



Product Brochure

IP Surveillance Solutions



A Leading IP Surveillance Solution Provider

VIVOTEK Inc. (TAIEX: 3454) was founded in Taiwan in 2000. The Company markets VIVOTEK solutions worldwide, and has become a leading brand in the global IP surveillance industry. Its comprehensive solutions include network cameras, video servers, network video recorders, PoE solutions, and video management software. Through the growing proliferation of IoT, VIVOTEK aspires to become the Eye in IoT by drawing on its expansive technological capabilities in image and audio.

The Company has established offices and subsidiaries in the United States (California), Europe (Netherlands), India (Delhi), Middle East (Dubai), Latin America (Mexico) and Japan in 2008, 2013, 2014, 2015, 2016, and 2017, respectively. To create a sound industrial ecosystem, VIVOTEK has expanded strategic alliances with leading international software and hardware partners and works with over 183 authorized distributors across 116 countries.



CONVERGENCE of
Video, VOice and COmmunication TEKnology



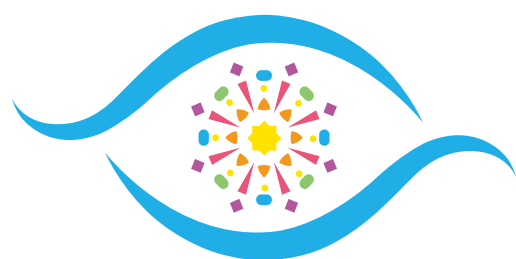
Environmental Commitment

With the increasing environmental challenges of our time, VIVOTEK is deeply aware of the importance of coexisting with the environment for sustainable development. VIVOTEK has implemented a comprehensive, eco-friendly manufacturing policy applied to the product design, component selection, production,

quality testing, packaging and shipping processes, effectively minimizing our carbon footprint on the environment. Together, we can be responsible stewards of a vibrant and sustainable future.

Green Design Guidelines

- Eliminating the use of hazardous substances (HSF)
- Easy disassembly and recycling (WEEE)
- Eco-design (ErP)



See More in Smarter Ways

"See More in Smarter Ways", shoulders the responsibility of safeguarding of the world and empowering business enterprises to discover customer insights through its intelligent solutions. In this commitment, VIVOTEK

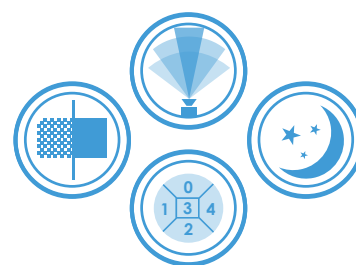
develops smart technology with advanced content analysis and superior product capabilities to stay ahead of the game. In 2019, we are pleased to present the following solutions:



Cybersecurity
Management Solution



Intelligent VCA



Advanced Technology



180° Solution



360° Solution



Multi-Sensor Solution

Contents

Network Cameras	6	Accessories	49
Box Cameras		Mounting Installation	
Bullet Cameras		SIA	62
Thermal Bullet Cameras		Software	64
Zoom Lens Cameras		Video Management Software	
Fixed Dome Cameras		Application Software	
Corner Cameras		Cloud Service	68
180° Panoramic Cameras		VIVOCLOUD	
360° Fisheye Cameras		See More in Smarter Ways	70
Multi-Sensor Cameras		Cybersecurity	
Mobile Dome Cameras		Intelligent VCA	
Speed Dome Cameras		Advanced Technology	
Split-type Camera System		180° Solutions	
Naming Rule		360° Solutions	
Video Servers	36	Multi-Sensor Solutions	
Video Receivers	36	LPR Solution	
Network Video Recorders	37		
PoE Solution	40		
Outdoor VivoCam L2+ Managed PoE Switch			
Outdoor Unmanaged PoE Switch			
Industrial VivoCam L2+ Managed PoE Switch			
VivoCam L2+ Managed PoE Switch			
Commercial Series			
Industrial Series			
Cabinet			
PoE Accessories			

Network Cameras

Network Cameras

Form Factor	Box Cameras				Box Cameras		
Video Resolution	2 Megapixel				2 Megapixel		
	 	   	   	   	   	   	   
Model Name	IP8166	IP9165-HP	IP9165-HT	IP9165-LPC	IP9165-LPC Kit	IP9167-HP	IP9167-HT
Summary	2MP, 30fps, H.264/MJPEG, SNV*, Smart Stream II	2MP, 60fps, H.265/H.264/MJPEG, P-iris, WDR Pro II, Smart Stream III, SNV II*	2MP, 60fps, H.265/H.264/MJPEG, i-CS*, P-iris, WDR Pro II, Smart Stream III, SNV II*	2MP, 60fps, H.265/H.264/MJPEG, i-CS*, P-iris, WDR Pro II, Smart Stream III, SNV II*	License Plate Capture, Dual Lanes, Anti-Glare, 110MPH (180 km/h), Scene Overview, Remote Back Focus, DIS, i-CS*	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III
Sensor Type	1/2.8" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2.8" Progressive CMOS	1/2.8" Progressive CMOS
Lens Type	Vari-focal	Vari-focal Remote Back Focus	Vari-focal Remote Back Focus i-CS	Vari-focal Remote Back Focus i-CS	Vari-focal Remote Back Focus i-CS	Vari-focal Manual Focus CS-mount	Vari-focal Remote Focus CS-mount
F-number	F1.4 ~ F2.4	F1.5 ~ F2.8	F1.5 ~ F2.7	F1.5 ~ F1.6 [IP9165-LPC (9-50mm)] F1.8 ~ F2.3 [IP9165-LPC (12-40mm)]	F1.5 ~ F1.6 [IP9165-LPC (9-50mm)] F1.8 ~ F2.3 [IP9165-LPC (12-40mm)]	-	F1.6 ~ F2.97 [IP9167-HT(2.8-10mm)] F1.8 ~ F2.3 [IP9167-HT(12-40 mm)]
Focal Length	f = 2.8 ~ 12 mm	f = 3.6 ~ 17 mm	f = 3.9 ~ 10 mm	f = 9 ~ 50 mm [IP9165-LPC (9-50mm)] f = 12 ~ 40 mm [IP9165-LPC (12-40mm)]	f = 9 ~ 50 mm [IP9165-LPC (9-50mm)] f = 12 ~ 40 mm [IP9165-LPC (12-40mm)]	-	f = 2.8 ~ 10 mm [IP9167-HT(2.8-10mm)] f = 12 ~ 40 mm [IP9167-HT(12-40mm)]
Field of View	38° ~ 101° (H) 21° ~ 63° (V)	28° ~ 100° (H) 16° ~ 55° (V)	42.7° ~ 110° (H) 23.9° ~ 58.5° (V)	IP9165-LPC (9-50mm): 8.3° ~ 42.8° (H), 4.7° ~ 24.3° (V) IP9165-LPC (12-40mm): 11.6° ~ 34.2° (H), 6.6° ~ 18.7° (V)	11.6° ~ 34.2° (H) 6.6° ~ 18.7° (V)	-	IP9167-HT(2.8-10 mm): 35° ~ 105° (H), 20° ~ 55° (V) IP9167-HT(12-40 mm): 10° ~ 26° (H), 6° ~ 14° (V)
Auto-iris	DC-iris (P-iris reserved)	P-iris (DC-iris reserved)	i-CS (P-iris/DC-iris reserved)	i-CS [IP9165-LPC (9-50mm)] P-iris [IP9165-LPC (12-40mm)] (i-CS/P-iris/DC-iris all reserved)	i-CS [IP9165-LPC (9-50mm)] P-iris [IP9165-LPC (12-40mm)] (i-CS/P-iris/DC-iris all reserved)	P-iris (DC-iris reserved)	P-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	-	-	-	-	External IR Illuminator (CA8018-2040/ CM4818-2040/ AI-109)	-	-
Min. Illumination	0.08 Lux @ F1.4 (Color) 0.001 Lux @ F1.4 (B/W)	0.01 Lux @ F1.5 (Color) 0.005 Lux @ F1.5 (B/W)	0.01 Lux @ F1.5 (Color) 0.005 Lux @ F1.5 (B/W)	IP9165-LPC (9-50mm): 0.01 Lux @ F1.5 IP9165-LPC (12-40mm): 0.08 Lux @ F1.8	IR Threshold: 300 Lux @ IR On 600 Lux @ IR Off RS485 configurable	-	0.07 Lux @ F1.6 (Color) 0.001 Lux @ F1.6 (B/W)
Max. Video Resolution	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	30 fps@ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	30 fps @ 1920x1080	30 fps @ 1920x1080
Video Compression	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams	3 Streams	3 Streams
WDR Technology*	WDR Enhanced	WDR Pro II	WDR Pro II	WDR Pro II	WDR Pro II	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App
Trend Micro IoT Security	Yes	Yes	Yes	Yes	-	Yes	Yes
Power Input	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V AC 24V PoE	AC 24V / DC24V	DC 12V PoE	DC 12V PoE
Power Consumption	Max. 6.8 W	Max. 9 W (DC12V) Max. 18 W (AC 24V) Max. 9.06 W (PoE)	Max. 9 W (DC12V) Max. 18 W (AC 24V) Max. 9.06 W (PoE)	Max. 9 W (DC12V) Max. 18 W (AC 24V) Max. 9.06 W (PoE)	Highway Kit (CA8018-2040): Max. 110W, Suggested Power: AC24V or DC24V/5A Street/Street-A Kit (CM4818-2040/AI-109): Max. 78W, Suggested Power: AC24V or DC24V/3.5A	Max. 6.5 W	Max. 6.5 W
Digital Input / Output	3/1	2/2	2/2	2/2	2/2	2/2	2/2
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	SD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot
Housing	-	-	-	-	IP68, IK10	-	-
Dimensions	193 (D) x 70 (W) x 61 (H) mm	151 (D) x 70 (W) x 61 (H) mm (w/o lens) 227 (D) x 70 (W) x 61 (H) mm (w/ lens)	151 (D) x 70 (W) x 61 (H) mm (w/o lens) 210 (D) x 70 (W) x 61 (H) mm (w/ lens)	255 (D) x 70 (W) x 64 (H) mm (9-50mm) 203 (D) x 70 (W) x 61 (H) mm (12-40mm)	Street/Highway Kit: 503 (D) x 170 (W) x 400 (H) mm Street-A Kit: 503 (D) x 170 (W) x 365 (H) mm	151 (D) x 70 (W) x 61 (H) mm	188 (D) x 70 (W) x 61 (H) mm (2.8~10mm) 205 (D) x 70 (W) x 61 (H) mm (12~40mm)
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F) -40°C ~ 60°C (-40°F ~ 140°F), with optional cold start heater	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.

*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.

*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.

*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Box Cameras			Box Cameras	Bullet Cameras		
Video Resolution	3 Megapixel		5 Megapixel	8 Megapixel	2 Megapixel		
	      						
Model Name	IP9171-HP	IP9172-LPC (Freeway)	IP9181-H	IP9191-HP IP9191-HT	IB9360-H	IB9365-HT IB9365-EHT	IB9367-H IB9367-EH
Summary	3MP, 30fps, H.265/H.264/MJPEG, Remote Back Focus, SNV*, WDR Pro, Smart Stream III	License Plate Capture, 155MPH (250 km/h), Global Shutter Sensor, Pulse Mode IR, Auto Exposure Bracketing (AEB), Pre-Assembled Kit	5MP, 30fps, H.265/H.264/MJPEG, Remote Back Focus, SNV*, WDR Pro, Smart Stream III	8MP/30fps, 2MP/120fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, i-CS*	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	2MP, 60fps, H.265/H.264/MJPEG, P-iris, WDR Pro II, Smart Stream III, SNV II*, Remote Focus, Smart IR II, Smart Motion Detection	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Cable Management
Sensor Type	1/2.8" Progressive CMOS	1/1.8" Global Shutter CMOS	1/1.8" Progressive CMOS	1/2" Progressive CMOS	1/2.8" Progressive CMOS	1/2" Progressive CMOS	1/2.8" progressive CMOS
Lens Type	Vari-focal Remote Back Focus	Vari-focal Remote Focus CS-mount	Vari-focal Remote Back Focus	Vari-focal Remote Back Focus i-CS (IP9191-HT)	Fixed-focal	Vari-focal Remote Focus	Fixed-focal
F-number	F1.2 ~ F1.95	F1.8 ~ F2.3	F1.6 ~ F2.4	F1.5 ~ F2.7	F2.0	F1.3 ~ F2.2	F1.6
Focal Length	f = 2.8 ~ 8 mm	f = 12 ~ 40 mm	f = 4.1 ~ 9 mm	f = 3.9 ~ 10 mm	f = 3.6 mm	f = 4 ~ 9 mm f = 3.5 ~ 11.4 mm (equivalent focal length @ 1/2.8)	f = 3.6 mm
Field of View	51° ~ 114° (H) 39° ~ 84° (V)	12.3° ~ 35.8° (H) 9.8° ~ 26.3° (V)	46° ~ 90° (H) 35° ~ 68° (V)	45° ~ 119° (H) 25° ~ 63° (V)	81° (H) 44° (V)	46° ~ 100° (H) 26° ~ 52° (V)	88° (H) 47° (V)
Auto-iris	P-iris (DC-iris reserved)	P-iris	DC-iris (P-iris reserved)	P-iris (IP9191-HP) i-CS (IP9191-HT) (DC-iris reserved)	Fixed-iris	P-iris	-
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	-	External IR Illuminator (CF2418-2040)	-	-	30m	50 m, IR LED*5	30 m, IR LED*2
Min. Illumination	0.01 Lux @ F1.2 (Color) 0.001 Lux @ F1.2 (B/W)	IR Threshold: 300 Lux @ IR On 600 Lux @ IR Off RS485 configurable	0.07 Lux @ F1.6 (Color) 0.001 Lux @ F1.6 (B/W)	0.02 Lux @ F1.5 (Color) 0.1 Lux @ F1.5 (B/W)	TBD	0.04 Lux @ F1.3 (Color), 50IRE 0.002 Lux @ F1.3 (Color), 30IRE 0 Lux with IR illumination on	0.07 Lux @ F1.6 (Color) 0.001 Lux @ F1.6 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	2048x1536 (3MP)	2048x1536 (3MP)	2560x1920 (5MP)	3840x2160 (8MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	H.265/H.264: 30 fps @ 2048x1536 MJPEG: 15 fps @ 2048x1536	55 fps @ 2048x1536, AEB off 60 fps @ 1920x1080, AEB off 30 fps @ 1920x1080, AEB on	H.265/H.264: 30 fps @ 2560x1920, 60 fps @ 1920x1080 MJPEG: 12 fps @ 2560x1920, 30 fps @ 1920x1080	30 fps @ 3840x2160 120 fps @ 1920x1080 (WDR Pro off)	30 fps @ 1920x1080	60 fps @ 1920x1080	30 fps @ 1920x1080
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	4 Streams	3 Streams	3 Streams	4 Streams	3 Streams
WDR Technology*	WDR Pro	-	WDR Pro	WDR Pro	WDR Pro	WDR Pro II	WDR Pro
3DNR	Yes	-	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	-	TBD	-	VIVOCLOUD App
Trend Micro IoT Security	-	Yes	-	Yes	Yes	Yes	Yes
Power Input	DC 12V AC 24V PoE	DC 24V AC 24V	DC 12V AC 24V PoE	DC 12V AC 24V PoE	PoE	AC 24V DC 12V PoE	DC 12V PoE
Power Consumption	Max. 8.6 W	-20°C ~ 60°C (-4°F ~ 140°F): Max. 60W, Suggested Power: AC24V or DC24V/3A -40°C ~ 60°C (-40°F ~ 140°F): Max. 100W, Suggested Power: AC24V or DC24V/5A	Max. 9.7 W	Max. 12 W	TBD	IB93665-HT: Max. 11.9 W IB9365-EHT: Max. 24.8 W (Heater on)	IB9367-H: Max. 7 W IB9367-EH: Max. 24 W (Heater on)
Digital Input / Output	3/1	2/1	3/1	2/2	-	2/2	1/1
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	-	Two-way Audio (full duplex)	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	-	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot
Housing	-	IP68, IK10	-	-	IP66, IK10 (Metal housing)	IP66, IK10, NEMA 4X	IP66, IP67, IK10 (Metal housing)
Dimensions	210 (D) x 70 (W) x 63 (H) mm	503 (D) x 170 (W) x 400 (H) mm	210 (D) x 70 (W) x 63 (H) mm	209 (D) x 70 (W) x 61 (H) mm (-HP) 210 (D) x 70 (W) x 61 (H) mm (-HT)	Ø 91 x 177mm	415 x 121 x 121 mm (w/ junction box)	266 x 118 x 118 mm
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 60°C (-4°F ~ 140°F) -40°C ~ 60°C (-40°F ~ 140°F), with cold start heater	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	TBD	-30°C ~ 50°C (-22°F ~ 122°F) (-HT) -50°C ~ 50°C (-58°F ~ 122°F) (-EHT)	-20°C ~ 50°C (-4°F ~ 122°F) (-H) -50°C ~ 50°C (-58°F ~ 122°F) (-EH)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.
*AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Bullet Cameras			Bullet Cameras			
Video Resolution	2 Megapixel		3 Megapixel	4 Megapixel	5 Megapixel		
	 H.265 SNV WDR	 H.265 SNV WDR Coming Soon	 H.265 SNV WDR	 SNV WDR	 H.265 SNV WDR Coming Soon	 H.265 SNV WDR	 H.265 SNV WDR
Model Name	IB9367-HT IB9367-EHT	IB9368-HT	IB9371-HT IB9371-EHT	IB8377-HT IB8377-EHT	IB9380-H	IB9381-HT IB9381-EHT	IB9387-H IB9387-EH
Summary	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Remote Focus, Smart IR II	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	3MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III, Cable Management	4MP, 30fps, H.264/MJPEG, WDR Pro, Smart Stream II, Remote Focus, Smart IR II	5MP, 20fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	5MP, 30fps, H.265H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III, Cable Management	5MP, 30fps, H.265H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR, Smart Motion Detection
Sensor Type	1/2.8" progressive CMOS	1/2.8" Progressive CMOS	1/2.8" progressive CMOS	1/3" progressive CMOS	1/2.7" Progressive CMOS	1/1.8" Progressive CMOS	1/2.7" Progressive CMOS
Lens Type	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus	Fixed-focal
F-number	F1.4 ~ F2.8	F1.4 ~ F2.8	F1.2 ~ F2.3	F1.4 ~ F2.8	F2.0	F1.3 ~ F2.2	F2.0
Focal Length	f = 2.8 ~ 12 mm	f = 2.8 ~ 12 mm	f = 3 ~ 9 mm	f = 2.8 ~ 12 mm	f = 3.6 mm	f = 4 ~ 9 mm	f = 3.6 mm
Field of View	33° ~ 97° (H) 19° ~ 53° (V)	32 ~ 93° (H)	39° ~ 82° (H) 29° ~ 60° (V)	32° ~ 93° (H) 18° ~ 50° (V)	76° (H) 59° (V)	45° ~ 84° (H) 34° ~ 62° (V)	76° (H) 56° (V)
Auto-iris	P-iris	Fixed-iris	P-iris	P-iris	Fixed-iris	P-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30 m, IR LED*5	30m	30 m, IR LED*8	30 m, IR LED*5	30m	30 m, IR LED*8	30m, IR LED*2
Min. Illumination	0.07 Lux @ F1.4 (Color) 0.001 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	TBD	0.01 Lux @ F1.2 (Color) 0.001 Lux @ F1.2 (B/W) 0 Lux with IR illumination on	0.1 Lux @ F1.4 (Color) 0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	TBD	0.04 Lux @ F1.3 (Color) 0.001 Lux @ F1.3 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F2.0 (Color) <0.01 lux, F2.0 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	1920x1080 (2MP)	1920x1080 (2MP)	2048x1536 (3MP)	2688x1520 (4MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)
Frames per Second	30 fps @ 1920x1080	30 fps @ 1920x1080	H.265/H.264: 30 fps@ 2048x1536 MJPEG: 15 fps@ 2048x1536	30 fps @ 2688x1520 (WDR Pro off) 24 fps @ 2560x1440	20 fps @ 2560x1920	H.265/H.264: 30 fps @ 2560x1920, 60 fps @ 1920x1080 MJPEG: 12 fps @ 2560x1920, 30 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams	4 Streams	3 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro (supports up to 3.6MP)	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD App	TBD	VIVOCLOUD App	-	TBD	VIVOCLOUD App	VIVOCLOUD App
Trend Micro IoT Security	Yes	Yes	-	-	Yes	-	Yes
Power Input	DC 12V PoE	PoE	DC 12V PoE	DC 12V PoE	PoE	DC 12V PoE	AC 24V (optional) DC 12V PoE (Redundant Power)
Power Consumption	IB9367-HT: Max. 12 W IB9367-EHT: Max. 24 W (Heater on)	TBD	IB9371-HT: Max. 11 W IB9371-EHT: Max. 23.6 W (Heater on)	IB8377-HT: Max. 12 W IB8377-EHT: Max. 24 W (Heater on)	TBD	IB9381-HT: Max. 12.7 W IB9381-EHT: Max. 25.5 W (Heater on)	IB9387-H: Max. 8 W IB9387-EH: Max. 19.3 W
Digital Input / Output	1/1	-	1/1	1/1	-	1/1	1/1
Audio	Two-way Audio (full duplex)	-	Two-way Audio (full duplex)	Two-way Audio (full duplex)	-	Two-way Audio (full duplex)	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	-	G.711, G.726	G.711, G.726	-	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/\$DHC/\$DXC card slot	MicroSD/\$DHC/\$DXC card slot	SD/\$DHC/\$DXC card slot	MicroSD/\$DHC/\$DXC card slot	MicroSD/\$DHC/\$DXC card slot	SD/\$DHC/\$DXC Card Slot	MicroSD/\$DHC/\$DXC Card Slot
Housing	IP66, IP67, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)
Dimensions	294 x 118 x 118 mm	85 x 85 x 216mm	Ø 88 x 293 mm	294 x 118 x 118 mm	Ø 91 x 177 mm	Ø 88 x 293 mm	118 x 118 x 266 mm
Operating Temperature	-30°C ~ 50°C (-22°F ~ 122°F) (-HT) -50°C ~ 50°C (-58°F ~ 122°F) (-EHT)	TBD	-20°C ~ 50°C (-4°F ~ 122°F) (-HT) -50°C ~ 50°C (-58°F ~ 122°F) (-EHT)	-30°C ~ 50°C (-22°F ~ 122°F) (-HT) -50°C ~ 50°C (-58°F ~ 122°F) (-EHT)	TBD	-20°C ~ 50°C (-4°F ~ 122°F) (-HT) -50°C ~ 50°C (-58°F ~ 122°F) (-EHT)	-30°C ~ 60°C (-22°F ~ 140°F) (-H) -50°C ~ 60°C (-58°F ~ 140°F) (-EH)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.

*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.

*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.

*I-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Bullet Cameras			Bullet Cameras		Thermal Bullet Cameras	
Video Resolution	5 Megapixel			5 Megapixel	8 Megapixel		
							
Model Name	IB9387-HT IB9387-EHT	IB9387-LPR	IB9388-HT	IB9389-H IB9389-EH	IB9391-EHT	TB9330-E	TB9331-E
Summary	5MP, 30fps, H.265H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR II, Smart Motion Detection	5MP, 30fps, H.265/H.264/MJPEG, Embedded LPR, SNV*, WDR Pro, Smart Stream III, Smart IR II	5MP, 20fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III	5MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR	8MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III, Smart Motion Detection	384x256, NETD<50mk, H.265, EN50121-4	720x480, NETD<50mk, H.265, EN50121-4
Sensor Type	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2" Progressive CMOS	Uncooled Vox Infrared Detector	Uncooled Vox Infrared Detector
Lens Type	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus	Fixed Focal (Thermal Lens)	Fixed Focal (Thermal Lens)
F-number	F1.4 ~ F2.8	F1.4 ~ F2.8	F1.4 ~ F2.8	F2.0	F1.5 ~ F2.7	F1.0	F1.0
Focal Length	f = 2.7 ~ 13.5 mm	f = 2.7 ~ 13.5 mm	f = 2.8 ~ 12 mm	f = 3.6 mm	f = 3.9 ~ 10 mm	f = 8.8 mm, f = 19 mm f = 35 mm, f = 50 mm	f = 8.8 mm, f = 19 mm f = 35 mm, f = 50 mm
Field of View	30° ~ 100° (H) 23° ~ 72° (V)	30° ~ 100° (H) 23° ~ 72° (V)	30°~ 88° (H)	76° (H) 56° (V)	45° ~ 95° (H) 25° ~ 52° (V)	38.3° (H), 26.1° (V) [TB9330-E(8.8mm)] 18.3° (H), 12.3° (V) [TB9330-E(19mm)] 10° (H), 6.7° (V) [TB9330-E(35mm)] 7° (H), 4.7° (V) [TB9330-E(50mm)]	69.6° (H), 49.7° (V) [TB9331-E(8.8mm)] 35.7° (H), 24.2° (V) [TB9331-E(19mm)] 19.8° (H), 13.3° (V) [TB9331-E(35mm)] 14° (H), 9.3° (V) [TB9331-E(50mm)]
Auto-iris	P-iris	P-iris	Fixed-iris	Fixed-iris	P-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	-	-
IR Illuminators	50m, IR LED*6	50m, IR LED*6	30m	30m	50m, IR LED*5	-	-
Min. Illumination	0.06 Lux @ F1.4 (Color) <0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F1.4 (Color) <0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	TBD	0.06 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.02 Lux @ F1.5 (Color) 0.01 Lux @ F1.5 (B/W) 0 Lux with IR illumination on	-	-
Max. Video Resolution	2560x1920 (5MP)	2560x1920 (5MP) 1920x1080 (2MP) for LPR software	2560x1920 (5MP)	2560x1920 (5MP)	3840x2160 (8MP)	-	-
Frames per Second	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	20 fps @ 2560x1920	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 3840x2160 (WDR Pro on) 120 fps @ 1920x1080 (WDR Pro off)	30 fps @ 384x256	30 fps @ 720x480
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams	4 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	-	-
3DNR	Yes	Yes	Yes	Yes	Yes	-	-
Cloud Service	VIVOCLOUD App	-	TBD	VIVOCLOUD App	-	-	-
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Input	AC 24V (optional) DC 12V PoE (Redundant Power)	AC 24V (optional) DC 12V PoE (Redundant Power)	PoE	PoE	AC 24V DC 12V PoE	AC 24V (Redundant Power) DC 12V PoE	AC 24V (Redundant Power) DC 12V PoE
Power Consumption	IB9387-HT: Max. 12 W IB9387-EHT: Max. 23.3 W	Max. 12 W	TBD	IB9389-H: Max. 8 W (IR on) Max. 5.5 W (IR off) IB9389-EH: Max. 19.2 W (Heater on) Max. 8 W (Heater off)	Max. 25 W	Max. 12.5 W (Heater on)	Max. 14 W (Heater on)
Digital Input / Output	1/1	1/1	-	-	1/1	1/1	1/1
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	-	-	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	G.711, G.726	-	-	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot Built-in 16GB MicroSD card for LPR images	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot
Housing	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing), NEMA 4X	IP66, IP67, IK10, NEMA 4X	IP66, IP67, IK10, NEMA 4X
Dimensions	118 x 118 x 294 mm	118 x 118 x 294 mm	85 x 85 x 216 mm	Ø 86 x 300 mm	121 x 121 x 394 mm (w/ junction box) 118 x 118 x 333 mm (w/o junction box)	w/ junction box: 121 x 121 x 472 mm (8.8mm) 121 x 121 x 453 mm (19mm) 121 x 121 x 456 mm (35/50mm)	w/ junction box: 121 x 121 x 472 mm (8.8mm) 121 x 121 x 453 mm (19mm) 121 x 121 x 456 mm (35/50mm)
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F) (-HT) -50°C ~ 60°C (-58°F ~ 140°F) (-EHT)	-30°C ~ 60°C (-22°F ~ 140°F) (-HT) -50°C ~ 60°C (-58°F ~ 140°F) (-EHT)	TBD	-30°C ~ 60°C (-22°F ~ 140°F) (-H) -50°C ~ 60°C (-58°F ~ 140°F) (-EH)	Working Temperature (IR off): -50°C ~ 60°C (-58°F ~ 140°F) Working Temperature (IR on): -50°C ~ 50°C (-58°F ~ 122°F)	-50°C ~ 60°C (-58°F ~ 140°F)	-50°C ~ 60°C (-58°F ~ 140°F)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Zoom Lens Camera	Fixed Dome Cameras			Fixed Dome Cameras		
Video Resolution	2 Megapixel	2 Megapixel			2 Megapixel		
 H.265 WDR  SNV  SNV   WDR  H.265 SNV WDR Coming Soon  H.265 SNV WDR Coming Soon							
Model Name	IZ9361-EH	FD8166A	FD8166A-N	FD8366-V	FD816CA-HF2	FD9360-H	IT9360-H
Summary	2MP, 60fps, 150M Smart IR II, H.265/H.264/MJPEG, 20x, WDR Pro, Smart Stream II, IP67, NEMA 4X	2MP, 30fps, H.264/MJPEG, SNV*, Smart Stream II, Compact Size	2MP, 30fps, H.264/MJPEG, SNV*, Invisible IR, Smart Stream II, Compact Size	2MP, 30fps, H.264/MJPEG, 15 m IR, Smart Stream II, Compact Size	2MP, 30fps, H.264/MJPEG, WDR Pro, Recessed-Mount, Ultra-mini Size	2MP, 30fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III	2MP, 30fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III
Sensor Type	1/3" Progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.7" progressive CMOS	1/2.8" Progressive CMOS	1/2.8" Progressive CMOS
Lens Type	20x Optical Zoom Auto Focus	Fixed-focal	Fixed-focal	Fixed-focal	Fixed Focal	Fixed-focal	Fixed-focal
F-number	F1.6 ~ F3.5	F1.8 [FD8166A(2.8mm)] F2.1 [FD8166A(3.6mm)]	F1.8	F1.8 [FD8366-V(2.8mm)] F2.1 [FD8366-V(3.6mm)]	F1.8	F2.0	F2.0
Focal Length	f = 4.7 ~ 94 mm	f = 2.8 mm [FD8166A(2.8mm)] f = 3.6 mm [FD8166A(3.6mm)]	f = 2.8 mm	f = 2.8 mm [FD8366-V(2.8mm)] f = 3.6 mm [FD8366-V(3.6mm)]	f = 2.8 mm	f = 3.6 mm	f = 3.6 mm
Field of View	2.9° ~ 55.4° (H) 1.6° ~ 32.6° (V)	113° (H), 63° (V) [FD8166A(2.8mm)] 83° (H), 44° (V) [FD8166A(3.6mm)]	113° (H) 63° (V)	113° (H), 63° (V) [FD8366-V(2.8mm)] 77° (H), 41° (V) [FD8366-V(3.6mm)]	122° (H) 66° (V)	81° (H) 44° (V)	81° (H) 44° (V)
Auto-iris	DC-iris	-	-	-	-	Fixed-iris	Fixed-iris
Day/Night	Yes	-	-	Yes	-	Yes	Yes
IR Illuminators	150 m	-	6 m	15 m	-	30m	30m
Min. Illumination	0.26 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on	0.05 Lux @ F1.8 [FD8166A(2.8mm)] 0.06 Lux @ F2.1 [FD8166A(3.6mm)]	0.05 Lux @ F1.8 (Color) 0.001 Lux @ F1.8 (B/W) 0 Lux with IR illumination on	FD8366-V(2.8mm): 0.16 Lux @ F1.8 (Color) < 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on FD8366-V(3.6mm): 0.18 Lux @ F2.1 (Color) < 0.01 Lux @ F2.1 (B/W) 0 Lux with IR illumination on	0.15 Lux @ F1.8 (Color) <0.01 Lux @ F1.8 (B/W)	TBD	TBD
Max. Video Resolution	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	H.265/H.264: 60 fps @ 1920x1080 MJPEG: 30 fps @ 1920x1080	30 fps@ 1920x1080	30 fps@ 1920x1080	30 fps@ 1920x1080	30 fps @ 1920x1080	30 fps @ 1920x1080	30 fps @ 1920x1080
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	4 Streams	4 Streams	3 Streams	3 Streams	3 Streams
WDR Technology*	WDR Pro	WDR Enhanced	WDR Enhanced	WDR Enhanced	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	-	VIVOCLOUD App	VIVOCLOUD App	-	VIVOCLOUD App	TBD	TBD
Trend Micro IoT Security	-	Yes	Yes	Yes	Yes	Yes	Yes
Power Input	60W UPoE DC 24V AC 24V	PoE	PoE	PoE	PoE	PoE	PoE
Power Consumption	Max. 48/18 W (Heater on/off)	Max. 3 W	Max. 4.75 W	Max. 5.3 W	Max. 3.3 W	TBD	TBD
Digital Input / Output	3/1	1/0	-	-	-	-	-
Audio	Two-way Audio (full duplex)	One-way Audio	One-way Audio	One-way Audio	One-way Audio	-	One-way Audio
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	-	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	SD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot
Housing	IP67, IK10, NEMA 4X	-	-	IP66, IK10, NEMA 4X	-	IP66, IK10 (Metal housing)	TBD
Dimensions	147 x 375 x 322 mm	Ø 90 x 50 mm	Ø 90 x 50 mm	Ø 110 x 57 mm	Ø 60 x 115 mm	Ø 117 x 90 mm	Ø 105 x 82 mm
Operating Temperature	-50°C ~ 60°C (-58°F ~ 140°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-25°C ~ 55°C (-13°F ~ 131°F)	-10°C ~ 45°C (14°F ~ 113°F)	TBD	TBD

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*I-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Fixed Dome Cameras			Fixed Dome Cameras			
Video Resolution	2 Megapixel			2 Megapixel			
							
Model Name	FD9165-HT	FD9365-HTV FD9365-EHTV	FD9365-HTVL	FD9167-H	FD9167-HT	FD9367-HV	FD9367-HTV FD9367-EHTV
Summary	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro II, SNV II*, Smart Stream III, Smart Motion Detection	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro II, SNV II*, Smart Stream III, Smart Motion Detection	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro II, SNV II*, Smart Stream III, Smart Motion Detection	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Remote Focus, Smart Stream III	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Remote Focus, Smart Stream III
Sensor Type	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS
Lens Type	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus
F-number	F1.3 ~ F2.2	F1.3 ~ F2.2	F1.3 ~ F2.2	F1.6	F1.4 ~ F2.8	F1.6	F1.4 ~ F2.8
Focal Length	f = 4 ~ 9 mm f = 2.8 ~ 11.4 mm (equivalent focal length @ 1/2.8)	f = 4 ~ 9 mm f = 2.8 ~ 11.4 mm (equivalent focal length @ 1/2.8)	f = 4 ~ 9 mm f = 2.8 ~ 11.4 mm (equivalent focal length @ 1/2.8)	f = 2.8 mm	f = 2.8 ~ 12 mm	f = 2.8 mm	f = 2.8 ~ 12 mm
Field of View	46° ~ 120° (H) 26° ~ 60° (V)	46° ~ 120° (H) 26° ~ 60° (V)	46° ~ 120° (H) 26° ~ 60° (V)	109° (H) 61° (V)	33° ~ 97° (H) 19° ~ 53° (V)	109° (H) 61° (V)	33° ~ 97° (H) 19° ~ 53° (V)
Auto-iris	P-iris	P-iris	P-iris	-	P-iris	-	P-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	50 m, IR LED*5	50 m, IR LED*5	50 m, IR LED*4	30 m, IR LED*2	30 m, IR LED*4	30 m, IR LED*2	30 m, IR LED*4
Min. Illumination	0.04 Lux @ F1.3 (Color), 50IRE 0.002 Lux @ F1.3 (Color), 30IRE 0 Lux with IR illumination on	0.04 Lux @ F1.3 (Color), 50IRE 0.002 Lux @ F1.3 (Color), 30IRE 0 Lux with IR illumination on	0.04 Lux @ F1.3 (Color), 50IRE 0.002 Lux @ F1.3 (Color), 30IRE 0 Lux with IR illumination on	0.07 Lux @ F1.6 (Color) 0.001 Lux @ F1.6 (B/W) 0 Lux with IR illumination on	0.07 Lux @ F1.4 (Color) 0.001 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.07 Lux @ F1.6 (Color) 0.001 Lux @ F1.6 (B/W) 0 Lux with IR illumination on	0.07 Lux @ F1.4 (Color) 0.001 Lux @ F1.4 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	60 fps@ 1920x1080	60 fps@ 1920x1080	60 fps@ 1920x1080	30 fps@ 1920x1080	30 fps@ 1920x1080	30 fps@ 1920x1080	30 fps@ 1920x1080
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	4 Streams	3 Streams	3 Streams	3 Streams	3 Streams
WDR Technology*	WDR Pro II	WDR Pro II	WDR Pro II	WDR Pro	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	-	-	-	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Input	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE
Power Consumption	Max. 10.7 W	FD9365-HTV: Max. 11.9 W FD9365-EHTV: Max. 24.8 W (Heater on)	Max. 20 W	Max. 7 W	Max. 10 W	Max. 7 W	FD9367-HTV: Max. 10 W FD9367-EHTV: Max. 25 W (Heater on)
Digital Input / Output	2/2	2/2	2/2	1/1	1/1	1/1	1/1
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot
Housing	-	IP66, IK10, NEMA 4X	IP66, IK10	-	-	IP66, IK10	IP66, IK10
Dimensions	Ø 139 x 104 mm	Ø 155 x 138 mm	Ø 155 x 104 mm	Ø 139 x 104 mm	Ø 139 x 104 mm	Ø 155 x 104 mm	Ø 155 x 104 mm
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-30°C ~ 50°C (-22°F ~ 122°F) (-HTV) -50°C ~ 50°C (-58°F ~ 122°F) (-EHTV)	-30°C ~ 50°C (-22°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)	-30°C ~ 50°C (-22°F ~ 122°F) (-HTV) -50°C ~ 50°C (-58°F ~ 122°F) (-EHTV)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*I-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Fixed Dome Cameras			Fixed Dome Cameras			
Video Resolution	2 Megapixel	3 Megapixel		4 Megapixel		5 Megapixel	
 H.265 SNV WDR Coming Soon  H.265 SNV WDR  H.265 SNV WDR  WDR  WDR  H.265 SNV WDR Coming Soon  H.265 SNV WDR Coming Soon							
Model Name	FD9368-HTV	FD9171-HT	FD9371-HTV FD9371-EHTV	FD8177-HT	FD8377-HTV FD8377-EHTV	FD9380-H	IT9380-H
Summary	2MP, 30fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III	3MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III, PIR	3MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III	4MP, 30fps, H.264/MJPEG, WDR Pro, Remote Focus, Smart Stream II	4MP, 30fps, H.264/MJPEG, WDR Pro, Remote Focus, Smart Stream II	5MP, 20fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III	5MP, 20fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III
Sensor Type	1/2.8" Progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/3" progressive CMOS	1/3" progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS
Lens Type	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Fixed-focal
F-number	F1.4 ~ F2.8	F1.2 ~ F2.3	F1.2 ~ F2.3	F1.4 ~ F2.8	F1.4 ~ F2.8	F2.0	F2.0
Focal Length	f = 2.8 ~ 12 mm	f= 3 ~ 9 mm	f= 3 ~ 9 mm	f = 2.8 ~ 12 mm	f = 2.8 ~ 12 mm	f = 3.6 mm	f = 3.6 mm
Field of View	32° ~ 93° (H)	41° ~ 86° (H) 31° ~ 64° (V)	41° ~ 86° (H) 31° ~ 64° (V)	32° ~ 93° (H) 18° ~ 50° (V)	32° ~ 93° (H) 18° ~ 50° (V)	76° (H) 59° (V)	76° (H) 59° (V)
Auto-iris	Fixed-iris	P-iris	P-iris	P-iris	P-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30m	30 m, IR LED*8	30 m, IR LED*8	30 m, IR LED*4	30 m, IR LED*4	30m	30m
Min. Illumination	TBD	0.01 Lux @ F1.2 (Color) 0.001 Lux @ F1.2 (B/W) 0 Lux with IR illumination on	0.01 Lux @ F1.2 (Color) 0.001 Lux @ F1.2 (B/W) 0 Lux with IR illumination on	0.1 Lux @ F1.4 (Color) 0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.1 Lux @ F1.4 (Color) 0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	TBD	TBD
Max. Video Resolution	1920x1080 (2MP)	2048x1536 (3MP)	2048x1536 (3MP)	2688x1520 (4MP)	2688x1520 (4MP)	2560x1920 (5MP)	2560x1920 (5MP)
Frames per Second	30 fps @ 1920x1080	H.265/H.264: 30 fps @ 2048x1536 MJPEG: 15 fps @ 2048x1536	H.265/H.264: 30 fps @ 2048x1536 MJPEG: 15 fps @ 2048x1536	30 fps @ 2688x1520 (WDR Pro off) 24 fps @ 2560x1440	30 fps @ 2688x1520 (WDR Pro off) 24 fps @ 2560x1440	20 fps @ 2560x1920	20 fps @ 2560x1920
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro (supports up to 3.6MP)	WDR Pro (supports up to 3.6MP)	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	TBD	VIVOCLOUD App	VIVOCLOUD App	-	-	TBD	TBD
Trend Micro IoT Security	Yes	-	-	-	-	Yes	Yes
Power Input	PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE	PoE	PoE
Power Consumption	TBD	Max. 12 W	FD9371-HTV: Max. 12 W FD9371-EHTV: Max. 24.7 W (Heater on)	Max. 11 W	FD8377-HTV: Max. 11 W FD8377-EHTV: Max. 23 W (Heater on)	TBD	TBD
Digital Input / Output	-	1/1	1/1	1/1	1/1	-	-
Audio	One-way Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	-	One-way Audio
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	-	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot
Housing	IP66, IK10	-	IP66, IK10	-	IP66, IK10	IP66, IK10 (Metal housing)	TBD
Dimensions	TBD	Ø 138 x 103 mm	Ø 155 x 103 mm	Ø 139 x 104 mm	Ø 155 x 104 mm	Ø 117 x 90 mm	Ø 105 x 82 mm
Operating Temperature	TBD	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F) (-HTV) -50°C ~ 50°C (-58°F ~ 122°F) (-EHTV)	-10°C ~ 50°C (14°F ~ 122°F) (IR off) -10°C ~ 40°C (14°F ~ 104°F) (IR on)	-30°C ~ 50°C (-22°F ~ 122°F) (-HTV) -50°C ~ 50°C (-58°F ~ 122°F) (-EHTV)	TBD	TBD

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Fixed Dome Cameras			Fixed Dome Cameras			
Video Resolution	5 Megapixel			5 Megapixel			
	 H.265 SNV WDR	 H.265 SNV WDR	 H.265 SNV WDR NEW	 H.265 SNV WDR NEW	 H.265 SNV WDR NEW	 H.265 SNV WDR NEW	 H.265 SNV WDR Coming Soon
Model Name	FD9181-HT	FD9381-HTV FD9381-EHTV	FD9187-H	FD9187-HT	FD9387-HV FD9387-EHV	FD9387-HTV FD9387-EHTV	FD9388-HTV
Summary	5MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III	5MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III	5MP, 30fps, H.265H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR, Smart Motion Detection	5MP, 30fps, H.265H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR II, Smart Motion Detection	5MP, 30fps, H.265H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR, Smart Motion Detection	5MP, 30fps, H.265H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR II, Smart Motion Detection	5MP, 20fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III
Sensor Type	1/1.8" progressive CMOS	1/1.8" progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS
Lens Type	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus	Vari-focal Remote Focus
F-number	F1.3 ~ F2.2	F1.3 ~ F2.2	F2.0	F1.4 ~ F2.8	F2.0	F1.4 ~ F2.8	F1.4 ~ F2.8
Focal Length	f = 4 ~ 9 mm	f = 4 ~ 9 mm	f= 2.8 mm	f = 2.7 ~ 13.5 mm	f = 2.8 mm	f = 2.7 ~ 13.5 mm	f = 2.8 ~ 12 mm
Field of View	45° ~ 93° (H) 34° ~ 68° (V)	45° ~ 93° (H) 34° ~ 68° (V)	103° (H) 76° (V)	30° ~ 100° (H) 23° ~ 72° (V)	103° (H) 76° (V)	30° ~ 100° (H) 23° ~ 72° (V)	30° ~ 88° (H)
Auto-iris	P-iris	P-iris	Fixed-iris	P-iris	Fixed-iris	P-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30 m, IR LED*8	30 m, IR LED*8	30m, IR LED*2	50m, IR LED*4	30m, IR LED*2	50m, IR LED*4	30m
Min. Illumination	0.04 Lux @ F1.3 (Color) 0.001 Lux @ F1.3 (B/W) 0 Lux with IR illumination on	0.04 Lux @ F1.3 (Color) 0.001 Lux @ F1.3 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F2.0 (Color) <0.01 lux, F2.0 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F1.4 (Color) <0.01 lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F2.0 (Color) <0.01 lux, F2.0 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F1.4 (Color) <0.01 lux @ F1.4 (B/W) 0 Lux with IR illumination on	TBD
Max. Video Resolution	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)
Frames per Second	H.265/H.264: 30 fps @ 2560x1920, 60 fps @ 1920x1080 MJPEG: 12 fps @ 2560x1920, 30 fps @ 1920x1080	H.265/H.264: 30 fps @ 2560x1920, 60 fps @ 1920x1080 MJPEG: 12 fps @ 2560x1920, 30 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	20 fps @ 2560x1920
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	TBD
Trend Micro IoT Security	-	-	Yes	Yes	Yes	Yes	Yes
Power Input	DC 12V PoE	DC 12V PoE	AC 24V (optional) DC 12V PoE (Redundant Power)	AC 24V (optional) DC 12V PoE (Redundant Power)	AC 24V (optional) DC 12V PoE (Redundant Power)	AC 24V (optional) DC 12V PoE (Redundant Power)	PoE
Power Consumption	Max. 12.8 W	FD9381-HTV: Max. 12.8 W FD9381-EHTV: Max. 25.5 W (Heater on)	Max. 8.1 W	Max. 11.4 W	FD9387-HV: Max. 8.1 W FD9387-EHV: Max. 21.4 W	FD9387-HTV: Max. 11.4 W FD9387-EHTV: Max. 24.7 W	TBD
Digital Input / Output	1/1	1/1	1/1	1/1	1/1	1/1	-
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	One-way Audio
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC card slot
Housing	-	IP66, IK10	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IK10
Dimensions	Ø 138 x 103 mm	Ø 155 x 103 mm	139 x 104 mm	139 x 104 mm	155 x 104 mm	155 x 104 mm	TBD
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F) (-HTV) -50°C ~ 50°C (-58°F ~ 122°F) (-EHTV)	-10°C ~ 45°C (14°F ~ 113°F)	-10°C ~ 45°C (14°F ~ 113°F)	-30°C ~ 60°C (-22°F ~ 140°F) (-HV) -50°C ~ 60°C (-58°F ~ 140°F) (-EHV)	-30°C ~ 60°C (-22°F ~ 140°F) (-HTV) -50°C ~ 60°C (-58°F ~ 140°F) (-EHTV)	TBD

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Form Factor	Fixed Dome Cameras			Fixed Dome Cameras			Corner Cameras
Video Resolution	5 Megapixel			5 Megapixel		8 Megapixel	3 Megapixel
	 H.265 SNV WDR Coming Soon	 H.265 SNV WDR NEW	 H.265 SNV WDR NEW	 H.265 SNV WDR NEW	 H.265 SNV WDR NEW	 H.265 SNV WDR	 SNV WDR
Model Name	IT9388-HT	FD9189-H	FD9389-HV FD9389-EHV	IT9389-H	IT9389-HT	FD9391-EHTV	CD8371-HNTV
Summary	5MP, 20fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III	5MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR	5MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR	5MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR	5MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, WDR Pro, Smart Stream III, Smart IR	8MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV, WDR Pro, Smart Stream III, Smart Motion Detection	3MP, 20fps, H.264/MJPEG, Remote Focus, SNV*, WDR Pro, 10 m Invisible IR, Anti-ligature Design
Sensor Type	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2" Progressive CMOS	1/2.8" progressive CMOS
Lens Type	Vari-focal Remote Focus	Fixed-focal	Fixed-focal	Fixed-focal	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus
F-number	F1.4 ~ F2.8	F2.0	F2.0	F2.0	F1.9 ~ F2.9	F1.5 ~ F2.7	F1.6
Focal Length	f = 2.8 ~ 12 mm	f = 2.8 mm	f = 2.8 mm	f = 2.8 mm [IT9389-H(2.8mm)] f = 3.6 mm [IT9389-H(3.6mm)]	f = 3.7 ~ 7.7 mm	f = 3.9 ~ 10 mm	f = 2.8 ~ 8 mm
Field of View	30° ~ 88° (H)	103° (H) 76° (V)	103° (H) 76° (V)	103° (H), 76° (V) [IT9389-H(2.8mm)] 76° (H), 56° (V) [IT9389-H(3.6mm)]	38° ~ 80° (H) 29° ~ 60° (V)	45° ~ 119° (H) 25° ~ 63° (V)	51° ~ 105° (H) 37° ~ 72° (V)
Auto-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	P-iris	-
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30m	30m, IR LED*4	30m, IR LED*4	30m, IR LED*2	30m, IR LED*2	50m, IR LED*5	10 m, 940nm IR
Min. Illumination	TBD	0.06 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.09 Lux @ F1.9 (Color) 0.01 Lux @ F1.9 (B/W) 0 Lux with IR illumination on	0.02 Lux @ F1.5 (Color) 0.01 Lux @ F1.5 (B/W) 0 Lux with IR illumination on	0.01 Lux @ F1.6 (Color) < 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	3840x2160 (8MP)	2048x1536 (3MP)
Frames per Second	20 fps @ 2560x1920	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 3840x2160 (WDR Pro on) 120 fps @ 1920x1080 (WDR Pro off)	20 fps @ 2048x1536
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Dual-Codec (H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	TBD	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	-	VIVOCLOUD App
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Power Input	PoE	PoE	PoE	PoE	PoE	AC 24V DC 12V PoE	DC12V AC24V PoE
Power Consumption	TBD	Max. 8.7 W (IR on) Max. 5.7 W (IR off)	FD9389-HV: Max. 8.7 W (IR on) Max. 5.7 W (IR off) FD9389-EHV: Max. 21.8 W (Heater on) Max. 8.7 W (Heater off)	Max: 5.5 W (IR on) Max: 4.5 W (IR off)	Max: 9 W (IR on) Max: 8 W (IR off)	Max. 25 W	Max. 6.2 W
Digital Input / Output	-	-	-	-	-	1/1	1/1
Audio	One-way Audio	One-way Audio	One-way Audio	One-way Audio	One-way Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC card slot
Housing	TBD	-	IP66, IK10	IP66, IK08	IP66, IK08	IP66, IP67, IK10 (Metal housing), NEMA 4X	IP67, IK10+
Dimensions	Ø 120 x 91 mm	Ø 130 X 95.3 mm	Ø 129 x 93.8 mm	Ø 108 x 79 mm	Ø 108 x 79 mm	121 x 121 x 394 mm (w/ junction box) 118 x 118 x 333 mm (w/o junction box)	226 x 221 x 112 mm
Operating Temperature	TBD	-10°C ~ 50°C (14°F ~ 122°F)	-30°C ~ 60°C (-22°F ~ 140°F) (-HV) -50°C ~ 60°C (-58°F ~ 140°F) (-EHV)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	Working Temperature (IR off): -50°C ~ 60°C (-58°F ~ 140°F) Working Temperature (IR on): -50°C ~ 50°C (-58°F ~ 122°F)	-10°C ~ 55°C (14°F~ 131°F)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Corner Cameras	180° Panoramic Cameras		180° Panoramic Cameras	360° Fisheye Cameras		
Video Resolution	3 Megapixel	2 Megapixel	2 Megapixel	5 Megapixel	5 Megapixel		
   							
Model Name	CD8371-HNVF2	CC8160(HS)	CC8160	CC9381-HV	FE8182	FE9180-H	FE9181-H FE9381-EHV
Summary	3MP, 20fps, H.264/MJPEG, SNV*, WDR Pro, 10 m Invisible IR, Anti-ligature Design	2MP, 30fps, H.264/MJPEG, 180° Panoramic View, Eye-level View, Height Indicator (cm/ft)	2MP, 30fps, H.264/MJPEG, 180° Panoramic View, Compact Size	5MP, 180° Panoramic, 15m IR, WDR Pro	5MP, 15fps, H.264/MJPEG, 360° Surround View, Recessed-Mount, Ultra-mini Size	5MP, 15fps, H.265/H.264/MJPEG, 360° Surround View, Smart Stream III, Compact Size	5MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, Smart Stream III, EN50155(FE9381-EHV)
Sensor Type	1/2.8" progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.7" Progressive CMOS	1/3.2" progressive CMOS	1/2.7" Progressive CMOS	1/1.8" Progressive CMOS in 3096x2094
Lens Type	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed Focal	Fixed-focal	Fixed-focal
F-number	F1.8	F1.95	F1.95	F2.2	F2.0	F2.25	F2.2
Focal Length	f= 2.8 mm	f = 1.66 mm	f = 1.66 mm	f = 1.45 mm	f = 1.05 mm	f = 1.16 mm	f = 1.47 mm
Field of View	108° (H) 79° (V)	180° (H) 100° (V)	180° (H) 100° (V)	180° (H) 120° (V)	180° (H) 180° (V)	180° (H) 180° (V)	180° (H) 180° (V)
Auto-iris	-	-	-	-	-	-	-
Day/Night	Yes	-	-	Yes	-	-	Yes
IR Illuminators	10 m, 940nm IR	-	-	15 m	-	-	-
Min. Illumination	0.01 Lux @ F1.8 (Color) < 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on	0.22 Lux @ F1.95 (Color)	0.22 Lux @ F1.95 (Color)	TBD	0.6 Lux @ F2.0 (Color)	0.25 Lux @ F2.25 (Color), 50IRE 0.13 Lux @ F2.25 (Color), 30IRE	0.18 Lux @ F2.2 (Color) 0.001 Lux @ F2.2 (B/W)
Max. Video Resolution	2048x1536 (3MP)	1920x1080 (2MP)	1920x1080 (2MP)	2560x1920 (5MP)	1920x1920	1920x1920	1920x1920
Frames per Second	20 fps @ 2048x1536	30 fps @ 1920x1080	30 fps @ 1920x1080	20 fps @ 2560x1920 (WDR On) 30 fps @ 2560x1920 (WDR Off)	15 fps @ 1920x1920	15 fps @ 1920x1920	H.265/H.264: 30 fps @ 1920x1920 MJPEG: 12 fps @ 1920x1920
Video Compression	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	3 Streams	4 Streams	4 Streams	3 Streams	3 Streams	4 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Enhanced	WDR Enhanced	WDR Pro	WDR Enhanced	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD App	-	-	-	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App
Trend Micro IoT Security	Yes	-	Yes	Yes	-	-	-
Power Input	DC12V AC24V PoE	PoE	PoE	DC 12V PoE	PoE	PoE	DC 12V PoE
Power Consumption	Max. 6.2 W	Max. 2.01 W	Max. 2.01 W	Max. 6.7 W	Max. 3 W	Max. 3.6 W	FE9181-H: Max. 5.5 W FE9381-EHV: Max. 13 W
Digital Input / Output	1/1	-	-	-	-	-	1/1
Audio	Two-way Audio (full duplex)	-	One-way Audio	One-way Audio	One-way Audio	One-way Audio	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	-	G.711, G.726	-	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC card slot	-	-	-	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC card slot
Housing	IP67, IK10+	-	-	-	-	-	IP66, IK10 (FE9381-EHV)
Dimensions	226 x 221 x 112 mm	28 (D) x 50 (W) x 867 (H) mm	28 (D) x 50 (W) x 88 (H) mm (body only) 40 (D) x 58 (W) x 127 (H) mm (w/ tilt mount)	159.9 x 71.92 x 60.2 mm (Dome to rear panel), 39.2 mm (Flat to rear panel)	Ø 60 x 102 mm	Ø 94 x 39 mm	Ø 139 x 38 mm (FE9181-H) Ø 145 x 50 mm (FE9381-EHV)
Operating Temperature	-10°C ~ 55°C (14°F~ 131°F)	-10°C ~ 40°C (14°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-10°C ~ 40°C (14°F ~ 104°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F) (FE9181-H) -40°C ~ 55°C (-40°F ~ 131°F) (FE9381-EHV)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	360° Fisheye Cameras			360° Fisheye Cameras		Multi-Sensor Cameras	
Video Resolution	5 Megapixel			12 Megapixel		8 Megapixel	20 Megapixel
							
Model Name	FE9182-H	FE9382-EHV	FE9582-EHNV	FE9191	FE9391-EV	MS9390-HV	MS9321-EHV
Summary	5MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, 360° 20 m IR, Smart Stream III	5MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, 360° 20 m IR, Smart Stream III, EN50155	5MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, 360° 10 m IR, Smart Stream III, EN50155, EN45545, MI2 Connector	12MP, 20fps, H.265/H.264/MJPEG, 360° Panomorph View, Smart Steam III, Smart 360 VCA, PPTZ	12MP, 20fps, H.265/H.264/MJPEG, 360° Panomorph View, Smart Steam III, Smart IR II, 360° 20 m IR, Smart 360 VCA, PPTZ, EN50155	8MP, 30fps, H.265/H.264/MJPEG, 180° Panoramic View, 20 m IR, WDR Pro, SNV*, Smart Motion Detection, IP66, IK10	20MP, 30fps, H.265/H.264/MJPEG, 180° Panoramic View, Smart IR, 30 m IR, IP66, IK10
Sensor Type	1/1.8" Progressive CMOS in 3096x2094	1/1.8" Progressive CMOS in 3096x2094	1/1.8" Progressive CMOS in 3096x2094	1/1.7" Progressive CMOS in 4000x3000	1/1.7" Progressive CMOS in 4000x3000	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS
Lens Type	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal
F-number	F2.2	F2.2	F2.2	F2.2	F2.2	F1.2	F1.8
Focal Length	f = 1.47 mm	f = 1.47 mm	f = 1.47 mm	f = 1.29 mm	f = 1.29 mm	f = 2.8 mm	f = 3.8 mm
Field of View	180° (H) 180° (V)	180° (H) 180° (V)	180° (H) 180° (V)	180° (H) 180° (V)	180° (H) 180° (V)	180° (H) 50° (V)	180° (H) 65° (V)
Auto-iris	-	-	-	-	-	-	-
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	20 m, IR LED*6	20 m, IR LED*6	10m, 940nm, IR LED*6	-	20 m, IR LED*6	20 m	30 m, IR LED*4
Min. Illumination	0.18 Lux @ F2.2 (Color) 0.001 Lux @ F2.2 (B/W) 0 Lux with IR illumination on	0.18 Lux @ F2.2 (Color) 0.001 Lux @ F2.2 (B/W) 0 Lux with IR illumination on	0.18 Lux @ F2.2 (Color) 0.001 Lux @ F2.2 (B/W) 0 Lux with IR illumination on	0.18 Lux @ F2.2 (Color) <0.001 Lux @ F2.2 (B/W)	0.18 Lux @ F2.2 (Color) 0.001 Lux @ F2.2 (B/W) 0 Lux with IR illumination on	0.05 Lux @ F1.2 (Color) 0.01 Lux @ F1.2 (B/W) 0 Lux with IR illumination on	0.095 Lux @ F1.8 (Color) 0.005 Lux @ F1.8 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	1920x1920	1920x1920	1920x1920	2816x2816	2816x2816	4512x1728	7680x2560
Frames per Second	H.265/H.264: 30 fps @ 1920x1920 MJPEG: 12 fps @ 1920x1920	H.265/H.264: 30 fps @ 1920x1920 MJPEG: 12 fps @ 1920x1920	H.265/H.264: 30 fps @ 1920x1920 MJPEG: 12 fps @ 1920x1920	30 fps @ 2816x2816	30 fps @ 2816x2816	30 fps @ 4512x1728	30 fps @ 7680x2560
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	-	-	-	-
Trend Micro IoT Security	-	-	-	Yes	Yes	Yes	-
Power Input	DC 12V PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE	PoE	AC 24V PoE
Power Consumption	Max. 12.95 W	Max. 20 W	Max. 20 W	Max. 6.49 W	Max. 25 W	Max. 15.2 W	Max. 24 W
Digital Input / Output	1/1	1/1	1/1	1/1	1/1	-	1/1
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	One-way Audio	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC card slot	MicroSD/SDHC/SDXC Card Slot
Housing	-	IP66, IK10	IP66, IK10	-	IP66, IK10	IP66, IK10	IP66, IK10
Dimensions	Ø 160 x 39 mm	Ø 160 x 51 mm	Ø160 x 51 mm	Ø 139 x 37 mm	Ø 160 x 62 mm	Ø 165 x 112 x 97 mm (w/o sunshield) Ø 165 x 119 x 100 mm (w/ sunshield)	308 x 167 x 130 mm
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-40°C ~ 55°C (-40°F ~ 131°F)	-40°C ~ 55°C (-40°F ~ 131°F)	-10°C ~ 50°C (14°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-40°C ~ 60°C (-40°F ~ 140°F)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.

*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.

*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.

*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Multi-Sensor Cameras		Mobile Dome Cameras	Mobile Dome Cameras			
Video Resolution	20 Megapixel		1.2 Megapixel	2 Megapixel			
							
Model Name	MA9321-EHTV	MA9322-EHTV	MD8531H	MD8563-DEH	MD8563-EH	MD8564-EH	MD8565-N
Summary	20MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, IP66, IK10, Multi-Directional	20MP, 30fps, H.265/H.264/MJPEG, Remote Focus, SNV*, IP66, IK10, Multi-Directional	1.2MP, 30fps, H.264/MJPEG/MPEG-4, 3DNR, WDR Pro (120dB), IP66, IK10, EN50155	2MP, 30fps, H.264/MJPEG, WDR Pro, Smart Stream II, IP67, IK10, EN50155 TX, M12 Connector	2MP, 30fps, H.264/MJPEG, WDR Pro, Smart Stream II, IP67, IK10, EN50155 TX, M12 Connector	2MP, 30fps, H.264/MJPEG, 30 m IR, IP6K9K/IP68, IK10+, NEMA 4X, EN50155 TX, M12 Connector	2MP, 30fps, H.264/MJPEG, Invisible IR, IP66, IK10, NEMA 4X, EN50155 T1, M12 Connector
Sensor Type	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/3" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.9" Progressive CMOS
Lens Type	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal
F-number	F1.9 ~ F2.9	F1.9 ~ F2.9	F1.8	F1.8 [MD8563-DEH(2.8mm)] F2.0 [MD8563-DEH(3.6mm)]	F1.8 [MD8563-EH(2.8mm)] F1.6 [MD8563-EH(4mm)]	F2.0	F1.8 [MD8565-N(2.8mm)] F2.1 [MD8565-N(3.6mm)]
Focal Length	f = 3.7 ~ 7.7 mm	f = 3.7 ~ 7.7 mm	f = 3.6 mm [MD8531H-F3] f = 4.2 mm [MD8531H-F4]	f = 2.8 mm [MD8563-DEH(2.8mm)] f = 3.6 mm [MD8563-DEH(3.6mm)]	f = 2.8 mm [MD8563-EH(2.8mm)] f = 4 mm [MD8563-EH(4mm)]	f = 6 mm (optional: 3.6 mm, 8 mm)	f = 2.8 mm [MD8565-N(2.8mm)] f = 3.6 mm [MD8565-N(3.6mm)]
Field of View	40.2° ~ 88.8° (H) 28.6° ~ 59.8° (V)	40.2° ~ 88.7° (H) 22.5° ~ 47.8° (V)	80° (H), 57° (V) [MD8531H-F3] 68° (H), 50° (V) [MD8531H-F4]	114° (H), 65° (V) [MD8563-DEH(2.8mm)] 96° (H), 53° (V) [MD8563-DEH(3.6mm)]	114° (H), 65° (V) [MD8563-EH(2.8mm)] 82° (H), 46° (V) [MD8563-EH(4mm)]	57° (H) 30° (V)	113°(H), 63°(V) [MD8565-N(2.8mm)] 77°(H), 41°(V) [MD8565-N(3.6mm)]
Auto-iris	-	-	-	-	-	-	-
Day/Night	Yes	Yes	-	Yes	Yes	Yes	Yes
IR Illuminators	-	30m	-	-	-	30 m, IR LED*4	10 m, IR LED*4
Min. Illumination	0.095 Lux @ F1.9 (Color) 0.005 Lux @ F1.9 (B/W)	0.095 Lux @ F1.9 (Color) 0.005 Lux @ F1.9 (B/W) 0 Lux with IR illumination on	0.4 Lux @ F1.8 (Color)	MD8563-DEH(2.8mm): 0.21 Lux @ F1.8 (Color) MD8563-DEH(3.6mm): 0.23 Lux @ F2.0 (Color)	MD8563-EH(2.8mm): 0.21 Lux @ F1.8 (Color) MD8563-EH(4mm): 0.23 Lux @ F1.6 (Color)	0.18 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	MD8565-N(2.8mm): 0.16 Lux @ F1.8 (Color) < 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on MD8565-N(3.6mm): 0.18 Lux @ F2.1 (Color) < 0.01 Lux @ F2.1 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	2688x1920 (5MP) x 4	2688x1920 (5MP) x 4	1280x960 (1.2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	30 fps @ 2688x1920	30 fps @ 2688x1920	30 fps @ 1280x960	30 fps @ 1920x1080 45 fps @ 1280x720	30 fps @ 1920x1080 45 fps @ 1280x720	30 fps @ 1920x1080 45 fps @ 1280x720	30 fps @ 1920x1080 60 fps @ 1280x720
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.264/MJPEG/MPEG-4)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Enhanced
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	-	-	-	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App
Trend Micro IoT Security	-	-	-	Yes	Yes	Yes	Yes
Power Input	AC 24V PoE	AC 24V PoE	PoE	DC 8~36V	PoE	PoE (for Camera System) DC 24V (for Heater)	DC 7.5~48V PoE
Power Consumption	Max. 24 W	Max. 25.5W	Max. 4.5 W	Max. 4.2 W	Max. 4.2 W	Max. 10/5.7 W (IR on/off) Heater: 50 W	Max. 5.5 W
Digital Input / Output	1/1	1/1	1/1	1/1	1/1	1/1	1/1
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	One-way Audio
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot
Housing	IP66, IK10	IP66, IK10	IP66, IK10	IP67, IK10	IP67, IK10	IP6K9K/IP68, IK10+, NEMA 4X	IP66, IK10, NEMA 4X
Dimensions	Ø 210 x 111 mm Ø 210 x 97 mm (w/o cover plate)	Ø 267x114 mm Ø 275 x 118 mm (w/ bracket)	129 (D) x 107 (W) x 54 (H) mm	129 (D) x 107 (W) x 54 (H) mm	129 (D) x 107 (W) x 54 (H) mm	242 (D) x 162 (W) x 82 (H) mm	Ø 110 x 57 mm
Operating Temperature	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 60°C (-40°F ~ 140°F)	-25°C ~ 55°C (-13°F ~ 131°F)	-40°C ~ 70°C (-40°F ~ 158°F)	-40°C ~ 70°C (-40°F ~ 158°F)	-40°C ~ 70°C (-40°F ~ 158°F)	-25°C ~ 55°C (-13°F ~ 131°F)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.

*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.

*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.

*I-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Cameras

Form Factor	Mobile Dome Cameras			Mobile Dome Cameras	Speed Dome Cameras		
Video Resolution	2 Megapixel			5 Megapixel	2 Megapixel		
	 	 	 	 	 	 	 
Model Name	MD9561-H	MD9560-H	MD9560-DH	MD9581-H	SD9161-H	SD9362-EH-v2	SD9364-EH-v2
Summary	2MP, 60fps, 30m IR, H265/H264/MJPEG4, 3DNR, WDR Pro, IP67, IK10, NEMA 4X, EN50155	2MP, 30fps, 20m IR, H265/H264/MJPEG4, 3DNR, WDR Pro, IP67, IK10, NEMA 4X, EN50155	2MP, 30fps, 20m IR, H265/H264/MJPEG4, 3DNR, WDR Pro, IP67, IK10, NEMA 4X, EN50155, DC power input	5MP, 30fps, 25m IR, H265/H264/MJPEG4, 3DNR, WDR Pro, IP67, IK10, NEMA 4X, EN50155	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, 10x	2MP, 60fps, H.265/H.264/MJPEG, 30x, WDR Pro, Smart Stream II, IP68, IK10, NEMA 4X	2MP, 60fps, H.265/H.264/MJPEG, 250 m IR, 30x, WDR Pro, Smart IR II, Smart Stream II, IP66, IK10, NEMA 4X
Sensor Type	1/2.8" Progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.7" Progressive CMOS	1/3" Progressive CMOS	1/2.8" Progressive CMOS	1/2.8" Progressive CMOS
Lens Type	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	10x Optical Zoom Auto Focus	30x Optical Zoom Auto Focus	30x Optical Zoom Auto Focus
F-number	F1.8 [MD9561-H(2.8mm)] F2.0 [MD9561-H(3.6mm)]	F1.8 [MD9560-H(2.8mm)] F2.0 [MD9560-H(3.6mm)]	F1.8	F1.8 [MD9581-H(2.8mm)] F2.0 [MD9581-H(3.6mm)]	F1.6 ~ F1.8	F1.6 ~ F4.7	F1.6 ~ F4.7
Focal Length	f = 2.8 mm [MD9561-H(2.8mm)] f = 3.6 mm [MD9561-H(3.6mm)]	f = 2.8 mm [MD9560-H(2.8mm)] f = 3.6 mm [MD9560-H(3.6mm)]	f = 2.8 mm	f = 2.8 mm [MD9581-H(2.8mm)] f = 3.6 mm [MD9581-H(3.6mm)]	f= 5.1 ~ 51 mm	f = 4.3 ~ 129 mm	f = 4.3 ~ 129 mm
Field of View	110° (H), 63° (V) [MD9561-H(2.8mm)] 90° (H), 49° (V) [MD9561-H(3.6mm)]	108° (H), 60° (V) [MD9560-H(2.8mm)] 89° (H), 47° (V) [MD9560-H(3.6mm)]	108° (H) 60° (V)	102° (H), 76° (V) [MD9581-H(2.8mm)] 83° (H), 61° (V) [MD9581-H(3.6mm)]	4.9° ~ 54° (H) 4° ~ 31° (V)	2.3° ~ 64° (H) 1.3° ~ 36° (V)	2.3° ~ 64° (H) 1.3° ~ 36° (V)
Auto-iris	-	-	-	-	DC-iris	DC-iris	DC-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30 m, IR LED*2	20 m, IR LED*2	20 m, IR LED*2	25 m IR LED*2	-	-	Yes
Min. Illumination	MD9561-H(2.8mm): 0.07 Lux @ F1.8 (Color) 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on MD9561-H(3.6mm): 0.08 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	TBD	TBD	MD9581-H(2.8mm): 0.09 Lux @ F1.8 (Color) 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on MD9581-H(3.6mm): 0.1 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.2 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W)	0.195 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W)	0.195 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	2560X1920(5MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	60 fps @ 1920x1080	30 fps @ 1920x1080	30 fps @ 1920x1080	30 fps @ 2560x1920	30 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	VIVOCLOUD App	-	-	-
Trend Micro IoT Security	Yes	Yes	Yes	Yes	-	Yes	Yes
Power Input	PoE	PoE	DC 7.5~48V	PoE	PoE DC 24V AC 24V	60W UPoE DC 24V AC 24V	95W PoH/PoE DC 24V AC 24V
Power Consumption	Max. 6 W	TBD	TBD	Max. 6 W	Max. 15 W	PoE (60W): Max. 48/26 W (Heater on/off) AC/DC 24V: Max. 40/21 W(Heater on/off)	PoH/PoE (95W): Max. 70/51 W (Heater on/off) AC/DC 24V: Max. 63/45 W (Heater on/off)
Digital Input / Output	1/1	1/1	1/1	1/1	4/2	4/2	4/2
Audio	One-way Audio	One-way Audio	One-way Audio	One-way Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot
Housing	IP67, IK10, NEMA 4X	IP67, IK10, NEMA 4X	IP67, IK10, NEMA 4X	IP67, IK10, NEMA 4X	-	IP68, IK10, NEMA4X	IP66, IK10, NEMA4X
Dimensions	98 (D) x 110 (W) x 54 (H) mm	98 (D) x 110 (W) x 54 (H) mm	98 (D) x 110 (W) x 54 (H) mm	98 (D) x 110 (W) x 54 (H) mm	Ø 172 x 157 mm	Ø 162 x 221 mm	237 x 364 mm
Operating Temperature	-40°C ~ 55°C (-40°F ~ 131°F)	-25°C ~ 55°C (-13°F ~ 131°F)	-25°C ~ 55°C (-13°F ~ 131°F)	-40°C ~ 55°C (-40°F ~ 131°F)	-10°C ~ 55°C (14°F ~ 131°F)	-40°C ~ 55°C (-40°F ~ 131°F)	-40°C ~ 55°C (-40°F ~ 131°F) -50°C ~ 55°C (-58°F ~ 131°F) (AC 24V/ PoH)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*I-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Form Factor	Speed Dome Cameras		Split-type Camera System	Split-type Camera System
Video Resolution	2 Megapixel	4 Megapixel	2 Megapixel	2 Megapixel
				
Model Name	SD9366-EH-v2	SD9374-EHL SD9374-EHLX	VC8101 CU8161-H	VC8101 CU8163-H
Summary	2MP, 60fps, 250 m IR, H.265/H.264/MJPEG, 30x, WDR Pro, Smart IR II, Smart Stream III, IP66, IK10, NEMA 4X	4MP, 60fps, 250 m IR, H.265/H.264/MJPEG, 36x, WDR Pro, Smart IR II, Smart Stream III, IP66, NEMA 4X	1-CH, Pinhole(CU8161-H), 2MP, 30fps, H.264/MJPEG, WDR Pro, Recessed-Mount	1-CH, Fisheye Surround View(CU8163-H), 2MP, 30fps, H.264/MJPEG, WDR Pro, Recessed-Mount
Sensor Type	1/2.8" Progressive CMOS	1/2" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS
Lens Type	30x Optical Zoom Auto Focus	36x Optical Zoom Auto Focus	Fixed-focal	Fixed-focal
F-number	F1.6 ~ F4.7	F1.5 ~ F4.8	F2.5	F2.0
Focal Length	f = 4.3 ~ 129 mm	f = 6 ~ 216 mm	f = 3.7 mm	f = 1.6 mm
Field of View	2.3° ~ 64° (H) 1.3° ~ 36° (V)	1.85° ~ 49.27° (H) 1.04° ~ 28.93° (V)	93° (H) 48° (V)	180° (H) 140° (V)
Auto-iris	DC-iris	P-iris	-	-
Day/Night	Yes	Yes	-	-
IR Illuminators	Yes	Yes	-	-
Min. Illumination	0.195 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on	0.19 Lux @ F1.5 (Color) 0.01 Lux @ F1.5 (B/W) 0 Lux with IR illumination on	1.10 Lux @ F2.5 (Color)	0.66 Lux @ F2.0 (Color)
Max. Video Resolution	1920x1080 (2MP)	2560x1440 (4MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	60 fps @ 1920x1080	30 fps @ 2560x1440	30 fps @ 1920x1080	30 fps @ 1920x1080
Video Compression	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	4 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes
Cloud Service	-	-	VIVOCLOUD App	VIVOCLOUD App
Trend Micro IoT Security	Yes	Yes	Yes	Yes
Power Input	95W PoH/PoE DC 24V AC 24V	PoE bt DC 24V AC 24V	DC 8~36V PoE	DC 8~36V PoE
Power Consumption	PoH/PoE (95W): Max. 70/51 W (Heater on/off) AC/DC 24V: Max. 63/45 W (Heater on/off)	TBD	Max. 5.5 W	Max. 5.5 W
Digital Input / Output	4/2	4/2	1/1	1/1
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (from Video Core: VC8101)	Two-way Audio (from Video Core: VC8101)
Audio Compression	G.711, G.726	G.711, G.726	G.711, G.726	G.711, G.726
ONVIF	Profile S/G	Profile S/G	Profile S/G	Profile S/G
On-board Storage	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot	MicroSD/SDHC/SDXC Card Slot
Housing	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	-	-
Dimensions	237 x 364 mm	237 x 265 mm	105 x 84 x 30 mm (VC8101) Ø 24 x 37 mm (CU8161-H, w/o cable)	105 x 84 x 30 mm (VC8101) Ø 24 x 43 mm (CU8163-H, w/o cable)
Operating Temperature	-40°C ~ 55°C (-40°F ~ 131°F) -50°C ~ 55°C (-58°F ~ 131°F) (AC 24V/ PoH)	-40°C ~ 55°C (-40°F ~ 131°F) (IR on) -40°C ~ 65°C (-58°F ~ 149°F) (IR off)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)

*WDR Enhanced: Achieved with tone mapping technology, which reduces the dynamic range of an entire image while still retaining contrast.
*WDR Pro: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is between 100dB and 140dB.
*WDR Pro II: Captures alternate frames using different exposure times, combining them into a single image. The dynamic range is higher than 140dB.

*SNV: Supreme Night Visibility, by professionally integrating superior optical components and sophisticated video algorithms, SNV cameras present Supreme Night Visibility in low light conditions.
*i-CS: Intelligent CS-mount lenses can be used for add-on value functions, ex. remote zoom focus control, distortion correction, shading correction, etc.

Network Cameras

Network Camera Model - Naming Rule



1-2 nd	
Model Category	
Code	Description
CC	Compact Cube Camera
CD	Corner Camera
CU	Camera Unit
FD	Fixed Dome Camera
FE	Fisheye Camera
IB	Bullet Camera
IP	Box Camera
IT	Turret Dome Camera
IZ	Zoom Lens Camera
MA	Multiple Adjustable Views Camera
MD	Mobile Dome Camera
MS	Multiple Sensor Camera
SC	Stereo Camera
SD	Speed Dome Camera
TB	Thermal Bullet Camera
VC	Video Core

3 rd	
A/V Type	
NO.	Description
8	H.264 / MPEG4 / MJPEG
9	H.265 / H.264 / MJPEG

4 th	
VC Series - Amount of Channel	
NO.	Description
1~9	1~9 Channel

4 th	
IP Camera Type	
NO.	Description
1	Indoor IP Camera
3	Outdoor IP Camera
5	Mobile Certified

5 th	
IP Camera - Video Type	
NO.	Description
1	≥ 10MP CMOS Sensor
2	≥ 20MP CMOS Sensor
3	≥ 30MP CMOS Sensor
4	≥ 40MP CMOS Sensor
5	> 50MP CMOS Sensor
6	≥ 2.0MP CMOS Sensor
7	≥ 3.0MP CMOS Sensor
8	≥ 5.0MP CMOS Sensor
9	≥ 8.0MP CMOS Sensor

6 th	
Running Number	

7 th	
Extension/Feature	
NO.	Description
D	DC Power Input
E	Extended Temperature ≤ -40°C
H	High Dynamic Range (Wide Dynamic Range)
L	Lite
LPC	License Plate Capture
LPR	Embedded License Plate Recognition Software
M	Manual Focal
N	940mm IR LED
P	P-iris (Box Cameras)
T	Remote Focus i-CS (Box Cameras)
V	Outdoor Vandal Proof
W	Wireless
X	Wiper Supported for Speed Dome

8 th	
Version #	
NO.	Description
v	1 - 99

Video Servers / Video Receiver

Type	Video Servers
Video Resolution	D1



Model Name	VS8100-v2
Short Highlight	1-CH, Ultra-mini Size, Power Sharing with Analog Camera
Max. Video Resolution	720x480/NTSC 720x576/PAL
Frames per Second	30 fps @ 720x480 25 fps @ 720x576
Video Compression	Dual-Codec (H.264/MJPEG)
Multiple Streams	3 Streams
Video Source	1 Analog Camera Input
Video Modulation	NTSC/PAL Auto Detection
Audio Capability	Audio In
Audio Compression	G.726, G.711
Serial Connectors	RS485
Pan/Tilt/Zoom Control	Yes
Networking	10/100 Mbps Ethernet
Power Input	DC 12V
Power Consumption	Max. 3 W
Digital Input /Output	-
Motion Detection	Yes
On-board Storage	-
Dimensions	65 (W) x 34 (D) x25 (H) mm
Operating Temperature	0°C ~ 50 °C (32°F ~ 122°F)

Type	Video Receiver
------	----------------



H.265
4K Display

Model Name	RX9401
Short Highlight	H.265/H.264, 16-CH Video Display, HDMI, 4K Display, Fisheye Dewarp
Operating System	Embedded Linux
Video Compression	H.265/H.264/MJPEG
Channels	Up to 16 channels
LiveView (Local) Decoding	Up to 3840x2160
Max. Decoding Capacity	H.265/H.264: 3840x2160 @ 30 fps (1CH)
Local Display	HDMI output
Display Resolution	3840x2160 1920x1080 1280x720
Fisheye Dewarp	Supported
Connectors	Ethernet 10/100 RJ45 *1 USB 2.0 *2
Power	DC 12V 1.5A
Power Consumption	Max. 9.24 W
Approvals	CE, LVD, FCC, VCCI, C-Tick
Installation, Management, and Maintenance	Shepherd
Weight	530 g
Dimensions	198 (W) x 200 (D) x 47(H) mm

Network Video Recorders

Type	Network Video Recorders
------	-------------------------



Wifi
4K Display



H.265
4K Display
Coming Soon



H.265
core+
4K Display

Model Name	ND8212W	ND9312	ND9441/ND9541
Short Highlight	H.264, 4-CH Wifi + 4-CH Wired, Wifi 2.4Ghz, 1xHDD, HDMI, VIVOCLOUD	H.265, 8-CH, 1xHDD, HDMI, VIVOCLOUD	H.265/H.264, 16/32-CH, Dual Lan, 4xHDD, HDMI/VGA Local Display, RAID, Fisheye Dewarp, VIVOCLOUD
Operating System	Embedded Linux	Embedded Linux	Embedded Linux
Video Compression	H.264/MJPEG	H.265/H.264/MJPEG	H.265/H.264/MJPEG
Channels	Up to 4-CH Wi-Fi + 4-CH Wired	Up to 8 channels	Up to 16/32 channels
LiveView (Local) Decoding	Up to 3840x2160	Up to 3840x2160	Up to 4096x4096 (H.265) Up to 8192x8192 (H.264)
Max. Decoding Capability	H.264: 3840x2160 @ 30 fps	H.265/H.264: 3840x2160 @ 30 fps	H.265/H.264: 3840x2160 @ 120 fps
PoE	-	-	-
Recording Throughput	24 Mbps	48 Mbps	192 Mbps
Hard Disk	3.5" SATA HDD*1	3.5" SATA HDD*1	3.5" SATA HDD*4
RAID	-	-	RAID 0, 1, 5
Local Display	HDMI video output	HDMI video output	HDMI/VGA video output
Display Resolution	3840x2160 1920x1080 1280x720	3840x2160 1920x1080 1280x720	3840x2160 1920x1080 1280x720
Cloud Service	VIVOCLOUD App/Portal	VIVOCLOUD App/Portal	VIVOCLOUD App/Portal
Fisheye Dewarp	Supported	Supported	Supported
Core+ 3.0	-	-	Supported
Cybersecurity Management	-	-	Supported
Connectors	Ethernet 10/100 RJ45 *1 USB 2.0 *2	Ethernet 10/100 RJ45 *1 USB 2.0 *2	Ethernet 10/100/1000 RJ45 *2 Alarm In *8, Alarm Out *4 USB 2.0 *2 USB 3.0 *1 Audio Output *1 Audio Input *1 (Reserved) RS485 (Reserved)
Power Input	DC 12V 3A	DC 12V 3A	DC 56V 2.32A
Power Consumption	Max. 15.6 W	Max. 15 W	Max. 76 W
Approvals	CE, LVD, FCC, VCCI, C-Tick, MIC, NCC, BSMI	CE, LVD, FCC, VCCI, C-Tick	CE, LVD, FCC, VCCI, C-Tick, UL
Installation, Management, and Maintenance	VAST, Shepherd, VIVOCLOUD (iOS/Android), iViewer (iOS/Android)	VAST, Shepherd, VIVOCLOUD (iOS/Android), iViewer (iOS/Android)	VAST, Shepherd, VIVOCLOUD, iViewer (iOS/Android)
Weight	560 g	550 g	3.9 kg (w/o HDD)
Dimensions	198 (W) x 200 (D) x 47(H) mm	198 (W) x 200 (D) x 47(H) mm	430 (W) x 400 (D) x 44.5 (H) mm

Network Video Recorders

Type	Network Video Recorders			
	 H.265 core+ 4K Display	 H.265 core+ 4K Display	 H.265	 H.265 4K Display Coming Soon
Model Name	ND9441P/ND9541P	ND9322P/ND9424P	NR9581/NR9681	NR9682-v2/NR9782-v2
Short Highlight	H.265/H.264, 16/32-CH, Dual Lan, 16 x PoE Port, PoE Management, 4xHDD, RAID, Fisheye Dewarp, VIVOCLOUD	H.265/H.264, 8/16-CH, 8/16 x PoE Port, 2xHDD, RAID, Fisheye Dewarp, VIVOCLOUD	H.265/H.264, 32/64-CH, 8x HDD, Windows AD, VAST inside, RAID	H.265/H.264, 64/128-CH, 16x HDD, Windows AD, VAST 2 inside, RAID, Smart Search II, Smart VCA supported
Operating System	Embedded Linux	Embedded Linux	Embeeded Windows	Embeeded Windows
Video Compression	H.265/H.264/MJPEG	H.265/H.264/MJPEG	H.265/H.264/MJPEG	H.265/H.264/MJPEG
Channels	Up to 16/32 channels	Up to 8/16 channels	Up to 32/64 channels	Up to 64/128 channels
LiveView (Local) Decoding	Up to 4096x4096 (H.265) Up to 8192x8192 (H.264)	Up to 3840x2160	Up to 8192x8192	Up to 8192x8192
Max. Decoding Capability	H.265/H.264: 3840x2160 @ 120 fps	H.265/H.264: 3840x2160 @ 120 fps	H.264: 1920x1080 @ 300 fps H.265: 1920x1080 @ 150 fps	H.264: 1920x1080 @ 540 fps H.265: 1920x1080 @ 270 fps
PoE	16x 802.3at/af Compliant PoE Ports (Total Max. 160W)	8/16x 802.3at/af Compliant PoE Ports (Total Max. 120W/200W)	-	-
Recording Throughput	192 Mbps	96 Mbps	512 Mbps	512 Mbps
Hard Disk	3.5" SATA HDD*4	3.5" SATA HDD*2	3.5" SATA HDD*8 (Hot Swappable)	3.5" SATA HDD*8 (Hot Swappable)
RAID	RAID 0, 1, 5	RAID 0, 1	RAID 0, 1, 5, 6, 10	RAID 0, 1, 5, 6, 10
Local Display	HDMI/VGA video output	HDMI/VGA video output	HDMI/DP/DVI/VGA video output	HDMI/DP/DVI video output
Display Resolution	3840x2160 1920x1080 1280x720	3840x2160 1920x1080 1280x720	HDMI: 3200x2000 DP: 3200x2000 DVI/VGA: 1920x1200	HDMI: 1920x1080 DVI: 1920x1080 DP: 4096x2304
Cloud Service	VIVOCLOUD App/Portal	VIVOCLOUD App/Portal	-	-
Fisheye Dewarp	Supported	Supported	Supported	Supported
Core+ 3.0	Supported	Supported	-	-
Cybersecurity Management	Supported	Supported	Supported	Supported
Connectors	Ethernet 10/100/1000 RJ45 *2 Alarm In *8, Alarm Out *4 USB 2.0 *2 USB 3.0 *1 Audio Output *1 Audio Input *1 (Reserved) RS485 (Reserved)	Ethernet 10/100/1000 RJ45 *1 Alarm In *4, Alarm Out *1 USB 2.0 *1 USB 3.0 *1 Audio Output *1 Audio Input *1 (Reserved)	Ethernet 10/100/1000 RJ45 *2 USB 2.0 x4 USB 3.0 x2 Microphone audio jack input x1 3.5 Line input audio jack x1 3.5 Line output audio jack x1	Ethernet 10/100/1000 RJ45 *2 USB 2.0 x2 USB 3.0 x8 Microphone audio jack input x1 3.5 Line output audio jack x1
Power Input	100~240V AC / 50~60Hz	100~240V AC / 50~60Hz	Redundant Power 100~240V AC / 50~60Hz	Redundant Power 100~240V AC / 50~60Hz
Power Consumption	Max. 260 W	Max. 170 W/250 W	Max. 740 W	Max. 550 W
Approvals	CE, LVD, FCC, VCCI, C-Tick, UL	CE, FCC, VCCI, C-Tick, UL, CB, BSMI	CE, LVD, FCC, VCCI, C-Tick, UL	CE, FCC, VCCI, C-Tick, UL, CB
Installation, Management, and Maintenance	VAST, Shepherd, VIVOCLOUD, iViewer (iOS/Android)	VAST, Shepherd, VIVOCLOUD, iViewer (iOS/Android)	VAST, Shepherd, iViewer (iOS/Android)	VAST, Shepherd, iViewer (iOS/Android)
Weight	4.5 kg (w/o HDD)	3.16/3.21 kg (w/o HDD)	27 kg (w/o HDD)	33 kg (w/o HDD)
Dimensions	430 (W) x 400 (D) x 44.5 (H) mm	360 (W) x 311 (D) x 44 (H) mm	437 (W) x 648 (D) x 89 (H) mm	435 (W) x 540 (D) x 132 (H) mm

Network Video Recorders

Core+ 3.0
core+ 3.0

VIVOTEK Core+ 3.0 is the new generation ND Series Network Video Recorder firmware, embedded with VIVOTEK's latest technology that including smart search function and cybersecurity management, etc. To upgraded network video recorders ability, be smarter and safer. Core+ 3.0 provides ideal usability and a smoother user experience.



Counting Solution

Integrated with VIVOTEK's 3D cameras and Cloud Service Software – VIVOCLOUD. VIVOTEK Core+ 3.0 provides counting analysis data and schedule report.



Cybersecurity Management

Alliance with the world-renowned cybersecurity company, Trend Micro. Cybersecurity management solution offers instant cybersecurity alert, event log and event report with dashboard(VAST 2).



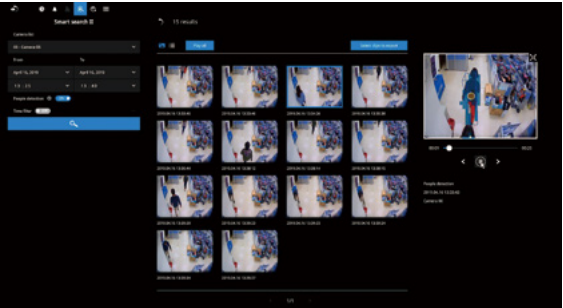
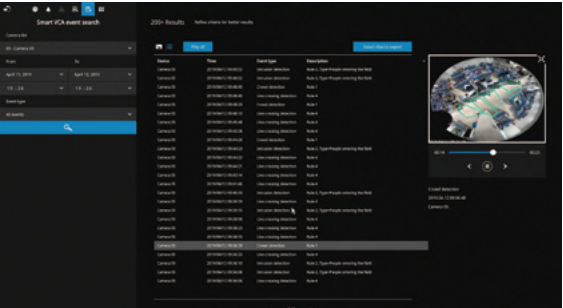
Security Intelligent

VIVOTEK Core+ 3.0 supports alarm management and event search of VIVOTEK's deep-learning video analytic technology, which are Smart VCA, Smart 360 VCA and Smart Motion Detection.



Smart Search II

Based on the camera metadata recorded in the Hard Disk Drive, the Network Video Recorder is able to carry out a video analysis search on playback. Users can quickly sort through large amounts of evidence to find precisely what is needed.



Network Video Recorders / PoE Solution

Type	Mobile Network Video Recorders
 H.265 Mobile 4K Display	
Model Name	NV9311P/NV9411P
Short Highlight	H.265/ H.264, 8/16-CH, 8 x PoE, GNSS, Built-in G-sensor, WiFi & LTE (Optional), MIL-STD-810G
Operating System	Embedded Linux
Video Compression	H.265/H.264/MJPEG
Channels	Up to 8/16 channels
LiveView (Local) Decoding	Up to 4096x4096 (H.265) Up to 8192x8192 (H.264)
Max. Decoding Capability	H.265/H.264: 3840X2160 @ 120 fps
PoE	8x 802.3at/af Compliant PoE Ports (Total Max. 64W)
Recording Throughput	64 Mbps
Wifi	IEEE802.11a/b/g/n/ac (optional)
Mobile Network	LTE (optional)
GNSS	Supported
Hard Disk	2.5" SATA HDD/SSD x 1
Local Display	HDMI x1, VGA x1
Display Resolution	3840x2160 1920x1080 1280x720
G Sensor	G-sensor Event
Fisheye Dewarp	Supported
Cybersecurity Management	Supported
Smart VCA Event Search	Supported
Smart Search II	Supported
Connectors	Ethernet 10/100/1000 RJ45 *1 Alarm In *8, Alarm Out *4 USB 2.0 *3 Audio In/Out *1 RS232 (reserved)
Power Input	DC 12V~48V
Power Consumption	Max. 149W
Approvals	CE, FCC, VCCI, C-Tick, EN50155, EN61373, UL, CB, EN45545, EN50121-3-2/ EN50121-4, MIL-STD-810G
Installation, Management, and Maintenance	VAST 2, Shepherd, iViewer (iOS/Android)
Weight	4.06 kg (w/o HDD)
Dimensions	284 (W) x 230 (D) x 90 (H) mm

PoE Solution

Type	Outdoor VivoCam L2+ Managed PoE Switch	Outdoor VivoCam L2+ Managed PoE Switch	Outdoor VivoCam L2+ Managed PoE Switch
			
Model Name	AW-GET-086A-120	AW-GEU-086A-240	AW-GET-126A-240
Short Highlight	4xGE PoE + 2xGE UTP + 2xGE SFP + 1xRJ45 Console	4xGE UPoE + 2xGE UTP + 2xGE SFP + 1xRJ45 Console	8xGE PoE + 4xGE SFP + 1xRJ45 Console
Ethernet			
10M/100M/1G RJ45 PoE Port	4 /Per Port 30W PoE	4 /Per Port 60W UPoE	8 /Per Port 30W PoE
10M/100M/1G RJ45 Port	2	2	-
1G SFP Slot	2	2	4
RJ45 Console Port	1	1	1
Ethernet Performance			
Backplane	16 Gbps	16 Gbps	24Gbps
Forwarding Capacity	11.904 Mpps	11.904 Mpps	17.856 Mpps
MAC Address	8K	8K	8K
Jumbo Frames	9600 Bytes	9600 Bytes	9600 Bytes
PoE Function			
Number of PoE Port	4	4	8
PoE Output Power	Per Port 54VDC, Max. 30W	Per Port 54VDC, Max. 60W	Per Port 54VDC, Max. 30W
Total PoE Power Budget	120W	240W	240W
Power Pin Assignment	1/2(+), 3/6(-)	15.4W/30W PoE: 1/2(+), 3/6(-) 60W UPoE: 1/2(+), 3/6(-),4/5(+), 7/8(-)	1/2(+), 3/6(-)
PoE Management : PoE Config/Alive Checking/Scheduling/ Power Delay	Supported	Supported	Supported
IEEE 802.3at/af Power over Ethernet	Supported	Supported	Supported
Managing IP Surveillance Management			
Auto Search VIVOTEK Device	Supported	Supported	Supported
Surveillance Management List	Supported	Supported	Supported
Easy Tag VLAN in Topology View	Supported	Supported	Supported
Managing IP Surveillance Graphic View			
Topology View	Supported	Supported	Supported
Floor View	Supported	Supported	Supported
Google Map View	Supported	Supported	Supported
Managing IP Surveillance Maintenance			
VIVOTEK Camera Configuration File Export/Import	Supported	Supported	Supported
Traffic Monitoring	Supported	Supported	Supported
L2 Switching Feature			
IEEE 802.1p Quality of Service	Supported	Supported	Supported
IEEE 802.1q Tag based VLAN	Supported	Supported	Supported
IEEE 802.1d/w/s STP/RSTP/MSTP	Supported	Supported	Supported
IEEE 802.3ad Link Aggregation Control Protocol	Supported	Supported	Supported
IEEE 802.1X Authorization	Supported	Supported	Supported
L3 Switching Feature			
IP Host Table	Supported	Supported	Supported
Static Route (IPv4/IPv6)	Supported	Supported	Supported
Static ARP	Supported	Supported	Supported
DHCP Server	Supported	Supported	Supported
General			
Power Input	100~240V AC / 50~60Hz	100~240V AC / 50~60Hz	100~240V AC / 50~60Hz
Surge Protection /Each PoE Port	6KV	6KV	6KV
Surge Protection for AC Power	40KV	40KV	40KV
Waterproof IP Rating	IP67	IP67	IP67
Vandal Proof	IK10	IK10	IK10
Dimensions	316 (W) x 246 (H) x 118 (D) mm	316 (W) x 246 (H) x 118 (D) mm	316 (W) x 246 (H) x 118 (D) mm
Operating Temperature	-40°C ~ 65°C (-40°F ~ 149°F)	-40°C ~ 65°C (-40°F ~ 149°F)	-40°C ~ 65°C (-40°F ~ 149°F)

Type	Outdoor Unmanaged PoE Switch
	Fast Ethernet
	
Model Name	AW-FET-053C-120
Short Highlight	Outdoor Unmanged PoE Switch 4xFE PoE + 1xFE UTP
Ethernet	
10M/100M RJ45 Port	5
10M/100M/1G RJ45 Port	-
1G SFP Slot	-
1G Combo Port (RJ45/SFP)	-
PoE Function	
Number of PoE Port	4
Max. PoE Output Power/Per Port	Per Port 54VDC, Max. 30W
Total PoE Power Budget	120W
EX Mode	2 port up to 200M/10Mbps
IEEE 802.3af/at	Supported
Power Pin Assignment	1/2(+), 3/6(-),4/5(+), 7/8(-)
PoE PD Auto Detection	Supported
Surge Protection/Each PoE port	12 KV
Surge Protection for AC Power	10 KV
Ethernet Performance	
Switching Capacity	1 Gbps
Mac Table	2K
Jumbo Frame	1536 Bytes
Auto-MDI/MDI-X, Auto-Negotiation	Supported
Power Specifications	
Power Input Voltage	100VAC ~ 240VAC
Alarm Relay	24VDC
General	
Waterproof Rating	IP67
Vandal Proof	IK10
Surge Protection /Each PoE Port	12 KV
Surge Protection for AC Power	10 KV
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)
Storage Temperature	-40°C~ 85°C (-40°F~ 185°F)
Dimensions	255 (W) x 200 (H) x 90 (D) mm
Weight	3.2 kg
Connectors	M25 x 2

PoE Solution

Type	Outdoor Unmanaged PoE Switch			Outdoor Unmanaged PoE Switch
	Fast Ethernet	Gigabit Ethernet		Gigabit Ethernet
				
Model Name	AW-FGT-103C-250	AW-GET-083A-120	AW-GEU-083A-240	AW-GET-123A-240
Short Highlight	Outdoor Unmanaged Switch 8xFE PoE + 2xGE Combo	Outdoor Unmanaged PoE Switch 4xGE PoE + 2GE UTP + 2xGE SFP	Outdoor Unamanged UPoE Switch 4xGE UPoE + 2xGE UTP + 2xGE SFP	Outdoor Unmanged PoE Switch 8xGE PoE + 4xGE SFP
Ethernet				
10M/100M RJ45 Port	8	-	-	-
10M/100M/1G RJ45 Port	-	6	6	8
1G SFP Slot	-	2	2	-
1G Combo Port (RJ45/SFP)	2	-	-	4
PoE Function				
Number of PoE Port	8	4	4	8
Max. PoE Output Power/Per Port	Per Port 54VDC, Max. 30W	Per Port 54VDC, Max. 30W	Per Port 54VDC, Max. 60W	Per Port 54VDC, Max. 30W
Total PoE Power Budget	240W	120W	240W	240W
EX Mode	2 port up to 200M/10Mbps	-	-	-
IEEE 802.3af/at	Supported	Supported	Supported	Supported
Power Pin Assignment	1/2(+), 3/6(-), 4/5(+), 7/8(-)	1/2(+), 3/6(-)	15.4W/30W PoE: 1/2(+), 3/6(-) 60W UPoE: 1/2(+), 3/6(-), 4/5(+), 7/8(-)	1/2(+), 3/6(-)
PoE PD Auto Detection	Supported	Supported	Supported	Supported
Surge Protection/Each PoE port	12 KV	6 KV	6 KV	6 KV
Surge Protection for AC Power	40 KV	40 KV	40 KV	40 KV
Ethernet Performance				
Switching Capacity	5.6 Gbps	16 Gbps	16 Gbps	24 Gbps
Mac Table	4K	8K	8K	8K
Jumbo Frame	1536 Bytes	9216 bytes	9216 bytes	9216 bytes
Auto-MDI/MDI-X, Auto-Negotiation	Supported	Supported	Supported	Supported
Power Specifications				
Power Input Voltage	100VAC ~ 240VAC	100VAC ~ 240VAC	100VAC ~ 240VAC	100VAC ~ 240VAC
Alarm Relay	24VDC	24VDC	24VDC	24VDC
General				
Waterproof Rating	IP67	IP67	IP67	IP67
Vandal Proof	IK10	IK10	IK10	IK10
Surge Protection /Each PoE Port	12 KV	6KV	6KV	6KV
Surge Protection for AC Power	40 KV	40KV	40KV	40KV
Operating Temperature	-40°C ~ 60°C (-40°F ~ 140°F)	-40°C ~ 65°C (-40°F ~ 149°F)	-40°C ~ 65°C (-40°F ~ 149°F)	-40°C ~ 65°C (-40°F ~ 149°F)
Storage Temperature	-40°C ~ 75°C (-40°F ~ 167°F)	-40°C ~ 75°C (-40°F ~ 167°F)	-40°C ~ 75°C (-40°F ~ 167°F)	-40°C ~ 75°C (-40°F ~ 167°F)
Dimensions	316 (W) x 246 (H) x 118 (D) mm	316 (W) x 246 (H) x 118 (D) mm	316 (W) x 246 (H) x 118 (D) mm	316 (W) x 246 (H) x 118 (D) mm
Weight	4.3 kg	4.52 kg	4.52 kg	4.52 kg
Connectors	M16 x 4, M25 x 2	M16 x 4, M25 x 2	M16 x 4, M25 x 2	M16 x 4, M25 x 2

PoE Solution

Type	Industrial VivoCam L2+ Managed PoE Switch
	
Model	AW-IHT-1271
Short Highlight	Industrial VivoCam L2+ Managed PoE Switch 8xGE PoE + 4xGE SFP
Ethernet	
10M/100M/1G RJ45 PoE Port	8/Per Port up to 30W
100M/1G SFP	4
RJ45 Console Port	1
PoE Function	
Number of PoE Port	8
PoE Output Power	Per Port 54VDC, Max. 30W
Total PoE Power Budget	240W
Power Pin Assignment	1/2(+), 3/6(-)
PoE Management : PoE Config/Alive Checking/Scheduling/Power Delay	Supported
IEEE 802.3at/af Power over Ethernet	Supported
Ethernet Performance	
Switch Capacity	24Gbps
MAC Address	8K
Jumbo Frames	9600 Bytes
Auto-MDI/MDI-X, Auto-Negotiation	Supported
Managing IP Surveillance Management	
Auto Search VIVOTEK Device	Supported
Surveillance Management List	Supported
Easy Tag VLAN in Topology View	Supported
Managing IP Surveillance E-MAP View	
Topology View	Supported
Floor View	Supported
Google Map View	Supported
Managing IP Surveillance Maintenance	
VIVOTEK Camera Configuration File Export/Import	Supported
Traffic Monitoring	Supported
L2 Switching Feature	
IEEE 802.1p Quality of Service	Supported
IEEE 802.1q Tag based VLAN	Supported
IEEE 802.1d/w/S STP/RSTP/MSTP	Supported
IEEE 802.3ad Link Aggregation Control Protocol	Supported
IEEE 802.1X Authorization	Supported
L3 Switching Feature	
IP Host Table	Supported
Static Route (IPv4/IPv6)	Supported
Static ARP	Supported
DHCP Server	Supported
General	
Power Input	PW1: 48 ~ 57VDC PW2: 48 ~ 57VDC Redundant Power Backup
Surge Protection	Per port 6KV
Dimensions	62 (W) x 135 (H) x 130 (D) mm
Operating Temperature	-40°C ~ 75°C (-40°F ~ 167°F)

PoE Solution

Type	VivoCam L2+ Managed PoE Switch	
------	--------------------------------	--



Model Name	AW-GEV-107A-130	AW-GEV-267A-370
Short Highlight	8xGE PoE + 2xGE Combo + 1xRJ45 Console	24xGE PoE + 2xGE Combo + 1xRJ45 Console
Ethernet		
10M/100M/1G RJ45 PoE Port	8/Per Port up to 30W	24/Per Port up to 30W
1G Combo Port (RJ45/SFP)	2	2
RJ45 Console Port	1	1
Ethernet Performance		
Backplane	20 Gbps	52 Gbps
Forwarding Capacity	14.88 Mpps	38.68 Mpps
MAC Address	8K	8K
Jumbo Frames	9600 Bytes	9600 Bytes
PoE Function		
Number of PoE Port	8	24
PoE Output Power	Per Port 54VDC, Max. 30W	Per Port 54VDC, Max. 30W
Total PoE Power Budget	130W	370W
Power Pin Assignment	1/2(+), 3/6(-)	1/2(+), 3/6(-)
PoE Management : PoE Config/Alive Checking/Scheduling/Power Delay	Supported	Supported
IEEE 802.3at/af Power over Ethernet	Supported	Supported
Managing IP Surveillance Management		
Auto Search VIVOTEK Device	Supported	Supported
Surveillance Management List	Supported	Supported
Easy Tag VLAN in Topology View	Supported	Supported
Managing IP Surveillance Graphic View		
Topology View	Supported	Supported
Floor View	Supported	Supported
Google Map View	Supported	Supported
Managing IP Surveillance Maintenance		
VIVOTEK Camera Configuration File Export/ Import	Supported	Supported
Traffic Monitoring	Supported	Supported
L2 Switching Feature		
IEEE 802.1p Quality of Service	Supported	Supported
IEEE 802.1q Tag based VLAN	Supported	Supported
IEEE 802.1d/w/S STP/RSTP/MSTP	Supported	Supported
IEEE 802.3ad Link Aggregation Control Protocol	Supported	Supported
IEEE 802.1X Authorization	Supported	Supported
L3 Switching Feature		
IP Host Table	Supported	Supported
Static Route (IPv4/IPv6)	Supported	Supported
Static ARP	Supported	Supported
DHCP Server	Supported	Supported
General		
Power Input	100~240V AC / 50~60Hz	100~240V AC / 50~60Hz
Surge Protection	Per port 6KV	Per port 6KV
Dimensions	220 (L) x 243 (W) x 44 (H) mm	442 (L) x 211 (W) x 44 (H) mm
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F)	0°C ~ 50°C (32°F ~ 122°F)

PoE Solution

VivoCam Web Smart Managed PoE Switch			10G L2+ Managed Switch	Unmanaged FE PoE Switch	
--------------------------------------	--	--	------------------------	-------------------------	--



Model	AW-GEV-1048-130	AW-GEV-1848-250	AW-GEV-2648-370	AW-GTS-287A	AW-FET-060C-065	AW-FET-100C-120
Description	8xGE PoE + 2xGE SFP Web Smart PoE Switch /Per Port Max. 30W, Power Budget 130W	16xGE PoE + 2xGE SFP Web Smart PoESwitch /Per Port Max. 30W, Power Budget 250W	24xGE PoE + 2xGE SFP Web Smart PoE Switch /Per Port Max. 30W, Power Budget 370W	20xGE SFP + 4xCombo GE + 4x10G SFP	4xFE PoE + 2xFE UTP Switch /Per Port Max. 30W, Power Budget 60W	8xFE PoE + 2xFE UTP Switch /Per Port Max. 30W, Power Budget 120W

Unmanaged FE PoE Switch				Unmanaged GE PoE Switch	
-------------------------	--	--	--	-------------------------	--



Model	AW-FGT-100B-120	AW-FGT-100C-120	AW-FGT-180C-250	AW-FGT-260C-380	AW-GET-050A-065	AW-GEU-080A-250
Description	8xFE PoE + 2xGE UTP Switch /Per Port Max. 30W, Power Budget 115W	8xFE PoE + 1xGE UTP + 1xGE SFP Switch /Per Port Max. 30W, Power Budget 120W	16xFE PoE + 2xGE Combo Switch / Per Port Max. 30W, Power Budget 240W	24xFE PoE + 2xGE Combo Switch / Per Port Max. 30W, Power Budget 370W	4xGE PoE + 1xGE Switch /Per Port Max. 30W, Power Budget 60W	2xGE 60W UPoE + 4xGE PoE 30W + 2xGE Switch, Power Budget 240W

Unmanaged GE PoE Switch			PoE Injector		
-------------------------	--	--	--------------	--	--



Model	AW-GET-100A-120	AW-GET-180A-250	AW-GET-260A-380	AP-FIC-010A-015	AP-GIC-010A-030	AP-GIC-011A-060
Description	8xGE PoE + 2xGE SFP Switch /Per Port Max. 30W, Power Budget 115W	16xGE PoE + 2xGE SFP Switch /Per Port Max. 30W, Power Budget 240W	24xGE PoE + 2xGE SFP Switch /Per Port Max. 30W, Power Budget 370W	Indoor 1xFE IEEE 802.3af 15.4W PoE Injector	Indoor 1xGE IEEE 802.3af 30W PoE Injector	Indoor 1xGE 60W High Power UPoE Injector

PoE Injector			PoE Extender		
--------------	--	--	--------------	--	--



Model	AP-GIC-011A-095	AP-GIC-015B-095	AP-FXC-0110/ AP-FXC-0210	AP-FXC-0400	AP-FXC-0160	AP-FXC-0260
Description	Indoor 1xGE 95W High Power PoH/ PoE Injector	Outdoor 1xGE 95W High Power PoH/PoE Injector, IP67, IK10	Indoor 1/2-Port FE PoE Extender 30W/60W/95W	Indoor 4-Port FE PoE Extender 30W/60W	Outdoor 1/2-Port FE PoE Extender 30W/60W/95W, IP67, IK10	Outdoor 1/2-Port FE PoE Extender 30W/60W/95W, IP67, IK10

PoE Solution

Indoor EPoC Extender				Outdoor EPoC Extender		
						
Model	AP-FEX-0105-R	AP-FEX-0100-R	AP-FEX-0105-T	AP-FEX-0200-T	AP-FEX-0150-T	AP-FEX-0250-T
Description	EPoC Rx module, 1xFE RJ45, 1x BNC Port, 1x DC Jack	EPoC PoE in Rx module, 1xFE RJ45, 1x BNC Port	EPoC Tx module, 1xFE RJ45, 1x BNC Port, 1x DC Jack, 1 PoE on/off dip switch	EPoC Tx Module, 1x BNC, 2x FE RJ45, -20°C~60°C	EPoC Outdoor Tx Module, 1x BNC, 1x FE RJ45, -40°C~60°C, IP67, IK10	EPoC Outdoor Tx Module, 1x BNC, 2x FE RJ45, -40°C~60°C, IP67, IK10
Unmanaged EPoC Switch		EPoC Conduit Box	Industrial Unmanaged PoE Switch			
						
Model	AW-FCT-050A-250	AM-713-E	AW-IHT-0200	AW-IHU-0200	AW-IHH-0200	AW-IHT-0800
Description	EPoC 4 x FE BNC Port + 1 x GE RJ45 switch/Per Port Max. 60w, Power Budget 250W	Outdoor Conduit Box with EPoC Tx module for Fixed Dome, 6KV surge protection	Industrial 1xGE PoE + 1xGE SFP Switch /Per Port Max. 30W, Power Budget 30W	Industrial 1xGE 60W UPoE + 1xGE SFP Switch /Per Port Max. 60W, Power Budget 60W	Industrial 1xGE 95W PoH/PoE + 1xGE SFP Switch / Per Port Max. 95W, Power Budget 95W	Industrial 4xGE PoE + 2xGE UTP + 2xGE SFP Switch / Per Port Max. 30W, Power Budget 120W
Industrial Unmanaged PoE Switch					Industrial PoE Injector	
						
Model	AW-IHH-0800	AW-IHT-1000	AW-IHT-0601	AW-IHT-0602	AW-IHT-0100	AW-IHU-0100
Description	Industrial 4xGE 95W PoH/PoE + 2xGE UTP + 2xGE SFP Switch /Per Port Max. 95W, Power Budget 240W	Industrial 8xGE PoE + 2xGE SFP Switch /Per Port Max. 30W, Power Budget 240W	Industrial 4xGE PoE + 1xGE Combo + 1xGE SFP Switch /Per Port Max. 30W, Power Budget: 24V DC ~ 56V DC: 120 W, 12V DC: 65 W	Industrial EN50155 4xFE M12 PoE + 2xFE M12 Switch / Per Port Max. 30W, Power Budget 120W	Industrial 1xGE 30W PoE Injector	Industrial 1xGE 60W UPoE Injector
Industrial PoE Injector		Industrial Media Converter		Outdoor PoE Surge Protector		
						
Model	AW-IHH-0100	AW-IHS-0202	AW-IHS-0203	AP-PSP-050		
Description	Industrial 1xGE 95W PoH/PoE Injector	Industrial 1xFE + 1xFE SFP Media Converter	Industrial 1xGE + 1xGE SFP Media Converter	Outdoor PoE Surge Protector 16KV/IP67/IK10		

Cabinet

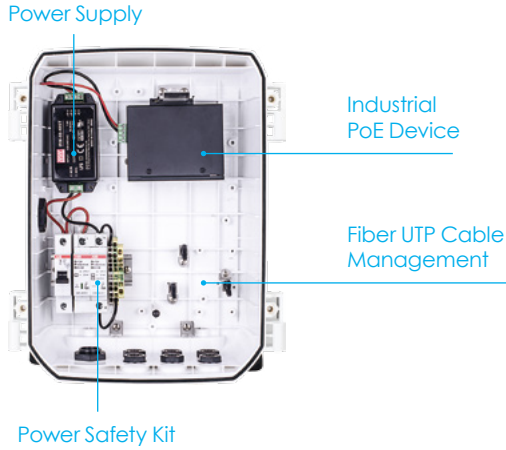
Cabinet			Cabinet Accessories			
						
Model Name	AT-CAB-001	AT-CAS-001	AT-CAB-002	AT-SUN-001	AT-SUN-002	AT-SWH-000
Description	Cabinet	Cabinet for Speed dome (SD936X)	Side-mount bracket for HLG series power supply	Sunshield for AT-CAX series cabinet	Sunshield for AT-CAX + AT-CAB-002 cabinet	Power safety kit
Cabinet Accessories						
						
Model Name	AT-SWH-002	AT-PSP-001	AT-WPC-001	AT-WPC-002	AM-314	AM-414
Description	Door open/close detection switch	PoE surge protector	M16 cable gland for 4~7mm AWG	M16 cable gland for corrugated tubing : 5/16"	Pole mount adapter	Corner mount adapter



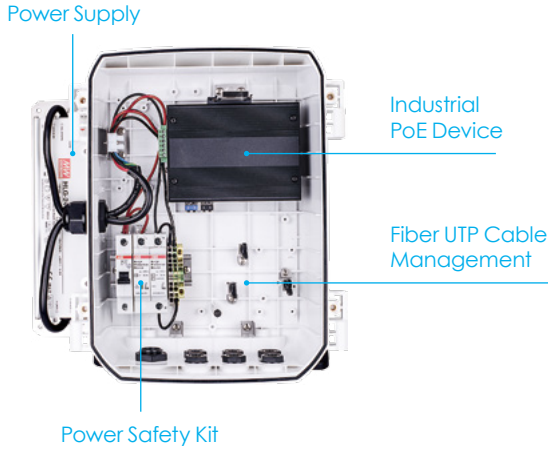
AT-CAB-001



AT-CAS-001



AT-CAB-001/AT-CAS-001



AT-CAB-001/AT-CAS-001+AT-CAB-002

PoE Accessories

Industrial DIN-Rail Power Supply				Industrial Wall mount Power Supply		
						
Model Name	MDR-10-12	NDR-75-48	NDR-120-48	NDR-240-48	HLG-60H-24	HLG-80H-24
Description	Indoor Industrial Din Rail Power Supply, 12VDC/10W, -20°C ~ 70°C	Indoor Industrial Din Rail Power Supply, 48~55VDC/75W, -20°C ~ 70°C	Indoor Industrial Din Rail Power Supply, 48~55VDC/120W, -20°C ~ 70°C	Indoor Industrial Din Rail Power Supply, 48~55VDC/240W, -20°C ~ 70°C	Outdoor Industrial Power Supply, 24VDC/60W, -40°C ~ 70°C, IP67	Outdoor Industrial Power Supply, 24VDC/80W, -40°C ~ 70°C, IP67
Industrial Wall Mount Power Supply						
						
Model Name	HLG-80H-48	HLG-80H-54	HLG-120H-24	HLG-120H-48	HLG-120H-54	HLG-240H-24
Description	Outdoor Industrial Power Supply, 48VDC/80W, -40°C ~ 70°C, IP67	Outdoor Industrial Power Supply, 54VDC/80W, -40°C ~ 70°C, IP67	Outdoor Industrial Power Supply, 24VDC/120W, -40°C ~ 70°C, IP67	Outdoor Industrial Power Supply, 48VDC/120W, -40°C ~ 70°C, IP67	Outdoor Industrial Power Supply, 54VDC/120W, -40°C ~ 70°C, IP67	Outdoor Industrial Power Supply, 24VDC/240W, -40°C ~ 70°C, IP67
Industrial Wall Mount Power Supply		Outdoor Power Box	SFP Transceiver			
						
Model Name	HLG-240H-54	AA-351/352	SFP-1000-MM85-X5	SFP-1000-MM13-02	SFP-1000-SM13-10	SFP-1000-SM13-40
Description	Outdoor Industrial Power Supply, 54VDC/240W, -40°C ~ 70°C, IP67	Outdoor IP67, IK10, 24VAC/6A, -40°C ~ 60°C	1.25G Multi-Mode SFP, 850nm, 0.5KM, 0°C ~ 70°C	1.25G Multi-Mode SFP, LC, 1310nm, 2KM, 0°C ~ 70°C	1.25G Single-Mode SFP, LC, 1310nm, 10KM, 0°C ~ 70°C	1.25G Single-Mode SFP, LC, 1310nm, 40KM, 0°C ~ 70°C
SFP Transceiver				SFP+ Transceiver		
						
Model Name	SFP-1000-MM85-X5I	SFP-1000-MM13-02I	SFP-1000-SM13-10I/40I	SFP-1000-CPTX-X1/X1I	SFP-2000-MM85-X3	SFP-2000-SM13-10
Description	Industrial 1.25G Multi-Mode SFP, LC, 850nm, 0.5KM, -40°C ~ 85°C	Industrial 1.25G Multi-Mode SFP, LC, 1310nm, 2KM, -40°C ~ 85°C	Industrial 1.25G Single-Mode SFP, LC, 1310nm, 10KM/40KM, -40°C ~ 85°C	1000BaseT, SFP to RJ45, 100M, 0°C ~ 70°C / -40°C ~ 85°C	10G Multi-Mode SFP+, LC, 850nm, 0.3KM, 0°C ~ 70°C	10G Single-Mode SFP+, LC, 1310nm, 10KM, 0°C ~ 70°C

Accessories

Mounting Kits						
						
Model Name	AM-105	AM-107	AM-10D	AM-10E	AM-114	AM-118
Description	Recessed kit (Fixed dome)	Recessed kit (SD9161-H)	Recessed kit (MA9321-EHTV)	Recessed kit (Outdoor Speed Dome)	Pendant head (Water proof)	Pendant head
Mounting Kits						
						
Model Name	AM-116/AM-117	AM-212	AM-216	AM-218	AM-21A/AM-21B	AM-21G
Description	Pendant Pipe (20/40 cm)	Wall mount bracket	Wall Mount Bracket (15 Degree)	Wall mount bracket	L shape bracket	L shape bracket
Mounting Kits						
						
Model Name	AM-21C	AM-21D/AM-21E	AM-220	AM-221	AM-231	AM-312/AM-314
Description	Wall mount bracket (Indoor speed dome)	Wall bracket (Enclosures)	Wall mount bracket (Outdoor speed dome)	Gooseneck bracket	Parapet mount bracket	Pole mount adapter
Mounting Kits						
						
Model Name	AM-315	AM-412/AM-414	AM-514/AM-51C	AM-51D	AM-51E	AM-523
Description	Pole mount adapter	Corner mount adapter	Adapter plate	Adapting plate (4" square electrical box)	Adapting plate (90° rotation)	Adapting plate (4" square electrical box)

Accessories

Mounting Kits						
						
Model Name	AM-526	AM-520	AM-522	AM-525	AM-527	AM-528
Description	Pendant mount adapter (3/4" NPT)	Mounting adapter (3/4" NPT F and 1.5" PS11 M)	Mounting adapter (3/4" NPT M and 1.5" PS11 M)	Mounting adapter (3/4" NPT F and 1.5" PS11 M)	Mounting adapter (3/4" NPT F and 1.5" PS11 M)	Mounting adapter for outdoor dome (3/4" NPT F and 1.5" PS11 M)

Mounting Kits						
						
Model Name	AM-529	AM-52A	AM-52B	AM-52C	AM6101	AM6102
Description	Mounting adapter for speed dome (SD936x)	Mounting adapter for speed dome (SD916-H)	Mounting Adapter (3/4" NPT Female Connector)	Mounting adapter (1/2" NPT Female Connector)	Wall Mount Kit for VS8401/VS8801	Rack Mount Kit for VS8401/VS8801

Mounting Kits						Enclosures
						
Model Name	AM-611	AM-612	AM-712	AM-713	AM-718/AM-719	AE-238
Description	Rack mount fixed bracket for NVR	Rack mount rails for NVR	Conduit box	Conduit box (Water-proof)	Junction box	Value series enclosure 24VAC/ VDC input, IP68, IK10

Enclosures						
						
Model Name	AE-239	AE-243	AE-244	AE-23A	AE-23B	AE-23C
Description	Value series enclosure, PoE input, IP68, IK10	Value series enclosure, built-in fixed 50M IR, 24VAC/VDC input, IP68, IK10	Value Series Enclosure, built-in fixed 50M IR, PoE input, IP68, IK10	Supreme series enclosure, optional VAIR illuminator, 24VAC/28VDC input, IP68, IK10	Supreme series enclosure, wiper, optional VAIR illuminator, 24VAC/28VDC input, IP66, IK10	Supreme series enclosure, cold start heater, optional VAIR illuminator, 24VAC/28VDC input, IP68, IK10

Accessories

Enclosures				Water Tank	IR Illuminators for AE-23x Enclosures	
						
Model Name	AE-23D	AE-23E	AE-23F	AE-301	AI-106	AI-108
Description	Supreme series enclosure, wiper, cold start heater, optional VAIR illuminator, 24VAC/28VDC input, IP66, IK10	Supreme series enclosure, optional VAIR illuminator, PoE input, IP68, IK10	Supreme series enclosure, wiper, optional VAIR illuminator, PoE input, IP66, IK10	10L, low level alarm pump control via DIDO 0 °C~60 °C [for SD9365-EHL, SD9366-EH(L)]	VAIR illuminator 6W for Supreme series enclosure , adjustable beam angle 10°~40°, 40~100M, -40 °C~50 °C	VAIR illuminator 24W for Supreme series enclosure, adjustable beam angle 10°~30°, 70~200M, -40 °C~50 °C

IR Illuminators for AE-23x Enclosures			Covers			
						
Model Name	AI-109	AC-215	AC-221	AC-224	AC-227	AC-229
Description	VAIR illuminator 48W for Supreme series enclosure, adjustable beam angle 10°~30°, 150~350M, -40 °C~50 °C	Smoked cover (Indoor speed dome)	Smoked cover for FD8166A, FD8166A-N	Smoked cover (Indoor fixed dome)	Transparent cover for CU8131, FD816C(A)-HF2	IK10 Transparent cover for recessed-mount cameras

CaMate IR Illuminators				CaMate IR Accessories		
						
Model Name	CM32 Series	CM48 Series	CM80 Series	CA80 Series	AM-219	CMA-B01
Description	32W, 12 pcs IR LED, 850nm, 10° or 35°	48W, 24 pcs IR LED, 850nm, 10°~180° Adjustable beam angle	80W, 24 pcs IR LED, 850nm, 10°~180° Adjustable beam angle	80W, 24 pcs IR LED, 850nm, 10°~40° Adjustable beam angle via RS485 or remote control	L Bracket for dual or triple CaMate	L Bracket

CaMate IR Accessories						
						
Model Name	CMA-B03	CMA-B04	CMA-B05	CMA-B06	CMA-A01	CMA-E01
Description	U Bracket	Wall mount for dual camate with pan angle	Wall mount for dual camate with pan and tilt angle	Wall mount for triple camate	Laser alignment	Remote control

Accessories

Lenses						
						
Model Name	AL-232	AL-237	AL-239	AL-242	AL-243	AL-246
Description	CS mount, 3.1~8mm, F1.2, DC-Iris, 1/2.7"	CS mount, 4.1~9mm, F1.6, DC-Iris, 1/1.8"	C mount, 8~80mm, F1.6, DC-Iris, 1/2"	CS mount, 12.5~50mm, F1.4, P-Iris, 1/2.7"	CS mount, 7~22mm, F1.4, P-Iris, 1/2.7"	CS mount, 2.8~8.5mm, F1.2, P-Iris, 1/2.7"
Lenses						
						
Model Name	AL-247	AL-248	AL-24A	AL-24B	AL-24D	AL-24E
Description	CS mount, 2.8~8mm, F1.2, P-Iris, 1/3"	CS mount, 12~50mm, F1.8, P-Iris, 1/1.7"	CS mount, 12~40mm, F1.8, P-Iris, 1/1.8"	CS mount, 3.6~17mm, F1.5, P-Iris, 1/1.8"	C Mount, 25~135mm, F1.8, P-Iris, 1/1.8"	CS Mount, 3.9~10mm, F1.5, P-Iris, 1/1.8"
Lenses		Power Adapters	Connector	Joystick	Cable	
						
Model Name	AL-251	AL-252	AA-221/AA-231	AN3000	AJ-001/AJ-002	AO-002
Description	CS-Mount, 3.9~10mm, F1.5, i-CS, 1/1.8"	CS-Mount, 9 ~ 50mm, F1.5~1.6, i-CS, 1/1.8"	DC 12V 1.5A/2.5A power adapter	Outdoor Ethernet waterproof connector	8/29-key USB Joystick	RJ45 to M12 (4-pin) water-proof Cable (1 meter)
Cable						Storage
						
Model Name	AO-003	AO-004	AO-005	AO-006	AO-007	Micron SD
Description	I/O Cable for speed dome (SD9161-H, SD9361/2/3/4-EH(L))	M12 (D Code 4-Pin Male) to RJ45 Cable (60cm)	FD8366-V Power Cable with DI	IO Cable for MA8391-ETV	Combo cable for speed dome (SD9365/6-EH(L))	Micron SD Card 32/64/128/256GB

Mounting Installation

Outdoor		Bullet Cameras	Thermal Cameras	Multi-Sensor Cameras	
					
Application	Model	IB8377-T Series IB9365(67) Series IB9371(81) Series IB9387 Series IB9391-EHT	IB9389 Series	TB9330-E TB9331-E	MS9321-EHV
Pole Mount Adapter	 AM-312	•	•	•	•
Corner Mount Adapter	 AM-412	•	•	•	•
Adapter Plate	 AM-523		•		
Junction Box	 AM-719	•			

Mounting Installation

Indoor		Fixed Dome / 360° Cameras				
						
Application	Model	FD8166A Series	FD9165(67)-(H)T FD9171(81)-HT FD8177-HT FD9187 Series	FD9189 Series	FE9181-H FE9191	FE9182-H
Ceiling Mount	 AM-105		•			
L-Shape Wall Mount	 AM-21A		•	•		
	 AM-21B	•				
Adapter Plate	 AM-514		•		•	
	 AM-51C					•
	 AM-51D			•		
	 AM-51E	•				
	 AM-520				•	•

Mounting Installation

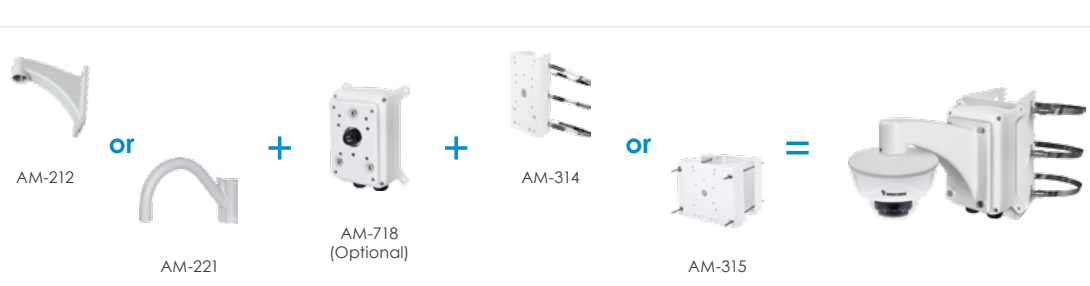
Indoor		Fixed Dome / 360° Cameras				
						
Application	Model	FD8166A Series	FD9165(67)-(H)T FD9171(81)-HT FD8177-HT FD9187 Series	FD9189 Series	FE9181-H FE9191	FE9182-H
Mounting Adapter/ Conduit Box	 AM-52C				•	
	 AM-527		•			
	 AM-528			•		
	 AM-712 + AM-522	•	•			
Pendant Mount*	 AM-116/117 + AM-118 =					
Wall Mount*	 AM-212 or AM-221 + AM-718 (Optional) =					
	 AM-218 + AM-719 (Optional) =					

* Please select the correct mounting adapter/conduit box for each mounting scenario.

Mounting Installation

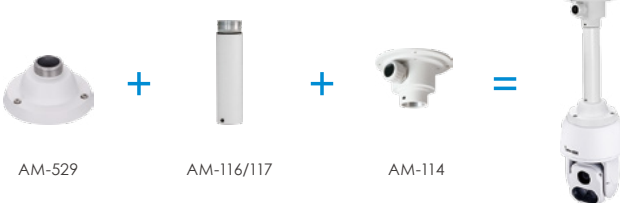
Outdoor		Fixed Dome / 360° Cameras				
						
Application	Model	FD8366-V	FD8377-T Series FD9365(67) Series FD9371(81) Series	FD9387 Series FD9391-EHTV	FD9389 Series	FE9381(82)-EHV FE9391-EV FE9582-EHNV
L-Shape Wall Mount	 AM-21A		•	•	•	
	 AM-21G	•				
Adapter Plate	 AM-51C		•	•		
	 AM-51D				•	
	 AM-51E	•				
	 Inbox Plate					•
						•
Mounting Adapter/ Conduit Box	 AM-520					•
	 AM-525		•	•		
	 AM-528				•	
	 AM-712 + AM-522		•	•		

Mounting Installation

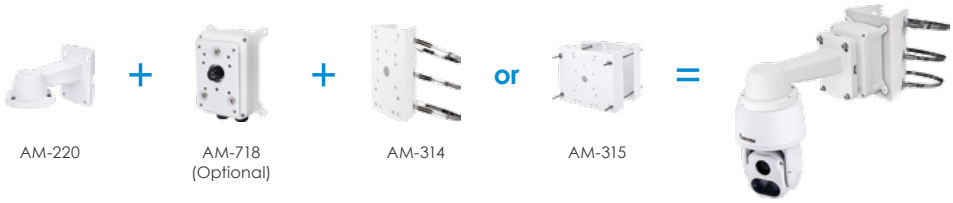
Outdoor		Fixed Dome / 360° Cameras				
						
Application	Model	FD8366-V	FD8377-T Series FD9365(67) Series FD9371(81) Series	FD9387 Series FD9391-EHTV	FD9389 Series	FE9381(82)-EHV FE9391-EV FE9582-EHNV
Pendant Mount*	 AM-116/117 + AM-114 =					
Wall Mount*	1  AM-212 or AM-221 + AM-718 (Optional) =					
	2  AM-218 + AM-719 (Optional) =					
Pole Mount*	1  AM-212 or AM-221 + AM-718 (Optional) + AM-314 or AM-315 =					
	2  AM-218 + AM-719 (Optional) + AM-312 =					

* Please select the correct mounting adapter/conduit box for each mounting scenario.
* To mount outdoor fisheye camera to AM-520, please use the inbox plate included with the fisheye camera.

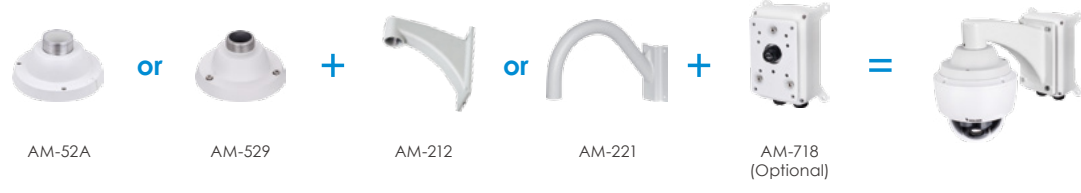
Mounting Installation

Outdoor		Speed Dome Cameras		
				
Application	Model	SD9362-EH-v2	SD9364-EH-v2 SD9366-EH-v2	SD9374-EHL SD9374-EHLX
Ceiling Mount	 AM-10E	•		
Wall Mount Bracket	 AM-220	•	•	•
Mounting Adapter	 AM-529	•	•	•
Cabinet	 AM-220 AT-CAS-001			
Pendant Mount	 AM-529 AM-116/117 AM-114			
Wall Mount	①  AM-220 AM-718 (Optional)			
	②  AM-529 AM-212 AM-221 AM-718 (Optional)			

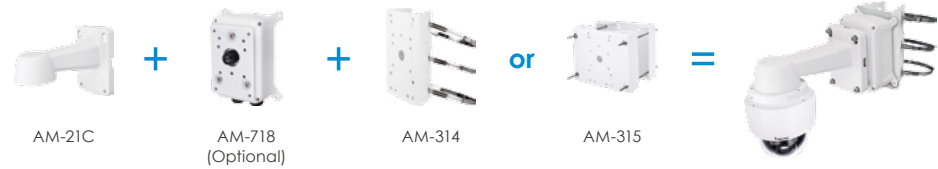
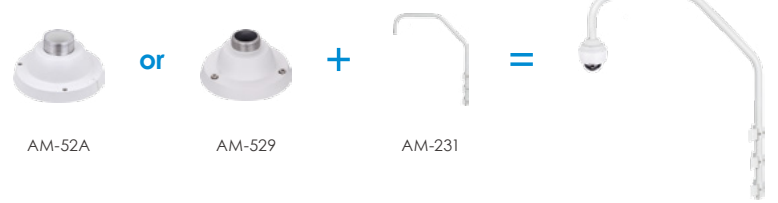
Mounting Installation

Outdoor		Speed Dome Cameras		
				
Application	Model	SD9362-EH-v2	SD9364-EH-v2 SD9366-EH-v2	SD9374-EHL SD9374-EHLX
Pole Mount	①  AM-220 AM-718 (Optional) AM-314 AM-315			
	②  AM-529 AM-212 AM-221 AM-718 (Optional) AM-314 AM-315			
Corner Mount	①  AM-220 AM-718 (Optional) AM-414			
	②  AM-529 AM-212 AM-221 AM-718 (Optional) AM-414			
Parapet Mount	 AM-529 AM-231			

Mounting Installation

Indoor/Outdoor		Speed Dome Cameras	Multi-Sensor Cameras
			
Application	Model	SD9161-H	MA9321-EHTV
Ceiling Mount	 AM-107	•	
	 AM-10D		•
Wall Mount Bracket	 AM-21C	•	•
Mounting Adapter	 AM-529		•
	 AM-52A	•	
Pendant Mount			
Wall Mount	1 		
	2 		

Mounting Installation

Indoor/Outdoor		Speed Dome Cameras	Multi-Sensor Cameras
			
Application	Model	SD9161-H	MA9321-EHTV
Pole Mount	1 		
	2 		
Corner Mount	1 		
	2 		
Parapet Mount			

VIVOTEK Solution Integration Alliance

The SIA (Solution Integration Alliance) Program is a strategic alliance that aims to facilitate the integration of VIVOTEK products into leading software or hardware platforms. With the SIA Program, partners have the flexibility to enhance key functionalities when creating an IP surveillance solution.

The SIA Program provides programmable Software Development Kits (SDK) to allow partners to develop

customized features on an open platform, allowing the highest possible level of integration. VIVOTEK also provides technical support throughout the development process.

Find out more about enrolling in the VIVOTEK SIA Program, please email sia@vivotek.com for more information.



VAST 2

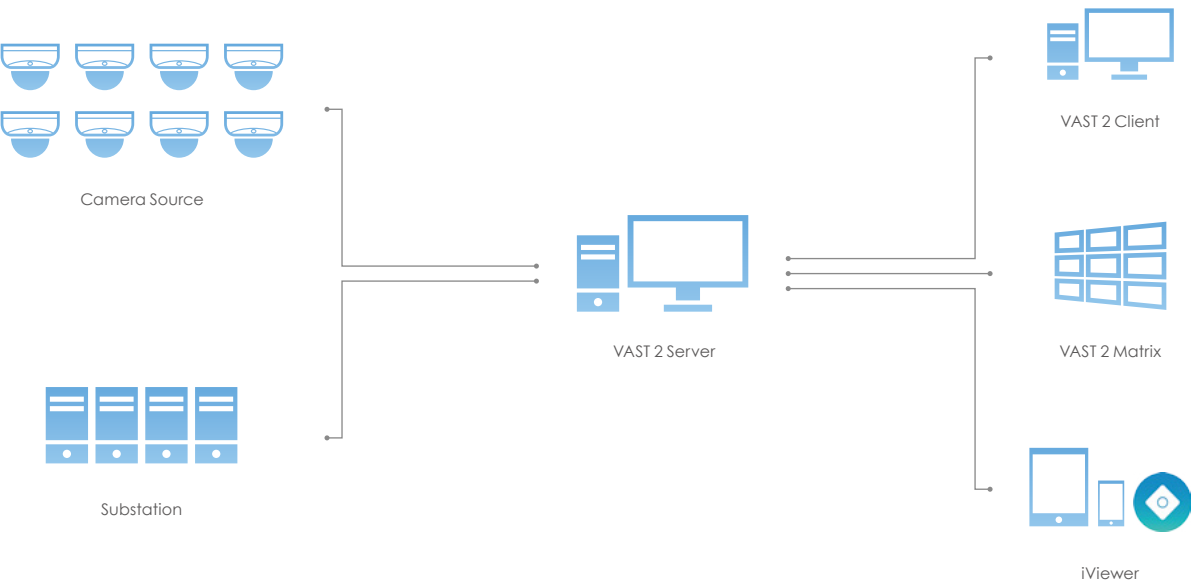
Change the Way You Experience VMS



VIVOTEK's VAST 2 is an easy to use IP video management software (VMS). To meet users' real-world needs, it comes with exciting advancements such as easy operation on single or multiple monitors; a custom layout to fit both corridor and panorama format; and rapid export of multi-channel video and acquired VCA analytics with integrated cameras. To efficiently solve users' problems and any systemic issues, VAST 2 provides an automatic problem feedback mechanism directly connected to VIVOTEK's FAE system. Any feedback will be addressed instantly.

Utilizing automatic configuration wizards, VAST 2 can significantly reduce the time and cost of installing

multiple camera surveillance systems. With more advanced setup features such as a logic tree, camera configuration, archive management and recording schedule backup solutions, VAST 2 provides an easy and intuitive UI with rich functionality to meet the needs of any customer. For efficient video management, VAST 2 also provides multi-layered, interactive 2.5D maps, and sophisticated alarm management. Furthermore, add-on solutions include failover protection, a transportation solution with GPS coordinates, transaction solutions with POS integration and Data Magnet integration solutions. All of these features combine to make VAST 2 the perfect VMS for use in retail, banking, transportation, and industrial applications.



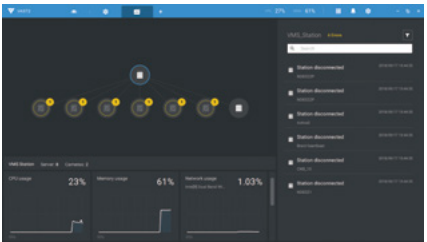
Smart Search II

Allow users to search for objects or people related videos according to the VCA (Video Content Analysis) metadata from camera videos. Users can quickly sort through large amounts of evidence to find precisely what is needed.



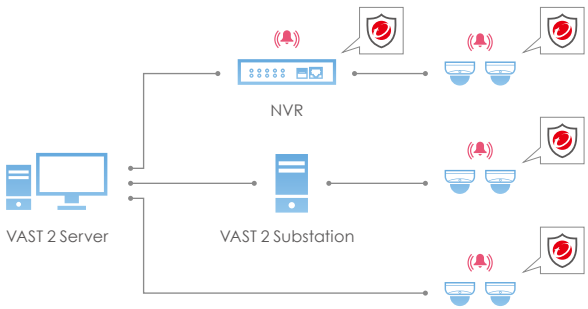
System Monitoring

Monitor the system status of cameras and VAST 2 server easily with the dashboard feature.



Cybersecurity Management Solution

Integrate cybersecurity attack events from VIVOTEK cameras and NVR to VAST 2 alarm management. In addition to alarm action and notification, VAST 2 becomes the central management site to recognize attack trends and status, as well as acquire attack information.



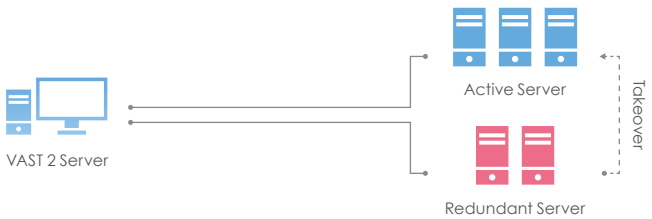
Data Magnet

Data Magnet offers the capability to integrate third-party data source into VAST 2, which provides quick access to data along with video. This supports simultaneous display with live event monitoring. All events will be stored for later searches.



Failover

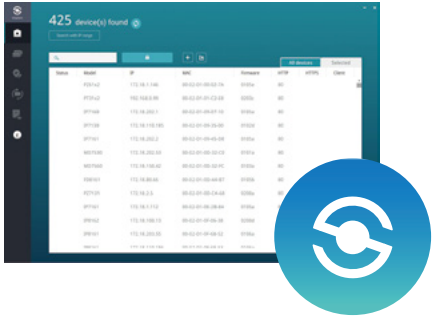
Users can stably operate work stations even when the original connection is broken. In the event of server failures, redundant servers become active and automatically take over the recording task.



Application Software

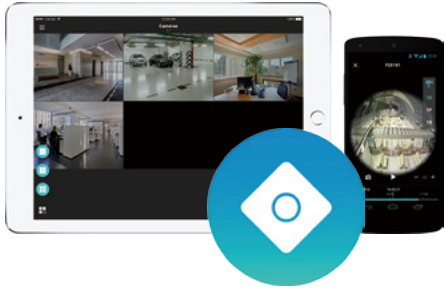
Shepherd

Shepherd, embedded with device management functions, can easily set up multiple cameras at once. The software automatically brings up a list of all VIVOTEK devices that are connected on the network. The user can then manually group the cameras to apply pre-configured settings. The Shepherd supports various powerful functions, including: group setting management, IP address assignment, remote reboot/restore, import/export camera settings, firmware and VADP package upgrade, VADP control, and export of the server status report. Shepherd greatly benefits system integrators and installers who often have projects that need to simultaneously set up multiple cameras with the same settings. The latest Shepherd version also supports batch upgrade and configuration file import for VIVOTEK ND-series NVRs.



iViewer

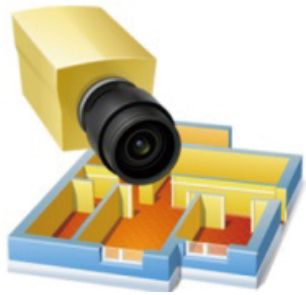
iViewer is a streaming mobile app with an easy to use interface which allows users to monitor live video from hundreds of cameras managed by a VAST, VIVOTEK NVR, or make direct connections to individual cameras. The iViewer also provides the power to add devices via IP address or IP finder, and allows for device management, two way audio, PTZ and preset control, digital zoom, fisheye dewarp, snapshot, view panoramic stream and the capability to playback recorded video from any VIVOTEK VAST, NVR, or directly play from camera's SD card with supported models.



Design Tool

IPVS Design Tool

VIVOTEK has integrated with JVSG (IP Video System Design Tool) to make the design of professional video surveillance systems quick and easy. With the IP Video System Design Tool, users can calculate the precise lens focal length and viewing angles of all cameras in seconds, and check the field of view of each camera. This allows discovery of any dead zones and increases the security of your premises through the use of 2D and 3D modeling. This smart tool can also obtain more accurate estimations of network bandwidth, storage and perform many other handy functions to enhance your surveillance system design.



BIMobject®

VIVOTEK IP Camera Families are now available in Building Information Modeling (BIM) software BIMobject®. BIMobject® is a single software application that supports a BIM workflow from concept to construction. Users of BIMobject® can now use interactive 3D CAD VIVOTEK camera models directly in their building plans and incorporate VIVOTEK surveillance into their designs. Everything from camera resolution to field of view to mounting options are addressed, ensuring full coverage is obtained through stunning 3D visualization.



VIVOCLOUD

VIVOCLOUD is a light-weight cloud service designed exclusively for SMB users. The cross-platform service is built with AWS, can be accessed with iOS and Android devices, and also supports web-based portals on both Windows and MAC. VIVOCLOUD supports easy connection with VIVOTEK's ND series NVRs and cloud-based IP cameras. With the Share-Device function just a few simple steps will make it extremely easy to scale your system according to changing needs.

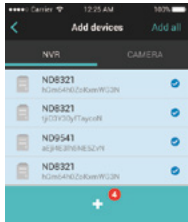
VIVOCLOUD supports push notifications from cameras or NVRs alarms, and users can also manually check recorded clips remotely. The VIVOCLOUD service was fully tested by a third-party security firm in accordance with the OWASP Testing Guide, and is guaranteed to provide robust security across a range of applications.

Web Portal at <https://service.vivocloud.com/>



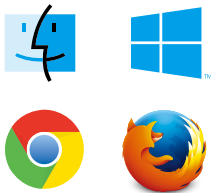
Easy Setup, Quick Start

Easy setup can be carried out by intuitive app on Android or iOS devices. No more port forwarding, no more VPN setup, simply turn-on VIVOCLOUD service on your VIVOTEK device.



Easy Access with Cross Platform

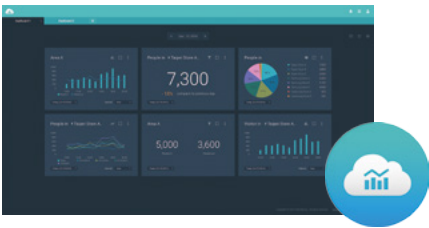
Along with Android and iOS app, VIVOCLOUD supports various web browsers including Firefox and Google Chrome, both on Windows and MAC.



* Web portal currently supports ND-series NVR only. Camera supports will be coming soon.

VIVOCLOUD Retail

VIVOCLOUD now includes support for counting cameras and counting data storage with new ND9322P and ND9424P NVRs. With VIVOCLOUD Retail, VIVOCLOUD users can now build customized reports to track store performance. VIVOCLOUD Retail supports up to 2 years of free edge data storage, providing the best way to track long-term performance and streamline your business to maximize potential.



Connect Comprehensive IP Devices

Supports a wide-range of VIVOTEK devices to perfectly match your business scenarios.



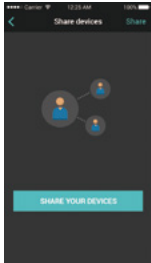
Sync Report

All counting report configuration details are saved in the cloud server. Users can view the latest dashboard at anytime, on any device.



Scale Your Visions with Shared Devices

With an expandable network of up to 16 devices and the ability to share each device to up to 4 VIVOCLOUD accounts, your family members, friends or business colleagues are empowered to monitor security footage or counting reports.





See More in Smarter Ways



Security within Security

Cybersecurity Management Solution

VIVOTEK's cybersecurity assurance efforts are built into the lifecycle of its products, including development, verification, manufacturing, delivery and service. We are constantly evaluating and enhancing our cybersecurity efforts in order to provide our valued customers with the highest quality and most reliable products. By cooperating with the world-renowned cybersecurity company, Trend Micro, and announcing the hardening procedure to users, VIVOTEK is committed to helping minimize and stop such events to our customers and VIVOTEK products.



Multi-Layer Protection Solution for Surveillance Cameras



Cyber Protection in All VIVOTEK Devices



Trend Micro

Multi-Layer Protection with Trend Micro IoT Security

Multi-Layer Protection including Brute Force Attack Detection, Intrusion Detection and Prevention, and Instant Damage Control will automatically secure your network system with the latest signature upgrades.



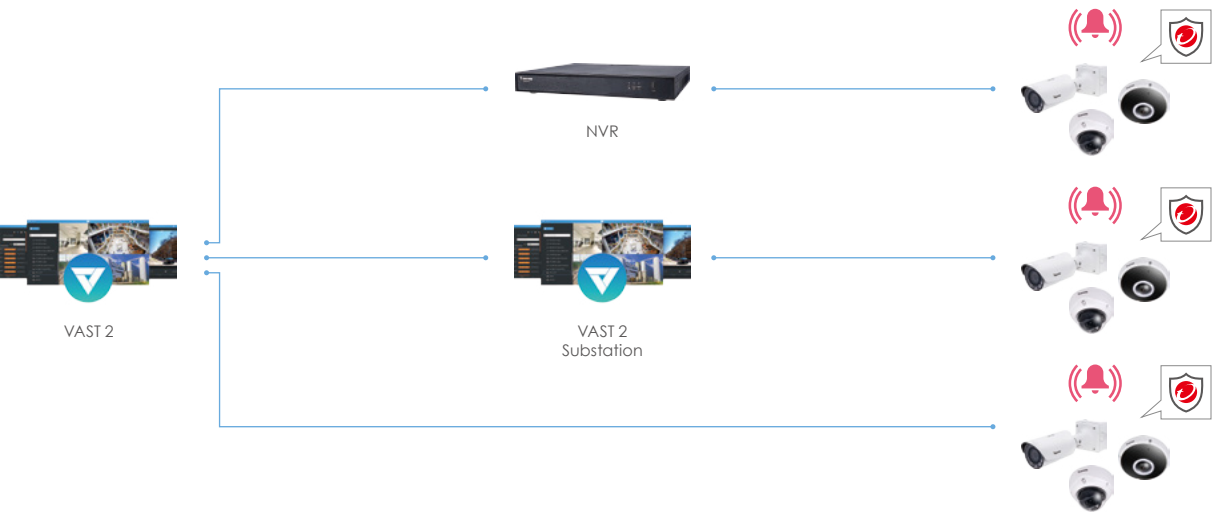
Cybersecurity Alarm Management with Instant Alerts

Once event notifications in network cameras and VAST 2 VMS have been set up, VIVOTEK's surveillance solution will be immediately alerted when cyberattacks occur.



Cyber Risk Report with Interactive Dashboard

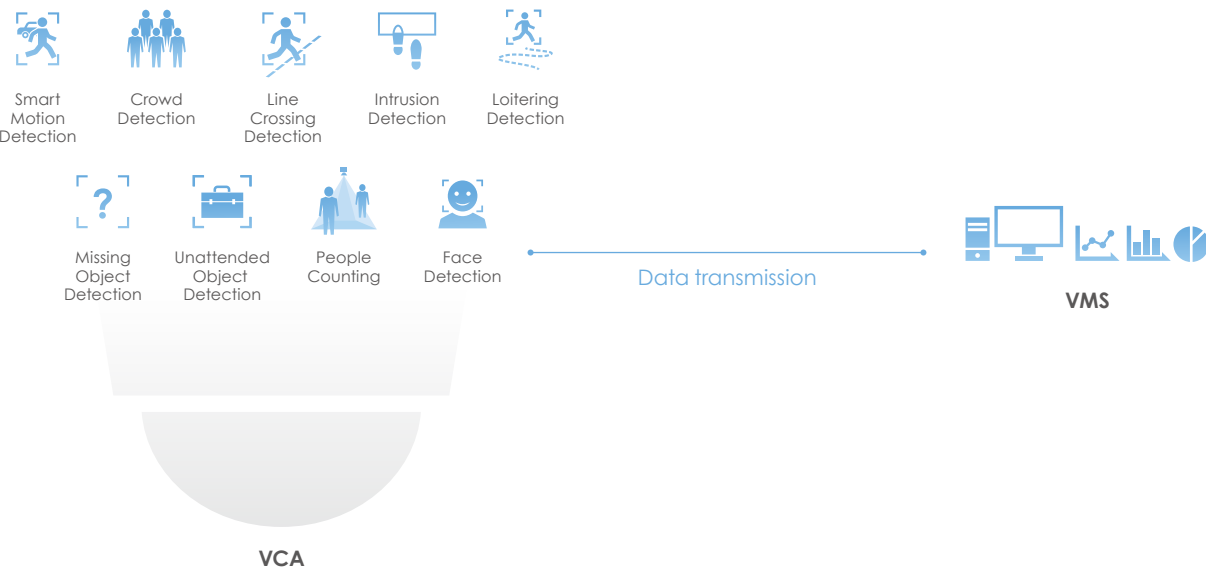
Quickly know attack trend and status, and acquire attack information in order to diagnose your network promptly on VIVOTEK's VAST 2 VMS and NVRs.





See More in Smarter Ways

Intelligent Video Content Analysis
Highly Accurate Video Analytic Functions in Smart-Edge Devices



Features

- Deep Learning AI Algorithms
- Video Surveillance and Business Intelligence on One Single VIVOTEK IP Camera
- High Level of Accuracy
- Real-Time Analytics and Viewing
- Direct Access via Web-Service
- Adaptable Applications
- Easy Configuration
- Embedded Application in Camera

Business Intelligence

Stereo Counting • 2D Counting

VIVOTEK's business intelligence provides the most efficient tools for marketing analysis and highly accurate data to generate invaluable statistics for SMB owners. Aware of the number of potential customers and detailed information from traffic data, users can leverage such knowledge to enhance business management.

Stereo Counting



2D Counting



Security Intelligence

Smart Motion Detection • Crowd Detection • Intrusion Detetion • Loitering Detection • Line Crossing Detection • Missing/Unattended Object Detection • Face Detection

VIVOTEK's security intelligence enables not only the monitoring of facilities and properties, but also the regulation of activities of objects in designated access areas and the management of waiting time of customers and other key business variables. With advanced functionalities, users can protect security and customize their business while gaining the necessary data to optimize operations.

Smart Motion Detection

Precise Detection of People Activities

Smart 360 VCA

Onboard Deep-Learning Based Video Analytics for 12MP Fisheye

- Crowd Detection
- Intrusion Detetion
- Loitering Detection

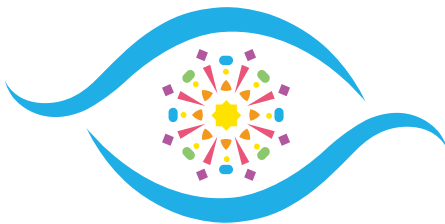
Smart VCA

AI-Powered Video Analytics on Edge

- Intrusion Detetion
- Face Detection
- Loitering Detection
- Missing Object Detection
- Line Crossing Detection
- Unattended Object Detection

Recommended Products

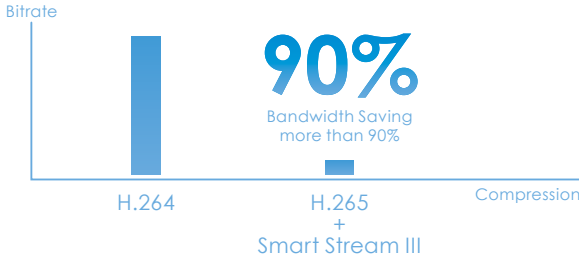




See More in Smarter Ways

Smart Stream III | Maximize Video Quality with Ultra-Low Bandwidth

VIVOTEK Smart Stream III combines Smart Codec, Dynamic Intra Frame Period, Scene Awareness and Smart FPS technologies to enable the cameras to optimize quality for desired regions and automatically adjust encoding, maximizing bandwidth usage efficiency and lowering storage requirements while maintaining high image quality.

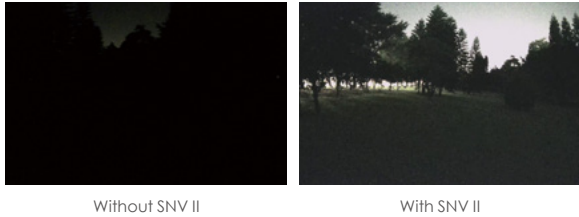


Combining both H.265 and VIVOTEK Smart Stream III, the camera can reduce bandwidth and storage consumption more than 90%* compared to traditional H.264 without smart streaming.

* depending on scenes

SNV II | High-quality Full-color video under Low-Light Conditions

SNV stands for Supreme Night Visibility. VIVOTEK SNV II-label products incorporate carefully selected quality optical components and sophisticated image signal processing algorithms to reproduce high quality color images, even in very low-light conditions.



Recommended Products



- IB9365-HT**
- 60 fps @ 1920x1080
- H.265 + Smart Stream III
- SNV II, WDR Pro II
- 50M IR, Smart IR II
- Smart Motion Detection
- Trend Micro IoT Security
- Outdoor-ready



- FD9365-(E)HTV**
- 60 fps @ 1920x1080
- H.265 + Smart Stream III
- SNV II, WDR Pro II
- 50M IR, Smart IR II
- Smart Motion Detection
- Trend Micro IoT Security
- Outdoor-ready



- FD9165-HT**
- 60 fps @ 1920x1080
- H.265 + Smart Stream III
- SNV II, WDR Pro II
- 50M IR, Smart IR II
- Smart Motion Detection
- Trend Micro IoT Security

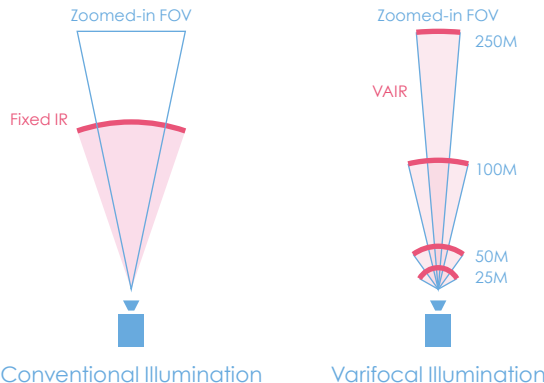


Smart IR II | Highly Uniform, Consistent Brightness and the Clearest Night Views Ever

Vari-Angle IR

Automatic IR angle adjustment to the optical zoom provides consistent IR images in all fields of view.

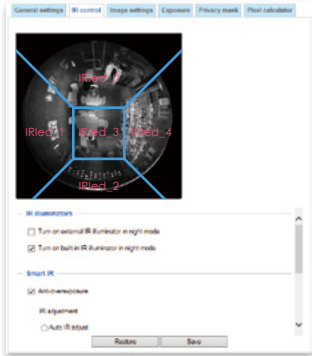
- Effortless IR angle adjustment
- Wide coverage of field of view
- No IR hot-spot issues
- Long-range IR illumination



Adaptive IR

The best possible IR image via adjusting IR illuminators to the scene (simultaneously or individually).

- Independent IR control for regional illumination
- Background clarity
- Automatical IR dimming
- Reduce glaring hotspots or underexposed dark regions



Recommended Products



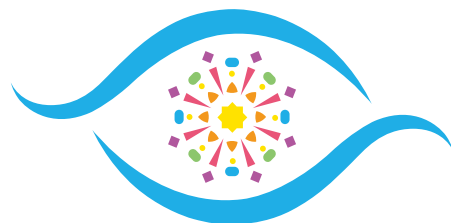
- SD9364-EH-v2**
- 1080p 60 fps
- 30x Zoom
- 250M IR
- Smart IR II
- IP66, IK10, NEMA 4X
- -50°C ~ 55°C



- SD9374-EHL/EHLX**
- 1080p 60 fps
- 36x Zoom
- 250M/150M IR
- Smart IR II
- IP66, IK10, NEMA 4X
- -40°C ~ 65°C (IR off)
- Wiper (SD9374-EHLX)



- FE9391-EV**
- 12MP CMOS Sensor
- 360° Panomorph View
- 30 fps @ 2816x2816
- 360° 20M IR
- Smart IR II
- Intelligent VCA
- IP66, IK10, EN50155



See More in Smarter Ways

VIVOTEK is firmly committed to the continued development of outstanding network cameras featuring a range of megapixel resolutions, camera dimensions, advanced technologies and value-added video analytic functions in order to satisfy the needs of a

diverse range of applications. "See more in smarter ways" allows users to truly achieve unobstructed monitoring of wide, open areas such as airport terminals, shopping malls, retail stores, train stations, offices, and more.

180° Solution | Wider Coverage, Better Details

Supreme Video Alignment for Panoramic 180° Views

Specially equipped with a video alignment feature, MS series camera allows users to optimize the image quality of each sensor and experience both natural and optimal continuous panoramic views.



180° IR Uniformity

With the use of Smart IR technology to prevent overexposure and reduce noise, IR lighting intensity is instantly adjusted based on light changes in the ambient environment. (CC8371-HV)



Recommended Products



CC9371-HV

- 20 fps @ 2560x1920 (WDR On)
- 30 fps @ 2560x1920 (WDR Off)
- 180° 15M IR
- WDR Pro



MS9390-HV

- 30 fps @ 4512x1728
- 180° 20M IR
- WDR Pro



MS9321-EHV

- 20MP Resolution
- 30 fps @ 7680x2560
- 180° 30M IR
- WDR Pro

360° Solution | One Camera, Maximum Coverage

360° Surround View with Various Dewarp Modes

A fisheye lens creates a distorted view of a scene that, once dewarped, provides a powerful surveillance tool that can provide more expansive coverage than a conventional lens. With the various display mode options (1O, 1P, 1R, 2P, 4R, 4R PRO, 1O3R, 1O8R), users can monitor any scene as they deem fit.

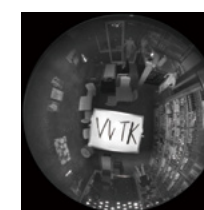


Dewarp

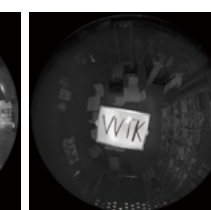


360° IR Uniformity

Improve low lux performance by adding built-in IR illuminators and adopting Smart IR II technology - Adaptive IR so that the camera is able to record useful image even in challenging low light condition.



Adaptive IR On



Adaptive IR Off

Intelligent VCA - Security Intelligence

Run intelligent video content analysis (VCA) inside the smart-edge devices to provide intelligent data for business operations.



Crowd Detection



Intrusion Detection



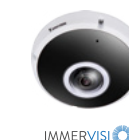
Loitering Detection

Recommended Products



FE9191

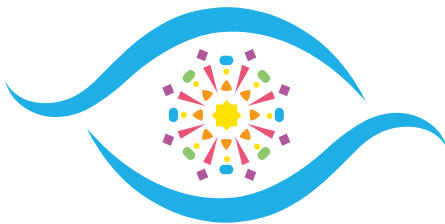
- 12MP CMOS Sensor
- 360° Panomorph View
- 30 fps @ 2816x2816
- WDR Pro
- Intelligent VCA



FE9391-EV

- 12MP CMOS Sensor
- 360° Panomorph View
- 30 fps @ 2816x2816
- 360° 20M IR, Smart IR II
- WDR Pro
- Intelligent VCA
- IP66, IK10, EN50155





See More in Smarter Ways

Multi-Sensor Solution | Flexible Surveillance for All Scenarios

Capture Every Angle Simultaneously

The MA Series cameras provide high resolution images through four independent sensors with remote focus lenses that can view four different regions simultaneously and capture video from a single camera.



Easy Installation and Management

With multiple sensors in one body, MA/MS Series cameras can replace the function of up two to four IP cameras, allowing for easier installation and management.

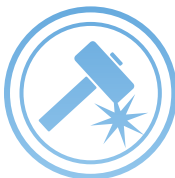


Outdoor-ready

The MA/MS Series cameras are armed with robust IP66 and IK10-rated housings to enable the multidirectional cameras to withstand rain and dust as well as to protect against vandalism or tampering.



IP66



IK10

Recommended Products



MS9390-HV

- Dual-sensor
- 8MP Resolution
- 30 fps @ 4512x1728
- 20M IR
- SNV, WDR Pro
- IP66, IK10



MA9321-EHTV

- 4 Independent Sensors (2688x1920)
- 20MP Resolution
- 30 fps @ 2688x1920
- SNV, WDR Pro
- IP66, IK10



MA9322-EHTV

- 4 Independent Sensors (2688x1920)
- 20MP Resolution
- 30 fps @ 2688x1920
- 30M IR
- WDR Pro
- IP66, IK10



LPR Solution | High Reliable, Stable and Supreme Image Quality for Traffic Monitoring

In order to deliver ever greater capabilities in License Plate Recognition, VIVOTEK has cooperated with LPR software developed by global partners to capture license plate images for LPR applications. A variety of options for VIVOTEK cameras provide the user the optimal and most suitable camera for their LPR or traffic monitoring purposes. Ideal applications include access control, red light enforcement, surveillance and security, traffic monitoring, tolling system and free-flow uses.

Recommended Products



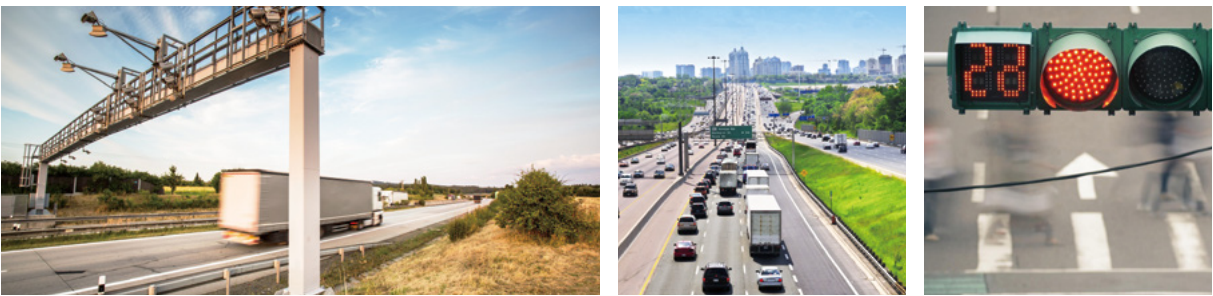
Integrated 3rd Party LPR/ALPR Software Partners



High-Speed Vehicle Capturing Camera

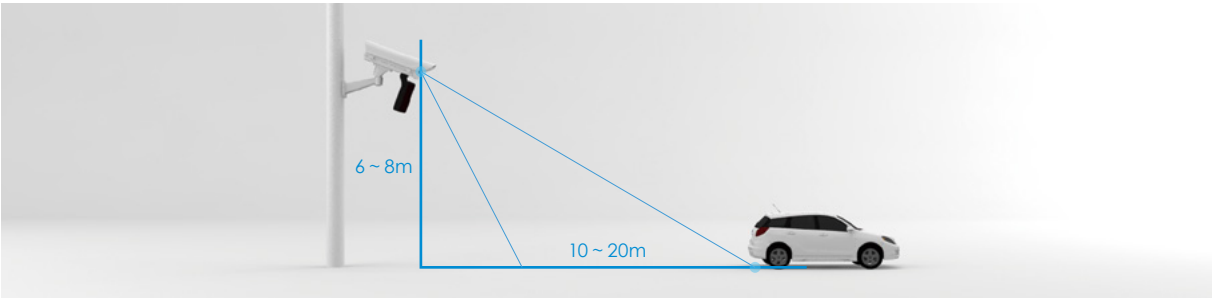
VIVOTEK's IP9165-LPC kit (Highway) and IP9172-LPC Kit (Freeway) are video cameras designed and built for license plate recognition systems. Both LPC camera kits produce clear imagery of vehicles travelling at high speeds. The maximum vehicle speeds that both LPC kits can support are 180 km/h and 250 km/h respectively. Both LPC kits have also been certified globally by numerous LPR software manufacturers around the world.

Applications



- Capture vehicle speed up to 155MPH (250 km/h)
- Clear license plate images for reliable recognition
- Supreme anti-glare capability
- One LPC camera covers two lanes

Suggested Installation



High-Speed Application

Stop & Go Embedded LPR Camera

VIVOTEK's IB9387-LPR camera is a standalone LPR camera system, featuring a built-in license plate recognition system, as well as a white-list and black-list for license plate verification. It also offers various APIs for integration with 3rd party systems such as parking management, toll collection, and weighbridge systems. The ideal applications are parking access control and Stop & Go toll systems.

Applications

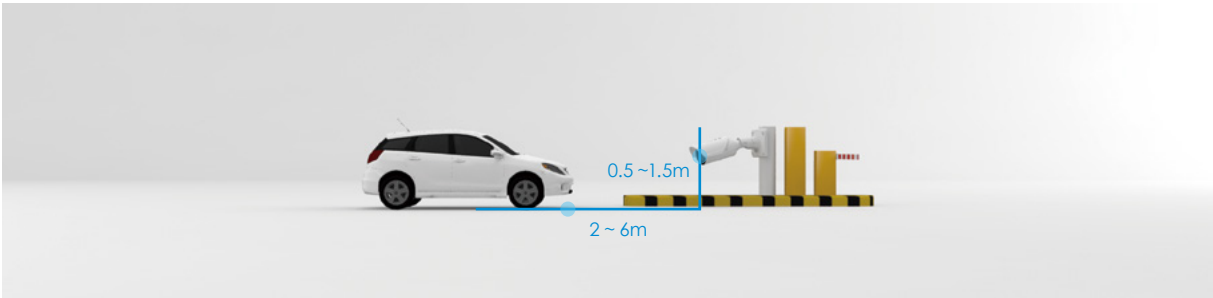


Stop & Go Toll Collection

Vehicle Access Control

- Embedded access control application based on LPR
- Send license plates to Wiegand middle board for access control
- Extensive list of supported countries
- White and black lists for license plate verification
- Centralized list management in a single camera
- Various open APIs are available for 3rd party integration
- Built-in Trend Micro anti-virus software for cybersecurity

Suggested Installation



Stop & Go Application



www.vivotek.com



All specifications are subject to change without notice.
Copyright © VIVOTEK INC. All rights reserved. P/N: 972000800 Ver. 2-1

VIVOTEK Inc.

6F, No.192, Lien-Cheng Rd., Chung-Ho,
New Taipei City, 235, Taiwan
| T: +886-2-82455282 | F: +886-2-82455532
| E: sales@vivotek.com

VIVOTEK Middle East

Room 1802, P.O.Box: 61053, Jafza ONE,
Jebel Ali free zone, Dubai, UAE
| T: +971-4-8815333 | F: +971-4-8815205
| E: salesme@vivotek.com

VIVOTEK USA

2050 Ringwood Avenue,
San Jose, CA 95131
| T: 408-773-8686 | F: 408-773-8298
| E: salesusa@vivotek.com

VIVOTEK India

602, Best Sky Tower, Plot No. F-5, Netaji
Subhash Place, Pitam Pura, Delhi-110 034
| T: +91-11-45137465
| E: salesindia@vivotek.com

VIVOTEK Europe

Randstad 22-133, 1316BW Almere,
The Netherlands
| T: +31(0)36-5298-434
| E: saleseurope@vivotek.com

VIVOTEK LATAM

Ejército Nacional N. 418 Piso 7, Oficina 711 Col. Polanco
V Sección, Delegación Miguel Hidalgo México, D.F.
| T: + 52 55 1101 1793
| E: salesmexico@vivotek.com

VIVOTEK Japan

〒 105-0011 東京都港区芝公園 2-4-1
芝パークビル A館 9階
| E: salesjp@vivotek.com