



Product Brochure

IP Surveillance Solutions



VIVOTEK

20th Anniversary



Founded in 2000, VIVOTEK established its headquarters in Taiwan and has concentrated on IP surveillance since inception. The company marveled at how far internet and surveillance had advanced in the 20th century and was powered by a passion to push further. Over the last two decades, VIVOTEK has remained committed to the building of an ecosystem of co-operation and trust among our partners. To fulfill our strategic footprint, the company has grown into a global organization of 1,000 VIVOTEKers, who collectively provide solutions that can be found around the world.

Going beyond traditional security applications, VIVOTEK aspires to become the "Eye in IoT" and share in the future of intelligent video content analytics. To celebrate our 20th anniversary, a limited-edition version of the logo has been unveiled. As an industry leader, VIVOTEK will retain our original intent, build strong trust with each other, and stay innovative in the next 20 years.

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.

(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.

The Company has established offices and subsidiaries in the United States





CONVERGENCE of

 Video

 VOice

 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 2020, we are pleased to present the following solutions:



Cybersecurity Management Solution

VIVOTEK VCA

Wide Coverage Solution

LPR Solution

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Network Cameras

Form Factor	180° Panoramic Cameras			180° Panoramic Cameras		360° Fisheye Cameras	
Video Resolution	2 Megapixel	2 Megapixel	5 Megapixel	8 Megapixel	20 Megapixel	5 Megapixel	



WDR
NEW



SNV
WDR



SNV
WDR
NEW










WDR

Model	CC8160(HS)	CC8160	CC9381-HV	MS9390-HV	MS9321-EHV	FE8182	FE9180-H
Summary	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, 30fps, H.265/H.264/MJPEG, 180° Panoramic View, 15m IR, WDR Pro	8MP, 30fps, H.265/H.264/MJPEG, 180° Panoramic View, 20 m IR, WDR Pro, SNV*, IP66, IK10	20MP, 30fps, H.265/H.264/MJPEG, 180° Panoramic View, Smart IR, 30 m IR, IP66, IK10	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
Sensor Type	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/3.2" 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	F1.95	F1.95	F2.2	F1.2	F1.8	F2.0	F2.25
Focal Length	f = 1.66 mm	f = 1.66 mm	f = 1.45 mm	f = 2.8 mm	f = 3.8 mm	f = 1.05 mm	f = 1.16 mm
Field of View	180° (H) 100° (V)	180° (H) 100° (V)	180° (H) 100° (V)	180° (H) 50° (V)	180° (H) 65° (V)	180° (H) 180° (V)	180° (H) 180° (V)
Auto-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris
Day/Night	-	-	Yes	Yes	Yes	-	-
IR Illuminators	-	-	15 m	20 m	30 m, IR LED*4	-	-
Min. Illumination	0.22 Lux @ F1.95 (Color)	0.22 Lux @ F1.95 (Color)	0.11 Lux @ F2.2 (Color) 0.01 Lux @ F2.2 (B/W) 0 Lux with IR Illuminators 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	0.6 Lux @ F2.0 (Color)	0.25 Lux @ F2.25 (Color), 50IRE 0.13 Lux @ F2.25 (Color), 30IRE
Max. Video Resolution	1920x1080	1920x1080	2560x1920	4512x1728	7680x2560	1920x1920	1920x1920
Frames per Second	30 fps @ 1920x1080	30 fps @ 1920x1080	20 fps @ 2560x1920 (WDR on) 30 fps @ 2560x1920 (WDR off)	30 fps @ 4512x1728	30 fps @ 7680x2560 (WDR on)	15 fps @ 1920x1920	15 fps @ 1920x1920
Video Compression	Dual-Codec (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)	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	3 Streams	4 Streams	4 Streams	3 Streams	4 Streams
WDR Technology*	WDR Enhanced	WDR Enhanced	WDR Pro	WDR Pro	WDR Pro	WDR Enhanced	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	-	-	-	-	-	VIVOCLOUD	VIVOCLOUD
Trend Micro IoT Security	-	Yes	Yes	Yes	Yes	-	-
VCA	-	-	-	Smart Motion Detection, Smart VCA	-	-	-
Power Input	PoE	PoE	PoE	PoE	AC 24V PoE	PoE	PoE
Power Consumption	Max. 2.01 W	Max. 2.01 W	Max. 6.7 W	Max. 15.2 W	Max. 24.65 W	Max. 3 W	Max. 3.6 W
Digital Input / Output	-	-	-	-	1/1	-	-
Audio	-	One-way Audio	One-way Audio	One-way Audio	Two-way Audio (full duplex)	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
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	-	-	IP66, IK10	IP66, IK10	IP66, IK10	-	-
Dimensions	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 165 x 112 x 97 mm (w/o sunshield) Ø 165 x 119 x 100 mm (w/ sunshield)	308 x 167 x 130 mm (w/o junction box) 369 x 167 x 132 mm (w/ junction box)	Ø 60 x 102 mm	Ø 94 x 39 mm
Operating Temperature	-10°C ~ 40°C (14°F ~ 104°F)	0°C ~ 40°C (32°F ~ 104°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)	-40°C ~ 60°C (-40°F ~ 140°F)	-10°C ~ 40°C (14°F ~ 104°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.
 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	360° Fisheye Cameras				360° Fisheye Cameras		
Video Resolution	5 Megapixel				5 Megapixel	12 Megapixel	
							
Model	FE9380-EHV	FE9181-H FE9381-EHV	FE9182-H	FE9382-EHV	FE9382-EHV-v2	FE9582-EHNV	FE9191
Summary	5MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, 360° 10m IR, Smart Stream III	5MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, Smart Stream III, EN50155(FE9381-EHV)	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	6MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, Smart IR II, 360° 20 m IR, Smart Stream III	5MP, 30fps, H.265/H.264/MJPEG, 360° Surround View, 360° 10 m IR, Smart Stream III, EN50155, EN45545, M12 Connector	12MP, 30fps, H.265/H.264/MJPEG, 360° Panomorph View, Smart Stream III, Smart 360 VCA, PPTZ
Sensor Type	1/2.7" Progressive CMOS	1/1.8" Progressive CMOS in 3096x2094	1/1.8" Progressive CMOS in 3096x2094	1/1.8" Progressive CMOS in 3096x2094	1/1.8" Progressive CMOS in 3840x2160	1/1.8" Progressive CMOS in 3096x2094	1/1.7" Progressive CMOS in 4000x3000
Lens Type	Fixed-Focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal
F-number	F2.25	F2.2	F2.2	F2.2	TBD	F2.2	F2.2
Focal Length	f = 1.16 mm	f = 1.47 mm	f = 1.47 mm	f = 1.47 mm	TBD	f = 1.47 mm	f = 1.29 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) 180° (V)	180° (H) 180° (V)
Auto-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	10m, IR LED*4	-	20 m, IR LED*6	20 m, IR LED*6	20 m, IR LED*4	10m, 940nm, IR LED*6	-
Min. Illumination	TBD	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	0.18 Lux @ F2.2 (Color) 0.001 Lux @ F2.2 (B/W) 0 Lux with IR illumination on	TBD	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)
Max. Video Resolution	1920x1920	1920x1920	1920x1920	1920x1920	2048x2048	1920x1920	2816x2816
Frames per Second	30 fps @ 1920x1920	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 @ 2048x2048	H.265/H.264: 30 fps @ 1920x1920 MJPEG: 12 fps @ 1920x1920	30 fps @ 2816x2816
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	3 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	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	-	VIVOCLOUD	-
Trend Micro IoT Security	Yes	-	-	-	Yes	-	Yes
VCA	-	-	-	-	Smart Motion Detection, Smart 360 VCA	-	Smart Motion Detection, Smart 360 VCA
Power Input	PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE	PoE	DC 12V PoE	DC 12V PoE
Power Consumption	TBD	FE9181-H: Max. 5.5 W FE9381-EHV: Max. 13 W	Max. 12.95 W	Max. 20 W	TBD	Max. 20 W	Max. 6.49 W
Digital Input / Output	-	1/1	1/1	1/1	1/1 (optional accessory)	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) (optional accessory)	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	IP66, IK10 (FE9381-EHV)	-	IP66, IK10	IP66, IK10	IP66, IK10	-
Dimensions	150 x 66 mm	Ø 139 x 38 mm (FE9181-H) Ø 145 x 50 mm (FE9381-EHV)	Ø 160 x 39 mm	Ø 160 x 51 mm	150 x 66 mm	Ø160 x 51 mm	Ø 139 x 37 mm
Operating Temperature	-40°C ~ 55°C (-40°F ~ 131°F)	-10°C ~ 50°C (14°F ~ 122°F) (FE9181-H) -40°C ~ 55°C (-40°F ~ 131°F) (FE9381-EHV)	-10°C ~ 50°C (14°F ~ 122°F)	-40°C ~ 55°C (-40°F ~ 131°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)

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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.
 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	360° Fisheye Cameras	Multi-Sensor Cameras	Fixed Dome Cameras
Video Resolution	12 Megapixel	20 Megapixel	2 Megapixel

















Model	FE9391-EV	MA9321-EHTV	MA9322-EHTV	FD8166A	FD8166A-N	FD9166-HN	FD8366-V
Summary	12MP, 30fps, H.265/H.264/MJPEG, 360° Panomorph View, Smart Steam III, Smart IR II, 360° 20 m IR, Smart 360 VCA, PPTZ, EN50155	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	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.265/H.264/MJPEG, Invisible IR, WDR Pro, Compact Size	2MP, 30fps, H.264/MJPEG, 15 m IR, Smart Stream II, Compact Size
Sensor Type	1/1.7" Progressive CMOS in 4000x3000	1/2.7" Progressice CMOS	1/2.7" Progressice CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS
Lens Type	Fixed-focal	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal
F-number	F2.2	F1.9 ~ F2.9	F1.9 ~ F2.9	F1.8 [FD8166A(2.8mm)] F2.1 [FD8166A(3.6mm)]	F1.8	TBD	F1.8 [FD8366-V(2.8mm)] F2.1 [FD8366-V(3.6mm)]
Focal Length	f = 1.29 mm	f = 3.7 ~ 7.7 mm	f = 3.7 ~ 7.7 mm	f = 2.8 mm [FD8166A(2.8mm)] f = 3.6 mm [FD8166A(3.6mm)]	f = 2.8 mm	f = 2.8 mm [FD9166-HN(2.8mm)] f = 3.6 mm [FD9166-HN(3.6mm)]	f = 2.8 mm [FD8366-V(2.8mm)] f = 3.6 mm [FD8366-V(3.6mm)]
Field of View	180° (H) 180° (V)	40.2° ~ 88.8° (H) 28.6° ~ 59.8° (V)	40.2° ~ 88.7° (H) 22.5° ~ 47.8° (V)	113° (H), 63° (V) [FD8166A(2.8mm)] 83° (H), 44° (V) [FD8166A(3.6mm)]	113° (H) 63° (V)	TBD	113° (H), 63° (V) [FD8366-V(2.8mm)] 77° (H), 41° (V) [FD8366-V(3.6mm)]
Auto-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	-	Yes	Yes	Yes
IR Illuminators	20 m, IR LED*6	-	30m	-	6 m	10 m, IR LED*4	15 m
Min. Illumination	0.18 Lux @ F2.2 (Color) 0.001 Lux @ F2.2 (B/W) 0 Lux with IR illumination on	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	0.05 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	TBD	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
Max. Video Resolution	2816x2816	2688x1920 (5MP) x 4	2688x1920 (5MP) x 4	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	30 fps @ 2816x2816	30 fps @ 2688x1920	30 fps @ 2688x1920	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)	Dual-Codec (H.264/MJPEG)	Dual-Codec (H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)	Dual-Codec (H.264/MJPEG)
Multiple Streams	4 Streams	3 Streams	3 Streams	4 Streams	4 Streams	3 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Enhanced	WDR Enhanced	WDR Pro	WDR Enhanced
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	-	-	-	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	-
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	Smart Motion Detection, Smart 360 VCA	-	-	-	-	-	-
Power Input	DC 12V PoE	AC 24V PoE	AC 24V PoE	PoE	PoE	PoE	PoE
Power Consumption	Max. 25 W	Max. 24 W	Max. 25.5 W	Max. 3 W	Max. 4.75 W	TBD	Max. 5.3 W
Digital Input / Output	1/1	1/1	1/1	1/0	-	1/0	-
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	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	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, NEMA 4X
Dimensions	Ø 160 x 62 mm	Ø 210 x 111 mm Ø 210 x 97 mm (w/o cover plate)	Ø 267x114 mm Ø 275 x 118 mm (w/ bracket)	Ø 90 x 50 mm	Ø 90 x 50 mm	Ø 90 x 50 mm	Ø 110 x 57 mm
Operating Temperature	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 50°C (-40°F ~ 122°F)	-40°C ~ 60°C (-40°F ~ 140°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	0°C ~ 50°C (32°F ~ 122°F)	-25°C ~ 55°C (-13°F ~ 131°F)

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 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Fixed Dome Cameras				Fixed Dome Cameras		
Video Resolution	2 Megapixel				2 Megapixel		
							
							
Model	FD9366-HV	FD816CA-HF2	FD9360-H	IT9360-H	FD9165-HT	FD9165-HT-A	FD9365-HTV FD9365-EHTV
Summary	2MP, 30fps, 20m IR, H.265/H.264/MJPEG4, 3DNR, WDR Pro, IP67, IK10, NEMA 4X	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	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro II, SNV II*, Smart Stream III, Smart IR II	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR II	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro II, SNV II*, Smart Stream III, Smart IR II
Sensor Type	1/2.9" Progressive CMOS	1/2.7" progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS
Lens Type	Fixed-focal	Fixed Focal	Fixed-focal	Fixed-focal	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus
F-number	F1.8 [FD9366-HV(2.8mm)] F2.0 [FD9366-HV(3.6mm)]	F1.8	F2.0	F2.0	F1.3 ~ F2.2	F1.3 ~ F2.2	F1.3 ~ F2.2
Focal Length	f = 2.8 mm [FD9366-HV(2.8mm)] f = 3.6 mm [FD9366-HV(3.6mm)]	f = 2.8 mm	f = 2.8 mm [FD9360-H(2.8mm)] f = 3.6 mm [FD9360-H(3.6mm)]	f = 2.8 mm [IT9360-H(2.8mm)] f = 3.6 mm [IT9360-H(3.6mm)]	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)
Field of View	108° (H), 60° (V) [FD9366-HV(2.8mm)] 89° (H), 47° (V) [FD9366-HV(3.6mm)]	122° (H) 66° (V)	109° (H), 59° (V) [FD9360-H(2.8mm)] 81° (H), 44° (V) [FD9360-H(3.6mm)]	109° (H), 59° (V) [IT9360-H(2.8mm)] 81° (H), 44° (V) [IT9360-H(3.6mm)]	46° ~ 120° (H) 26° ~ 60° (V)	46° ~ 120° (H) 26° ~ 60° (V)	46° ~ 120° (H) 26° ~ 60° (V)
Auto-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	P-iris	P-iris	P-iris
Day/Night	Yes	-	Yes	Yes	Yes	Yes	Yes
IR Illuminators	20 m, IR LED*2	-	30 m, IR LED*2	30 m, IR LED*2	50 m, IR LED*4	50 m, IR LED*4	50 m, IR LED*5
Min. Illumination	FD9366-HV(2.8mm): 0.13 Lux @ F1.8 (Color) 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on FD9366-HV(3.6mm): 0.16 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.15 Lux @ F1.8 (Color) <0.01 Lux @ F1.8 (B/W)	0.065 Lux @ F2.0 (Color) <0.005 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.065 Lux @ F2.0 (Color) <0.005 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.01 Lux @ F1.3 (Color), 50IRE 0.002 Lux @ F1.3 (Color), 30IRE <0.005 Lux @ F1.3 (B/W) 0 Lux with IR illumination on	0.015 Lux @ F1.3 (Color) <0.005 Lux @ F1.3 (B/W) 0 Lux with IR illumination on	0.01 Lux @ F1.3 (Color), 50IRE 0.002 Lux @ F1.3 (Color), 30IRE <0.01 Lux @ F1.3 (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	30 fps @ 1920x1080	30 fps @ 1920x1080	30 fps @ 1920x1080	30 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080
Video Compression	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)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	3 Streams	3 Streams	4 Streams	3 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro II	WDR Pro	WDR Pro II
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD	VIVOCLOUD	-	-	VIVOCLOUD	-	VIVOCLOUD
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	-	-	-	-	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA
Power Input	PoE	PoE	PoE	PoE	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)
Power Consumption	Max. 5.5 W (IR on) Max. 3.3 W (IR off)	Max. 3.3 W	Max. 6.49 W (IR on) Max. 3.69 W (IR off)	Max. 6 W (IR on) Max. 3.31 W (IR off)	Max. 10.7 W	Max. 11 W	FD9365-HTV: Max. 11.9 W FD9365-EHTV: Max. 24.8 W (Heater on)
Digital Input / Output	1/1	-	-	-	2/2	2/2	2/2
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
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, IP67, IK10, NEMA 4X	-	IP66, IK10(Housing)	IP66, IK10(Metal housing)	-	-	IP66, IK10, NEMA 4X
Dimensions	98 (D) x 110 (W) x 54 (H) mm	Ø 60 x 115 mm	Ø 117.2 x 89.6 mm	Ø 105 x 82.5 mm	Ø 139 x 104 mm	Ø 139 x 104 mm	Ø 155 x 138 mm
Operating Temperature	-25°C ~ 60°C (-13°F ~ 140°F)	-10°C ~ 45°C (14°F ~ 113°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 45°C (14°F ~ 113°F)	-30°C ~ 60°C (-22°F ~ 140°F) (-HTV) -50°C ~ 60°C (-58°F ~ 140°F) (-EHTV)

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 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Fixed Dome Cameras	Fixed Dome Cameras
Video Resolution	2 Megapixel	2 Megapixel



Model	FD9365-HTV-A FD9365-EHTV-A	FD9365-HTVL	FD9167-H	FD9167-HT	FD9367-HV	FD9367-HTV FD9367-EHTV	FD9367-HTV(EPoC)
Summary	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR II	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro II, SNV II*, Smart Stream III, Smart IR II	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	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	1/2.8" 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	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	F1.6	F1.4 ~ F2.8	F1.6	F1.4 ~ F2.8	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 = 2.8 mm	f = 2.8 ~ 12 mm	f = 2.8 mm	f = 2.8 ~ 12 mm	f = 2.8 ~ 12 mm
Field of View	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)	33° ~ 97° (H) 19° ~ 53° (V)
Auto-iris	P-iris	P-iris	Fixed-iris	P-iris	Fixed-iris	P-iris	P-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	50 m, IR LED*4	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	30 m, IR LED*4
Min. Illumination	0.015 Lux @ F1.3 (Color) <0.005 Lux @ F1.3 (B/W) 0 Lux with IR illumination on	0.01 Lux @ F1.3 (Color), 50IRE 0.002 Lux @ F1.3 (Color), 30IRE <0.005 Lux @ F1.3 (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	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 @ F1.4 (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	30 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	3 Streams	4 Streams	3 Streams	3 Streams	3 Streams	3 Streams	3 Streams
WDR Technology*	WDR Pro	WDR Pro II	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	-	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	-	-	-	-	-
Power Input	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)	DC 12V PoE	DC 12V PoE	DC 12V PoE	DC 12V PoE	PoE (Powered by Rx module AP-FEX-0105-R/0100-R)
Power Consumption	FD9365-HTV-A: Max. 11 W FD9365-EHTV-A: Max. 21 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)	Max. 12 W (IR on) Max. 6.8 W (IR off)
Digital Input / Output	2/2	2/2	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)	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, IP67, IK10	IP66, IK10	-	-	IP66, IK10	IP66, IK10	IP66, IK10
Dimensions	Ø 155 x 104 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	Ø 155 x 137.2 mm
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F) (-HTV-A) -50°C ~ 60°C (-58°F ~ 140°F) (-EHTV-A)	-30°C ~ 60°C (-22°F ~ 140°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)	-20°C ~ 50°C (-4°F ~ 122°F)

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Network Cameras

Form Factor	Fixed Dome Cameras		Fixed Dome Cameras	
Video Resolution	2 Megapixel	3 Megapixel	5 Megapixel	



SNV
WDR
NEW



SNV
WDR



SNV
WDR



SNV
WDR
NEW



SNV
WDR
NEW



SNV
WDR



SNV
WDR

Model	FD9368-HTV	FD9171-HT	FD9371-HTV FD9371-EHTV	FD9380-H	IT9380-H	FD9187-H	FD9187-HT
Summary	2MP, 30fps, H.265/H.264/MJPEG,WDR Pro, SNV*, Smart Stream III	3MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	3MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	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	5MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR	5MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR II
Sensor Type	1/2.9" Progressive CMOS	1/2.8" progressive CMOS	1/2.8" 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	Vari-focal Remote Focus	Fixed-focal	Fixed-focal	Fixed-focal	Vari-focal Remote Focus
F-number	F1.4 ~ F2.8	F1.2 ~ F2.3	F1.2 ~ F2.3	F2.0	F2.0	F2.0	F1.4 ~ F2.8
Focal Length	f = 2.8 ~ 12 mm	f = 3 ~ 9 mm	f = 3 ~ 9 mm	f = 2.8 mm [FD9380-H(2.8mm)] f = 3.6 mm [FD9380-H(3.6mm)]	f = 2.8 mm [IT9380-H(2.8mm)] f = 3.6 mm [IT9380-H(3.6mm)]	f = 2.8 mm	f = 2.7 ~ 13.5 mm
Field of View	32° ~ 93° (H) 18° ~ 50° (V)	41° ~ 86° (H) 31° ~ 64° (V)	41° ~ 86° (H) 31° ~ 64° (V)	103° (H), 76° (V) [FD9380-H(2.8mm)] 76° (H), 59° (V) [FD9380-H(3.6mm)]	103° (H), 76° (V) [IT9380-H(2.8mm)] 76° (H), 59° (V) [IT9380-H(3.6mm)]	103° (H) 76° (V)	30° ~ 100° (H) 23° ~ 72° (V)
Auto-iris	Fixed-iris	P-iris	P-iris	Fixed-iris	Fixed-iris	Fixed-iris	P-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30m, IR LED*2	30 m, IR LED*8	30 m, IR LED*8	30 m, IR LED*2	30m, IR LED*2	30 m, IR LED*2	50 m, IR LED*4
Min. Illumination	0.055 Lux @ F1.4 (Color) <0.005 Lux @ F1.4 (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	0.01 Lux @ F1.2 (Color) 0.001 Lux @ F1.2 (B/W) 0 Lux with IR illumination on	0.03 Lux @ F2.0 (Color) <0.005 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.03 Lux @ F2.0 (Color) <0.005 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 @ F1.4 (Color) <0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	1920x1080 (2MP)	2048x1536 (3MP)	2048x1536 (3MP)	2560x1920 (5MP)	2560x1920 (5MP)	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	20 fps @ 2560x1920	20 fps @ 2560x1920	30 fps @ 2560x1920 60 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)	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	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	VIVOCLOUD	-	-	VIVOCLOUD	VIVOCLOUD
Trend Micro IoT Security	Yes	-	-	Yes	Yes	Yes	Yes
VCA	-	-	-	-	-	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA
Power Input	PoE	DC 12V PoE	DC 12V PoE	PoE	PoE	AC 24V (optional) DC 12V PoE (Redundant Power)	AC 24V (optional) DC 12V PoE (Redundant Power)
Power Consumption	Max. 12.95 W (IR on) Max. 9 W (IR off)	Max. 12 W	FD9371-HTV: Max. 12 W FD9371-EHTV: Max. 24.7 W (Heater on)	Max. 6.49 W (IR on) Max. 3.69 W (IR off)	Max. 6 W (IR on) Max. 3.31 W (IR off)	Max. 8.1 W	Max. 11.4 W
Digital Input / Output	-	I/I	I/I	-	-	I/I	I/I
Audio	One-way Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	-	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
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(Housing)	IP66, IK10(Metal housing)	-	-
Dimensions	ø 133.3 x 103.8 mm	ø 138 x 103 mm	ø 155 x 103 mm	ø 117.2 x 89.6 mm	ø 105 x 82.5 mm	ø 139 x 104 mm	ø 139 x 104 mm
Operating Temperature	-30°C ~ 60°C (-22°F ~ 140°F)	-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)	-30°C ~ 60°C (-22°F ~ 140°F)	-20°C ~ 60°C (-4°F ~ 140°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)

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Network Cameras

Form Factor	Fixed Dome Cameras	Fixed Dome Cameras
Video Resolution	5 Megapixel	5 Megapixel



Model	FD9187-HT-A	FD9387-HV FD9387-EHV	FD9387-HTV FD9387-EHTV	FD9387-HTV-A FD9387-EHTV-A	FD9388-HTV	IT9388-HT	FD9189-H
Summary	5MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR II	5MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR	5MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR II	5MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR 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	5MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR
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	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS
Lens Type	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal
F-number	F1.4 ~ F2.8	F2.0	F1.4 ~ F2.8	F1.4 ~ F2.8	F1.4 ~ F2.8	F1.4 ~ F2.8	F2.0
Focal Length	f = 2.7 ~ 13.5 mm	f = 2.8 mm	f = 2.7 ~ 13.5 mm	f = 2.7 ~ 13.5 mm	f = 2.8 ~ 12 mm	f = 2.8 ~ 12 mm	f = 2.8 mm
Field of View	30° ~ 100° (H) 23° ~ 72° (V)	103° (H) 76° (V)	30° ~ 100° (H) 23° ~ 72° (V)	30° ~ 100° (H) 23° ~ 72° (V)	30° ~ 88° (H) 23° ~ 65° (V)	30° ~ 88° (H) 23° ~ 65° (V)	103° (H) 76° (V)
Auto-iris	P-iris	Fixed-iris	P-iris	P-iris	Fixed-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	50 m, IR LED*4	30 m, IR LED*2	50 m, IR LED*4	50 m, IR LED*4	30m, IR LED*2	30m, IR LED*2	30 m, IR LED*4
Min. Illumination	0.075 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	0.075 Lux @ F1.4 (Color) <0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.035 Lux @ F1.4 (Color) <0.005 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.035 Lux @ F1.4 (Color) <0.005 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
Max. Video Resolution	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)
Frames per Second	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	20 fps @ 2560x1920	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)	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	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	VIVOCloud	-	-	-	VIVOCloud
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	-	-	Smart Motion Detection, Smart VCA
Power Input	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	PoE	PoE
Power Consumption	Max. 12 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	FD9387-HTV-A: Max. 12 W FD9387-EHTV-A: Max. 22 W (Heater on)	Max. 12.95 W (IR on) Max. 9 W (IR off)	Max. 9.8 W (IR on) Max. 6.29 W (IR off)	Max. 8.7 W (IR on) Max. 5.7 W (IR off)
Digital Input / Output	2/2	1/1	1/1	2/2	-	-	-
Audio	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	Two-way Audio (full duplex)	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	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, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IK10	IP66, IK10 (Metal housing)	-
Dimensions	Ø 139 x 104 mm	155 x 104 mm	155 x 104 mm	Ø 155 x 104 mm	Ø 133.3 x 103.8 mm	Ø 120 x 90.5 mm	Ø 130 x 95.3 mm
Operating Temperature	-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)	-30°C ~ 60°C (-22°F ~ 140°F) (-HTV-A) -50°C ~ 60°C (-58°F ~ 140°F) (-EHTV-A)	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°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.
 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Fixed Dome Cameras	Fixed Dome Cameras
Video Resolution	5 Megapixel	5 Megapixel



SNV
WDR



SNV
WDR



SNV
WDR



SNV
WDR



SNV
WDR



SNV
WDR










SNV
WDR

Model	FD9189-HM	FD9189-HT	FD9389-HV FD8389-EHV	FD9389-HMV FD8389-EHVMV	FD9389-HTV FD8389-EHTV	IT9389-H	IT9389-HT
Summary	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, 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
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	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS
Lens Type	Vari-focal Manual Focus	Vari-focal Remote Focus	Fixed-focal	Vari-focal Manual Focus	Vari-focal Remote Focus	Fixed-focal	Vari-focal Remote Focus
F-number	F1.85 ~ F2.9	F1.9 ~ F2.9	F2.0	F1.85 ~ F2.9	F1.9 ~ F2.9	F2.0	F1.9 ~ F2.9
Focal Length	f = 2.8 ~ 12 mm	f = 3.7 ~ 7.7 mm	f = 2.8 mm	f = 2.8 ~ 12 mm	f = 3.7 ~ 7.7 mm	f = 2.8 mm [IT9389-H(2.8mm)] f = 3.6 mm [IT9389-H(3.6mm)]	f = 3.7 ~ 7.7 mm
Field of View	30° ~ 100° (H) 23° ~ 72° (V)	38° ~ 80° (H) 29° ~ 60° (V)	103° (H) 76° (V)	30° ~ 100° (H) 23° ~ 72° (V)	38° ~ 80° (H) 29° ~ 60° (V)	103° (H), 76° (V) [IT9389-H(2.8mm)] 76° (H), 56° (V) [IT9389-H(3.6mm)]	38° ~ 80° (H) 29° ~ 60° (V)
Auto-iris	DC-iris	Fixed-iris	Fixed-iris	DC-iris	Fixed-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30 m, IR LED*4	30 m, IR LED*4	30m, IR LED*4	30m, IR LED*4	30m, IR LED*4	30m, IR LED*2	30m, IR LED*2
Min. Illumination	0.06 Lux @ F1.85 (Color) 0.01 Lux @ F1.85 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F1.9 (Color) 0.01 Lux @ F1.9 (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 @ F1.85 (Color) 0.01 Lux @ F1.85 (B/W) 0 Lux with IR illumination on	0.06 Lux @ F1.9 (Color) 0.01 Lux @ F1.9 (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
Max. Video Resolution	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)
Frames per Second	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 @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 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)	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	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	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	-	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	-	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA
Power Input	PoE	PoE	PoE	PoE	PoE	PoE	PoE
Power Consumption	Max. 8.3 W (IR on) Max. 5.3 W (IR off)	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)	FD9389-HMV: Max. 8.3 W (IR on) Max. 5.3 W (IR off) FD9389-EHVMV: Max. 21.4 W (Heater on) Max. 8.3 W (Heater off)	FD9389-HTV: Max. 10.45 W (IR on) Max. 7.45 W (IR off) FD9389-EHTV: Max. 23.55 W (Heater on) Max. 10.45 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)
Digital Input / Output	-	-	-	-	-	-	-
Audio	One-way Audio	One-way Audio	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	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, IK08	IP66, IK08
Dimensions	Ø 130 X 95.3 mm	Ø 130 X 95.3 mm	Ø 129 x 93.8 mm	Ø 129 x 93.8 mm	Ø 129 x 93.8 mm	Ø 108 x 79 mm	Ø 108 x 79 mm
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°F)	-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)	-30°C ~ 60°C (-22°F ~ 140°F) (-HVMV) -50°C ~ 60°C (-58°F ~ 140°F) (-EHVMV)	-30°C ~ 60°C (-22°F ~ 140°F) (-HTV) -50°C ~ 60°C (-58°F ~ 140°F) (-EHTV)	-20°C ~ 50°C (-4°F ~ 122°F)	-20°C ~ 50°C (-4°F ~ 122°F)

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 *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.
 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Fixed Dome Cameras	Corner Cameras		Bullet Cameras			
Video Resolution	8 Megapixel	3 Megapixel		2 Megapixel			
							
Model	FD9391-EHTV	CD8371-HNTV	CD8371-HNVF2	IB9360-H	IB9365-HT IB9365-EHT	IB9365-HT-A IB9365-EHT-A	IB9367-H IB9367-EH
Summary	8MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR II	3MP, 20fps, H.264/MJPEG, Remote Focus, SNV*, WDR Pro, 10 m Invisible IR, Anti-ligature Design	3MP, 20fps, H.264/MJPEG, SNV*, WDR Pro, 10 m Invisible IR, Anti-ligature Design	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro II, SNV II*, Smart Stream III, Smart IR II	2MP, 60fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III, Smart IR II	2MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III
Sensor Type	1/2" Progressive CMOS	1/2.8" progressive CMOS	1/2.8" progressive CMOS	1/2.9" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2.8" progressive CMOS
Lens Type	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal	Fixed-focal	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal
F-number	F1.5 ~ F2.7	F1.6	F1.8	F2.0	F1.3 ~ 2.2 [IB9365-HT/EHT (4-9 mm)] F1.8 [IB9365-HT/EHT (12-40 mm)]	F1.3 ~ 2.2 [IB9365-HT-A/EHT-A (4-9 mm)] F1.8 [IB9365-HT-A (12-40 mm)]	F1.6
Focal Length	f = 3.9 ~ 10 mm	f = 2.8 ~ 8 mm	f = 2.8 mm	f = 3.6 mm	IB9365-HT/EHT (4-9 mm): f = 4 ~ 9 mm (f = 3.5 ~ 11.4 mm, equivalent focal length @ 1/2.8) IB9365-HT/EHT (12-40 mm): f = 12 ~ 40 mm	IB9365-HT-A/EHT-A (4-9 mm): f = 4 ~ 9 mm (f = 3.5 ~ 11.4 mm, equivalent focal length @ 1/2.8) IB9365-HT-A (12-40 mm): f = 12 ~ 40 mm	f = 3.6 mm
Field of View	45° ~ 119° (H) 25° ~ 63° (V)	51° ~ 105° (H) 37° ~ 72° (V)	108° (H) 79° (V)	81° (H) 44° (V)	IB9365-HT/EHT (4-9mm): 46° ~ 100° (H), 26° ~ 52° (V) IB9365-HT/EHT (12-40mm): 12° ~ 35° (H), 7° ~ 19° (V)	IB9365-HT-A/EHT-A (4-9mm): 46° ~ 100° (H), 26° ~ 52° (V) IB9365-HT-A (12-40 mm): 12° ~ 35° (H), 7° ~ 19° (V)	88° (H) 47° (V)
Auto-iris	P-iris	DC-iris	Fixed-iris	Fixed-iris	P-iris	P-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	50m, IR LED*5	10 m, 940nm IR	10 m, 940nm IR	30m, IR LED*2	IB9365-HT/EHT (4-9mm): 50 m, IR LED*5 IB9365-HT/EHT (12-40 mm): 100 m, IR LED*4	IB9365-HT-A/EHT-A (4-9mm): 50 m, IR LED*6 IB9365-HT-A (12-40 mm): 100 m, IR LED*4	30 m, IR LED*2
Min. Illumination	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	0.01 Lux @ F1.8 (Color) < 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on	0.065 Lux @ F2.0 (Color) < 0.005 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	IB9365-HT/EHT (4-9mm): 0.01 Lux (50IRE)/0.002 Lux (30IRE) @ F1.3 (Color) < 0.005 Lux @ F1.3 (B/W) 0 Lux with IR illumination on IB9365-HT/EHT (12-40mm): 0.06 Lux (50IRE)/0.03 Lux (30IRE) @ F1.8 (Color) < 0.005 Lux @ F1.8 (B/W) 0 Lux with IR illumination on	IB9365-HT-A/EHT-A (4-9mm): 0.015 Lux @ F1.3 (Color) < 0.005 Lux @ F1.3 (B/W) 0 Lux with IR illumination on IB9365-HT-A (12-40mm): 0.075 Lux @ F1.8 (Color) < 0.005 Lux @ F1.8 (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
Max. Video Resolution	3840x2160 (8MP)	2048x1536 (3MP)	2048x1536 (3MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	30 fps @ 3840x2160 (WDR Pro on) 120 fps @ 1920x1080 (WDR Pro off)	20 fps @ 2048x1536	20 fps @ 2048x1536	30 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	30 fps @ 1920x1080
Video Compression	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)	Triple-Codec (H.265/H.264/MJPEG)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	3 Streams	3 Streams	3 Streams	3 Streams	4 Streams	3 Streams	3 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Pro	WDR Pro II	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	-	-	-	VIVOCLOUD
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	Smart Motion Detection, Smart VCA	-	-	-	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	-
Power Input	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)	PoE	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)	DC 12V PoE
Power Consumption	Max. 25 W	Max. 6.2 W	Max. 6.2 W	Max. 6.49 W (IR on) Max. 3.6 W (IR off)	IB9365-HT: Max. 11.9 W IB9365-EHT: Max. 24.8 W (Heater on)	IB9365-HT-A: Max. 12.95 W IB9365-EHT-A: Max. 25 W (Heater on)	IB9367-H: Max. 7 W IB9367-EH: Max. 24 W (Heater on)
Digital Input / Output	1/1	1/1	1/1	-	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	IP66, IK10, NEMA 4X	IP67, IK10+	IP67, IK10+	IP66, IK10(Housing)	IP66, IK10 (Metal housing), NEMA 4X	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)
Dimensions	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	226 x 221 x 112 mm	Ø 91.1 x 176.8 mm	IB9365-HT/EHT (4-9mm): 415 x 121 x 121 mm (w/ junction box) IB9365-HT/EHT (12-40 mm): 344 x 121 x 121 mm (w/ junction box)	IB9365-HT-A/EHT-A (4-9mm): 352 x 121 x 121 mm (w/ junction box) IB9365-HT-A (12-40 mm): 368 x 121 x 121 mm (w/ junction box)	266 x 118 x 118 mm
Operating Temperature	-50°C ~ 60°C (-58°F ~ 140°F)	-10°C ~ 55°C (14°F ~ 131°F)	-10°C ~ 55°C (14°F ~ 131°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-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-A) -50°C ~ 60°C (-58°F ~ 140°F) (-EHT-A)	-20°C ~ 50°C (-4°F ~ 122°F) (-H) -50°C ~ 50°C (-58°F ~ 122°F) (-EH)

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 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Bullet Cameras		Bullet Cameras	
Video Resolution	2 Megapixel		3 Megapixel	5 Megapixel



SNV
WDR



SNV
WDR
NEW



SNV
WDR



SNV
WDR
NEW



SNV
WDR



SNV
WDR



SNV
WDR
NEW

Model	IB9367-HT IB9367-EHT	IB9368-HT	IB9371-HT IB9371-EHT	IB9380-H	IB9387-H IB9387-EH	IB9387-HT IB9387-EHT	IB9387-HT-A IB9387-EHT-A
Summary	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	3MP, 30fps, H.265/H.264/MJPEG, WDR Pro, SNV*, Smart Stream III	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 II	5MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR II
Sensor Type	1/2.8" progressive CMOS	1/2.9" Progressive CMOS	1/2.8" 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	Vari-focal Remote Focus	Fixed-focal	Fixed-focal	Vari-focal Remote Focus	Vari-focal Remote Focus
F-number	F1.4 ~ F2.8	F1.4 ~ F2.8	F1.2 ~ F2.3	F2.0	F2.0	F1.4 ~ F2.8	F1.4 ~ F2.8
Focal Length	f = 2.8 ~ 12 mm	f = 2.8 ~ 12 mm	f = 3 ~ 9 mm	f = 3.6 mm	f = 3.6 mm	f = 2.7 ~ 13.5 mm	f = 2.7 ~ 13.5 mm
Field of View	33° ~ 97° (H) 19° ~ 53° (V)	32° ~ 93° (H) 18° ~ 50° (V)	39° ~ 82° (H) 29° ~ 60° (V)	76° (H) 59° (V)	76° (H) 56° (V)	30° ~ 100° (H) 23° ~ 72° (V)	30° ~ 100° (H) 23° ~ 72° (V)
Auto-iris	P-iris	Fixed-iris	P-iris	Fixed-iris	Fixed-iris	P-iris	P-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	30 m, IR LED*5	30 m, IR LED*2	30 m, IR LED*8	30m, IR LED*2	30m, IR LED*2	50m, IR LED*6	50m, IR LED*6
Min. Illumination	0.07 Lux @ F1.4 (Color) 0.001 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.055 Lux @ F1.4 (Color) <0.005 Lux @ F1.4 (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	0.03 Lux @ F2.0 (Color) <0.005 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 @ F1.4 (Color) <0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.075 Lux @ F1.4 (Color) <0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on
Max. Video Resolution	1920x1080 (2MP)	1920x1080 (2MP)	2048x1536 (3MP)	2560x1920 (5MP)	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	20 fps @ 2560x1920	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 2560x1920 60 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)	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	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	-	VIVOCLOUD	-	VIVOCLOUD	VIVOCLOUD	-
Trend Micro IoT Security	Yes	Yes	-	Yes	Yes	Yes	Yes
VCA	-	-	-	-	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA
Power Input	DC 12V PoE	PoE	DC 12V PoE	PoE	AC 24V (optional) DC 12V PoE (Redundant Power)	AC 24V (optional) DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)
Power Consumption	IB9367-HT: Max. 12 W IB9367-EHT: Max. 24 W (Heater on)	Max. 12.95 W (IR on) Max. 9 W (IR off)	IB9371-HT: Max. 11 W IB9371-EHT: Max. 23.6 W (Heater on)	Max. 6.49 W (IR on) Max. 3.6 W (IR off)	IB9387-H: Max. 8 W IB9387-EH: Max. 19.3 W	IB9387-HT: Max. 12 W IB9387-EHT: Max. 23.3 W	IB9387-HT-A: Max. 12.95 W IB9387-EHT-A: Max. 25 W (Heater on)
Digital Input / Output	1/1	-	1/1	-	1/1	1/1	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)
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	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
Housing	IP66, IP67, IK10 (Metal housing)	IP66, IK10 (Housing)	IP66, IK10 (Metal housing)	IP66, IK10 (Housing)	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)	IP66, IP67, IK10 (Metal housing)
Dimensions	294 x 118 x 118 mm	85 x 85 x 214.5 mm	Ø 88 x 293 mm	Ø 91.1 x 176.8 mm	118 x 118 x 266 mm	118 x 118 x 294 mm	118 x 118 x 294 mm
Operating Temperature	-30°C ~ 50°C (-22°F ~ 122°F) (-HT) -50°C ~ 50°C (-58°F ~ 122°F) (-EHT)	-30°C ~ 60°C (-22°F ~ 140°F)	-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)	-30°C ~ 60°C (-22°F ~ 140°F) (-H) -50°C ~ 60°C (-58°F ~ 140°F) (-EH)	-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-A) -50°C ~ 60°C (-58°F ~ 140°F) (-EHT-A)

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 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Bullet Cameras		Bullet Cameras		Thermal Bullet Cameras	
Video Resolution	5 Megapixel		5 Megapixel	8 Megapixel		



Model	IB9388-HT	IB9389-H IB9389-EH	IB9389-HM IB9389-EHM	IB9389-HT IB9389-EHT	IB9391-EHT	TB9330-E	TB9331-E
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	8MP, 30fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, Smart IR II	384x256, NETD<50mk, EN50121-4	720x480, NETD<50mk, 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	Fixed-focal	Vari-focal Manual Focus	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed Focal (Thermal Lens)	Fixed Focal (Thermal Lens)
F-number	F1.4 ~ F2.8	F2.0	F1.4 ~ F2.8	F1.9 ~ F2.9	F1.5 ~ F2.7	F1.0	F1.0
Focal Length	f = 2.8 ~ 12 mm	f = 3.6 mm	f = 2.8 ~ 12 mm	f = 3.7 ~ 7.7 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° ~ 88° (H) 23° ~ 65° (V)	76° (H) 56° (V)	30° ~ 81° (H) 23° ~ 60° (V)	38° ~ 80° (H) 29° ~ 60° (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	Fixed-iris	Fixed-iris	DC-iris	Fixed-iris	P-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	-	-
IR Illuminators	30m, IR LED*2	30 m	30 m	30 m	50m, IR LED*5	-	-
Min. Illumination	0.035 Lux @ F1.4 (Color) <0.005 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	0.07 Lux @ F1.4 (Color) 0.01 Lux @ F1.4 (B/W) 0 Lux with IR illumination on	0.06 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	-	-
Max. Video Resolution	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	2560x1920 (5MP)	3840x2160 (8MP)	-	-
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 @ 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	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	-	Smart Motion Detection, Smart VCA	-	Smart Motion Detection, Smart VCA	Smart Motion Detection, Smart VCA	-	-
Power Input	PoE	PoE	PoE	PoE	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)	AC 24V DC 12V PoE (Redundant Power)
Power Consumption	Max. 12.95 W (IR on) Max. 9 W (IR off)	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)	IB9389-HM: Max. 9.5 W (IR on) Max. 5.5 W (IR off) IB9389-EHM: Max. 23.5 W (Heater on) Max. 9.5 W (Heater off)	IB9389-HT: Max. 10 W (IR on) Max. 6 W (IR off) IB9389-EHT: Max. 22.1 W (Heater on) Max. 10 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
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
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 (Housing)	IP66, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IK10 (Metal housing)	IP66, IK10 (Metal housing), NEMA 4X	IP66, IP67, IK10, NEMA 4X	IP66, IP67, IK10, NEMA 4X
Dimensions	85 x 85 x 214.5 mm	Ø 86 x 300 mm	Ø 86 x 327 mm	Ø 86 x 303 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)	-30°C ~ 60°C (-22°F ~ 140°F) (-H) -50°C ~ 60°C (-58°F ~ 140°F) (-EH)	-30°C ~ 60°C (-22°F ~ 140°F) (-HM) -50°C ~ 60°C (-58°F ~ 140°F) (-EHM)	-30°C ~ 60°C (-22°F ~ 140°F) (-HT) -50°C ~ 60°C (-58°F ~ 140°F) (-EHT)	-50°C ~ 60°C (-58°F ~ 140°F)	-50°C ~ 60°C (-58°F ~ 140°F)	-50°C ~ 60°C (-58°F ~ 140°F)

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 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Zoom Lens Camera	Box Cameras		Box Cameras		
Video Resolution	2 Megapixel	2 Megapixel		2 Megapixel	3 Megapixel	5 Megapixel



Model	IZ9361-EH	IP9165-HP	IP9165-HT	IP9167-HP	IP9167-HT	IP9171-HP	IP9181-H
Summary	2MP, 60fps, 150M Smart IR II, H.265/H.264/MJPEG, 20x, WDR Pro, Smart Stream II, IP67, NEMA 4X	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, 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	3MP, 30fps, H.265/H.264/MJPEG, Remote Back Focus, SNV*, WDR Pro, Smart Stream III	5MP, 30fps, H.265/H.264/MJPEG, Remote Back Focus, SNV*, WDR Pro, Smart Stream III
Sensor Type	1/3" 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	1/1.8" Progressive CMOS
Lens Type	20x Optical Zoom Auto Focus	Vari-focal Remote Back Focus	Vari-focal Remote Back Focus i-CS	Vari-focal Manual Focus CS-mount	Vari-focal Remote Focus CS-mount	Vari-focal Remote Back Focus	Vari-focal Remote Back Focus
F-number	F1.6 ~ F3.5	F1.5 ~ F2.8	F1.5 ~ F2.7	-	F1.6 ~ F2.97 [IP9167-HT(2.8-10mm)] F1.8 ~ F2.3 [IP9167-HT(12-40mm)]	F1.2 ~ F1.95	F1.6 ~ F2.4
Focal Length	f = 4.7 ~ 94 mm	f = 3.6 ~ 17 mm	f = 3.9 ~ 10 mm	-	f = 2.8 ~ 10 mm [IP9167-HT(2.8-10mm)] f = 12 ~ 40 mm [IP9167-HT(12-40mm)]	f = 2.8 ~ 8 mm	f = 4.1 ~ 9 mm
Field of View	2.9° ~ 55.4° (H) 1.6° ~ 32.6° (V)	28° ~ 100° (H) 16° ~ 55° (V)	42.7° ~ 110° (H) 23.9° ~ 58.5° (V)	-	IP9167-HT(2.8-10 mm): 35° ~ 105° (H), 20° ~ 55° (V) IP9167-HT(12-40 mm): 10° ~ 26° (H), 6° ~ 14° (V)	51° ~ 114° (H) 39° ~ 84° (V)	46° ~ 90° (H) 35° ~ 68° (V)
Auto-iris	DC-iris	P-iris (DC-iris reserved)	i-CS (P-iris/DC-iris reserved)	P-iris (DC-iris reserved)	P-iris	P-iris (DC-iris reserved)	DC-iris (P-iris reserved)
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	150 m	-	-	-	-	-	-
Min. Illumination	0.26 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on	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)	-	0.07 Lux @ F1.6 (Color) 0.001 Lux @ F1.6 (B/W)	0.01 Lux @ F1.2 (Color) 0.001 Lux @ F1.2 (B/W)	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)	2048x1536 (3MP)	2560x1920 (5MP)
Frames per Second	H.265/H.264: 60 fps @ 1920x1080 MJPEG: 30 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	30 fps @ 1920x1080	30 fps @ 1920x1080	H.265/H.264: 30 fps @ 2048x1536 MJPEG: 15 fps @ 2048x1536	H.265/H.264: 5MP: 30 fps @ 2560x1920, 60 fps @ 1920x1080 MJPEG: 12 fps @ 2560x1920, 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	4 Streams
WDR Technology*	WDR Pro	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	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD
Trend Micro IoT Security	-	Yes	Yes	Yes	Yes	-	-
VCA	-	-	-	-	-	-	-
Power Input	60W UPoE DC 24V AC 24V	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V AC 24V PoE	DC 12V AC 24V PoE
Power Consumption	Max. 48/18 W (Heater on/off)	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. 6.5 W	Max. 6.5 W	Max. 8.6 W	Max. 9.7 W
Digital Input / Output	3/1	2/2	2/2	2/2	2/2	3/1	3/1
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	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	-	-	-	-	-	-
Dimensions	147 x 375 x 322 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)	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)	210 (D) x 70 (W) x 63 (H) mm	210 (D) x 70 (W) x 63 (H) mm
Operating Temperature	-50°C ~ 60°C (-58°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 60°C (14°F ~ 140°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)	-10°C ~ 50°C (14°F ~ 122°F)

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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.
 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Box Cameras	License Plate Capture Cameras	License Plate Capture Cameras	License Plate Recognition Cameras	Mobile Dome Cameras
Video Resolution	8 Megapixel	2 Megapixel	3 Megapixel	2 Megapixel	1.2 Megapixel










Model	IP9191-HP IP9191-HT	IP9165-LPC	IP9165-LPC Kit	IP9172-LPC (Freeway)	IB9365-LPR	IB9387-LPR	MD8531H
Summary	8MP/30fps, 2MP/120fps, H.265/H.264/MJPEG, SNV*, WDR Pro, Smart Stream III, i-CS*	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*	License Plate Capture, 155MPH (250 km/h), Global Shutter Sensor, Pulse Mode IR, Auto Exposure Bracketing (AEB), Pre-Assembled Kit	2MP, 60fps, H.265/H.264/MJPEG, Embedded LPR, WDR Pro II, Smart Stream III, SNV II*, Smart IR II	5MP, 30fps, H.265/H.264/MJPEG, Embedded LPR, SNV*, WDR Pro, Smart Stream III, Smart IR II	1.2MP, 30fps, H.264/MJPEG/MPEG-4, 3DNR, WDR Pro (120dB), IP66, IK10, EN50155
Sensor Type	1/2" Progressive CMOS	1/2" Progressive CMOS	1/2" Progressive CMOS	1/1.8" Global Shutter CMOS	1/2" Progressive CMOS	1/2.7" Progressive CMOS	1/3" Progressive CMOS
Lens Type	Vari-focal Remote Back Focus i-CS (IP9191-HT)	Vari-focal Remote Back Focus i-CS	Vari-focal Remote Back Focus i-CS	Vari-focal Remote Focus CS-mount	Vari-focal Remote Focus	Vari-focal Remote Focus	Fixed-focal
F-number	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)]	F1.8 ~ F2.3	F1.8	F1.4 ~ F2.8	F1.8
Focal Length	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 = 12 ~ 40 mm	f = 12 ~ 40 mm	f = 2.7 ~ 13.5 mm	f = 3.6 mm (MD8531H-F3) f = 4.2 mm (MD8531H-F4)
Field of View	45° ~ 119° (H) 25° ~ 63° (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)	12.3° ~ 35.8° (H) 9.8° ~ 26.3° (V)	12° ~ 35° (H) 7° ~ 19° (V)	30° ~ 100° (H) 23° ~ 72° (V)	80° (H), 57° (V) (MD8531H-F3) 68° (H), 50° (V) (MD8531H-F4)
Auto-iris	P-iris (IP9191-HP) i-CS (IP9191-HT) (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	P-iris	P-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	-
IR Illuminators	-	-	External IR Illuminator (CA8018-2040/ CM4818-2040/ AI-109)	External IR Illuminator (CF2418-2040)	100 m, IR LED*5	50m, IR LED*6	-
Min. Illumination	0.02 Lux @ F1.5 (Color) 0.1 Lux @ F1.5 (B/W)	IP9165-LPC (9-50mm): 0.01 Lux @ F1.5 (Color) IP9165-LPC (12-40mm): 0.08 Lux @ F1.8 (Color)	IR Threshold: 300 Lux @ IR On 600 Lux @ IR Off RS485 configurable	IR Threshold: 300 Lux @ IR On 600 Lux @ IR Off RS485 configurable	0.06 Lux @ F1.8 (Color), 50IRE 0.03 Lux @ F1.8 (Color), 30IRE <0.01 Lux @ F1.8 (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	0.4 Lux @ F1.8 (Color)
Max. Video Resolution	3840x2160 (8MP)	1920x1080 (2MP)	1920x1080 (2MP)	2048x1536 (3MP)	1920x1080 (2MP)	2560x1920 (5MP) 1920x1080 (2MP) for LPR software	1280x960 (1.2MP)
Frames per Second	30 fps @ 3840x2160 120 fps @ 1920x1080 (WDR Pro off)	60 fps @ 1920x1080	60 fps @ 1920x1080	55 fps @ 2048x1536, AEB off 60 fps @ 1920x1080, AEB off 30 fps @ 1920x1080, AEB on	60 fps @ 1920x1080	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 1280x960
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	4 Streams	4 Streams	3 Streams	4 Streams	3 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro II	WDR Pro II	-	WDR Pro II	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	-	Yes	Yes	Yes
Cloud Service	-	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	-	-	-
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	-
VCA	-	-	-	-	-	-	-
Power Input	DC 12V AC 24V PoE	DC 12V AC 24V PoE	AC 24V / DC24V	DC 24V AC 24V	AC 24V DC 12V PoE (Redundant Power)	AC 24V (optional) DC 12V PoE (Redundant Power)	PoE
Power Consumption	Max. 12 W	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	-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. 11.9 W	Max. 12 W	Max. 4.5 W
Digital Input / Output	2/2	2/2	2/2	2/1	2/2	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
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 Build in 16GB Micro SD Card for LPR images	MicroSD/SDHC/SDXC Card Slot
Housing	-	-	IP68, IK10	IP68, IK10	IP66, IP67, IK10 (Metal housing), NEMA 4X	IP66, IP67, IK10 (Metal housing)	IP66, IK10
Dimensions	209 (D) x 70 (W) x 61 (H) mm (-HP) 210 (D) x 70 (W) x 61 (H) mm (-HT)	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	503 (D) x 170 (W) x 400 (H) mm	344 x 121 x 121 mm (w/ junction box)	118 x 118 x 294 mm	129 (D) x 107 (W) x 54 (H) mm
Operating Temperature	-10°C ~ 50°C (14°F ~ 122°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	-20°C ~ 60°C (-4°F ~ 140°F) -40°C ~ 60°C (-40°F ~ 140°F), with cold start heater	-30°C ~ 60°C (-22°F ~ 140°F)	-30°C ~ 60°C (-22°F ~ 140°F)	-25°C ~ 55°C (-13°F ~ 131°F)

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Network Cameras

Form Factor	Mobile Dome Cameras			Mobile Dome Cameras			
Video Resolution	2 Megapixel			2 Megapixel			
							
	WDR	WDR	WDR		WDR NEW	WDR NEW	WDR NEW
Model	MD8563-DEH	MD8563-EH	MD8564-EH	MD8565-N	MD9560-H	MD9560-DH	MD9561-H
Summary	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	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	2MP, 60fps, 30m IR, H265/H264/MJPEG4, 3DNR, WDR Pro, IP67, IK10, NEMA 4X, EN50155
Sensor Type	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.7" Progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.9" Progressive CMOS	1/2.8" Progressive CMOS
Lens Type	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal	Fixed-focal
F-number	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)]	F1.8 [MD9560-H(2.8mm)] F2.0 [MD9560-H(3.6mm)]	F1.8	F1.8 [MD9561-H(2.8mm)] F2.0 [MD9561-H(3.6mm)]
Focal Length	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)]	f = 2.8 mm [MD9560-H(2.8mm)] f = 3.6 mm [MD9560-H(3.6mm)]	f = 2.8 mm	f = 2.8 mm [MD9561-H(2.8mm)] f = 3.6 mm [MD9561-H(3.6mm)]
Field of View	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)]	108° (H), 60° (V) [MD9560-H(2.8mm)] 89° (H), 47° (V) [MD9560-H(3.6mm)]	108° (H) 60° (V)	110° (H), 63° (V) [MD9561-H(2.8mm)] 90° (H), 49° (V) [MD9561-H(3.6mm)]
Auto-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris	Fixed-iris
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	Yes
IR Illuminators	-	-	30 m, IR LED*4	10 m, IR LED*4	20 m, IR LED*2	20 m, IR LED*2	30 m, IR LED*2
Min. Illumination	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	MD9560-H(2.8mm): 0.13 Lux @ F1.8 (Color) 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on MD9560-H(3.6mm): 0.16 Lux @ F2.0 (Color) 0.01 Lux @ F2.0 (B/W) 0 Lux with IR illumination on	0.13 Lux @ F1.8 (Color) 0.01 Lux @ F1.8 (B/W) 0 Lux with IR illumination on	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
Max. Video Resolution	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)
Frames per Second	30 fps @ 1920x1080 45 fps @ 1280x720	30 fps @ 1920x1080 45 fps @ 1280x720	30 fps @ 1920x1080 45 fps @ 1280x720	30 fps @ 1920x1080 60 fps @ 1280x720	30 fps @ 1920x1080	30 fps @ 1920x1080	60 fps @ 1920x1080
Video Compression	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)	Triple-Codec (H.265/H.264/MJPEG)
Multiple Streams	4 Streams	4 Streams	4 Streams	4 Streams	3 Streams	3 Streams	4 Streams
WDR Technology*	WDR Pro	WDR Pro	WDR Pro	WDR Enhanced	WDR Pro	WDR Pro	WDR Pro
3DNR	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Cloud Service	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD	VIVOCLOUD
Trend Micro IoT Security	Yes	Yes	Yes	Yes	Yes	Yes	Yes
VCA	-	-	-	-	-	-	-
Power Input	DC 8-36V	PoE	PoE (for Camera System) DC 24V (for Heater)	DC 7.5-48V PoE	PoE	DC 7.5-48V	PoE
Power Consumption	Max. 4.2 W	Max. 4.2 W	Max. 10/5.7 W (IR on/off) Heater: 50 W	Max. 5.5 W	Max. 5.5 W (IR on) Max. 3.3 W (IR off)	Max. 5.5 W (IR on) Max. 3.3 W (IR off)	Max. 5.5 W (IR on) Max. 3.3 W (IR off)
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)	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	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	IP67, IK10	IP6K9K/IP68, IK10+, NEMA 4X	IP66, IK10, NEMA 4X	IP66, IP67, IK10, NEMA 4X	IP66, IP67, IK10, NEMA 4X	IP66, IP67, IK10, NEMA 4X
Dimensions	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	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
Operating Temperature	-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)	-25°C ~ 60°C (-13°F ~ 140°F) (IR off) -25°C ~ 55°C (-13°F ~ 131°F) (IR on)	-25°C ~ 60°C (-13°F ~ 140°F) (IR off) -25°C ~ 55°C (-13°F ~ 131°F) (IR on)	-40°C ~ 60°C (-13°F ~ 140°F) (IR off) -40°C ~ 55°C (-13°F ~ 131°F) (IR on)

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 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Form Factor	Mobile Dome Cameras	Speed Dome Cameras			Speed Dome Cameras			Split-type Camera System
Video Resolution	5 Megapixel	2 Megapixel			2 Megapixel			4 Megapixel
								
								
Model	MD9581-H	SD9161-H	SD9362-EH-v2 SD9362-EHL	SD9364-EH-v2 SD9364-EHL-v2	SD9366-EH-v2 SD9366-EHL	SD9374-EHL	VC8101 CU8161-H / CU8163-H	
Summary	5MP, 30fps, 25m IR, H.265/H.264/MJPEG, 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	2MP, 60fps, 250/150m IR, H.265/H.264/MJPEG, 30x, WDR Pro, Smart IR II, Smart Stream III, IP66, IK10, NEMA 4X, Wiper	4MP, 60fps, 250 m IR, H.265/H.264/MJPEG, 36x, WDR Pro, Smart IR II, Smart Stream III, IP66, NEMA 4X	2MP, 30fps, 1-CH, Pinhole(CU8161-H)/ Fisheye Surround View(CU8163-H), H.264/MJPEG, WDR Pro, Recessed-Mount	
Sensor Type	1/2.7" Progressive CMOS	1/3" Progressive CMOS	1/2.8" Progressive CMOS (SD9362-EH-v2) 1/3" Progressive CMOS (SD9362-EHL)	1/2.8" Progressive CMOS (SD9364-EH-v2) 1/3" Progressive CMOS (SD9364-EHL-v2)	1/2.8" Progressive CMOS (SD9366-EH-v2) 1/3" Progressive CMOS (SD9366-EHL)	1/2" Progressive CMOS	1/2.7" Progressive CMOS	
Lens Type	Fixed-focal	10x Optical Zoom Auto Focus	30x Optical Zoom Auto Focus	30x Optical Zoom Auto Focus	30x Optical Zoom Auto Focus	36x Optical Zoom Auto Focus	Fixed-focal	
F-number	F1.8 [MD9581-H(2.8mm)] F2.0 [MD9581-H(3.6mm)]	F1.6 ~ F1.8	F1.6 ~ F4.7	F1.6 ~ F4.7	F1.6 ~ F4.7	F1.5 ~ F4.8	F2.5 [CU8161-H] F2.0 [CU8163-H]	
Focal Length	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	f = 4.3 ~ 129 mm	f = 6 ~ 216 mm	f = 3.7 mm [CU8161-H] f = 1.6 mm [CU8163-H]	
Field of View	102° (H), 76° (V) [MD9581-H(2.8mm)] 83° (H), 61° (V) [MD9581-H(3.6mm)]	4.9° ~ 54° (H) 4° ~ 31° (V)	SD9362-EH-v2: 2.3° ~ 64° (H), 1.3° ~ 36° (V) SD9362-EHL: 2° ~ 59° (H), 2° ~ 45° (V)	SD9364-EH-v2: 2.3° ~ 64° (H), 1.3° ~ 36° (V) SD9364-EHL-v2: 2° ~ 59° (H), 2° ~ 45° (V)	SD9366-EH-v2: 2.3° ~ 64° (H) SD9366-EHL: 1.3° ~ 36° (V)	1.85° ~ 49.27° (H) 1.04° ~ 28.93° (V)	93° (H), 48° (V) [CU8161-H] 180° (H), 140° (V) [CU8163-H]	
Auto-iris	Fixed-iris	DC-iris	DC-iris	DC-iris	DC-iris	P-iris	Fixed-iris	
Day/Night	Yes	Yes	Yes	Yes	Yes	Yes	-	
IR Illuminators	25 m, IR LED*2	-	-	250 m, IR LED*2	250/150m, IR LED*2	250 m, IR LED *2	-	
Min. Illumination	MD9581-H(2.8mm): 0.0.9 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)	SD9362-EH-v2: 0.195 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) SD9362-EHL: 0.42 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W)	SD9364-EH-v2: 0.195 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on SD9364-EHL-v2: 0.42 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on	SD9366-EH-v2: 0.195 Lux @ F1.6 (Color) 0.01 Lux @ F1.6 (B/W) 0 Lux with IR illumination on SD9366-EHL: 0.42 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	CU8161-H: 1.10 Lux @ F2.5 (Color) CU8163-H: 0.66 Lux @ F2.0 (Color)	
Max. Video Resolution	2560x1920(5MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	1920x1080 (2MP)	2560x1440 (4MP)	1920x1080 (2MP)	
Frames per Second	30 fps @ 2560x1920 60 fps @ 1920x1080	30 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	60 fps @ 1920x1080	30 fps @ 2560x1440	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)	Dual-Codec (H.264/MJPEG)	
Multiple Streams	3 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	-	-	-	-	-	VIVOCLOUD	
Trend Micro IoT Security	Yes	-	-	-	-	Yes	Yes	
VCA	-	-	-	-	-	-	-	
Power Input	PoE	PoE DC 24V AC 24V	60W UPoE DC 24V AC 24V	95W PoH/PoE DC 24V AC 24V	95W PoH/PoE DC 24V AC 24V	95W PoH/PoE DC 24V AC 24V	DC 8~36V PoE	
Power Consumption	Max. 5.5 W (IR on) Max. 3.3 W (IR off)	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) DC 24V/AC 24V: Max. 63/45 W (Heater on/off)	PoH/PoE (95W): Max. 70/51 W (Heater on/off) DC 24V/AC 24V: Max. 63/45 W (Heater on/off)	PoH/PoE (95W): Max. 70/51 W (Heater on/off) DC 24V/AC 24V: Max. 63/45 W (Heater on/off)	Max. 5.5 W	
Digital Input / Output	1/1	4/2	4/2	4/2	4/2	4/2	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)	Two-way Audio (full duplex)	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	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, IP67, IK10, NEMA 4X	-	IP68, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	IP66, IK10, NEMA4X	-	
Dimensions	98 (D) x 110 (W) x 54 (H) mm	Ø 172 x 157 mm	Ø 162 x 221 mm	237 x 364 mm	237 x 364 mm	237 x 364 mm	105 x 84 x 30 mm (VC8101) Ø 24 x 37 mm (CU8161-H, w/o cable) Ø 24 x 43 mm (CU8163-H, w/o cable)	
Operating Temperature	-40°C ~ 60°C (-13°F ~ 140°F) (IR off) -40°C ~ 55°C (-13°F ~ 131°F) (IR on)	-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)	-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)	-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.
 *AEB (Auto Exposure Bracketing): Provides multiple streams with different exposure settings to cover over-exposed and under-exposed scenarios.

Network Cameras

Network Camera Model - Naming Rule

SD 9 3 6 4 - EHL - v2

1-2nd 3rd 4th 5th 6th 7th 8th

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 / 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 - Resolution	
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	940nm 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	
Digit Extension	
NO.	Description
v	1 - 99
A	A-Z
EPoC	Ethernet and Power over Coaxial

Video Servers/Receivers








Type	Video Servers	Type	Video Receiver
Video Resolution	D1		

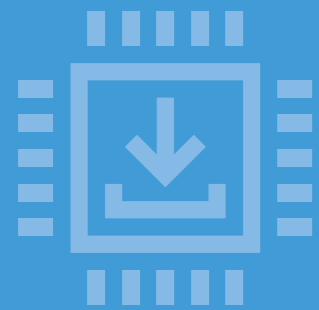


Model	VS8100-v2
Short Highlight	1-CH, Ultra-mini Size, Power Sharing with Analog Camera
Max. Video Resolution	720x480/NTSC 720x576/PAL
Frames per Second	30 fps @ 720x480 25 fps @ 720x576
Video Compression	Dual-Codec (H.264/MJPEG)
Multiple Streams	3 Streams
Video Source	1 Analog Camera Input
Video Modulation	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)

Model	RX9401
Short Highlight	H.265/H.264, 16-CH Video Display, HDMI, 4K Display, Fisheye Dewarp
Operating System	Embedded Linux
Video Compression	H.265H.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 Recorder				Network Video Recorder		
	 4K Display NEW	 core+ 4K Display	 core+ 4K Display	 core+ 4K Display NEW		 4K Display NEW	 4K Display Coming Soon
Model	ND9312	ND9441/ND9541	ND9441P/ND9541P	ND9322P-v2/ND9424P-v2	NR9581/NR9681	NR9682-v2/NR9782-v2	NS9521
Short Highlight	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	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 Event Search	H.265/H.264, Up to 64CH, 2x HDD, Windows AD, VAST 2 inside, Smart Search II, Smart VCA Event Search
Operating System	Embedded Linux	Embedded Linux	Embedded Linux	Embedded Linux	Embedded Windows	Embedded Windows	Embedded Windows
Video Compression	H.265H.265/H.264/MJPEG	H.265H.265/H.264/MJPEG	H.265H.265/H.264/MJPEG	H.265H.265/H.264/MJPEG	H.265H.265/H.264/MJPEG	H.265H.265/H.264/MJPEG	H.265H.265/H.264/MJPEG
Channels	Up to 8 channels	Up to 16/32 channels	Up to 16/32 channels	Up to 8/16 channels	Up to 32/64 channels	Up to 64/128 channels	32 channels (Up to 64CH by license purchasing)
LiveView (Local) Decoding	Up to 3840x2160	Up to 4096x4096 (H.265) Up to 8192x8192 (H.264)	Up to 4096x4096 (H.265) Up to 8192x8192 (H.264)	Up to 3840x2160	Up to 8192x8192	Up to 8192x8192	Up to 8192x8192
Max. Decoding Capability	H.265/H.264: 3840x2160 @ 30 fps	H.265/H.264: 3840x2160 @ 120 fps	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	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	48 Mbps	192 Mbps	192 Mbps	96 Mbps	512 Mbps	512 Mbps	512 Mbps
Hard Disk	3.5" SATA HDD*1	3.5" SATA HDD*4	3.5" SATA HDD*4	3.5" SATA HDD*2	3.5" SATA HDD*8 (Hot Swappable)	3.5" SATA HDD*8 (Hot Swappable)	3.5" SATA HDD*2
RAID	-	RAID 0, 1, 5	RAID 0, 1, 5	RAID 0, 1	RAID 0, 1, 5, 6, 10	RAID 0, 1, 5, 6, 10	-
Local Display	HDMI video output	HDMI/VGA video output	HDMI/VGA video output	HDMI/VGA video output	HDMI/DP/DVI/VGA video output	HDMI/DP/DVI video output	HDMI/DP/DVI video output
Video Output Display Resolution	3840x2160 1920x1080 1280x720	3840x2160 1920x1080 1280x720	3840x2160 1920x1080 1280x720	3840x2160 1920x1080 1280x720	HDMI: 3200x2000 DP: 3200x2000 DVI/VGA: 1920x1200	HDMI: 1920x1080 DVI: 1920x1080 DP: 4096x2304	HDMI: 4096x2160 DVI: (TBD) DP: 4096x2304
Fisheye Dewarp	Supported	Supported	Supported	Supported	Supported	Supported	Supported
Core+	-	Supported	Supported	Supported	-	-	-
Trend Micro IoT Security	Supported	Supported	Supported	Supported	-	-	-
Cybersecurity Management	-	Supported	Supported	Supported	Supported	Supported	Supported
Connectors	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)	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	Ethernet 10/100/1000 RJ45 * 2 USB 2.0 x4 USB 3.1 (type A) x2 USB 3.1 (type C) x2 Microphone Audio Jack Input x1 3.5 Line Output Audio Jack x1 COM Port x2
Power Input	DC 12V 3A	DC 56V 2.32A	100~240V AC / 50~60Hz	100~240V AC / 50~60Hz	Redundant Power 100~240V AC / 50~60Hz	Redundant Power 100~240V AC / 50~60Hz	100~240V AC / 50~60Hz
Power Consumption	Max. 15 W	Max. 76 W	Max. 260 W	Max. 170 W/250 W	Max. 740 W	Max. 550 W	Max. 250 W
Approvals	CE, LVD, FCC, VCCI, C-Tick, UL	CE, LVD, FCC, VCCI, C-Tick, UL	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	TBD
Installation, Management, and Maintenance	VAST 2, Shepherd, VIVOCloud, iViewer (iOS/Android)	VAST 2, Shepherd, VIVOCloud, iViewer (iOS/Android)	VAST 2, Shepherd, VIVOCloud, iViewer (iOS/Android)	VAST 2, Shepherd, VIVOCloud, iViewer (iOS/Android)	VAST 2, Shepherd, iViewer (iOS/Android)	VAST 2, Shepherd, iViewer (iOS/Android)	VAST 2, Shepherd, iViewer (iOS/Android)
Weight	550 g	3.9 kg (w/o HDD)	4.5 kg (w/o HDD)	3.16/3.21 kg (w/o HDD)	27 kg (w/o HDD)	33 kg (w/o HDD)	TBD
Dimensions	198 (W) x 200 (D) x 47(H) mm	430 (W) x 400 (D) x 44.5 (H) mm	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	96 (W) x 365 (D) x 330 (H) mm

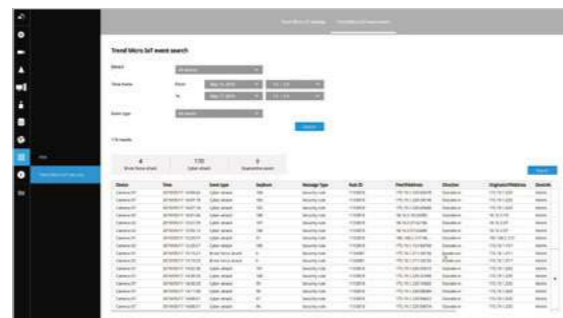


Core+

Advanced
Firmware
for Network Video
Recorders

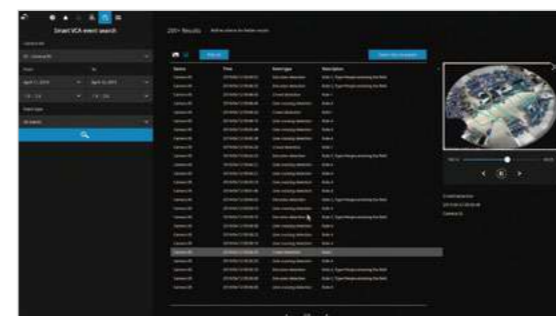
Cybersecurity Management

In alliance with world-renowned cybersecurity company Trend Micro, Core+ 3.0 NVRs support Trend Micro IoT Security, empowering the NVRs to automatically detect and prevent credential-based attacks and to block suspicious events. VIVOTEK network cameras that support Trend Micro IoT Security can also connect in series with Core+ 3.0 NVRs, enabling the NVRs to receive instant notifications of the security events from the cameras and to understand the type and status of cyber-attacks, as well as to acquire attack information from cameras. In addition, VAST 2 (VMS) receives information on security protection attacks from Core+ 3.0 NVRs and VIVOTEK cameras.



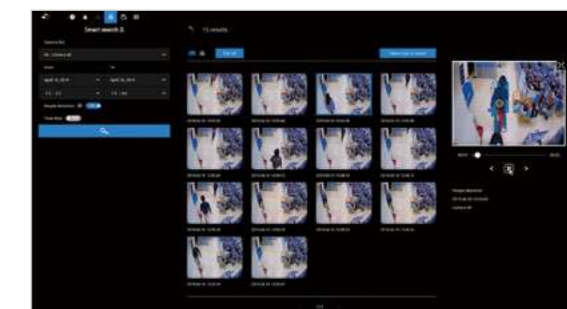
Smart VCA / Smart 360 VCA Event Search

The Core+ 3.0 NVRs support alarm management and event search of VIVOTEK's deep-learning video analytics technology, Smart VCA and Smart 360 VCA. VCA rules and information such as people-tracking frames and motion-detection frames can be shown on live or playback video display. The user can search by single or multiple event types, playback triggered events and then export these search results to video clips.



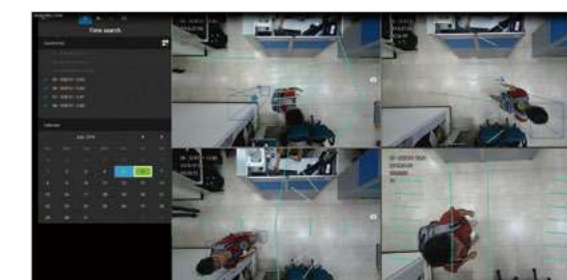
Smart Search II

Cameras supporting VIVOTEK Smart Motion Detection technology, which detects people activities, can also connect with Core+ 3.0 NVRs. Based on the camera metadata recorded on the hard drive of the NVRs, the NVRs can then deploy the advanced Smart Search II technology, activate the people detection function, and proceed to search the corresponding playback video. This allows for faster sorting through large amounts of evidence to find precisely what is needed.



Counting Solution

The Core+ 3.0 NVRs support VIVOTEK's 3D people counting cameras and cloud service software – VIVOCloud. Counting rules can be shown on the NVR's video display from counting cameras. Besides, all of the counting data can be stored automatically to the NVR's hard drive as well as be acquired by VIVOCloud. Users can also build customized counting reports through the VIVOCloud interface. This enables tracking of in-store guest flow and benchmarking of campaign performance between different stores or across different time frames to make business more efficient.



Network Video Recorders/PoE Solution

Type	Mobile Network Video Recorders	Type	Outdoor VivoCam L2+ Managed PoE Switch
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Model	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.265H.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

Model	AW-GEU-086A-240
Short Highlight	4xGE UPoE + 2xGE UTP + 2xGE SFP + 1xRJ45 Console
Ethernet	
10M/100M/1G RJ45 PoE Port	4 /Per Port 60W UPoE
10M/100M/1G RJ45 Port	2
1G SFP Slot	2
RJ45 Console Port	1
Ethernet Performance	
Backplane	16 Gbps
Forwarding Capacity	11.904 Mpps
MAC Address	8K
Jumbo Frames	9600 Bytes
PoE Function	
Number of PoE Port	4
PoE Output Power	Per Port 54VDC, Max. 60W
Total PoE Power Budget	240W
Power Pin Assignment	15.4W/30W PoE: 1/2(+), 3/6(-) 60W UPoE: 1/2(+), 3/6(-), 4/5(+), 7/8(-)
PoE Management : PoE Config/Alive Checking/ Scheduling/Power Delay	Supported
IEEE 802.3at/af Power over Ethernet	Supported
Managing IP Surveillance Management	
Auto Search VIVOTEK Device	Supported
Surveillance Management List	Supported
Easy Tag VLAN in Topology View	Supported
Managing IP Surveillance Graphic 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	100~240V AC / 50~60Hz
Surge Protection /Each PoE Port	6KV
Surge Protection for AC Power	40KV
Waterproof IP Rating	IP67
Vandal Proof	IK10
Dimensions	316 (W) x 246 (H) x 118 (D) mm
Operating Temperature	-40°C ~ 65°C (-40°F ~ 149°F)

PoE Solution

Type	Outdoor Unmanaged PoE Switch	Type	Industrial VivoCam L2+ Managed PoE Switch
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Model	AW-GET-083A-120
Short Highlight	Outdoor Unmanaged PoE Switch 4xGE PoE + 2GE UTP + 2xGE SFP
Ethernet	
10M/100M RJ45 Port	-
10M/100M/1G RJ45 Port	6
1G SFP Slot	2
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	-
IEEE 802.3af/at	Supported
Power Pin Assignment	1/2(+), 3/6(-)
PoE PD Auto Detection	Supported
Surge Protection/Each PoE port	6 KV
Surge Protection for AC Power	40 KV
Ethernet Performance	
Switching Capacity	16 Gbps
Mac Table	8K
Jumbo Frame	9216 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	6KV
Surge Protection for AC Power	40KV
Operating Temperature	-40°C ~ 65°C (-40°F ~ 149°F)
Storage Temperature	-40°C ~ 75°C (-40°F ~ 167°F)
Dimensions	316 (W) x 246 (H) x 118 (D) mm
Weight	4.52 kg
Connectors	M16 x 4, M25 x 2

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	
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Model	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

Type	VivoCam Web Smart Managed PoE Switch			10G L2+ Managed Switch	Unmanaged FE PoE Switch	
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Model	AW-GEV-104B-130	AW-GEV-184B-250	AW-GEV-264B-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

Type	Unmanaged FE PoE Switch			Unmanaged GE PoE Switch		
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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

Type	Unmanaged GE PoE Switch	PoE Injector				
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Model	AW-GET-100A-120	AP-FIC-010A-015	AP-GIC-010A-030	AP-GIC-011A-060	AP-GIC-011A-095	AP-GIC-015B-095
Description	8xGE PoE + 2xGE SFP Switch /Per Port Max. 30W, Power Budget 115W	Indoor 1xFE IEEE 802.3af 15.4W PoE Injector	Indoor 1xGE IEEE 802.3at 30W PoE Injector	Indoor 1xGE 60W High Power UPoE Injector	Indoor 1xGE 95W High Power PoH/PoE Injector	Outdoor 1xGE 95W High Power PoH/PoE Injector, IP67, IK10

Type	PoE Extender			Hyper PoE Extender		
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Model	AP-FXC-0110 AP-FXC-0210	AP-FXC-0400	AP-FXC-0160 AP-FXC-0260	AP-FHP-0105-R	AP-FHP-0100-R	AP-FHP-0105-T
Description	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	Hyper PoE DC in Rx, 1x Hyper PoE Port, 1x FE RJ45, 1 DC Jack	Hyper PoE PoE in Rx, 1x Hyper PoE Port, 1x FE RJ45, 1 DC Jack	Hyper PoE Tx, 1x Hyper PoE Port, 1x FE RJ45, 1 DC Jack

PoE Solution

Type	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, 1x FE RJ45, 1x BNC Port, 1x DC Jack	EPoC PoE in Rx module, 1x FE RJ45, 1x BNC Port	EPoC Tx module, 1x FE 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
Type	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
Type	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
Type	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

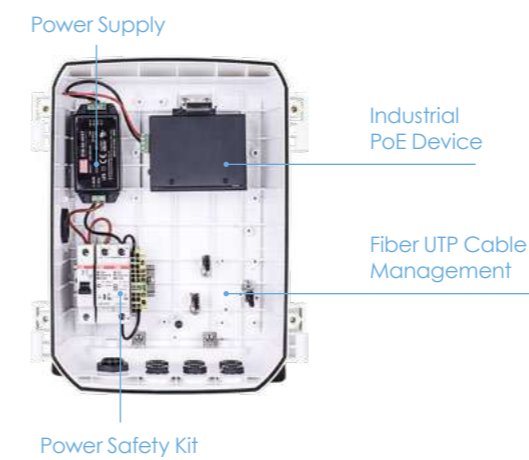
Type	Cabinet		Cabinet Accessories			
						
Model	AT-CAB-001	AT-CAS-001	AT-CAB-002	AT-SUN-001	AT-SUN-002	AT-SWH-000
Description	Cabinet	Cabinet for Speed dome (SD936X)	Side-mount bracket for HLG series power supply	Sunshield for AT-CAX series cabinet	Sunshield for AT-CAX + AT-CAB-002 cabinet	Power safety kit
Type	Cabinet Accessories					
						
Model	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



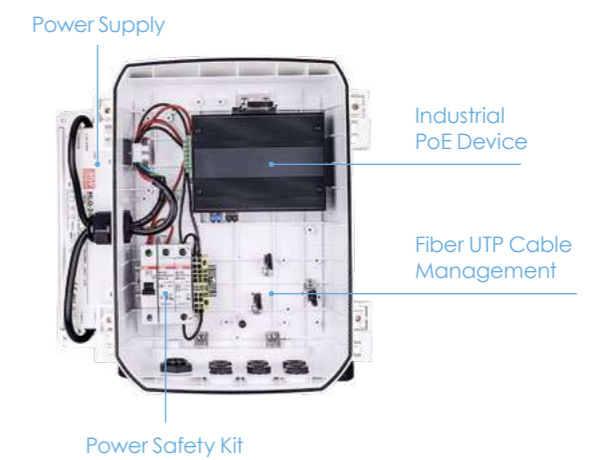
AT-CAB-001



AT-CAS-001









AT-CAB-001/AT-CAS-001








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

PoE Accessories







Type	Industrial DIN-Rail Power Supply				Industrial Wall Mount Power Supply	
						
Model	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







Type	Industrial Wall Mount Power Supply					
						
Model	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







Type	Industrial Wall Mount Power Supply	Outdoor Power Box	SFP Transceiver			
						
Model	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

Type	SFP Transceiver				SFP+ Transceiver	
						
Model	SFP-1000-MM85-X5I	SFP-1000-MM13-02I	SFP-1000-SM13-10I SFP-1000-SM13-40I	SFP-1000-CPTX-X1 SFP-1000-CPTX-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

Type	Mounting Kits					
						
Model	AM-105	AM-107	AM-10D	AM-10E	AM-10F	AM-114
Description	Recessed kit (Fixed dome)	Recessed kit (SD9161-H)	Recessed kit (MA9321-EHTV)	Recessed kit (Outdoor Speed Dome)	Recessed Kit (MA9322-EHTV)	Pendant head (Water proof)

Type	Mounting Kits					
						
Model	AM-118	AM-116/AM-117	AM-212	AM-216	AM-218	AM-21A/AM-21B
Description	Pendant head	Pendant Pipe (20/40 cm)	Wall mount bracket	Wall Mount Bracket (15 Degree)	Wall mount bracket	L shape bracket

Type	Mounting Kits					
						
Model	AM-21G	AM-21M	AM-21C	AM-21D/AM-21E	AM-220	AM-221
Description	L shape bracket	L shape bracket	Wall mount bracket (Indoor speed dome)	Wall bracket (Enclosures)	Wall mount bracket (Outdoor speed dome)	Gooseneck bracket

Type	Mounting Kits					
						
Model	AM-231	AM-312/AM-314	AM-315	AM-412/AM-414	AM-514/AM-51C	AM-51D
Description	Parapet mount bracket	Pole mount adapter	Pole mount adapter	Corner mount adapter	Adapting plate	Adapting plate (4" square electrical box)

Accessories

Type	Mounting Kits					
Model	AM-51E	AM-51G	AM-523	AM-526	AM-520	AM-522
Description	Adapting plate (90° rotation)	Adapting plate (3.5" octagon electrical box)	Adapting plate (4" square electrical box)	Pendant mount adapter (3/4" NPT)	Mounting adapter (3/4" NPT F and 1.5" PS11 M)	3/4" NPT & 1-1/2" NPT Male Coupler

Type	Mounting Kits					
Model	AM-525	AM-527	AM-528	AM-529	AM-52A	AM-52B
Description	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 adapter for speed dome (SD936x)	Mounting adapter for speed dome (SD916-H)	Mounting Adapter (3/4" NPT Female Connector)

Type	Mounting Kits					
Model	AM-52C	AM-52E	AM-611	AM-612	AM-712	AM-713
Description	Mounting adapter (1/2" NPT Female Connector)	Mounting adapter (3/4" NPT F and 1.5" PS11 M)	Rack mount fixed bracket for NVR	Rack mount rails for NVR	Conduit box	Conduit box (Water-proof)

Type	Mounting Kits			Enclosures		
Model	AM-718/AM-719	AM-71B	AM-71C	AE-238	AE-239	AE-243
Description	Junction box	Conduit box (Water-proof)	Junction box (Water-proof)	Value series enclosure 24VAC/VDC input, IP68, IK10	Value series enclosure, PoE input, IP68, IK10	Value series enclosure, built-in fixed 50M IR, 24VAC/VDC input, IP68, IK10

Accessories

Type	Enclosures					Water Tank
Model	AE-244	AE-23A	AE-23B	AE-23E-v2	AE-23F	AE-301
Description	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, IP68, IK10	Supreme series enclosure, optional VAIR illuminator, PoE input, IP68, IK10	Supreme series enclosure, wiper, optional VAIR illuminator, PoE input, IP68, IK10	10L, low level alarm pump control via DIDO 0 °C~60 °C [for SD9365-EHL, SD9366-EH(L)]

Type	IR Illuminators for AE-23x Enclosures			Covers		
Model	AI-106	AI-108	AI-109	AC-215	AC-224	AC-229
Description	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	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 (Indoor fixed dome)	IK10 Transparent cover for recessed-mount cameras

Type	CaMate IR Illuminators			CaMate IR Accessories		
Model	CM32 Series	CM48 Series	CA80 Series	AM-219	CMA-B01	CMA-B03
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°~40° Adjustable beam angle via RS485 or remote control	L Bracket for dual or triple CaMate	L Bracket	U Bracket

Type	CaMate IR Accessories					Lenses
Model	CMA-B04	CMA-B05	CMA-B06	CMA-A01	CMA-E01	AL-232
Description	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	CS mount, 3.1~8mm, F1.2, DC-Iris, 1/2.7" (IP9167-HP)

Accessories


Type	Lenses					
						
Model	AL-237	AL-239	AL-242	AL-243	AL-247	AL-248
Description	CS mount, 4.1~9mm, F1.6, DC-iris, 1/1.8" (IP9181-H)	C mount, 8~80mm, F1.6, DC-iris, 1/2" (IP9165-HT/HP/LPC)	CS mount, 12.5~50mm, F1.4, P-iris, 1/2.7" (IP9171-HP)	CS mount, 7~22mm, F1.4, P-iris, 1/2.7" (IP9171-HP)	CS mount, 2.8~8mm, F1.2, P-iris, 1/3" (IP9171-HP)	CS mount, 12~50mm, F1.8, P-iris, 1/1.7" (IP9165-HT/HP/LPC, IP9181-H, IP9191-HP/HT)

Type	Lenses					
						
Model	AL-24A	AL-24B	AL-24D	AL-24E	AL-251	AL-252
Description	CS mount, 12~40mm, F1.8, P-iris, 1/1.8" (IP9165-HT/HP/LPC, IP9167-HP, IP9171-H)	CS mount, 3.6~17mm, F1.5, P-iris, 1/1.8" (IP9165-HT/HP/LPC)	C Mount, 25~135mm, F1.8, P-iris, 1/1.8" (IP9165-HP/HT/LPC)	CS Mount, 3.9~10mm, F1.5, P-iris, 1/1.8" (IP9165-HP/HT/LPC, IP9191-HP/HT)	CS-Mount, 3.9~10mm, F1.5, i-CS, 1/1.8" (IP9165-HT/LPC, IP9191-HT)	CS-Mount, 9 ~ 50mm, F1.5~1.6, i-CS, 1/1.8" (IP9165-HT/LPC, IP9191-HT)

Type	Power Adapters	Connector	Joystick	Cable		
						
Model	AA-221/AA-231	AN3000	AJ-001/AJ-002	AO-002	AO-003	AO-004
Description	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)	I/O Cable for speed dome (SD9161-H, SD9361/2/3/4-EH(L))	M12 (D Code 4-Pin Male) to RJ45 Cable (60cm)























Type	Cable			Storage
				
Model	AO-005	AO-006	AO-007	Micron SD
Description	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	IB9365 Series IB9367 Series IB9371 Series IB9387 Series IB9391-EHT	IB9360-H IB9380-H	IB9368-HT IB9388-HT IB9389 Series	TB9330-E TB9331-E	MS9321-EHV
Pole Mount Adapter	 AM-312	•	•	•	•	•
Corner Mount Adapter	 AM-412	•	•	•	•	•
Adapting Plate	 AM-523		•	•		
Junction Box	 AM-719	•				
	 AM-71C		•	•		

Mounting Installation

Outdoor		Fixed Dome / 360° Cameras					Outdoor		Fixed Dome / 360° Cameras					
Application	Model	FD8166A Series	FD9165 Series FD9167 Series FD9171-HT FD9187 Series	FD9189 Series	FE9181-H FE9191	FE9182-H	Application	Model	FD8166A Series	FD9165 Series FD9167 Series FD9171-HT FD9187 Series	FD9189 Series	FE9181-H FE9191	FE9182-H	
Ceiling Mount	 AM-105		•				Mounting Adapter/ Conduit Box	 AM-527		•				
L-Shape Wall Mount	 AM-21A (V02)		•	•				 AM-528				•		
	 AM-21B	•						 AM-712 + AM-522	•	•				
Adapting Plate	 AM-514		•		•		Pendant Mount*	 AM-116/117	+	 AM-118	=			
	 AM-51C					•								
	 AM-51D			•			Wall Mount*	 AM-212	or	 AM-221	+	 AM-718 (Optional)	=	
	 AM-51E	•												
Mounting Adapter/ Conduit Box	 AM-520				•	•	2	 AM-218	+	 AM-719 (Optional)	=			
	 AM-52C				•	•								

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

Mounting Installation

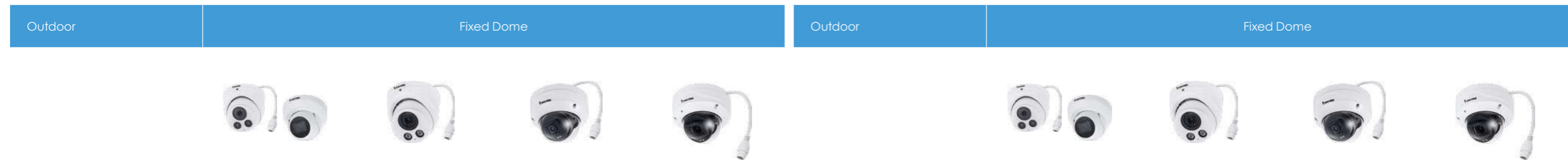
Outdoor	Fixed Dome / 360° Cameras	Outdoor	Fixed Dome / 360° Cameras
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Application	Model	FD8366-V	FD9365 Series FD9367 Series FD9371 Series FD9387 Series FD9391-EHTV	FE9381(82)-EHV FE9391-EV FE9582-EHNV	Application	Model	FD8366-V	FD9365 Series FD9367 Series FD9371 Series FD9387 Series FD9391-EHTV	FE9381(82)-EHV FE9391-EV FE9582-EHNV
L-Shape Wall Mount	AM-21A (V02)		•		Wall Mount*	$\text{AM-212 or AM-221} + \text{AM-718 (Optional)} = \text{Camera}$			
	AM-21G	•				$\text{AM-218} + \text{AM-719 (Optional)} = \text{Camera}$			
Adapter Plate	AM-51C		•		Pole Mount*	$\text{AM-212 or AM-221} + \text{AM-718 (Optional)} + \text{AM-314 or AM-315} = \text{Camera}$			
	AM-51E	•				$\text{AM-218} + \text{AM-719 (Optional)} + \text{AM-312} = \text{Camera}$			
	Inbox Plate			•			$\text{AM-212 or AM-221} + \text{AM-718 (Optional)} + \text{AM-414} = \text{Camera}$		
Mounting Adapter/Conduit Box	AM-520			•	Corner Mount*	$\text{AM-212 or AM-221} + \text{AM-718 (Optional)} + \text{AM-414} = \text{Camera}$			
	AM-525		•			$\text{AM-218} + \text{AM-719 (Optional)} + \text{AM-412} = \text{Camera}$			
	AM-713 + AM-522			•			$\text{AM-212 or AM-221} + \text{AM-718 (Optional)} + \text{AM-414} = \text{Camera}$		
Pendant Mount*	AM-116/117 + AM-114 =								

* 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		Fixed Dome				Outdoor		Fixed Dome			
Application	Model	IT9360-H IT9380-H IT9389-H/HT	IT9388-HT	FD9360-H FD9380-H	FD9368-HTV FD9388-HTV FD9389 Series	Application	Model	IT9360-H IT9380-H IT9389-H/HT	IT9388-HT	FD9360-H FD9380-H	FD9368-HTV FD9388-HTV FD9389 Series
L-Shape Wall Mount	AM-21A (V02)		•	•	•	Wall Mount*	2	AM-218 + AM-719 (Optional) =			
	AM-21M	•									
Adapter Plate	AM-51D				•	Pole Mount*	1	AM-212 or AM-221 + AM-718 (Optional) + AM-314 or AM-315 =			
	AM-51G		•	•							
Mounting Adapter/Conduit Box	AM-528				•						
	AM-52E	•	•	•	•		2	AM-218 + AM-719 (Optional) + AM-312 =			
	AM-71B + AM-522		•	•	•						
Pendant Mount*	AM-116/117 + AM-114 =					Corner Mount*	1	AM-212 or AM-221 + AM-718 (Optional) + AM-414 =			
Wall Mount*	1 AM-212 or AM-221 + AM-718 (Optional) =						2	AM-218 + AM-719 (Optional) + AM-312 =			

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

Mounting Installation

Outdoor		Speed Dome Cameras			Outdoor		Speed Dome Cameras								
Application	Model	SD9362-EH-v2 SD9362-EHL	SD9364-EH(L)-v2 SD9366-EH-v2 SD9366-EHL	SD9374-EHL	Application	Model	SD9362-EH-v2 SD9362-EHL	SD9364-EH(L)-v2 SD9366-EH-v2 SD9366-EHL	SD9374-EHL						
Ceiling Mount	 AM-10E	•			Pole Mount	1	 +  +  or  = 								
Wall Mount Bracket	 AM-220	•	•	•		2	 +  or  +  +  or  = 								
Mounting Adapter	 AM-529	•	•	•		Cabinet	 +  = 								
Pendant Mount	 AM-529	+	 AM-116/117	+	 AM-114	=									
Wall Mount	1	 AM-220	+	 AM-718 (Optional)	=										
	2	 AM-529	+	 or  AM-212 or AM-221	+	 AM-718 (Optional)	=								
Corner Mount					1	 AM-220	+	 AM-718 (Optional)	+	 AM-414	=				
Parapet Mount					2	 AM-529	+	 or  AM-212 or AM-221	+	 AM-718 (Optional)	+	 AM-414	=		
						 AM-529	+	 AM-231	=						

Mounting Installation

Indoor/Outdoor		Speed Dome Cameras			Multi-Sensor Cameras			Indoor/Outdoor		Speed Dome Cameras			Multi-Sensor Cameras		
Application	Model	SD9161-H	MA9321-EHTV	MA9322-EHTV	Application	Model	SD9161-H	MA9321-EHTV	MA9322-EHTV						
Ceiling Mount	 AM-107	•			Pole Mount	<ol style="list-style-type: none"> AM-21C + AM-718 (Optional) + AM-314 or AM-315 = 									
	 AM-10D		•			<ol style="list-style-type: none"> AM-52A or AM-529 + AM-212 or AM-221 + AM-718 (Optional) + AM-314 or AM-315 = 									
	 AM-10F		•	•											
Wall Mount Bracket	 AM-21C	•	•	•	Corner Mount	<ol style="list-style-type: none"> AM-21C + AM-718 (Optional) + AM-414 = 									
Mounting Adapter	 AM-529		•	•		<ol style="list-style-type: none"> AM-52A or AM-529 + AM-212 or AM-221 + AM-718 (Optional) + AM-414 = 									
	 AM-52A	•													
Pendant Mount	 AM-52A or AM-529 + AM-116/117 + AM-114 =				Parapet Mount	 AM-52A or AM-529 + AM-231 =									
Wall Mount	<ol style="list-style-type: none"> AM-21C + AM-718 (Optional) = 														
	<ol style="list-style-type: none"> AM-52A or AM-529 + AM-212 or AM-221 + AM-718 (Optional) = 														



VAST 2

Change the Way You Experience VMS

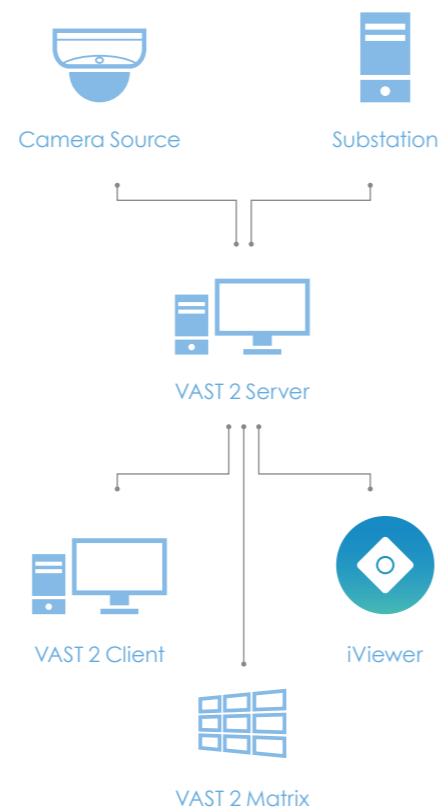
VIVOTEK's VAST 2 is an easy to use IP video management software (VMS). To meet real-world needs, VAST 2 provides easy operation on single or multiple monitors, a custom layout to fit both corridor and panorama format, rapid export of multi-channel video and acquired VCA analytics with integrated cameras, multi-layered and interactive 2.5D maps, and sophisticated alarm management. To efficiently solve users' problems and any systemic issues, VAST 2 also provides an automatic problem feedback mechanism directly connected to VIVOTEK's FAE system.

Any feedback will be addressed instantly. VAST 2's 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.



VAST 2

Change the Way You Experience VMS



Smart Search II

Users can quickly sort through large amounts of evidence to find precisely what is needed by searching for objects or people-related videos through Smart Motion Detection metadata from camera videos.



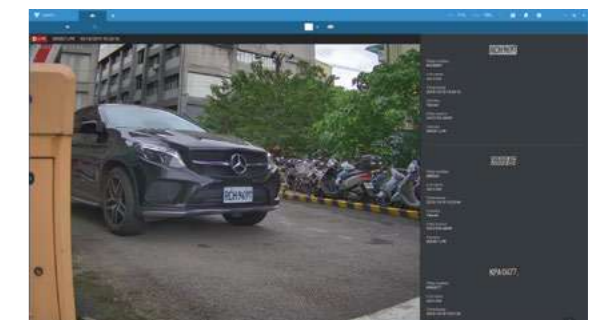
Cybersecurity Management Solution

VAST 2 provides cyber alert notifications and a real-time cyber risk dashboard to easily identify common types of cyberattacks. Users can take a further step to filter attack logs through different criteria, making it quicker to find abnormal events from among a large number of records.



License Plate Recognition Solution

VAST 2 integrates plate information from VIVOTEK's License Plate Recognition cameras. Users can view live, search and display historical data, and export results to efficiently manage parking lots security.



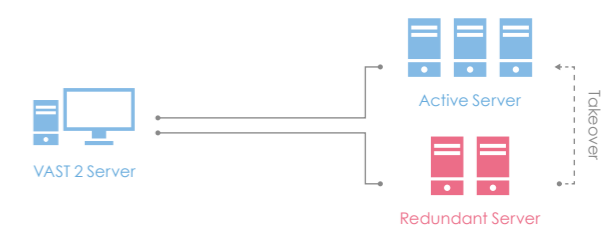
Data Magnet

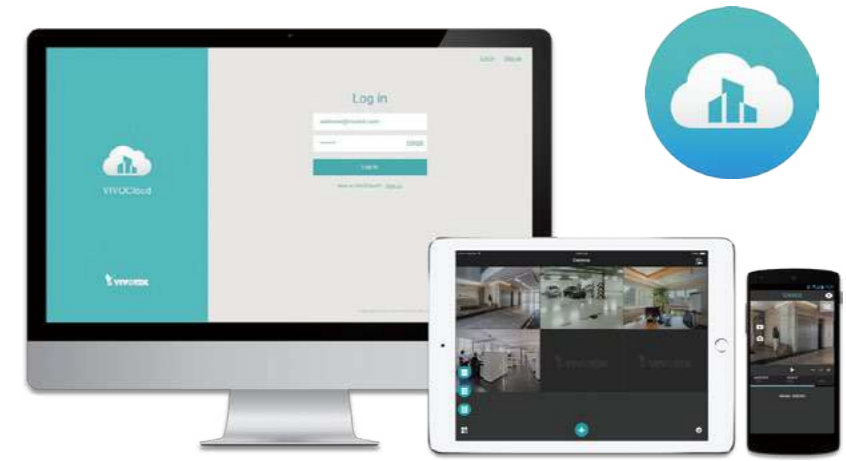
Data Magnet enables data sources from either third-party or VIVOTEK's License Plate Recognition cameras to integrate into VAST 2, providing rapid access to recording data and supporting simultaneous data display during live streaming. Users can also easily customize alarm management to receive precise notifications.



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.





VIVOCLOUD

Cloud Service

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.

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

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.



VIVOCLOUD

Cloud Service

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.



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.



Connect Comprehensive IP Devices

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



VIVOCLOUD Retail

Looking into Data, Tracking Long-run Performance

VIVOCLOUD includes support for counting cameras and counting data storage with new ND9322P-v2 and ND9424P-v2 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.

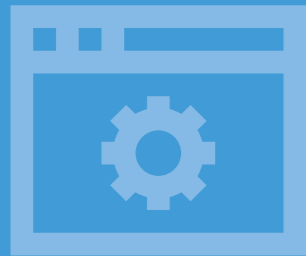


Sync Report

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

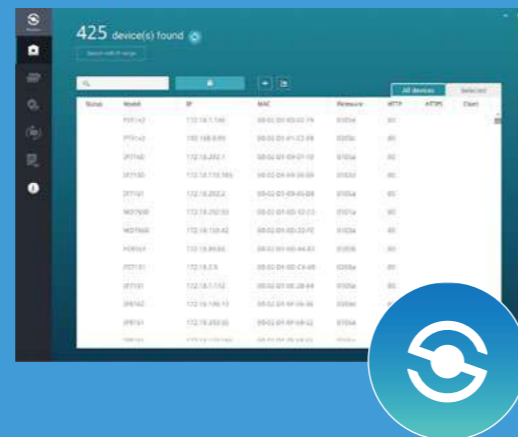


Application Software



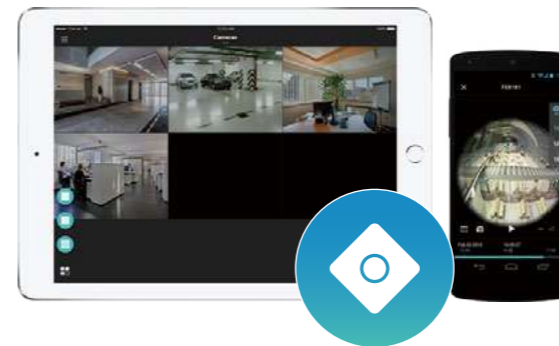
Shepherd

Shepherd, embedded with device management functions, enables the easy set-up of 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. Shepherd supports various powerful functions, including IP address assignment, remote reboot/restore, firmware and VADP package upload. Shepherd greatly benefits system integrators and installers whose projects require the simultaneous set-up of multiple cameras with the same settings. The latest Shepherd version supports batch uploading firmware and exporting device lists for VIVOTEK NVRs, updating virus signature for cameras with Trend Micro IoT Security package, and the import and export of configurations for Stereo Tracker, Deep Learning VCA and VCA packages.



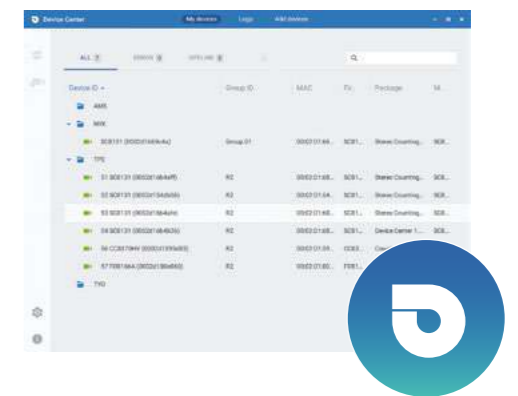
iViewer

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

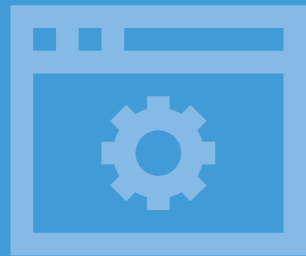


Device Center

Device Center is an all-in-one management tool that facilitates the configuration of multiple counting cameras across different sites. With powerful centralized management functions, including firmware and VADP package upgrades, Device Center streamlines system integration and the installation processes. It is especially valuable for projects involving multiple counting cameras with the same settings and for counting result analysis.

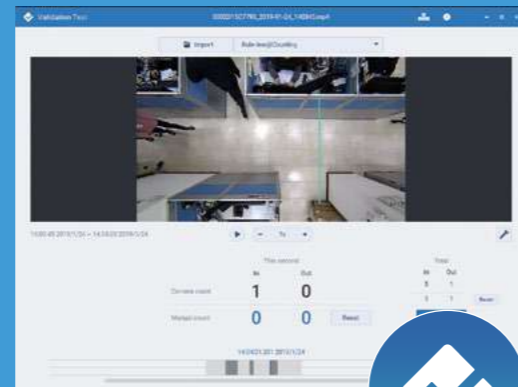


Application Software



Validation Tool

Validation Tool is an easy and smart tool that helps to validate the accuracy of people-counting camera results. The tool supports practical functions, including manual counting, stitching multiple counting cameras, and providing comparison results. Achieving accuracy of up to 98%, it greatly benefits system integrators or administrators who want to evaluate counting results.



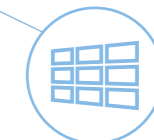
IPVS Design Tool

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.



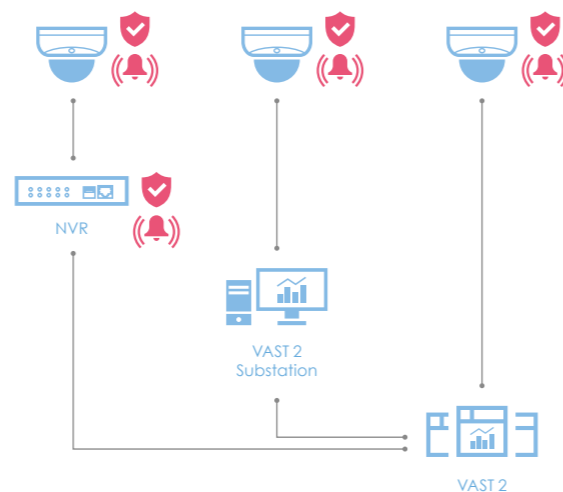


Security within Security

Cybersecurity Management Solution

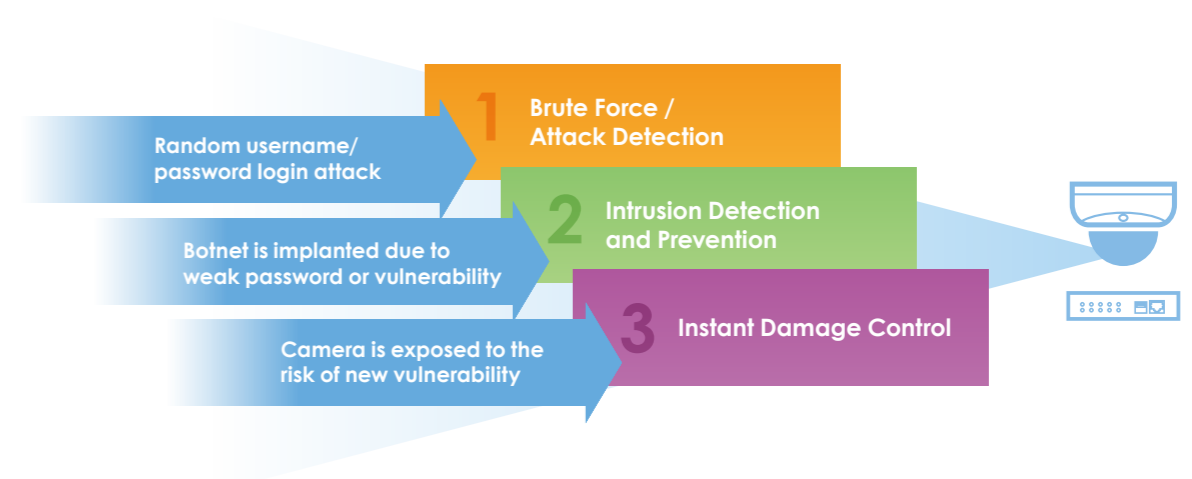


VIVOTEK's cybersecurity assurance efforts are built into the lifecycle of its products, including development, verification, manufacturing, delivery and service. We are constantly evaluating and enhancing our cybersecurity efforts in order to provide our valued customers with the highest quality and 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.



See More in Smarter Ways

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.



Event Reports with Cyber Risk 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.



Video Content Analysis

Deep Learning Technology

See More in Smarter Ways

3D Counting



VIVOTEK offers high-accuracy visual counting solutions for retail and security intelligence.

Retail

Accurately obtain people-counting data and optimize management decisions. With the further capability of stitching multiple counting cameras together, users can efficiently manage systems covering expansive floor plans.

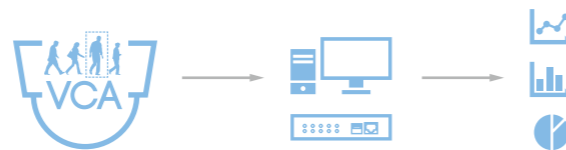
SC8131



Transport

3D Automatic Passenger Counting (APC) is purpose-built for onboard rolling stock and transit vehicle applications, empowering users to receive valuable passenger-flow data for route schedule and ticketing optimization.

SC8132/33



Smart Motion Detection



Recognize human activities with precision, with no negative impact from change of lighting, adverse weather, or other factors. Smart Motion Detection results in a significant reduction of false alarms and the continued intelligent protection of people.

IB9391-EHT/FD9389-HV



Smart VCA



The on-board Smart VCA suite includes 6 advanced video analytics, it allows the smart-edge cameras to offer advanced accuracy in people and object detections, the rich rules and easy configurations are provided to meet diverse user application requirements.

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

MS9390-HV/FD9387-HV



Smart 360 VCA



Powered by VIVOTEK's people-tracking AI engine, 3 onboard video analytic systems on smart-fisheye cameras transform these surveillance cameras from capturing devices to advanced notification instruments, and in the process significantly reduces false alarms.

- Crowd Detection
- Intrusion Detection
- Loitering Detection

FE9191/FE9391-EV



Smart Tracking



Smart Tracking is an innovative Deep Learning Technology for VIVOTEK's new PTZ cameras designed to increase effectiveness when automatically tracking people in motion. It is especially effective for applications and times in which individuals require special attention, such as bank vaults, or parking garages after working hours.

SD9374-EHL



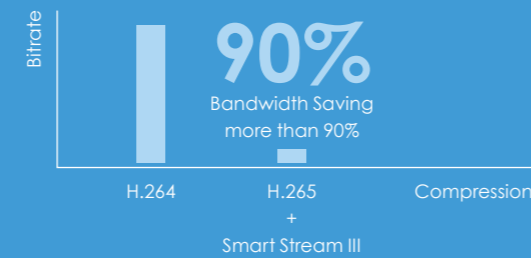
Advanced Technology



Smart Stream III



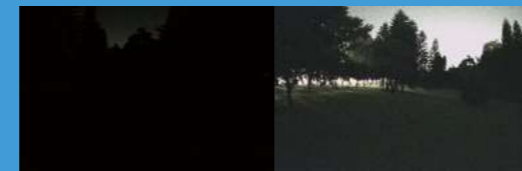
VIVOTEK Smart Stream III combines Smart Codec, Dynamic Intra Frame Period, Scene Awareness and Smart FPS technologies to enable the cameras to optimize quality for desired regions and automatically adjust encoding, maximizing bandwidth usage efficiency and lowering storage requirements while maintaining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



SNV II



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.



IB9365-HT
FD9165-HT/FD9365-HTV



See More
in Smarter Ways

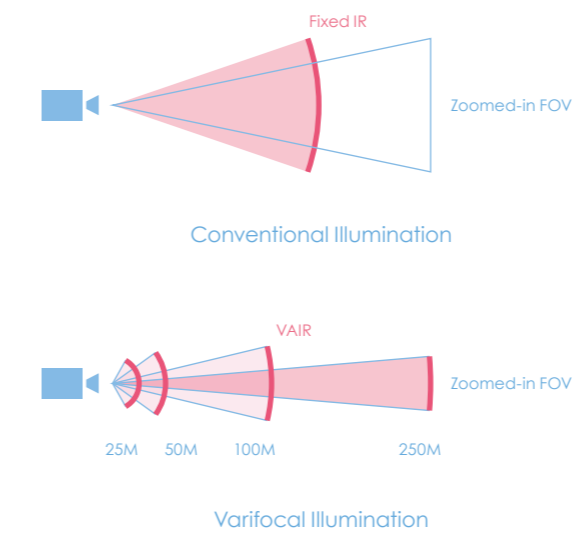
Smart IR II



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



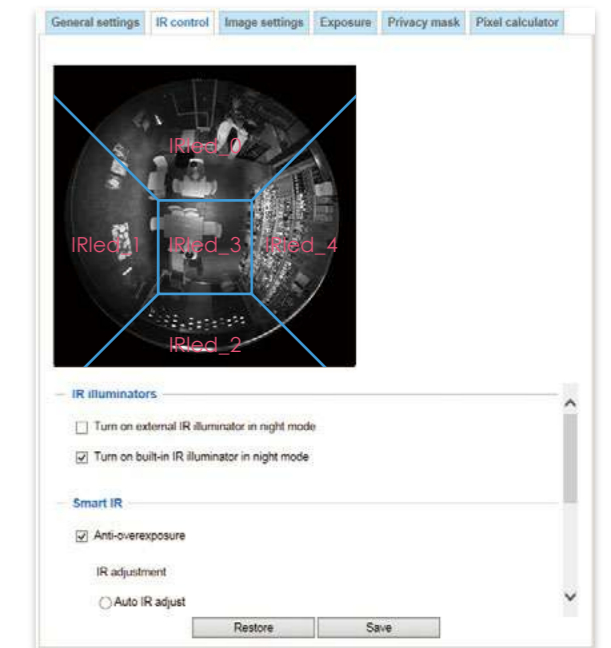
SD9374-EHL



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



FE9391-EV





Wide Coverage Surveillance

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. Our philosophy to "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.



Wide Coverage Surveillance

180° Solution



Fulfill Wide Coverage Scenarios

VIVOTEK MS9321-EHV's 20MP resolution provides amazing clarity using 4 sensors to cover large open spaces. In contrast, the small and discrete CC9381-HV is much more subtle for close proximity surveillance. The MS9390-HV is right in the middle, the best of both worlds.



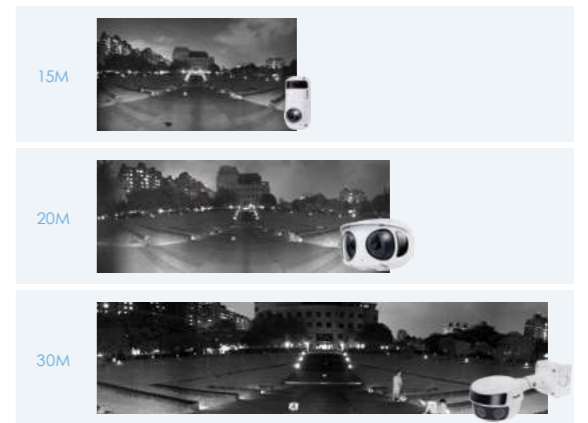
See More
in Smarter Ways

180° Solution



180° IR Uniformity

Along with offering 180° HFOV coverage, VIVOTEK 180° network cameras incorporate Smart IR/Smart IR II technology, and have built-in panoramic IR illuminators, ensuring 24/7 surveillance coverage.

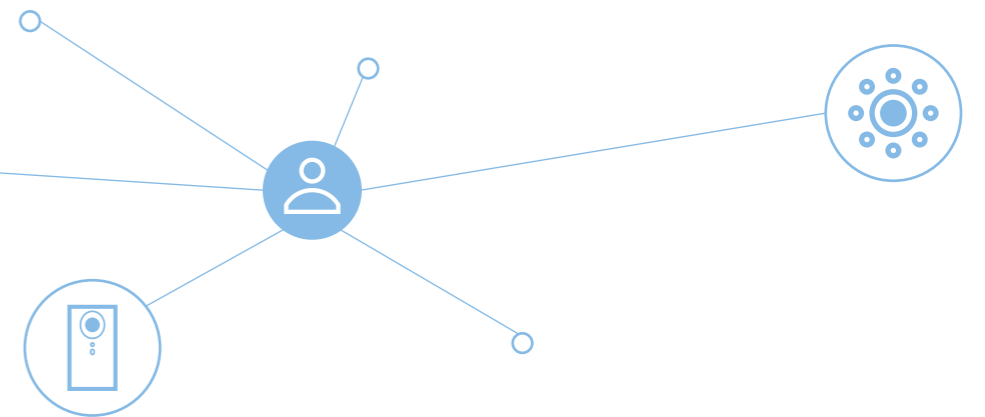


Video Alignment for Amazing Panoramic Views

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.



CC9381-HV/MS9390-HV/MS9321-EHV





Wide Coverage Surveillance

360° Solution



High-Quality Surveillance

All VIVOTEK fisheye models now include WDR Pro, enabling high quality imagery in high contrast environments. Most models also support 30fps, thus improving tracking of subjects and enhancing security surveillance.



See More
in Smarter Ways

360° Solution



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 images even in challenging low light conditions.



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.



Intelligent VCA - Security Intelligence

Run intelligent video content analysis (VCA) inside the smart-edge devices to provide intelligent data for business operations. (FE9191/FE9391-EV)



Crowd Detection



Loitering Detection



Intrusion Detection

FE9191/FE9391-EV





Wide Coverage Surveillance

Multi-Sensor Solution



High Quality Unlimited Coverage

VIVOTEK's MA9321-EHTV and MA9322-EHTV are both equipped with 4x 5MP sensors with motorized zoom lenses, for a total of 20MP resolution. Both models include 120dB WDR Pro to ensure optimum image quality in high contrast lighting environments.



360° Extreme Low Light Visibility

By adding IR illumination up to 30 meters, no matter day or night, light or dark, the MA9322-EHTV always provides complete video security. Furthermore, with SNV technology, areas of low light visibility are no longer an issue either.




See More
in Smarter Ways

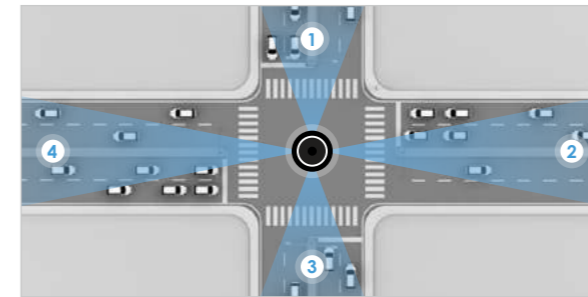
Multi-Sensor Solution



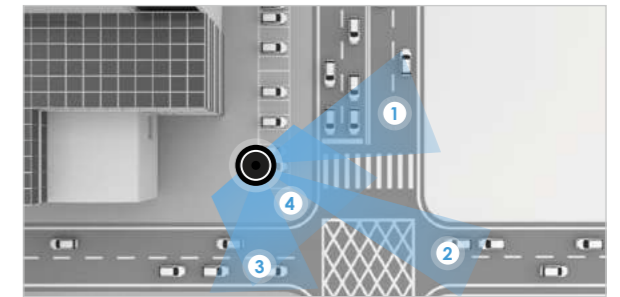
Comprehensive Video Coverage from a Single Mounting Point

Both cameras capture every angle for comprehensive video coverage from a single IP address, helping to

reduce the amount of cameras needed and saving on installation time and costs.



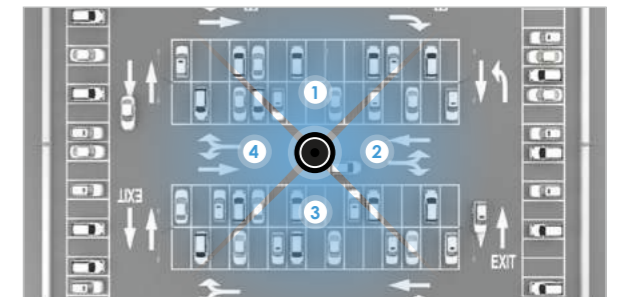
Traffic



Corners



Interiors



Parking

MA9321-EHTV/MA9322-EHTV





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 users the optimal and most suitable camera for their LPR or traffic monitoring purposes.



LPR Solution

High Reliable,
Stable and
Supreme Image
Quality for Traffic
Monitoring



250 km/h  IP9172-LPC (Freeway)

180 km/h  IP9165-LPC Kit (Highway)

 IB9387-LPR

Integrated 3rd Party LPR/ALPR Software Partners



High-Speed Vehicle License Plate Capturing Cameras

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

- 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



Stop & Go Embedded License Plate Recognition Cameras

VIVOTEK's IB9365-LPR/IB9387-LPR camera is a stand-alone 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 weigh-bridge systems. The ideal applications are parking access control and Stop & Go toll systems.

- Embedded Access Control Application Based on LPR Software
- Supports License Plates from over 70+ Countries
- Centralized List Management in Single Camera
- Fully Integrated with VAST 2 VMS



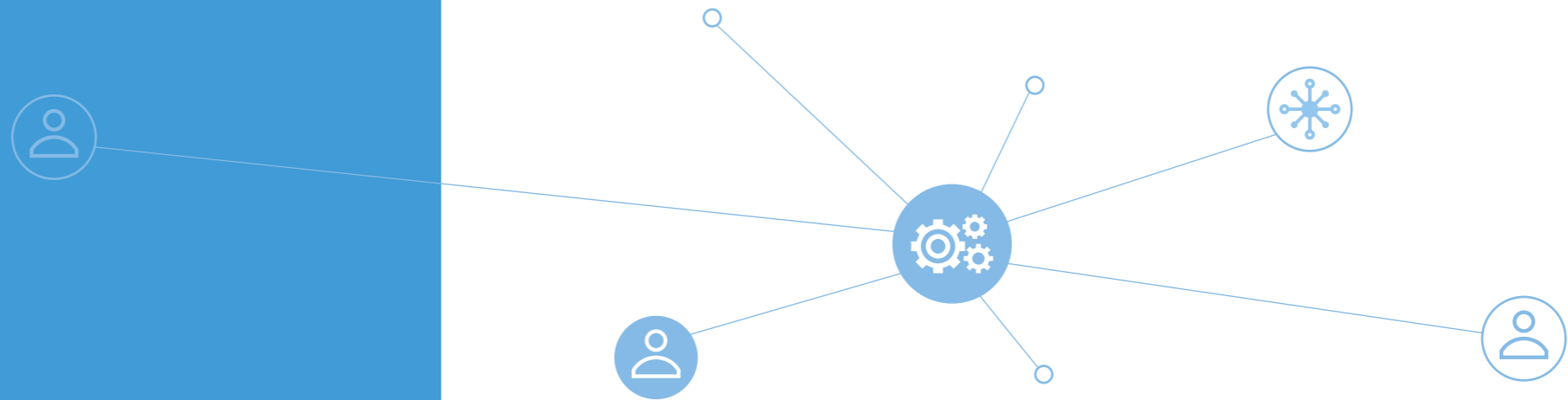


Solution Integration Alliance

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.



SIA
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