	30m	30m	30m	30m
<b>Lens</b>	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f3.1-13.3mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°
<b>Horizontal Viewing Angle</b>	59.8°-24.7°	70.5°-28.2°	69.2°-28.2°	92.5°-35.9°	60.1°-24.3°	70.5°-28.8°	100.5°-25.8°	59.8°-24.7°	70.5°-28.2°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1920 x 1080	30 fps at 1280 x 720	20 fps at 2048 x 1536 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	700 TVL	1350 TVL	1350 TVL	1100 TVL	1250 TVL	1250 TVL	1450 TVL	700 TVL	1350 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (75 dB)	Superior WDR (110 dB)	Superior WDR (110 dB)	Basic WDR (70 dB)	No	No
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR	DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	1/1	2/2	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X





## Indoor Vari-Focal Dome



**HD**



**4K/8K HD**



**4K/8K HD**



**HD**



**4K/8K HD**

Model	E61A	E62A	E63A	E64A	E65A
Maximum Resolution	1MP	3MP	5MP	1MP	3MP
Application Environment	Indoor	Indoor	Indoor	Indoor	Indoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes	Yes
Low Light Sensitivity	Standard	Standard	Standard	Standard	Standard
Minimum Illumination	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes	Yes
IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
IR Working Distance	30m	30m	30m	30m	30m
Lens	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus
Viewing Angle Adjustment	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°
Horizontal Viewing Angle	59.8°-24.7°	70.5°-28.2°	66.62°-28.88°	60.1°-24.3°	70.5°-28.8°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1280 x 720	20 fps at 2048 x 1536 30 fps at 1920 x 1080
Horizontal Resolution	700 TVL	1350 TVL	1350 TVL	1250 TVL	1250 TVL
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
Wide Dynamic Range	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Superior WDR (110 dB)	Superior WDR (110 dB)
Digital Noise Reduction	DNR	DNR	DNR	DNR	DNR
S/N Ratio	52 dB	52 dB	52 dB	52 dB	52 dB
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
Digital Input / Output	1/1	1/1	1/1	1/1	1/1
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
Environmental Casing	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
Approvals	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09



## Indoor Vari-Focal Dome



Full HD  
1080P



Full HD  
1080P



Full HD  
1080P



Full HD  
1080P



HD



Full HD  
1080P

Model	E67A	E69	E610	D62A	D64A	D65A
<b>Maximum Resolution</b>	2MP	2MP	10MP	2MP	1MP	3MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	No	Yes	Yes	No	Yes	Yes
<b>Low Light Sensitivity</b>	Superior	Superior	Standard	Superior	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4
<b>Mechanical IR Cut Filter</b>	No	Yes	Yes	No	Yes	Yes
<b>IR LED</b>	No	Adaptive IR LED	Adaptive IR LED	No	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	-	30m	30m	-	30m	30m
<b>Lens</b>	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f3.1-13.3mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-170°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°
<b>Horizontal Viewing Angle</b>	92.5°-35.9°	92.5°-35.9°	100.5°-25.8°	92.5°-35.9°	59.8°-24.7°	70.5°-28.2°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1920 x 1080	30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	30 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1100 TVL	1100 TVL	1450 TVL	1100 TVL	700 TVL	1350 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (75 dB)	Basic WDR (75 dB)	Basic WDR (70 dB)	No	No	No
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	2/2	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09



## Outdoor Fixed Dome



HD



Full HD 1080P



Full HD 1080P



Full HD 1080P



Full HD 1080P

Model	E71A	E72A	E73A	E74A	E76
<b>Maximum Resolution</b>	1MP	3MP	5MP	3MP	2MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.85
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	30m	30m	30m	30m	30m
<b>Lens</b>	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.85, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°
<b>Horizontal Viewing Angle</b>	72.0°	83.3°	82.3°	85.7°	87.5°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	700 TVL	1350 TVL	1350 TVL	1250 TVL	1100 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Superior WDR (110 dB)	Basic WDR (75 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X



## Outdoor Fixed Dome



E77



E78



KCM-7111



D71A



D72A



Model	E77	E78	KCM-7111	D71A	D72A
<b>Maximum Resolution</b>	10MP	2MP	4MP	1MP	3MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Superior	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.85	Color: 0.1 lux, B/W: 0.05 lux at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.0
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	No	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	30m	30m	-	30m	30m
<b>Lens</b>	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.85, Fixed iris, Fixed focus	Fixed focal, f2.8mm / F2.0, Fixed iris, Manual focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 5°-175°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 0°-180°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°
<b>Horizontal Viewing Angle</b>	101.4°	84.5°	82.6°	72.0°	83.3°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MPEG-4 SP, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	7 fps at 3648 x 2736 30 fps at 1920 x 1080	60 fps at 1920 x 1080	8 fps at 2032 x 1920 30 fps at 1280 x 720	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1450 TVL	1100 TVL	-	700 TVL	1350 TVL
<b>Multi-Streaming</b>	Dual streams	Triple streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (70 dB)	Extreme WDR (145 dB)	Basic WDR	No	No
<b>Digital Noise Reduction</b>	DNR	2D+3D DNR	DNR	DNR	DNR
<b>Digital Image Stabilizer</b>	No	Yes	No	No	No
<b>Defogging</b>	No	Yes	No	No	No
<b>S/N Ratio</b>	52 dB	56 dB	-	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	2/2	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 3	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP68); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof	Weatherproof (IP67); Vandal proof (IK10)	Weatherproof (IP67); Vandal proof (IK10)
<b>Built-in Analytics</b>	No	Yes	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	No	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP68, IK10, NEMA 4X	CE, FCC, IP67	CE, FCC, IP67, IK10, NEMA 4X	CE, FCC, IP67, IK10, NEMA 4X



## Indoor Fixed Dome



FULL HD  
1080P



FULL HD  
1080P



FULL HD  
1080P



HD



HD



FULL HD  
1080P



FULL HD  
1080P

Model	B51	B52	B53	E51	E52	E53	E54
<b>Maximum Resolution</b>	5MP	10MP	3MP	1MP	1MP	3MP	5MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	No	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.8	Color: 0.1 lux at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	No	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	No	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	40m	40m	40m	-	30m	30m	30m
<b>Lens</b>	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f1.9mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f2.8mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-350°; Tilt: 17°-163°; Rotate: 0°-350°	Pan: 0°-330°; Tilt: 0°-180°	Pan: 0°-330°; Tilt: 20°-90°	Pan: 0°-330°; Tilt: 20°-90°	Pan: 0°-330°; Tilt: 20°-90°
<b>Horizontal Viewing Angle</b>	129.56° (overview area), 79.0° (high detail area)	102°	129.56° (overview area), 79.0° (high detail area)	77.5°	60.6°	72.0°	72.0°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	30 fps at 1280 x 720	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1500 TVL	1550 TVL	1450 TVL	700 TVL	700 TVL	1350 TVL	1350 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (70 dB)	Superior WDR (110 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	DNR	DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	No	No	No	No
<b>Digital Input / Output</b>	1/1	1/1	1/1	No	No	No	No
<b>Local Storage</b>	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	No	No	No	No
<b>Power Source</b>	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Vandal Resistant (IK09)	Vandal Resistant (IK09)	Vandal Resistant (IK09)	No	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IK09	CE, FCC, IK09	CE, FCC, IK09	CE, FCC	CE, FCC	CE, FCC, UL Listed (UL 60950)	CE, FCC



## Indoor Fixed Dome



FULL HD  
1080P



FULL HD  
1080P



FULL HD  
1080P



HD



FULL HD  
1080P



HD



FULL HD  
1080P

Model	E56	E58	E59	D51	D52	D54	D55
<b>Maximum Resolution</b>	3MP	2MP	10MP	1MP	3MP	1MP	3MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	No	No	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Superior	Standard	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux at F2.0; B/W: 0 lux at F2.0 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.85 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	No	No	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	No	No	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	30m	30m	30m	-	-	20m	20m
<b>Lens</b>	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.85, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus
<b>Viewing Angle Adjustment</b>	Pan: 0°-330°; Tilt: 20°-90°	Pan: 0°-330°; Tilt: 20°-90°	Pan: 0°-330°; Tilt: 20°-90°	Pan: 0°-330°; Tilt: 0°-180°	Pan: 0°-330°; Tilt: 0°-180°	Pan: 0°-330°; Tilt: 20°-90°	Pan: 0°-330°; Tilt: 20°-90°
<b>Horizontal Viewing Angle</b>	85.7°	87.5°	101.4°	60.2°	70.8°	60.6°	72.0°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2048 x 1536 30 fps at 1920 x 1080	30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1250 TVL	1100 TVL	1450 TVL	700 TVL	1350 TVL	700 TVL	1350 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Superior WDR (110 dB)	Basic WDR (75 dB)	Basic WDR (70 dB)	No	No	No	No
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	DNR	DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	No	No	No	No	No	No	No
<b>Digital Input / Output</b>	No	No	No	No	No	No	No
<b>Local Storage</b>	No	No	No	No	No	No	No
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	No	No	No	No	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC, UL Listed (UL 60950)	CE, FCC, UL Listed (UL 60950)	CE, FCC, UL Listed (UL 60950)	CE, FCC, UL Listed (UL 60950)



### Outdoor Hemispheric Dome

### Indoor Hemispheric Dome



Model	I71	I73	B74	B76	B77	I51	B57	B59	B511
<b>Maximum Resolution</b>	5MP	6MP	8MP	12MP	6MP	5MP	6MP	8MP	12MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Superior	Extreme	Superior	Superior	Superior	Superior	Superior	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0.05 lux at F2.8	Color: 0.1 lux, B/W: 0.05 lux at F2.6	Color: 0.1 lux, B/W: 0 lux at F2.6 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F2.6 (IR LED on)	Color: 0.1 lux at F2.6; B/W: 0 lux at F2.6 (IR LED on)	Color: 0.1 lux, B/W: 0.05 lux at F2.8	Color: 0.1 lux at F2.6; B/W: 0 lux at F2.6	Color: 0.1 lux, B/W: 0 lux at F2.6 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F2.6 (IR LED on)
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	No	No	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	No	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	-	-	20m	20m	20m	-	20m	20m	20m
<b>Lens</b>	Fixed focal, f1.05mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f1.3mm / F2.6, Fixed iris, Fixed focus	Fixed focal, f1.3mm / F2.6, Fixed iris, Fixed focus	Fixed focal, f1.3mm / F2.6, Fixed iris, Fixed focus	Fixed focal, f1.3mm / F2.6, Fixed iris, Fixed focus	Fixed focal, f1.05mm / F2.8, Fixed iris, Fixed focus	Fixed focal, f1.3mm / F2.6, Fixed iris, Fixed focus	Fixed focal, f1.3mm / F2.6, Fixed iris, Fixed focus	Fixed focal, f1.3mm / F2.6, Fixed iris, Fixed focus
<b>OZT Technology</b>	No	No	Yes	Yes	No	No	No	Yes	Yes
<b>Viewing Angle Adjustment</b>	Rotate: -175°-175°	Rotate: -175°-175°	Rotate: -175°-175°	Rotate: -175°-175°	Rotation: -175°-175°	-	-	-	-
<b>Horizontal Viewing Angle</b>	180° (overview area), 109.8° (high detail area)	203.5° (overview area), 124.2° (high detail area)	194.22° (overview area), 118.5° (high detail area)	194.22° (overview area), 118.5° (high detail area)	187°	180° (overview area), 109.8° (high detail area)	187°	194.22° (overview area), 118.5° (high detail area)	194.2° (overview area), 118.5° (high detail area)
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	<b>Fisheye Mode:</b> 15 fps at 2592 x 1944 30 fps at 1440 x 1080 <b>DeWarped Panoramic Mode:</b> 12 fps at 2592 x 1944 <b>DeWarped ePTZ Mode:</b> 12 fps at 1920 x 1080	<b>Fisheye Mode:</b> 10 fps at 3072 x 2048 14 fps at 2048 x 1536 <b>DeWarped Panoramic Mode:</b> 12 fps at 2592 x 1944 <b>DeWarped ePTZ Mode:</b> 12 fps at 1920 x 1080	<b>Fisheye Mode:</b> 24 fps at 3072 x 2048 30 fps at 2048 x 2048 <b>DeWarped Panoramic Mode:</b> 30 fps at 1920 x 1080 <b>DeWarped ePTZ Mode:</b> 30 fps at 1920 x 1080	<b>Fisheye Mode:</b> 18 fps at 4000 x 3000 30 fps at 2048 x 2048 <b>DeWarped Panoramic Mode:</b> 10 fps at 4096 x 2160 30 fps at 1920 x 1080 <b>DeWarped ePTZ Mode:</b> 30 fps at 1920 x 1080	<b>Fisheye View:</b> 20 fps at 3072 x 2048 30 fps at 2048 x 2048 <b>DeWarped View:</b> 24 fps at 1920 x 1920 30 fps at 1920 x 1080 <b>ePTZ View:</b> 30 fps at 1920 x 1080	<b>Fisheye Mode:</b> 15 fps at 2592 x 1944 30 fps at 1440 x 1080 <b>DeWarped Panoramic Mode:</b> 12 fps at 2592 x 1944 <b>DeWarped ePTZ Mode:</b> 12 fps at 1920 x 1080	<b>Fisheye View:</b> 20 fps at 3072 x 2048 30 fps at 2048 x 2048 <b>DeWarped View:</b> 24 fps at 1920 x 1920 30 fps at 1920 x 1080 <b>ePTZ View:</b> 30 fps at 1920 x 1080	<b>Fisheye Mode:</b> 24 fps at 3072 x 2048 30 fps at 2048 x 2048 <b>DeWarped Panoramic Mode:</b> 30 fps at 1920 x 1080 <b>DeWarped ePTZ Mode:</b> 30 fps at 1920 x 1080	<b>Fisheye Mode:</b> 18 fps at 4000 x 3000 30 fps at 2048 x 2048 <b>DeWarped Panoramic Mode:</b> 10 fps at 4096 x 2160 30 fps at 1920 x 1080 <b>DeWarped ePTZ Mode:</b> 30 fps at 1600 x 1200
<b>Multi-Streaming</b>	Dual streams	Dual streams	Triple streams	Triple streams	Triple streams	Dual streams	Triple streams	Triple streams	Triple streams
<b>Wide Dynamic Range</b>	Advanced WDR (80 dB)	Advanced WDR (80 dB)	Extreme WDR (130 dB)	Extreme WDR (130 dB)	Extreme WDR (130 dB)	Advanced WDR (80 dB)	Extreme WDR (130 dB)	Extreme WDR (130 dB)	Extreme WDR (130 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D + 3D DNR	2D+3D DNR	2D + 3D DNR	2D+3D DNR	2D+3D DNR
<b>Defogging</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Built-in Microphone, Mic-in, Line-in, Line-out )	2-way (Line-in, Line-out)	2-way (Built-in Microphone, Mic-in, Line-in, Line-out )	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)
<b>Digital Input / Output</b>	2/2	2/2	2/2	2/2	2/2	2/2	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC, MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V, PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
<b>Environmental Casing</b>	Weatherproof (IP68); Vandal proof (IK10)	Weatherproof (IP68); Vandal proof (IK10)	Weatherproof (IP68); Vandal proof (IK10)	Weatherproof (IP68); Vandal proof (IK10)	Weatherproof (IP68); Vandal proof (IK10)	No	No	No	No
<b>Built-in Analytics</b>	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP68, IK10, NEMA 4X, ETL Listed	CE, FCC, IP68, IK10, NEMA 4X	CE, FCC, IP68, IK10, NEMA 4X	CE, FCC, IP68, IK10, NEMA 4X	CE, FCC, IP68, IK10, NEMA 4X	CE, FCC, ETL Listed	CE, FCC	CE, FCC	CE, FCC



## Indoor Fisheye Dome



	B54	B55	B56
<b>Model</b>			
<b>Maximum Resolution</b>	5MP	10MP	3MP
<b>Application Environment</b>	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0.05 lux at F2.0	Color: 0.1 lux, B/W: 0.05 lux at F2.0	Color: 0.1 lux, B/W: 0.05 lux at F2.0
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes
<b>IR LED</b>	No	No	No
<b>Lens</b>	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.37mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus
<b>Horizontal Viewing Angle</b>	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944	7 fps at 3648 x 2736	20 fps at 2048 x 1536
<b>Horizontal Resolution</b>	1500 TVL	1550 TVL	1450 TVL
<b>View Mode</b>	Fisheye View	Fisheye View	Fisheye View
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (70 dB)	Superior WDR (110 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 2	DC 12V; PoE Class 2	DC 12V; PoE Class 2
<b>Environmental Casing</b>	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC





## Zoom Bullet



30x  
1/1.8" CMOS  
1080P



30x  
1/1.8" CMOS  
1080P



12x  
1/2.8" CMOS  
1080P



10x  
HD  
1/2.8" CMOS  
1080P



10x  
1/2.8" CMOS  
1080P

Model	I45	I47	B41	B44	B45
Maximum Resolution	2MP	4MP	5MP	1.3MP	2MP
Application Environment	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes	Yes
Low Light Sensitivity	Extreme	Superior	Standard	Superior	Superior
Minimum Illumination	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes	Yes
IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
IR Working Distance	40m	40m	40m	40m	40m
Lens	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f5.2-62.4mm / F1.8-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus
Zoom Ratio	30x optical	30x optical	12x optical	10x optical	10x optical
Zoom Application	Camera installation; Auto zoom by Event; Manual operation	Camera installation; Auto zoom by Event; Manual operation	Camera installation; Auto zoom by Event; Manual operation	Camera installation; Auto zoom by Event; Manual operation	Camera installation; Auto zoom by Event; Manual operation
Horizontal Viewing Angle	65.6°-2.07°	66.4°-2.14°	48.4°-4.8°	52.1°-5.7°	57.8°-6.9°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1920 x 1080	15 fps at 2688 x 1520 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1280 x 960 60 fps at 1280 x 720	30 fps at 1920 x 1080
Horizontal Resolution	1800 TVL	1850 TVL	1500 TVL	1400 TVL	1450 TVL
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
Wide Dynamic Range	Extreme WDR (145 dB)	Advanced WDR (75 dB)	Basic WDR (74 dB)	Basic WDR (88 dB)	Basic WDR (75 dB)
Digital Noise Reduction	2D+3D DNR	2D+3D DNR	DNR	DNR	DNR
Digital Image Stabilizer	Yes	Yes	No	No	No
Defogging	Yes	Yes	No	No	No
S/N Ratio	56 dB	56 dB	52 dB	52 dB	52 dB
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
Digital Input / Output	1/1	1/1	1/1	1/1	1/1
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
Environmental Casing	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes
Heater	Yes	Yes	Yes	Yes	Yes
Fan	No	No	No	No	No
Operating Temperature	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
Approvals	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)



## Zoom Bullet



10x  
1080P FULL HD  
RESOLUTION



12x  
1080P FULL HD  
RESOLUTION



10x  
1080P FULL HD  
RESOLUTION



10x  
1080P FULL HD  
RESOLUTION



20x  
1080P FULL HD  
RESOLUTION



30x  
1080P FULL HD  
RESOLUTION

Model	B46	B47	B49	B410	B415	B416
<b>Maximum Resolution</b>	5MP	3MP	3MP	10MP	2MP	2MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux at F1.6	Color: 0.1 lux, B/W: 0 lux at F1.8	Color: 0.1 lux, B/W: 0 lux at F1.6	Color: 0.1 lux, B/W: 0 lux at F2.2	Color: 0.1 lux at F1.6; B/W: 0 lux at F1.6	Color: 0.1 lux at F1.6; B/W: 0 lux at F1.6
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	40m	40m	40m	40m	40m	40m
<b>Lens</b>	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f5.2-62.4mm / F1.8-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f6.3-63mm / F2.2-3.5, P-Iris, Auto focus	Zoom, f4.7-94mm / F1.6-F3.5, DC iris, Auto focus	Zoom, f4.5-135mm / F1.6-F4.4, DC iris, Auto focus
<b>Zoom Ratio</b>	10x optical	12x optical	10x optical	10x optical	20x optical	30x optical
<b>Zoom Application</b>	Camera installation; Auto zoom by Event; Manual operation	Camera installation; Auto zoom by Event; Manual operation	Camera installation; Auto zoom by Event; Manual operation	Camera installation	Camera Installation, Auto Zoom by Event, Manual Operation	Camera Installation, Auto Zoom by Event, Manual Operation
<b>Horizontal Viewing Angle</b>	49.7°-5.8°	50.2°-4.69°	49.6°-5.6°	50.6°-4.59°	60.8° - 3.4°	59.8° - 2.34°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1500 TVL	1450 TVL	1450 TVL	1550 TVL	1450 TVL	1450 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Triple streams	Triple streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Superior WDR (110 dB)	Superior WDR (110 dB)	Basic WDR (70 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	DNR	2D+3D DNR	DNR	2D + 3D DNR	2D + 3D DNR
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	56 dB	56 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V, PoE Class 3	DC 12V, PoE Class 3
<b>Environmental Casing</b>	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP67), Vandal proof metal casing (IK10)	Weatherproof (IP67), Vandal proof metal casing (IK10)
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	Yes	Yes	Yes	Yes	Yes	Yes
<b>Fan</b>	No	No	No	No	No	No
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)



## Zoom Bullet

## Zoom Bullet with H.265



Model	I48	E413	E415	E416	E417	E418	A41	A42
<b>Maximum Resolution</b>	2MP	5MP	3MP	10MP	2MP	1.3MP	3MP	5MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Superior	Standard	Standard	Standard	Superior	Standard	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F2.8	Color: 0.05 lux, B/W: 0.005 lux at F1.4 (AGC on)	Color: 0.1 lux at F1.5; B/W 0.05 lux at F1.5 (AGC on)
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
<b>IR Working Distance</b>	40m	30m	30m	30m	30m	30m	30m	30m
<b>Lens</b>	Zoom, f4.5-148.5mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f2.8-12mm / F1.4-2.8, P-Iris, Auto focus	Zoom, f3.6-10mm / F1.5-F2.8, P-Iris, Auto focus
<b>Zoom Ratio</b>	33x optical	10x optical	10x optical	4.3x optical	10x optical	10x optical	4.3x optical	2.8x optical
<b>Zoom Application</b>	Camera installation; Auto zoom by event; Manual operation	Camera installation	Camera installation	Camera installation	Camera installation	Camera installation	Camera installation	Camera Installation
<b>Horizontal Viewing Angle</b>	69.3°-3°	51.6°-6°	51.6°-6.2°	109°-26.4°	60°-7.3°	51.6°-6.2°	88°-25°	90° - 40°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.265, H.264, MJPEG	H.265, H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	60 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	60 fps at 1920 x 1080	30 fps at 1280 x 960	30 fps at 2048 x 1536	30 fps at 2592 x 1944
<b>Horizontal Resolution</b>	1800 TVL	1350 TVL	1250 TVL	1450 TVL	1100 TVL	1000 TVL	1300 TVL	1650 TVL
<b>Multi-Streaming</b>	Triple streams	Dual streams	Dual streams	Dual streams	Triple streams	Dual streams	Dual streams	Triple streams
<b>Wide Dynamic Range</b>	Extreme WDR (145 dB)	Basic WDR (74 dB)	Superior WDR (110 dB)	Basic WDR (70 dB)	Extreme WDR (145 dB)	Superior WDR (110 dB)	Extreme WDR (130 dB)	Extreme WDR (90 dB)
<b>Digital Noise Reduction</b>	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D + 3D DNR
<b>Digital Image Stabilizer</b>	Yes	No	No	No	Yes	No	Yes	Yes
<b>Defogging</b>	Yes	No	No	No	Yes	No	Yes	Yes
<b>S/N Ratio</b>	56 dB	52 dB	52 dB	52 dB	56 dB	52 dB	56 dB	56 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)	2-way (Mic-in, Line-in, Line-out)
<b>Analog Video Output</b>	No	No	No	No	No	No	1, BNC	1, BNC
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	No	No
<b>Power Source</b>	DC 12V; PoE Class 3	PoE Class 3	PoE Class 3	PoE Class 3	DC 12V; PoE Class 3	PoE Class 3	DC 12V; PoE Class 3	DC 12V, PoE Class 3
<b>Environmental Casing</b>	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP66); Vandal proof metal casing (IK10)	Weatherproof (IP66); Vandal proof metal casing (IK10)
<b>Built-in Analytics</b>	Yes	No	No	No	Yes	No	Yes	Yes
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	No	No
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	Yes	Yes	Yes	Yes	Yes	Yes	No	No
<b>Fan</b>	No	No	No	No	No	No	No	No
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)
<b>Approvals</b>	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP66, IK10 (metal casing)	CE, FCC, IP66, IK10 (metal casing)



## Vari-Focal Bullet



HD



HD



Full HD 1080P



Full HD 1080P



HD

Model	E41	E41B	E42B	E43B	E47
Maximum Resolution	1MP	1MP	3MP	5MP	1.3MP
Application Environment	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes	Yes
Low Light Sensitivity	Standard	Standard	Standard	Standard	Superior
Minimum Illumination	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes	Yes
IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
IR Working Distance	30m	30m	30m	30m	30m
Lens	Vari-focal, f3.3-12mm / F1.6, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus
Horizontal Viewing Angle	69.8°-19.1°	59.8°-24.7°	70.5°-28.2°	69.2°-28.2°	83°-31.1°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1280 x 720	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1280 x 960 60 fps at 1280 x 720
Horizontal Resolution	700 TVL	700 TVL	1350 TVL	1350 TVL	950 TVL
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
Wide Dynamic Range	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (88 dB)
Digital Noise Reduction	DNR	DNR	DNR	DNR	DNR
S/N Ratio	52 dB	52 dB	52 dB	52 dB	52 dB
Audio	No	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
Digital Input / Output	No	1/1	1/1	1/1	1/1
Local Storage	No	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2
Environmental Casing	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes
Operating Temperature	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
Approvals	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)



## Vari-Focal Bullet



Full HD  
1080P



HD



Full HD  
1080P



Full HD  
1080P



HD



Full HD  
1080P

Model	E44A	E45A	E46A	E48	D41A	D42A
Maximum Resolution	2MP	1MP	3MP	10MP	1MP	3MP
Application Environment	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes	Yes	Yes
Low Light Sensitivity	Superior	Standard	Standard	Standard	Standard	Standard
Minimum Illumination	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.4
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes	Yes	Yes
IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED
IR Working Distance	30m	30m	30m	30m	30m	30m
Lens	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f3.1-13.3mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, Fixed iris, Manual focus
Horizontal Viewing Angle	92.5°-35.9°	70.5°-28.8°	70.5°-28.8°	100.5°-25.8°	59.8°-24.7°	70.5°-28.2°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1920 x 1080	30 fps at 1280 x 720	20 fps at 2048 x 1536 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080
Horizontal Resolution	1100 TVL	1250 TVL	1250 TVL	1450 TVL	700 TVL	1350 TVL
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
Wide Dynamic Range	Basic WDR (75 dB)	Superior WDR (110 dB)	Superior WDR (110 dB)	Basic WDR (70 dB)	No	No
Digital Noise Reduction	DNR	DNR	DNR	DNR	DNR	DNR
S/N Ratio	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
Digital Input / Output	1/1	1/1	1/1	1/1	1/1	1/1
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 3	PoE Class 2	PoE Class 2
Environmental Casing	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes	Yes
Operating Temperature	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
Approvals	CE, FCC, IP68, IK10 (metal casing)	CE, FCC, IP68, IK10 (metal casing)	CE, FCC, IP68, IK10 (metal casing)	CE, FCC, IP67, IK10 (metal casing)	CE, FCC, IP68, IK10 (metal casing)	CE, FCC, IP68, IK10 (metal casing)



### Fixed Bullet

### Thermal Bullet



Model	E31A	E32A	E33A	E34A	E36	E37	E38	D31	D32	Q31
<b>Maximum Resolution</b>	1MP	3MP	5MP	3MP	2MP	10MP	2MP	1MP	3MP	0.46MP
<b>Application Environment</b>	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Thermal
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Superior	Standard	Superior	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux at F1.8; B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.85 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F2.0 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	Color: 0.1 lux, B/W: 0 lux at F1.8 (IR LED on)	-
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
<b>IR LED</b>	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	Adaptive IR LED	No
<b>IR Working Distance</b>	30m	30m	30m	30m	30m	30m	30m	20m	20m	-
<b>Lens</b>	Fixed focal, f4.2mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f4.2mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f4.2mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.85, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F1.85, Fixed iris, Fixed focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f4.2mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f4.2mm / F1.8, Fixed iris, Fixed focus	Fixed focal, f20mm / F1.0, Fixed iris, Fixed focus
<b>Horizontal Viewing Angle</b>	55.9°	62.7°	62.7°	68.0°	88.1°	101.4°	99°	55.9°	62.7°	27°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	60 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	<b>NTSC:</b> 30 fps at 960 x 480 <b>PAL:</b> 25 fps at 960 x 576
<b>Horizontal Resolution</b>	700 TVL	1350 TVL	1350 TVL	1250 TVL	1100 TVL	1450 TVL	1100 TVL	700 TVL	1350 TVL	-
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Triple streams	Dual streams	Dual streams	Dual streams
<b>vickyWide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Superior WDR (110 dB)	Basic WDR (75 dB)	Basic WDR (70 dB)	Extreme WDR (145 dB)	No	No	Extreme WDR
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	DNR	DNR	2D+3D DNR	DNR	DNR	No
<b>Digital Image Stabilizer</b>	No	No	No	No	No	No	Yes	No	No	No
<b>Defogging</b>	No	No	No	No	No	No	Yes	No	No	No
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	56 dB	52 dB	52 dB	-
<b>Audio</b>	No	No	No	No	No	No	No	No	No	2-way (Line-in, Line-out)
<b>Analog Video Output</b>	No	No	No	No	No	No	No	No	No	1, BNC
<b>Digital Input / Output</b>	No	No	No	No	No	No	No	No	No	1/1
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	No	No	No
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	High PoE
<b>Environmental Casing</b>	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP68); Vandal proof metal casing (IK10)	Weatherproof (IP67); Vandal proof metal casing (IK10)	Weatherproof (IP66)	Weatherproof (IP66)	Weatherproof (IP68); Vandal proof metal casing (IK10)
<b>Built-in Analytics</b>	No	No	No	No	No	No	Yes	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	No
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 45°C (-40°F ~ 113°F)
<b>Approvals</b>	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)	CE, FCC, IP67, NEMA 4X, IK10 (metal casing)	CE, FCC, IP66	CE, FCC, IP66	CE, FCC, IP68, NEMA 4X, IK10 (metal casing)



## Zoom Box



30x  
HD



30x  
Full HD  
1080P



30x  
Full HD  
1080P



33x  
Full HD  
1080P

Model	I24	I25	I27	I28
Maximum Resolution	1MP	2MP	4MP	2MP
Application Environment	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes
Low Light Sensitivity	Extreme	Extreme	Superior	Superior
Minimum Illumination	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes
IR LED	No	No	No	No
Lens	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.3-129mm / F1.6-5.0, DC iris, Auto focus	Zoom, f4.5-148.5mm / F1.6-5.0, DC iris, Auto focus
Zoom Ratio	30x optical, 16x digital	30x optical, 16x digital	30x optical	33x optical
Zoom Application	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation
Horizontal Viewing Angle	65.6°-2.07°	65.6°-2.07°	58.9°-2.11°	61.7°-2.07°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1280 x 720	30 fps at 1920 x 1080	15 fps at 2688 x 1520 30 fps at 1920 x 1080	60 fps at 1920 x 1080
Horizontal Resolution	1450 TVL	1800 TVL	1850 TVL	1800 TVL
Multi-Streaming	Dual streams	Dual streams	Dual streams	Triple streams
Wide Dynamic Range	Extreme WDR (145 dB)	Extreme WDR (145 dB)	Advanced WDR (75 dB)	Extreme WDR (145 dB)
Digital Noise Reduction	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
Digital Image Stabilizer	Yes	Yes	Yes	Yes
Defogging	Yes	Yes	Yes	Yes
S/N Ratio	56 dB	56 dB	56 dB	56 dB
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
Digital Input / Output	1/1	1/1	1/1	1/1
Serial Port	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
Environmental Casing	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)
Built-in Analytics	No	No	No	Yes
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes
Heater	No	No	Yes	Yes
Fan	No	No	No	No
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
Approvals	CE, FCC	CE, FCC	CE, FCC	CE, FCC



## Zoom Box



12x  
FOCUS THE  
RESOLUTION



10x  
FOCUS THE  
RESOLUTION



10x  
HD



10x  
FOCUS THE  
RESOLUTION



12x  
FOCUS THE  
RESOLUTION



10x  
FOCUS THE  
RESOLUTION



20x  
FOCUS THE  
RESOLUTION



30x  
FOCUS THE  
RESOLUTION

Model	B21	B22	B24	B25	B27	B210	B214	B215
<b>Maximum Resolution</b>	5MP	5MP	1.3MP	2MP	3MP	10MP	2MP	2MP
<b>Application Environment</b>	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Superior	Superior	Standard	Standard	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0.05 lux at F1.8	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.8	Color: 0.1 lux, B/W: 0.05 lux at F2.2	Color: 0.1 lux, B/W: 0.05 lux at F1.6	Color: 0.1 lux, B/W: 0.05 lux at F1.6
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	No	No	No	No	No	No	No	No
<b>Lens</b>	Zoom, f5.2-62.4mm / F1.8-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f4.9-49mm / F1.6-3.0, DC iris, Auto focus	Zoom, f5.2-62.4mm / F1.8-3.0, DC iris, Auto focus	Zoom, f6.3-63mm / F2.2-3.5, P-Iris, Auto focus	Zoom, f4.7-94mm / F1.6-3.5, DC iris, Auto focus	Zoom, f4.5-135mm / F1.6-4.4, DC iris, Auto focus
<b>Zoom Ratio</b>	12x optical	10x optical	10x optical	10x optical	12x optical	10x optical	20x optical	30x optical
<b>Zoom Application</b>	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation
<b>Horizontal Viewing Angle</b>	48.4°-4.8°	49.69°-5.83°	52.1°-5.9°	57.8°-6.9°	50.2°-4.69°	50.6°-4.59°	60.8°-3.4°	59.8°-2.34°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	15 fps at 2592 x 1944 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1280 x 960 60 fps at 1280 x 720	30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	60 fps at 1920 x 1080	60 fps at 1920 x 1080
<b>Horizontal Resolution</b>	1500 TVL	1500 TVL	1400 TVL	1450 TVL	1450 TVL	1550 TVL	1450 TVL	1450 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Triple streams	Triple streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (88 dB)	Basic WDR (75 dB)	Superior WDR (110 dB)	Basic WDR (70 dB)	Extreme WDR (145 dB)	Extreme WDR (145 dB)
<b>Digital Noise Reduction</b>	DNR	2D+3D DNR	DNR	DNR	DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>Digital Image Stabilizer</b>	No	No	No	No	No	No	Yes	Yes
<b>Defogging</b>	No	No	No	No	No	No	Yes	Yes
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB	52 dB	56 dB	56 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
<b>Serial Port</b>	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422
<b>Local Storage</b>	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)	MicroSDHC / MicroSDXC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 3	DC 12V; PoE Class 2	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
<b>Environmental Casing</b>	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)
<b>Built-in Analytics</b>	No	No	No	No	No	No	Yes	Yes
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	No	Yes	No	No	No	Yes	Yes	Yes
<b>Fan</b>	No	No	No	No	No	No	No	No
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC





## Zoom Box



4.3x  
4.3x optical zoom



10x  
10x optical zoom



10x  
10x optical zoom



10x  
10x optical zoom



10x  
10x optical zoom  
HD



18x  
18x optical zoom



22x  
22x optical zoom



18x  
18x optical zoom

Model	E210	E213	E215	E219	E223	KCM-5211E	KCM-5511	KCM-5611
<b>Maximum Resolution</b>	10MP	5MP	3MP	2MP	1.3MP	4MP	2MP	2MP
<b>Application Environment</b>	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Outdoor	Outdoor	Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Superior	Standard	Superior	Superior	Superior
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F2.8	Color: 0.1 lux, B/W: 0.05 lux at F2.8	Color: 0.1 lux, B/W: 0.05 lux at F2.8	Color: 0.1 lux, B/W: 0.05 lux at F2.8	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6	Color: 0.1 lux, B/W: 0 lux (IR LED on) at F1.6
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	No	No	No	No	No	IR LED	IR LED	IR LED
<b>IR Working Distance</b>	-	-	-	-	-	-	20m	20m
<b>Lens</b>	Zoom, f3.1-13.3mm / F1.4-4.0, P-Iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f4.9-49mm / F2.8-3.5, Adaptive iris, Auto focus	Zoom, f4.7-84.6mm / F1.6-2.8, DC iris, Auto focus	Zoom, f3.2-70.4mm / F1.6-3.8, DC iris, Auto focus	Zoom, f4.7-84.6mm / F1.6-2.8, DC iris, Auto focus
<b>Zoom Ratio</b>	4.3x optical	10x optical	10x optical	10x optical	10x optical	18x optical	22x optical	18x optical
<b>Zoom Application</b>	Camera installation	Camera installation	Camera installation	Camera installation	Camera installation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation	Camera installation; Auto zoom by event; Manual operation
<b>Horizontal Viewing Angle</b>	90.6°-34.3°	51.6°-6°	51.6°-6.2°	60°-7.3°	51.6°-6.2°	48.9°-3.6°	57.1°-3.0°	48.9°-3.6°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MPEG-4 SP, MJPEG	H.264, MPEG-4 SP, MJPEG	H.264, MPEG-4 SP, MJPEG
<b>Frame Rate vs. Resolution</b>	7 fps at 3648 x 2736 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	60 fps at 1920 x 1080	30 fps at 1280 x 960	8 fps at 2032 x 1920 30 fps at 1280 x 720	15 fps at 1920 x 1080 30 fps at 1280 x 720	15 fps at 1920 x 1080 30 fps at 1280 x 720
<b>Horizontal Resolution</b>	1450 TVL	1350 TVL	1250 TVL	1100 TVL	1000 TVL	1650 TVL	-	974 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Triple streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (70 dB)	Basic WDR (74 dB)	Superior WDR (110 dB)	Extreme WDR (145 dB)	Superior WDR (110 dB)	Advanced WDR (80 dB)	Advanced WDR (80 dB)	Advanced WDR
<b>Digital Noise Reduction</b>	DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR	2D+3D DNR
<b>Digital Image Stabilizer</b>	No	No	No	Yes	No	No	No	No
<b>Defogging</b>	No	No	No	Yes	No	Yes	Yes	Yes
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	56 dB	52 dB	-	-	-
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	2/2	2/2	2/2
<b>Serial Port</b>	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC (card not included)	MicroSDHC (card not included)	MicroSDHC (card not included)
<b>Power Source</b>	DC 12V; PoE Class 3	PoE Class 2	PoE Class 2	DC 12V; PoE Class 3	PoE Class 2	DC 12V; PoE Class 3	DC 12V; PoE Class 3	DC 12V; PoE Class 3
<b>Environmental Casing</b>	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Weatherproof (IP66)	Weatherproof (IP66)	Weatherproof (IP66)
<b>Built-in Analytics</b>	No	No	No	Yes	No	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	No	No	No
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Heater</b>	Yes	No	No	Yes	No	No	No	No
<b>Fan</b>	No	No	No	No	No	No	No	No
<b>Operating Temperature</b>	-20°C ~ 50°C (-4°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC, IP66	CE, FCC, IP66	CE, FCC, IP66



## Vari-Focal Box



Model	E21VA	E22VA	E23B	E24A	E222	E271	D21VA	D22VA
<b>Maximum Resolution</b>	1MP	5MP	2MP	3MP	2MP	10MP	1MP	5MP
<b>Application Environment</b>	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Low Light Sensitivity</b>	Standard	Standard	Superior	Standard	Superior	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4	Color: 0.1 lux, B/W: 0.05 lux at F1.4
<b>Mechanical IR Cut Filter</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>IR LED</b>	No	No	No	No	No	No	No	No
<b>Lens</b>	Vari-focal, f2.8-12mm / F1.4, DC iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, DC iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, DC iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, DC iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, DC iris, Manual focus	Vari-focal, f3.1-13.3mm / F1.4, DC iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, DC iris, Manual focus	Vari-focal, f2.8-12mm / F1.4, DC iris, Manual focus
<b>Horizontal Viewing Angle</b>	62°-24.8°	70.9°-29.2°	88.4°-35.7°	78.1°-26.8°	87.5°-32.1°	100.5°-26.2°	62°-24.8°	70.9°-29.2°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	15 fps at 2592 x 1944 30 fps at 1920 x 1080	30 fps at 1920 x 1080	20 fps at 2048 x 1536 30 fps at 1920 x 1080	60 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2592 x 1944 30 fps at 1920 x 1080
<b>Horizontal Resolution</b>	700 TVL	1350 TVL	1100 TVL	1250 TVL	1100 TVL	1450 TVL	700 TVL	1350 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Triple streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (75 dB)	Superior WDR (110 dB)	Extreme WDR (145 dB)	Basic WDR (70 dB)	No	No
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	2D+3D DNR	DNR	DNR	DNR
<b>Digital Image Stabilizer</b>	No	No	No	No	Yes	No	No	No
<b>Defogging</b>	No	No	No	No	Yes	No	No	No
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	56 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
<b>Digital Input / Output</b>	1/1	1/1	1/1	1/1	1/1	1/1	1/1	1/1
<b>Serial Port</b>	No	No	RS-485, RS-422	No	RS-485, RS-422	No	No	No
<b>Local Storage</b>	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	DC 12V; PoE Class 3	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)
<b>Built-in Analytics</b>	No	No	No	No	Yes	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC



## Fixed Box



HD



Full HD 1080P



Full HD 1080P



Full HD 1080P



HD



Full HD 1080P

Model	E21FA	E22FA	E217	E270	D21FA	D22FA
Maximum Resolution	1MP	5MP	2MP	10MP	1MP	5MP
Application Environment	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor	Indoor/Outdoor
Image Sensor	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
Day / Night	Yes	Yes	Yes	Yes	Yes	Yes
Low Light Sensitivity	Standard	Standard	Superior	Standard	Standard	Standard
Minimum Illumination	Color: 0.1 lux, B/W: 0.05 lux at F1.8	Color: 0.1 lux, B/W: 0.05 lux at F2.0	Color: 0.1 lux, B/W: 0.05 lux at F2.0	Color: 0.1 lux, B/W: 0.05 lux at F1.8	Color: 0.1 lux, B/W: 0.05 lux at F1.8	Color: 0.1 lux, B/W: 0.05 lux at F2.0
Mechanical IR Cut Filter	Yes	Yes	Yes	Yes	Yes	Yes
IR LED	No	No	No	No	No	No
Lens	Fixed focal, f4.2mm / F1.8, Fixed iris, Manual focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Manual focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Manual focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Manual focus	Fixed focal, f4.2mm / F1.8, Fixed iris, Manual focus	Fixed focal, f2.93mm / F2.0, Fixed iris, Manual focus
Horizontal Viewing Angle	53.8°	81.6°	101.3°	101.4°	53.8°	81.6°
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 1280 x 720	15 fps at 2592 x 1944 30 fps at 1920 x 1080	60 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	30 fps at 1280 x 720	15 fps at 2592 x 1944 30 fps at 1920 x 1080
Horizontal Resolution	700 TVL	1350 TVL	1100 TVL	1450 TVL	700 TVL	1350 TVL
Multi-Streaming	Dual streams	Dual streams	Triple streams	Dual streams	Dual streams	Dual streams
Wide Dynamic Range	Basic WDR (74 dB)	Basic WDR (74 dB)	Extreme WDR (145 dB)	Basic WDR (70 dB)	No	No
Digital Noise Reduction	DNR	DNR	2D+3D DNR	DNR	DNR	DNR
Digital Image Stabilizer	No	No	Yes	No	No	No
Defogging	No	No	Yes	No	No	No
S/N Ratio	52 dB	52 dB	56 dB	52 dB	52 dB	52 dB
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)
Digital Input / Output	1/1	1/1	1/1	1/1	1/1	1/1
Serial Port	No	No	RS-485, RS-422	No	No	No
Local Storage	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
Power Source	PoE Class 2	PoE Class 2	DC 12V; PoE Class 3	PoE Class 2	PoE Class 2	PoE Class 2
Environmental Casing	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)	Optional housing (IP66)
Built-in Analytics	No	No	Yes	No	No	No
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting	Manual setting
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes	Yes
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
Approvals	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC



## Fixed Cube

## Wireless Cube



HD



Full HD 1080P



Full HD 1080P



Full HD 1080P



HD

Model	E11	E12A	E13A	E14	C11W
<b>Maximum Resolution</b>	1MP	3MP	5MP	10MP	1.3MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	No	No	No	No	No
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux at F1.8	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F1.8	Color: 0.5 lux at F1.8
<b>Mechanical IR Cut Filter</b>	No	No	No	No	No
<b>IR LED</b>	No	No	No	No	No
<b>Lens</b>	Fixed focal, f4.2mm / F1.8, Fixed iris, Manual focus	Fixed focal, f2.8mm / F2.0, Fixed iris, Manual focus	Fixed focal, f2.8mm / F2.0, Fixed iris, Manual focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Manual focus	Fixed focal, f3.6mm / F1.8, Fixed iris, Manual focus
<b>Lens Mount</b>	CS mount (interchangeable lens)	CS mount (interchangeable lens)	CS mount (interchangeable lens)	CS mount (interchangeable lens)	Board mount
<b>Horizontal Viewing Angle</b>	53.8°	92.6°	92.6°	99°	50°
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944 30 fps at 1920 x 1080	7 fps at 3648 x 2736 30 fps at 1920 x 1080	30 fps at 1280 x 1024
<b>Horizontal Resolution</b>	700 TVL	1350 TVL	1350 TVL	1450 TVL	800 TVL
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (74 dB)	Basic WDR (70 dB)	Basic WDR (75 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	DNR	DNR	2D+3D DNR
<b>Defogging</b>	No	No	No	No	Yes
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Line-out)
<b>Digital Input / Output</b>	No	No	No	No	No
<b>Local Storage</b>	No	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)	MicroSDHC (card not included)
<b>Power Source</b>	PoE Class 2	PoE Class 2	PoE Class 2	PoE Class 2	DC 12V
<b>Environmental Casing</b>	No	No	No	No	No
<b>Built-in Analytics</b>	No	No	No	No	Yes
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting	No
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 45°C (14°F ~ 113°F)	-10°C ~ 45°C (14°F ~ 113°F)	-10°C ~ 45°C (14°F ~ 113°F)	-10°C ~ 45°C (14°F ~ 113°F)	0°C ~ 40°C (32°F ~ 104°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC

**Fixed Cube****Fisheye Cube****HD****Full HD 1080P**

Model	D11	D12	E15	E16
<b>Maximum Resolution</b>	1MP	3MP	5MP	10MP
<b>Application Environment</b>	Indoor	Indoor	Indoor	Indoor
<b>Image Sensor</b>	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS	Progressive Scan CMOS
<b>Day / Night</b>	No	No	No	No
<b>Low Light Sensitivity</b>	Standard	Standard	Standard	Standard
<b>Minimum Illumination</b>	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0	Color: 0.1 lux at F2.0
<b>Mechanical IR Cut Filter</b>	No	No	No	No
<b>IR LED</b>	No	No	No	No
<b>Lens</b>	Fixed focal, f3.6mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f3.6mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.19mm / F2.0, Fixed iris, Fixed focus	Fixed focal, f1.37mm / F2.0, Fixed iris, Fixed focus
<b>Lens Mount</b>	Board mount	Board mount	Board mount	Board mount
<b>Horizontal Viewing Angle</b>	60.2°	70.8°	180° (overview area), 109.8° (high detail area)	180° (overview area), 109.8° (high detail area)
<b>Compression</b>	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
<b>Frame Rate vs. Resolution</b>	30 fps at 1280 x 720	15 fps at 2048 x 1536 30 fps at 1920 x 1080	15 fps at 2592 x 1944	7 fps at 3648 x 2736
<b>Horizontal Resolution</b>	700 TVL	1350 TVL	1350 TVL	1450 TVL
<b>View Mode</b>	-	-	Fisheye View	Fisheye View
<b>Multi-Streaming</b>	Dual streams	Dual streams	Dual streams	Dual streams
<b>Wide Dynamic Range</b>	No	No	Basic WDR (74 dB)	Basic WDR (70 dB)
<b>Digital Noise Reduction</b>	DNR	DNR	2D+3D DNR	2D+3D DNR
<b>Defogging</b>	No	No	No	No
<b>S/N Ratio</b>	52 dB	52 dB	52 dB	52 dB
<b>Audio</b>	No	No	2-way (Built-in Microphone, Line-out)	2-way (Built-in Microphone, Line-out)
<b>Digital Input / Output</b>	No	No	No	No
<b>Local Storage</b>	No	No	MicroSDHC/MicroSDXC (card not included)	MicroSDHC/MicroSDXC (card not included)
<b>Power Source</b>	PoE Class 1	PoE Class 2	PoE Class 2	PoE Class 2
<b>Environmental Casing</b>	No	No	No	No
<b>Built-in Analytics</b>	No	No	No	No
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting	Manual setting
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	-10°C ~ 45°C (14°F ~ 113°F)	-10°C ~ 45°C (14°F ~ 113°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC



### Video Encoder

1 Channel

1 Channel

1 Channel

4 Channels

4 Channels

8 Channels

16 Channels



Model	V11	V21	V22	V23	V24	V31	V32
Compression	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG	H.264, MJPEG
Frame Rate vs. Resolution	30 fps at 960 x 480 (960H, NTSC) 25 fps at 960 x 576 (960H, PAL) 30 fps at 720 x 480 (NTSC) 25 fps at 720 x 576 (PAL)	30 fps at 960 x 480 (960H, NTSC) 25 fps at 960 x 576 (960H, PAL) 30 fps at 720 x 480 (NTSC) 25 fps at 720 x 576 (PAL)	30 fps at 960 x 480 (960H, NTSC) 25 fps at 960 x 576 (960H, PAL) 30 fps at 720 x 480 (NTSC) 25 fps at 720 x 576 (PAL)	30 fps at 960 x 480 (960H, NTSC) 25 fps at 960 x 576 (960H, PAL) 30 fps at 720 x 480 (NTSC) 25 fps at 720 x 576 (PAL)	30 fps at 960 x 480 (960H, NTSC) 25 fps at 960 x 576 (960H, PAL) 30 fps at 720 x 480 (NTSC) 25 fps at 720 x 576 (PAL)	30 fps at 960 x 480 (960H, NTSC) 25 fps at 960 x 576 (960H, PAL) 30 fps at 720 x 480 (NTSC) 25 fps at 720 x 576 (PAL)	30 fps at 960 x 480 (960H, NTSC) 25 fps at 960 x 576 (960H, PAL) 30 fps at 720 x 480 (NTSC) 25 fps at 720 x 576 (PAL)
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams	Dual streams
Video Motion Detection	3 regions	3 regions	3 regions	3 regions	3 regions	3 regions	3 regions
Wide Dynamic Range	No	No	No	No	No	No	No
Audio	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in, Line-out)	2-way (Line-in x 4, Line-out x 1)	2-way (Line-in x 4, Line-out x 1)	2-way (Line-in x 8, Line-out x 1)	2-way (Line-in x 16, Line-out x 1)
Analog Video Input	BNC x 1	BNC x 1	BNC x 1	BNC x 4	BNC x 4	BNC x 8	BNC x 16
Analog Video Output	No	BNC x 1	BNC x 1	No	No	No	No
Digital Input / Output	No	1/1	1/1	4 (DI/DO configurable)	4 (DI/DO configurable)	8 (DI/DO configurable)	16 (DI/DO configurable)
Serial Port	No	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422	RS-485, RS-422
Local Storage	No	MicroSD/MicroSDHC/MicroSDXC (card not included)	MicroSD/MicroSDHC/MicroSDXC (card not included)	MicroSD/MicroSDHC/MicroSDXC (card not included)	MicroSD/MicroSDHC/MicroSDXC (card not included)	MicroSD/MicroSDHC (card not included)	MicroSD/MicroSDHC (card not included)
Power Source	DC 12V (DC 7V-20V); PoE Class 3	DC 12V (DC 7V-20V); PoE Class 3	DC 12V (DC 7V-20V); PoE Class 3	DC 12V (DC 7V-20V); PoE Class 3	DC 12V (DC 7V-20V); PoE Class 3	AC 100-240V	AC 100-240V
Environmental Casing	No	No	Vibration proof (NEMA TS2-ready, without certificate)	No	Vibration proof (NEMA TS2-ready, without certificate)	No	No
Mount Type	Surface	Surface	Surface	Surface	Surface	Rack mount	Rack mount
Rack Space	-	-	-	-	-	1U	1U
Remote Access	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)
Event Trigger	Video motion detection	Video motion detection; External device through digital input	Video motion detection; External device through digital input	Video motion detection; External device through digital input	Video motion detection; External device through digital input	Video motion detection; External device through digital input	Video motion detection; External device through digital input
Event Response	Notify control center; Change video settings; Command other devices; E-mail notification with snapshots; Upload video, snapshot to FTP server	Notify control center; Go to PTZ preset point or preset tour; Change video settings; Command other devices; E-mail notification with snapshots; Save video to local storage; Upload video, snapshot to FTP server; Activate external device through digital output	Notify control center; Go to PTZ preset point or preset tour; Change video settings; Command other devices; E-mail notification with snapshots; Save video to local storage; Upload video, snapshot to FTP server; Activate external device through digital output	Notify control center; Go to PTZ preset point or preset tour; Change video settings; Command other devices; E-mail notification with snapshots; Save video to local storage; Upload video, snapshot to FTP server; Activate external device through digital output	Notify control center; Go to PTZ preset point or preset tour; Change video settings; Command other devices; E-mail notification with snapshots; Save video to local storage; Upload video, snapshot to FTP server; Activate external device through digital output	Notify control center; Go to PTZ preset point or preset tour; Change video settings; Command other devices; E-mail notification with snapshots; Save video to local storage; Upload video, snapshot to FTP server; Activate external device through digital output	Notify control center; Go to PTZ preset point or preset tour; Change video settings; Command other devices; E-mail notification with snapshots; Save video to local storage; Upload video, snapshot to FTP server; Activate external device through digital output
Client PC Operating System	Windows 8, Windows 7, Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP	Windows 8, Windows 7, Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP	Windows 8, Windows 7, Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP	Windows 8, Windows 7, Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP	Windows 8, Windows 7, Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP	Windows 8, Windows 7, Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP	Windows 8, Windows 7, Windows Server 2008, Windows Vista, Windows Server 2003, Windows XP
PC Web Browser	IE 8, IE 9, IE 10, IE 11, Firefox with VLC, Chrome with VLC, Safari with Quicktime	IE 8, IE 9, IE 10, IE 11, Firefox with VLC, Chrome with VLC, Safari with Quicktime	IE 8, IE 9, IE 10, IE 11, Firefox with VLC, Chrome with VLC, Safari with Quicktime	IE 8, IE 9, IE 10, IE 11, Firefox with VLC, Chrome with VLC, Safari with Quicktime	IE 8, IE 9, IE 10, IE 11, Firefox with VLC, Chrome with VLC, Safari with Quicktime	IE 8, IE 9, IE 10, IE 11, Firefox with VLC, Chrome with VLC, Safari with Quicktime	IE 8, IE 9, IE 10, IE 11, Firefox with VLC, Chrome with VLC, Safari with Quicktime
ONVIF Compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fan	No	No	No	No	No	Yes	Yes
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-40°C ~ 76°C (-40°F ~ 168.8°F)	-10°C ~ 50°C (14°F ~ 122°F)	-40°C ~ 76°C (-40°F ~ 168.8°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)
Approvals	CE, FCC	CE, FCC	CE, FCC, NEMA TS2-ready (without certificate)	CE, FCC	CE, FCC, NEMA TS2-ready (without certificate)	CE, FCC	CE, FCC



## Media Display Station



<b>Model</b>	<b>ECD-1000</b>
<b>Maximum Number of Cameras</b>	16
<b>Maximum Number of Clients</b>	1 local, 2 remote
<b>Free License</b>	16
<b>Video Resolution</b>	Up to 2-Megapixel (Local display); Up to 10-Megapixel (Remote display)
<b>Compression</b>	H.264
<b>Frame Rate vs. Resolution</b>	30 fps at 1920 x 1080 30 fps at 720 x 480 25 fps at 720 x 576 30 fps at 640 x 480
<b>Audio</b>	1-way
<b>Network Connector</b>	RJ-45
<b>Analog Video Output</b>	1, BNC
<b>HDMI Output</b>	1, HDMI Type A
<b>Power Source</b>	DC 12V; PoE Class 3
<b>Mount Type</b>	Surface, Pole, VESA 10 x 10
<b>Bundled Accessories</b>	Pole mount; Power adapter
<b>Other Value-Added Features</b>	Digital Signage function
<b>External Storage Interface</b>	USB (Support Digital Signage function from external USB drive)
<b>Display Layout Mode</b>	1, 2, 4, 9, 12, 16, 1+5, 1+7, 1+12, 2+4, 2+8
<b>Digital Zoom</b>	Yes
<b>Event Status</b>	Display status upon network loss, Motion and DI
<b>E-Map</b>	No
<b>PTZ Control</b>	Yes
<b>Playback Control</b>	No
<b>Synchronized Playback</b>	No
<b>Local Access</b>	HDMI monitor, USB keyboard or mouse
<b>Remote Access</b>	Web Client (IE)
<b>Event Trigger</b>	Video Loss, Network Loss
<b>Event Response</b>	Beep
<b>Server Operating System</b>	Embedded Linux
<b>Client PC Operating System</b>	Windows 8, Windows 7, Windows Vista, Windows Server 2003, Windows XP
<b>PC Web Browser</b>	IE 9, IE 10, IE 11
<b>ONVIF Compliant</b>	Yes
<b>Operating Temperature</b>	0°C ~ 50°C (32°F ~ 122°F)
<b>Approvals</b>	CE, FCC



## Video Management System

### Mini Standalone NVR

### Desktop Standalone NVR



Model	ENR-010P	ENR-020P	ENR-1000	ENR-110	ENR-120	ENR-130	ENR-140
<b>Maximum Number of Cameras</b>	4	9	4	4	9	16	16
<b>Maximum Number of Clients</b>	1 local, 2 remote	1 local, 2 remote	1 local, 2 remote	1 local, 2 remote	1 local, 2 remote	1 local, 2 remote	1 local, 2 remote
<b>Free License</b>	4	9	4	4	9	16	16
<b>Video Resolution</b>	Up to 4-Megapixel (Local display), Up to 10-Megapixel (Remote display)	Up to 4-Megapixel (Local display), Up to 10-Megapixel (Remote display)	Up to 2-Megapixel (Local display), Up to 10-Megapixel (Remote display)	Up to 4-Megapixel (Local display), Up to 10-Megapixel (Remote display)	Up to 4-Megapixel (Local display), Up to 10-Megapixel (Remote display)	Up to 4-Megapixel (Local display), Up to 10-Megapixel (Remote display)	Up to 4-Megapixel (Local display), Up to 10-Megapixel (Remote display)
<b>Compression</b>	H.264	H.264	H.264	H.264	H.264	H.264	H.264
<b>Built-in PoE Connectors</b>	4 Ports	8 Ports	No	No	No	No	No
<b>Power Source</b>	DC 48V	DC 48V	DC 12V	DC 12V	DC 12V	DC 12V	AC 100-240V
<b>Mount Type</b>	-	-	-	-	-	-	-
<b>Rack Space</b>	-	-	-	-	-	-	-
<b>Scheduled Recording</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Event Recording</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Manual Recording</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Speed Up</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Dual Stream Management</b>	Yes	Yes	No	Yes	Yes	Yes	Yes
<b>Recording Throughput</b>	16 Mbps	36 Mbps	16 Mbps	16 Mbps	36 Mbps	48 Mbps	48 Mbps
<b>HDD Interface</b>	Maximum 1 SATA disk	Maximum 1 SATA disk	Maximum 2 SATA disks	Maximum 2 SATA disks	Maximum 2 SATA disks	Maximum 2 SATA disks	Maximum 4 SATA disks
<b>External Storage Interface</b>	USB	USB	No	USB	USB	USB	USB
<b>Digital Zoom</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Event Status</b>	Display event status upon alarm or upon connection loss or recovery between server and client	Display event status upon alarm or upon connection loss or recovery between server and client	Display event status upon alarm or upon connection loss or recovery between server and client	Display event status upon alarm or upon connection loss or recovery between server and client	Display event status upon alarm or upon connection loss or recovery between server and client	Display event status upon alarm or upon connection loss or recovery between server and client	Display event status upon alarm or upon connection loss or recovery between server and client
<b>Instant Playback</b>	Instant Playback in live view window (Remote client)	Instant Playback in live view window (Remote client)	Instant Playback in live view window (Remote client)	Instant Playback in live view window (Remote client)	Instant Playback in live view window (Remote client)	Instant Playback in live view window (Remote client)	Instant Playback in live view window (Remote client)
<b>e-Map</b>	No	No	No	No	No	No	No
<b>PTZ Control</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Playback Control</b>	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop
<b>Synchronized Playback</b>	4 channels	9 channels	4 channels	4 channels	9 channels	16 channels	16 channels
<b>Local Access</b>	HDMI monitor; USB keyboard & mouse	HDMI monitor; USB keyboard & mouse	HDMI monitor; USB keyboard & mouse; USB joystick	HDMI monitor; USB keyboard & mouse; USB joystick	HDMI monitor; USB keyboard & mouse; USB joystick	HDMI monitor; USB keyboard & mouse; USB joystick	HDMI monitor; USB keyboard & mouse; USB joystick
<b>Remote Access</b>	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)	Web Client (IE), Mobile Client (iOS & Android)
<b>Permission Control</b>	Unlimited number of users, Customizable permissions for user groups	Unlimited number of users, Customizable permissions for user groups	Unlimited number of users, Customizable permissions for user groups	Unlimited number of users, Customizable permissions for user groups	Unlimited number of users, Customizable permissions for user groups	Unlimited number of users, Customizable permissions for user groups	Unlimited number of users, Customizable permissions for user groups
<b>Video Export</b>	USB	USB	USB	USB	USB	USB	USB
<b>Server Operating System</b>	Embedded Linux	Embedded Linux	Embedded Linux	Embedded Linux	Embedded Linux	Embedded Linux	Embedded Linux
<b>Client PC Operating System</b>	Windows 8, Windows 7	Windows 8, Windows 7	Windows 8, Windows 7	Windows 8, Windows 7	Windows 8, Windows 7	Windows 8, Windows 7	Windows 8, Windows 7
<b>PC Web Browser</b>	IE 9, IE 10, IE 11	IE 9, IE 10, IE 11	IE 9, IE 10, IE 11	IE 9, IE 10, IE 11	IE 9, IE 10, IE 11	IE 9, IE 10, IE 11	IE 9, IE 10, IE 11
<b>ONVIF Compliant</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Operating Temperature</b>	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)"	0°C ~ 40°C (32°F ~ 104°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC	CE, FCC





## Video Management System

### Tower Standalone NVR

### Transportation Standalone NVR



Model	GNR-3000	INR-320	MNR-310
<b>Maximum Number of Cameras</b>	64	64	32
<b>Additional Computing Power</b>	No	No	No
<b>Maximum Number of Clients</b>	1 local, 4 remote	1 local, 4 remote	1 local, 3 remote
<b>Free License</b>	33 (32 for ACTI and 1 for third-party video device)	33 (32 for ACTI and 1 for third-party video device)	17 (16 for ACTI and 1 for third-party video device)
<b>Video Resolution</b>	Support all ACTI cameras in all resolutions	Up to 10-Megapixel	Support all ACTI cameras in all resolutions
<b>Compression</b>	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG	H.264, MPEG-4, MJPEG
<b>Audio</b>	2-way	2-way	2-way
<b>Built-in PoE Connectors</b>	No	No	No
<b>Wireless</b>	No	No	Yes (Wi-Fi, 4G, GPS optional accessories required)
<b>Serial Port</b>	No	No	RS-232
<b>Power Source</b>	AC 110-220V	AC 100-240V	AC 100-240V; DC 12V (9-36V)
<b>Built-in Analytics</b>	Motion Detection, Tamper	Motion Detection, Tamper	Motion Detection, Tamper
<b>Scheduled Recording</b>	Yes	Yes	Yes
<b>Event Recording</b>	Yes	Yes	Yes
<b>Manual Recording</b>	Yes	Yes	Yes
<b>Speed Up</b>	Yes	Yes	Yes
<b>Dual Stream Management</b>	Yes	Yes	Yes
<b>Recording Throughput</b>	300 Mbps	300 Mbps	192 Mbps
<b>HDD Interface</b>	Maximum 5 SATA disks (1 system disk included)	Maximum 6 SATA disks (1 system disk included)	Maximum 2 SATA disks (without storage disks)
<b>External Storage Interface</b>	eSATA, iSCSI, USB	eSATA, iSCSI, USB	eSATA, iSCSI, USB
<b>RAID Level</b>	Software RAID 0, 1	Hardware RAID 0, 1, 5, 10	Software RAID 0, 1
<b>Digital Zoom</b>	Yes	Yes	Yes
<b>Event Status</b>	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full
<b>Instant Playback</b>	Instant Playback in live view window	Instant Playback in live view window	Instant Playback in live view window (Remote client)
<b>e-Map</b>	Yes	Yes	Yes
<b>PTZ Control</b>	Yes	Yes	Yes
<b>Playback Control</b>	Continuous forward and backward playback with speeds 1x/2x/4x/8x/16x or frame-by-frame; pause; stop	Continuous forward and backward playback with speeds 1x/2x/4x/8x/16x or frame-by-frame; pause; stop	Continuous forward and backward playback with speeds 1x/2x/4x/8x/16x or frame-by-frame; pause; stop
<b>Synchronized Playback</b>	9 channels (local), 64 channels (remote)	9 channels (local), 64 channels (remote)	4 channels (local), 32 channels (remote)
<b>Local Access</b>	VGA port for monitor; USB joystick, keyboard & mouse	VGA port for monitor; USB joystick, keyboard & mouse	HDMI/VGA monitor; USB keyboard & mouse; USB joystick
<b>Remote Access</b>	Workstation, Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)
<b>Permission Control</b>	Unlimited number of users and user groups, Active Directory, Customizable permissions for user groups, Playback Password protected, Password Validity Period	Unlimited number of users and user groups, Active Directory, Customizable permissions for user groups, Playback Password protected, Password Validity Period	Unlimited number of users and user groups, Active Directory, Customizable permissions for user groups, Playback Password protected, Password Validity Period
<b>GPS Position</b>	Manual setting	Manual setting	Manual setting
<b>Video Export</b>	eSATA, iSCSI, USB	eSATA, iSCSI, USB	eSATA, USB
<b>Server Operating System</b>	Embedded Windows 7	Embedded Windows 7	Embedded Windows 7
<b>Client PC Operating System</b>	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008
<b>PC Web Browser</b>	IE 10, IE 11	IE 10, IE 11	IE 10, IE 11
<b>ONVIF Compliant</b>	Yes	Yes	Yes
<b>Operating Temperature</b>	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	-20°C ~ 60°C (-4°F ~ 140°F)
<b>Approvals</b>	CE, FCC	CE, FCC	CE, FCC, e-Mark



## Video Management System

### Rackmount Standalone NVR



Model	ENR-190	INR-410	INR-430	INR-440
Maximum Number of Cameras	16	200	200	200
Additional Computing Power	No	No	No	No
Maximum Number of Clients	1 local, 2 remote	1 local, 3 remote	1 local, 3 remote	1 local, 3 remote
Free License	16	65 (64 for ACTi and 1 for third-party video device)	65 (64-channel for ACTi and 1-channel for third-party video device)	65 (64-channel for ACTi and 1-channel for third-party video device)
Video Resolution	Up to 4-Megapixel (Local display), Up to 10-Megapixel (Remote display)	Support all ACTi cameras in all resolutions	Support all ACTi cameras in all resolutions	Support all ACTi cameras in all resolutions
Compression	H.264	H.265, H.264, MPEG-4, MJPEG	H.265, H.264, MPEG-4, MJPEG	H.265, H.264, MPEG-4, MJPEG
Audio	–	No	No	No
Power Source	AC 100-240V	AC 100-240V	AC 100-240V	AC 100-240V
Redundant Power Supply	–	No	No	Yes
Rack Mount	Rack Mount (1U)	Rack Mount (2U)	Rack Mount (2U)	Rack Mount (2U)
Built-in Analytics	–	Motion Detection, Tamper	Motion Detection, Tamper	Motion Detection, Tamper
Scheduled / Event / Manual Recording	Yes	Yes	Yes	Yes
Dual Stream Management	Yes	Yes	Yes	Yes
Recording Throughput	48 Mbps	300 Mbps	300 Mbps	300 Mbps
HDD Interface	Maximum 4 SATA disks	Maximum 8 SATA disks (1 system disk included)	Maximum 8 SATA disks (without storage disks)	Maximum 12 SATA disks (without storage disks)
External Storage Interface	USB	eSATA, iSCSI, USB	eSATA, iSCSI, USB	SAS, iSCSI, USB
RAID Level	Yes	Software RAID 0, 1	Hardware RAID 0, 1, 5, 10	Hardware RAID 0, 1, 5, 6, 10, 50, 60
Event Status	Display event status upon alarm or upon connection loss or recovery between server and client	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full
Instant Playback	Instant Playback in live view window (Remote client)	Instant Playback in live view window	Instant Playback in live view window	Instant Playback in live view window
e-Map	No	Yes	Yes	Yes
PTZ Control	Yes	Yes	Yes	Yes
Playback Control	Continuous forward and backward playback with speeds 0.5x / 1x / 2x / 4x / 8x / 16x / 32x; pause; stop	Continuous forward and backward playback with speeds 1x/2x/4x/8x/16x or frame-by-frame; pause; stop	Continuous forward and backward playback with speeds 1x/2x/4x/8x/16x or frame-by-frame; pause; stop	Continuous forward and backward playback with speeds 1x/2x/4x/8x/16x or frame-by-frame; pause; stop
Synchronized Playback	16 channels	9 channels (local), 64 channels (remote)	9 channels (local), 64 channels (remote)	9 channels (local), 64 channels (remote)
Local Access	HDMI monitor; USB keyboard & mouse	HDMI & VGA port for monitor; USB joystick, keyboard & mouse	HDMI/VGA port for monitor; USB joystick, keyboard & mouse	VGA port for monitor; USB joystick, keyboard & mouse
Remote Access	Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)
Video Export	USB	eSATA, iSCSI, USB	eSATA, iSCSI, USB	eSATA, iSCSI, USB, SAS
Server Operating System	Embedded Linux	Embedded Windows 7	Embedded Windows 7	Embedded Windows 7
Client PC Operating System	Windows 8, Windows 7	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008
PC Web Browser	IE 9, IE 10, IE 11	IE 10, IE 11	IE 10, IE 11	IE 10, IE 11
ONVIF Compliant	Yes	Yes	Yes	Yes
Operating Temperature	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	10°C ~ 40°C (50°F ~ 104°F)
Approvals	CE, FCC	CE, FCC	CE, FCC	CE, FCC



## Video Management System

### Software NVR

### Central Management System



Model	NVR 3 Corporate	NVR 3 Enterprise	NVR 3 Standard	CMS 2
Maximum Number of Cameras	100	100	64	Unlimited
Maximum Number of POS Devices	100	0	0	6400
Maximum Number of Access Control and Network I/O Devices	100	0	0	6400
Maximum Number of Clients	1 local, unlimited remote (recommended up to 5)	1 local, unlimited remote (recommended up to 5)	1 local, unlimited remote (recommended up to 5)	1 local, unlimited remote (recommended up to 5)
Free License	2 (1 for ACTi and 1 for third-party video device)	17 (16 for ACTi and 1 for third-party video device)	17 (16 for ACTi and 1 for third-party video device)	2 ( for ACTi NVR servers)
Video Resolution	Support all ACTi cameras in all resolutions	Support all ACTi cameras in all resolutions	Support all ACTi cameras in all resolutions	Support all ACTi cameras in all resolutions
Compression	H.265, H.264, MPEG-4, MJPEG	H.265, H.264, MPEG-4, MJPEG	H.265, H.264, MPEG-4, MJPEG	H.265, H.264, MPEG-4, MJPEG
Multi-Streaming	Dual streams	Dual streams	Dual streams	Dual streams
Built-in Analytics	Motion Detection, Tamper	Motion Detection, Tamper	No	-
Third-party Integration	Point-of-sale (POS), Access Control, Network I/O, Car Park	-	-	Point-of-sale (POS), Access Control, Network I/O, Car Park
Scheduled Recording	Yes	Yes	Yes	-
Event Recording	Yes	Yes	Yes	-
Manual Recording	Yes	Yes	Yes	Yes
Speed Up	Yes	Yes	Yes	-
Dual Stream Management	Yes	Yes	Yes	Yes
Redundancy Service	Yes	Yes	Yes	-
Recording Throughput	100 channels at 5MP/15fps	100 channels at 5MP/15fps	64 channels at 5MP/15fps	-
Display Layout Mode	1, 4, 6, 8, 9, 10, 12, 16, 18, 24, 25, 35, 36, 48, 49, 64, Custom	1, 4, 6, 8, 9, 10, 12, 16, 18, 24, 25, 35, 36, 48, 49, 64, Custom	1, 4, 6, 8, 9, 10, 12, 16, 18, 24, 25, 35, 36, 48, 49, 64, Custom	1, 4, 5, 6, 8, 9, 10, 12, 16, 18, 24, 25, 35, 36, 48, 49, 64, Custom
Digital Zoom	Yes	Yes	Yes	Yes
Event Status	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full	Display event status upon alarm or upon connection loss or recovery between server and client or when the allocated disk space is full
Instant Playback	Instant Playback in live view window	Instant Playback in live view window	Instant Playback in live view window	Instant Playback in live view window
e-Map	Yes	Yes	No	Yes
PTZ Control	Yes	Yes	Yes	Yes
Playback Control	Continuous forward and backward playback with speeds 1x / 2x / 4x / 8x / 16x or frame-by-frame; pause; stop	Continuous forward and backward playback with speeds 1x / 2x / 4x / 8x / 16x or frame-by-frame; pause; stop	Continuous forward and backward playback with speeds 1x / 2x / 4x / 8x or frame-by-frame; pause; stop	Continuous forward and backward playback with speeds 1x / 2x / 4x / 6x / 8x or frame-by-frame; pause; stop
Synchronized Playback	64 channels	64 channels	64 channels	64 channels
Video Push	Support Video Push from ACTi Mobile Client devices	No	No	No
Local Access	Monitor, joystick, keyboard & mouse	Monitor, joystick, keyboard & mouse	Monitor, joystick, keyboard & mouse	Monitor, joystick, keyboard & mouse
Remote Access	Workstation, Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)	Workstation, Web Client (IE), Mobile Client (iOS & Android)
Event Trigger	<b>NVR:</b> Disk full; Disk not found; Disk is available <b>Device:</b> Video motion detection; Passive IR sensor; External device through digital input; Video loss and recovery; Network loss and recovery; Point-of-sale (POS) status; Network I/O status; Access control status	<b>NVR:</b> Disk full; Disk not found; Disk is available <b>Device:</b> Video motion detection; Passive IR sensor; External device through digital input; Video loss and recovery; Network loss and recovery	<b>NVR:</b> Disk full; Disk not found; Disk is available <b>Device:</b> Video motion detection; Passive IR sensor; External device through digital input; Video loss and recovery; Network loss and recovery	<b>NVR:</b> source loss and recovery; schedule service start and stop; Disk full; Disk not found; Disk is available <b>Device:</b> video motion detection; passive IR sensor; external device through digital input; video loss and recovery; network loss and recovery; Point-of-sale (POS) status; Network I/O status; Access Control status
Event Response	Pop-up window with live video; Switch to hotspot window; Switch to customize View; Command a PTZ device to go to a preset point; Play alert sound; Activate external device through digital output; Execute system command to activate other programs; Upload snapshot to FTP server; E-mail notification with snapshots	Pop-up window with live video; Switch to hotspot window; Switch to customize View; Command a PTZ device to go to a preset point; Play alert sound; Activate external device through digital output; Execute system command to activate other programs; Upload snapshot to FTP server; E-mail notification with snapshots	Pop-up window with live video; Switch to hotspot window; Command a PTZ device to go to a preset point; Play alert sound; Activate external device through digital output; Upload snapshot to FTP server; E-mail notification with snapshots	<b>NVR:</b> Play alert sound; execute system command to activate other programs; E-mail notification <b>Device:</b> pop-up window with live video; switch to hotspot window; Switch to customize View; Play alert sound; Send live view to TV wall server
Permission Control	Unlimited number of users and user groups, Active Directory, Customizable permissions for user groups, Playback Password protection, Password Validity Period	Unlimited number of users and user groups, Active Directory, Customizable permissions for user groups, Playback Password protection, Password Validity Period	Maximum 12 users and 3 user groups, Customizable permissions for user groups, Playback Password protection, Password Validity Period	Unlimited number of users, Active Directory, Customizable permissions for user groups, Playback Password protected, Password Validity Period
GPS Position	Manual setting	Manual setting	Manual setting	Manual setting
Server Operating System	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008
Client PC Operating System	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008	Windows 10, Windows 8, Windows 7, Windows Server 2012, Windows Server 2008
PC Web Browser	IE 10, IE 11	IE 10, IE 11	IE 10, IE 11	IE 10, IE 11
ONVIF Compliant	Yes	Yes	Yes	Yes



## Video Analytics



Model	ALPR Server 2	People Counting Server 1	IVS Server 1
Product Type	Software IVS	Software IVS	Software IVS
Maximum Number of Video devices	6	9	9
License required	Yes	Yes	Yes
Free Trial License	1 channel with 2 hours recycling	1 channel with 2 hours recycling	1 channel with 2 hours recycling
Built-in Analytics	License Plate Recognition, Speed Detection	Object Counting, People Counting, Heat Map, Dwell Time, Gender detection (for project request), Age detection (for project request)	Line crossing, Enter Area, Missing Object, Unattended Object, Tamper, Smoke Detection, Incorrect Direction, People Queue management.
Analyzed Stream	Live View, Playback	Live View, Playback	Live View, Playback
Analyzed Source	NVR, Camera, pre-recorded video	NVR, Camera, pre-recorded video	NVR, Camera, pre-recorded video
Report System	Standard Report	Standard Report, Professional Report	Standard Report
Remote Access	Yes	No	No
Description	ALPR Server 2 is a video analytics software tool with Automatic License Plate Recognition (ALPR) technology to detect and recognize the car license plate. It can record and search camera live and pre-recorded video stream from ACTi camera, Software NVR or Standalone NVR.	People Counting Server 1 is a video analytics software designed to detect and count the number of people's entries and exits. You can set up a counting line in the desired area where people will pass by, and the system will automatically count people that move in and out separately, and the counting results can be analyzed by time interval.	IVS Server 1 is a video analytics software that can analyze, record, and search live and pre-recorded video stream from ACTi camera, Software NVR or Standalone NVR for special objects with intelligent video analytics algorithms, such as Line Crossing, Enter Area, Missing Object, Unattended Object, Tamper and Queue management.
Supported Countries	Please visit <a href="http://www.acti.com">www.acti.com</a> for more information.	-	-



# VIDEO ANALYTICS

ACTi's video analytics is designed to transform your video surveillance network into a smart detection system. It uses advanced image processing algorithms to recognize humans and everyday objects, track the movements of objects, such as appearances, disappearances or loitering, and determine whether the movements are suspicious based on user-defined rules. It also provides algorithms to count the number of objects or humans passing by a specific location. ACTi's IVS helps you enhance your existing surveillance system while providing you with valuable information for business intelligence and management.

## Popular Algorithms



**"People Counting"** provides bi-directional counting function for people entering and exiting an area, as determined by a virtual line.

Available Product: People Counting Server 1



**"Missing Object"** detects and captures video for objects that have suddenly disappeared from a marked area.

Available Product: IVS Server 1



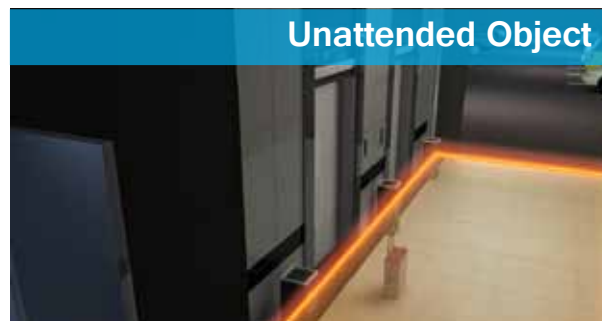
**"Enter Area"** detects and captures video of people that have entered and stayed in a marked area for longer than a certain amount of time.

Available Product: IVS Server 1



**"Line Crossing"** captures the movement of people or objects over a predetermined virtual line.

Available Product: IVS Server 1



**"Unattended Object"** detects and captures video of objects that have suddenly appeared in a certain area.

Available Product: IVS Server 1



**"Automatic License Plate Recognition (ALPR)"** detects and recognizes vehicle license plates in the predefined area, and then matches this data against the database.

Available Product: ALPR Server 2



# POS INTEGRATION

The retail industry is suffering from huge losses day-to-day due to unauthorized discounts (sweethearting) or common steal. Prevention and detection of such events can easily be managed through the integration of the POS system data and video from the cashier area. In case of any POS exception, you can quickly be notified about it, validate the occurrence with video and later use this as evidence if needed. Available Product: NVR 3 Corporate

## Applications

### Sweethearting



The manager will be notified immediately when discounts are given. This is able to prevent profit loss resulted from the unauthorized discounts given by the employee to his/her relatives or friends.

### Employee Theft



Don't let employees reduce your bottom line. Use filter to quickly review exceptional events, such as void transaction, discounts or changes in price or quantity, and identify dishonest clerks.

### Manual Barcode Input



Mistakes could be made, purposely or unintentionally, by keying in a barcode manually, which causes incorrect transaction data and wrong payment. The manager can always be alerted when this behavior occurs, and see the video to verify.

### Wrong Change



Save your time and good reputation. You can quickly clarify any dispute if a customer claims that he has been given wrong change. Finding the receipt and corresponding video is always just a few clicks away.



# ACCESS CONTROL INTEGRATION

Access control is the very first line of defense against any danger and loss. Adding videos to your access control system can definitely improve the security of your business. By linking the data from access control with video footage in real time, you will be able to smartly identify and prevent all potential breaches!

## Applications



Without surveillance videos, it is hard to be sure if the identity shown in the entry log matches the accessing person. Access control integrated with the surveillance system can remarkably prevent the crises and loss resulted from unauthorized access.



When someone is entering a restricted area, the access control system will record only this entry, without noticing the people who tail behind and access without any access card. ACTi's surveillance system allows you to visually validate every entrance in real time.

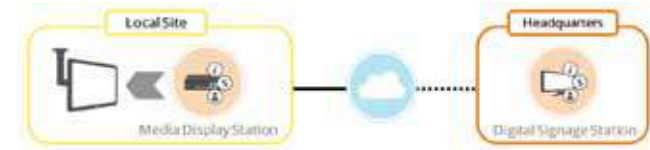


# DIGITAL SIGNAGE STATION



Multiple TV panels across the site can be remotely managed for Digital Signage content together with live video from the surveillance system.

Promoting products to your customers by displaying ads or related product information from the public monitor, according to their profiles such as gender and age, can smartly draw their attention and increase the efficiency of your marketing campaigns.



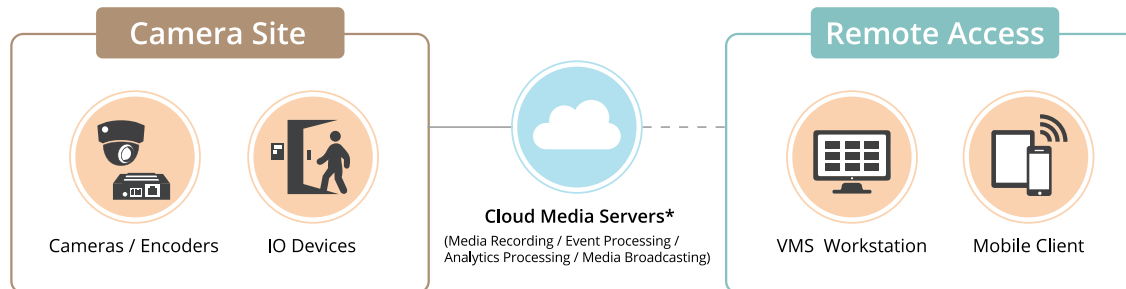


# CLOUD MEDIA SERVICES

Big data can drive innovation, expand the understanding of a market, and create strong competitive advantages. However, to convert simple data into insightful knowledge, this data needs to be analyzed and filtered. The process of such conversion requires both huge amounts of storage for the data to be hosted in and huge amounts of processing power. ACTi, as a technology based company, is aware of this necessity. For this reason, it is taking the initiative to offer its new Cloud Media Services platform to generate data of every device involved in your business, store it as you go, and integrate it to later mine-out all those insights that will not only solve your day-to-day business challenges, but also put you in a stronger competitive position.



## Solution Architecture



*\*Cloud Media Servers include NVR, CMS, IVS, Broadcast and Big Data Analysis servers.*

ACTi's Cloud Media Services are provided through a flexible solution architecture to cover all business requirements. Typically, businesses are concerned with the kind of data they upload to the cloud for security concerns. ACTi allows its customers to manage this challenge through a hybrid solution that allocates sensitive data in local sites and stores all other data in the cloud.









No matter the requirement, whether it is a fully-cloud based solution or a partial migration, ACTi has you covered.

Our solution portfolio has offerings for Service Providers, Distributors and System Integrators that want to enable our service under their own business model and also for End Users that want to work directly under our Cloud.












# Mounting Accessory Matrix

Camera Type	Camera Installation Series	Example Models	Target Surface	Mounting Method																				
				Surface	Tilttable Surface Mount	Gang Box	Flush	Tilttable Flush Mount	Wall Mount	Tilted Mount	Pendant	Pole Mount	Corner Mount	Bracket	Integrated Bracket	Ceiling Bracket	Height Strip	Converter for NPT standard Mounts	Desktop Mount	Edge Clamp				
Box	Micro Box		Q22	Desktop																	Y			
				Edge																				Y
				Ceiling												Y								
				Wall												Y								
				Pole												Y								
	Indoor Box		B2x, D2xx, E2x, E2xx, I2x, KCM-5211	Ceiling												Y								
				Wall												Y								
				Pole												Y (w/Housing)								
				Corner													Y (w/Housing)							
	Outdoor-Ready Box		KCM-5511, KCM-5611, KCM-5x11	Wall												Y								
				Pole												Y								
				Corner													Y							
Bullet	Mini Bullet		E38	Ceiling												Y								
				Wall													Y							
	Bullet with Integrated Bracket		A4x, B4x, E44A ~ E46A, E41x, I4x	Ceiling			E4 series only										Except B4x, I4x	B4x, I4x only						
				Wall			Except A4X										Y							
				Pole											Y									
	Bullet with Bundled Removable Bracket		D3x, D4x(A), E3x(A), E41, E41A ~ E43A, E48	Ceiling												Y								
				Wall												Y								
				Pole												Y								
				Corner													Y							
Covert	Covert		Q11, Q12, Q13, Q111, Q14, Q112	Ceiling				Y	Y											Y				
				Wall				Y	Y												Y			
				Corner													Except Fisheye Covert							
	L-shape Pinhole Covert		Q113, Q115	Ceiling	Y	Y		Y																
				Wall	Y	Y		Y				Y								Y				
				Windshield														Y						



# Mounting Accessory Matrix

Camera Type	Camera Installation Series	Example Models	Target Surface	Mounting Method																				
				Surface	Tilttable Surface Mount	Gang Box	Flush	Tilttable Flush Mount	Wall Mount	Tilted Mount	Pendant	Pole Mount	Corner Mount	Bracket	Integrated Bracket	Ceiling Bracket	Height Strip	Converter for NPT Standard Mounts	Desktop Mount	Edge Clamp				
Dome	Mini Dome & Mini Fisheye Dome		D9x, E9x, E9xx(M)	Ceiling	Y		Y						Y						Y					
				Wall	Y		Y			Y														
				Pole										Y										
	Indoor & Outdoor Dome		B51~B53, B6x, B8x, D5x, D6x, D7x, D8x, E5x, E6x E7x, E8x	Ceiling	Y		Y	Y					Y							Y				
				Wall	Y		Y			Y														
				Pole									Y	Y										
				Corner												Except E78								
	Indoor & Outdoor Hemispheric & Fisheye Dome		B5x, B511, B7x, I51, I7x	Ceiling	Y		Y	Indoor Dome only					Y								Indoor Dome only			
				Wall	Y		Y			Y	Y													
				Pole							Y	Y	Y											
				Corner								Y			Y									
	PTZ / Speed Dome	Outdoor Mini PTZ		B94A ~ B97A, B910	Ceiling	Y		Y	Y				Y								Y			
Wall							Y			Y														
Pole													Y	Y										
Corner															Y									
Rooftop / Parapet																						Y		
Indoor PTZ			I91, I92, I912	Ceiling	Y		Y	Y					Y								Y			
				Wall						Y														
				Pole									Y	Y										
				Corner											Y									
Outdoor PTZ & Speed Dome			I93 ~ I98, I910, KCM-8211	Ceiling			19x only						Y								Y			
				Wall			19x only			Y														
				Pole									Y	Y										
	Corner													Y										
	Rooftop / Parapet																				Y			
Cube	Cube with Bundled Removable Bracket		D1x E1x	Ceiling																				
				Wall																				



## Popular Mounting Accessory Sets

		Ceiling	Wall	Pole	Corner
Dome		 P MAX-10xx Flush Mount	 P MAX-0313 / 0314 Heavy Duty Wall Mount for Indoor / Outdoor Domes	 S MAX-0155 Pole Mount with Wall Mount	 S MAX-0157 Corner Mount with Wall Mount
	Outdoor	 P MAX-0102 Pendant Mount	 P MAX-0312 PTZ Wall Mount	 S MAX-0226 Pole Mount with Junction Box and PTZ Wall Mount	 S MAX-0227 Corner Mount with Junction Box and PTZ Wall Mount
PTZ	Indoor	 S MAX-0052 Pendant Mount with PTZ Mount Kit	 P MAX-0311 L-Type Wall Mount	 S MAX-0103 Pole Mount with Pendant Mount and PTZ Mount Kit	 S MAX-0016 Corner Mount with Gooseneck and PTZ Mount Kit
		 P MAX-1300 Ceiling Bracket	 P MAX-0806 Gangbox Converter	 P MAX-0504 Pole Mount for Bullet Cameras	 S MAX-0272 Corner Mount with Mounting Bracket
Box		 P MAX-1104 / 1105 Bracket	 P MAX-0206 PoE Heavy Duty Outdoor Housing with Mounting Bracket	 S MAX-0281 Pole Mount with Mounting Bracket and Heavy Duty Outdoor Housing	 S MAX-0261 Corner Mount with Mounting Bracket and Housing

These are some of the most commonly used accessory sets. Please visit <http://www.acti.com/mountingselector> for more mounting accessory solutions.



# Popular Mounting Accessory Sets

## Ceiling & Wall

## Corner

**Covert, Fisheye  
Covert & Pinhole  
Covert**

**PMAX-1016**  
Tilttable Flush Mount



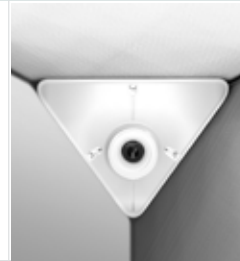
**PMAX-1017**  
Tilttable Flush Mount  
(Disguise)



**PMAX-1108**  
Bracket



**PMAX-0403**  
Corner Mount



## Ceiling & Wall

## Wall

## Windshield

**L-Shape Pinhole  
Covert**

**PMAX-0334**  
Tilttable Surface Mount



**PMAX-0331**  
Height Strip (Disguise)



**PMAX-1109**  
Windshield Mounting Bracket



## Desktop

## Pole

**Micro Box Camera**

**PMAX-0901 + PMAX-1110**  
Desktop Mount Magnetic Base  
with Gooseneck



**PMAX-0510**  
Pole Mount

Horizontal  
Pole



Vertical  
Pole



## Edge

**PMAX-1111**  
Edge Clamp

Horizontal  
Edge



Vertical  
Edge



These are some of the most commonly used accessory sets. Please visit [www.acti.com/mountingselector](http://www.acti.com/mountingselector) for more mounting accessory solutions.

### Optional Lenses

<b>Model</b>	<b>PLEN-0101</b>	<b>PLEN-0114</b>	<b>PLEN-0119</b>	<b>PLEN-0127</b>	<b>PLEN-0129</b>	<b>PLEN-0130</b>	<b>PLEN-0131</b>	<b>PLEN-2200</b>	<b>PLEN-2202</b>	<b>PLEN-2203</b>	<b>PLEN-2204</b>	<b>PLEN-4101</b>	<b>PLEN-4103</b>	<b>PLEN-4104</b>
<b>Product Type</b>	Fixed Lens	Fixed Lens	Fixed Lens	Vari-focal Lens	Fixed Lens	Fixed Lens	Fixed Lens	Vari-focal Lens	Vari-focal Lens	Vari-focal Lens	Vari-focal Lens	Fixed Lens	Fixed Lens	Fixed Lens
<b>Day / Night</b>	Yes	Yes	Yes	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Lens Mount</b>	CS Mount	Board Mount	CS Mount	CS Mount	Board Mount	CS Mount	CS Mount	CS Mount	CS Mount	CS Mount	CS Mount	Board Mount	Board Mount	Board Mount
<b>Focal Length</b>	Fixed focal, f4.2mm	Fixed focal, f4.2mm	Fixed focal, f2.8mm	Vari-focal, f2.8-12mm	Fixed focal, f2.93mm	Fixed focal, f2.93mm	Fixed focal, f2.93mm	Vari-focal, f2.8-12mm	Vari-focal, f4.1-9mm	Vari-focal, f3.1-13.3mm	Vari-focal, f3.1-9mm	Fixed focal, f1.9mm	Fixed focal, f8.0mm	Fixed focal, f6.0mm
<b>Iris</b>	Fixed iris, F1.8	Fixed iris, F1.8	Fixed iris, F2.0	DC iris, F1.4	Fixed iris, F2.0	Fixed iris, F2.0	Fixed iris, F2.0	Fixed iris, F1.4	DC iris, F1.6	DC iris, F1.4-4.0	DC iris, F1.3	Fixed iris, F2.8	Fixed iris, F1.8	Fixed iris, F1.8
<b>Focus</b>	Manual focus	Fixed focus (adjustable back focus)	Manual focus	Manual focus	Fixed focus (adjustable back focus)	Manual focus	Manual focus	Manual focus	Manual focus	Manual focus	Manual focus	Fixed focus (adjustable back focus)	Fixed focus (adjustable back focus)	Fixed focus (adjustable back focus)
<b>Supported Models</b>	D22F E12 E12A E13 E13A E22F	D91 D92	D21F E11 E21F	D21F D22F E21F E22F	D11 D12	D21F E21F E21FA	E11 E11A E12 E12A E13 E13A	E270	-	E23A E23B	E23A E23B	D11 D12	D91 D92	D91 D92

### Optional Dome Covers

<b>Model</b>	<b>PDCX-0104</b>	<b>PDCX-0105</b>	<b>PDCX-1005</b>	<b>PDCX-1101</b>	<b>PDCX-1104</b>	<b>PDCX-1105</b>	<b>PDCX-1106</b>	<b>PDCX-1108</b>	<b>PDCX-1109</b>	<b>PDCX-1110</b>	<b>PDCX-1111</b>	<b>PDCX-1112</b>					
<b>Product Type</b>	Smoked Cover	Smoked Cover	Transparent Cover	Smoked Cover	Smoked Cover	Smoked Cover	Smoked Cover	Smoked Cover	Smoked Cover	Smoked Cover	Smoked Cover	Smoked Cover					
<b>Material</b>	Plastic	Plastic	Plastic/Aluminum	Plastic	Plastic	Plastic/Aluminum	Plastic	Plastic/Aluminum	Plastic	Plastic	Plastic	Plastic					
<b>Durability</b>	Standard	Standard	Vandal Proof (IK10)	Vandal Proof (IK10)	Vandal Proof (IK10)	Vandal Resistant (IK09)	Vandal Resistant (IK08)	Vandal Proof (IK10)	Vandal Proof (IK10)	Vandal Proof (IK10)	Vandal Proof (IK10)	Vandal Proof (IK10)					
<b>Supported Models</b>	D51 D52 E51	D54 D55 E52 E53	E54 E56 E57 E58 E59	I93 I94 I95 I96	I97 I910 B916 B917 KCM-8111	B51 E6X(A) B52 E7X(A) B53 E8X(A) D6X(A) D7X(A) D8X(A) KCM-7311	E6X(A) E7X(A) E8X(A) ACM-7411 KCM-3311 KCM-7111 KCM-7211 KCM-7311	B910 E817 E819 E822 E616 E617 E618 E620 E621 E89 E815 E816	B934 I91 I92 I912 KCM-8111	D91 D92 E95 E96 E97 E98 E913	I93 I94 I95 I96 I97 I910 B916 B917	B61 B62 B63 B84 B85 B87 B64 B65 B66 B67 B81 B82 B83	I71 I72 I73 B74 B76 B77	E913 E918 E918M E919 E919M E920M	E921 E921M E922 E922M E923 E923M E936M	E924 E924M E925 E925M E926 E926M	E927 E927M E928 E928M E929 E929M E933 E933M

### Power Supply Accessories

<b>Model</b>	<b>PACX-0002</b>	<b>PACX-0005</b>	<b>PACX-0006</b>	<b>PPBX-0002</b>	<b>PPBX-0003</b>	<b>PPBX-0006</b>	<b>PPBX-0007</b>	<b>PPOE-0001</b>	<b>PPOE-0101</b>	<b>PPOE-0102</b>
<b>Product Type</b>	Battery	Charger	Battery	Power Adapter	Power Adapter	Power Adapter	Power Ignition Control Module	PoE Injector	PoE Injector	PoE Injector
<b>Description</b>	Rechargeable Li-ion Battery for PMON-1001	Charger for PMON-1001 (Europe, AC 110~240V)	Rechargeable Li-ion Battery for PMON-2000	AC 100-240V power adapter with universal connectors for all DC 12V powered devices)	AC 100-240V power adapter with universal connectors for V11 and V2x series	Power Adapter AC 100~240V for MNR-310	Power Ignition Control Module for MNR-310	AC 100~240V IEEE802.3af PoE Injector for Class 1, 2 or 3 devices	AC 100~240V IEEE 802.3at High PoE injector for I91, I92 and I912	AC 100~240V IEEE 802.3at High PoE injector for KCM-8211, I93, I94, I95, I96, I97, I98 and I910
<b>Power Connector Type</b>	-	-	-	Universal	Universal	-	-	Universal	Universal	Universal

### Network Peripherals

<b>Model</b>	<b>PWLM-0100</b>	<b>PWLM-0101</b>	<b>PWLM-0102</b>	<b>PWLM-0103</b>	<b>PWLM-0200</b>	<b>PWLM-0201</b>
<b>Product Type</b>	Wireless Module	Wireless Module	Wireless Module	Wireless Module	Wireless Module	Wireless Module
<b>Description</b>	4G LTE Wireless Module for MNR-310 (Europe / Australia / New Zealand)	4G LTE Wireless Module for MNR-310 (US)	4G LTE Wireless Module for MNR-310 (North America)	4G LTE Wireless Module for MNR-310 (Japan)	Wi-Fi Module for MNR-310	Wi-Fi Module for MNR-320P

### Standalone NVR Accessories









<b>Model</b>	<b>PMAx-1200</b>	<b>PMAx-1201</b>	<b>PMAx-1202</b>	<b>PMAx-1203</b>
<b>Product Type</b>	Standalone NVR Mount	Standalone NVR Mount	Standalone NVR Mount	Standalone NVR Mount
<b>Description</b>	19" Rackmount Rails	26" Rackmount Rails	19" Rackmount Rails	26" Rackmount Rails
<b>Supported Models</b>	GNR-320 / INR-330 / INR-410 / INR-420 / INR-430 / INR-460	GNR-320 / INR-330 / INR-410 / INR-420 / INR-430 / INR-460	ENR-180 / ENR-180P / ENR-190	ENR-180 / ENR-180P / ENR-190

### Controllers

<b>Model</b>	<b>PJSK-0100</b>
<b>Product Type</b>	Joystick
<b>Description</b>	USB joystick with 3 axis joysticks for PTZ control, 10 tactile pushbuttons and USB 1.1 interface
















# 2016 Camera Roadmap Matrix

## A / C / D / E Series

Product Type		Cube	Fisheye Cube	Box			Bullet			Mini Bullet	Mini Dome		Dome					Mini Fisheye Dome				
																						
Application Environment		Indoor	Indoor	Indoor/Outdoor			Outdoor			Outdoor	Indoor	Outdoor	Indoor			Outdoor			Indoor	Outdoor		
Lens		Fixed focal	Fixed focal	Fixed focal	Vari-focal	Zoom	Fixed focal	Vari-focal	Zoom	Fixed focal	Fixed focal	Fixed focal	Fixed focal	Vari-focal	Zoom	Fixed focal	Vari-focal	Zoom	Fixed focal	Fixed focal		
Day Only	Standard	1MP	D11 E11								D91 E91		D51 E51									
		1.3MP	C11W																			
		3MP	D12 E12A									D92 E92		D52								
		5MP	E13A	E15								E93	E920 E920M								E96	E921 E921M
		10MP	E14	E16								E97	E922 E922M								E98	E923 E923M
	Super Low Light	2MP									E95	E936 E936M		D62A E67A								
	Complicated Light	3MP									E913	E918 E918M										E919 E919M
Day & Night	Standard	1MP			D21FA E21FA	D21VA E21VA		D31 E31A	D41A E41 E41B				D54 E52	D64A E61A		D71A E71A	D81A E81A					
		3MP						D32 E32A	D42A E42B					D55 E53	D65A E62A		D72A E72A	D82A E82A				
		5MP			D22FA E22FA	D22VA E22VA	E213 (10x)	E33A	E43B	E413 (10x)			E924 E924M	E54	E63A	E616 (4.3x)	E73A	E83A	E815 (4.3x)		E925 E925M	
		10MP			E270	E271	E210 (4.3x)	E37	E48	E416 (4.3x)			E926 E926M	E59	E610	E617 (4.3x)	E77	E89	E816 (4.3x)		E927 E927M	
	Super Low Light	1.3MP							E47													
		2MP				E23B		E36	E44A					E58	E69		E76	E84A				
	Complicated Light	1MP							E45A						E64A			E85A				
		1.3MP														E621 (4.3x)			E822 (4.3x)			
		3MP				E24A	E215 (10x)	E34A	E46A	E415 (10x)			E928 E928M	E56	E65A	E618 (4.3x)	E74A	E86A	E817 (4.3x)		E929 E929M	
	Complicated and Super Low Light	2MP			E217	E222	E219 (10x)			E417 (10x) A43 (4.3x)	E38		E933 E933M				E78		A83 (4.3x)			
		3MP								A41 (4.3x)									A81 (4.3x)			
		5MP			A22	A24				A42 (2.8x)									A82 (2.8x)			

# 2016 Camera Roadmap Matrix

## KCM / B / I / Q Series

Product Type			In-Wall Box	Micro Box	Zoom Box		Zoom Bullet	Thermal Bullet	Mini Dome		Dome		Fisheye Dome	Hemispheric Dome		Mini PTZ	PTZ		Speed Dome	Covert	Fisheye Covert	L-Shape Pinhole Covert	Pinhole Covert		
																									
Application Environment			Outdoor	Outdoor	Indoor/Outdoor	Outdoor	Outdoor	Outdoor	Indoor	Outdoor	Indoor		Outdoor	Indoor	Indoor	Outdoor	Outdoor	Indoor	Outdoor	Indoor	Indoor	Indoor	Indoor		
Lens			Fixed focal	Fixed focal	Zoom	Zoom	Zoom	Fixed focal	Fixed focal	Fixed focal	Fixed focal	Zoom	Fixed focal	Fixed focal	Fixed focal	Zoom	Zoom	Zoom	Zoom	Zoom	Fixed focal	Fixed focal	Fixed focal	Fixed focal	
Day Only	Standard	5MP																			Q110 Q19	Q111	Q115	Q112 Q112-K1	
	Super Low Light	2MP		Q22 Q22-K1					Q91												Q11 Q12	Q13	Q113	Q14 Q14-K1	
	Complicated Light	0.46MP					Q31																		
Day & Night	Standard	4MP										KCM-7111													
		5MP			B21 (12x) B22 (10x)		B41 (12x) B46 (12x)			B51	B61 (3x) B62 (2.4x)		B81 (3x) B82 (2.4x)	B54											
		10MP			B210 (10x)		B410 (10x)			B52				B55											
	Super Low Light	1.3MP			B24 (10x)		B44 (10x)				B64 (3x)		B84 (3x)												
		2MP			B25 (10x)		B45 (10x)				B65 (3x)		B85 (3x)												
	Complicated Light	3MP			B27 (12x)		B47 (12x) B49 (12x)			B53	B67 (3x)		B87 (3x)	B56											
		1MP			I24 (30x)														191 (30x)	193 (30x)		195 (30x)			
	Complicated Light and Super Low Light	2MP			B214 (20x) B215 (30x) I28 (33x) I25 (30x)	KCM-5511 (22x) KCM-5611 (18x)	B415 (20x) B416 (30x) I45 (30x) I48 (30x)		Q92		B63 (3x) Q61 (3x)		B83 (3x) Q81 (3x)						192 (30x)	KCM-8211 (18x) I94 (30x)	B934 (30x)	B916 (20x) B917 (30x) B945 (20x) B949 (30x) I96 (30x) I97 (30x) I98 (33x)			
		3MP	Q250																B914 (10x)						
		4MP			I27 (30x)	KCM-5211E (18x)	I47 (30x)					KCM-3311 (3.6x)		KCM-7311 (3.6x)					1912 (33x)			1910 (33x)			
		5MP														I51	I71								
		6MP														B57 Q51	B77 I73								
8MP															B59	B74									
12MP															B511	B76									

Available Now

Available in Q4, 2016

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## ACTi Corporation

ACTi Corporation is an end-to-end IP video surveillance solution provider, covering all the way from Security to Business management solutions. The core value of ACTi is to deliver these solutions through in-house developed technologies applied to its whole product line. The products include IP cameras, video management software and video analytics that are seamlessly unified. These solutions are customized for all markets through the comprehensive support of pre-sales and post-sales service tools and utilities and a 24/7 Technical support worldwide.

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