



IP Camera Family Brochure



Q4 2013

Why AVer IP cameras?

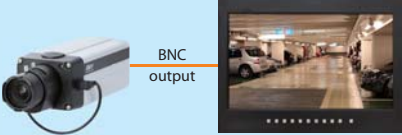


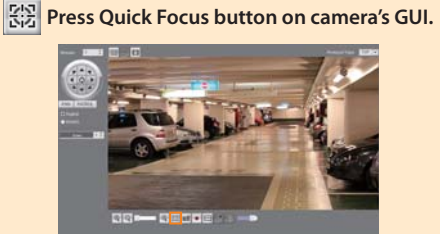
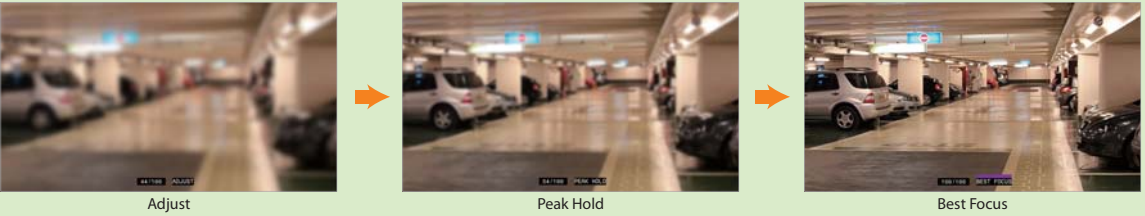


AVer's rich portfolio of megapixel IP cameras ranges from premium Rugged Series bullets and vandal domes to affordable wireless cubes, ceiling domes and box cameras, all of them deliver high definition recording and video preview with excellent image quality. The vast array of useful features available with AVer IP cameras guarantees easy setup process and optimized bandwidth / storage management, saving your time and money. Moreover, adopting AVer IP cameras allows you to enjoy a full backend management support including AVer DVRs/NVRs, VMS, CMS and mobile access applications. AVer not only provides you with a robust line of IP cameras, but also delivers a highly reliable and fully integrated IP surveillance solution.



Quick Focus

Thanks to a simple 3-step procedure, camera focus is adjusted quickly and precisely, saving time and efforts. Quick Focus can be accessed via a network using web GUI or a BNC monitor connected directly to a camera. During manual adjustment, built-in focus analyzer aids installers in finding the exact moment when the image is as sharp as possible.

Via BNC monitor	Via laptop
<p>Step 1: Connect</p> <p>Connect BNC monitor.</p> 	<p>Step 1: Connect</p> <p>Access camera's web UI via network.</p> 
<p>Step 2: Trigger</p> <p>Insert memory card with FocusAssistant.txt file to trigger.</p> 	<p>Step 2: Trigger</p> <p>Press Quick Focus button on camera's GUI.</p> 
<p>Step 3: Adjust</p> <p>Use lever/gimbals to change focus from min. to max. value, let the camera find the frequency peaks, keep manipulating until 'Best Focus' appears on the screen.</p> 	

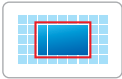


MFZ (Motorized Focus and Zoom)

A built-in motorized lens allows for easy focus and zoom tuning remotely via the camera's GUI, so focal point and focal length can be changed anytime. Users can take full advantage of vari-focal lens with stepping motor and one-click focus adjustment to set camera's watchful eyes on the right spot. This function is especially recommended for remote, hard-to-reach locations or unsafe sites like tall buildings or utility poles.

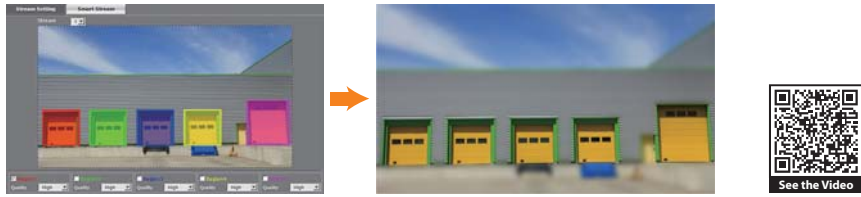


- Use zoom in/out buttons to adjust focal length
- One-click on any object to focus manually or use Auto Focus



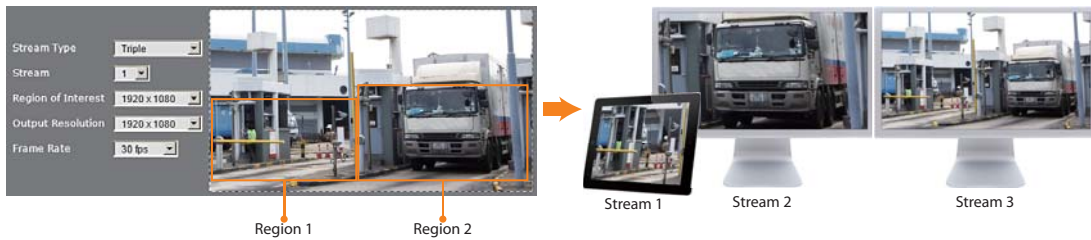
Smart Stream

Smart Stream feature optimizes bandwidth and storage space by allowing users to increase or decrease image quality for selected areas based upon criticality. Users can define up to 5 areas per stream so security personnel can quickly zero in on the key elements of the scene during preview and playback.



ROI (Region of Interest)

ROI is an image cropping feature designed to assist users in achieving bandwidth and storage optimization. Users can select up to 2 key regions of a scene to transmit as separate streams for targeted preview and recording.



Event Booster

Event Booster is an alarm option that allows for an instant frame rate boost under specified conditions. Thanks to reduced base frame rate users can save bandwidth and storage space, while ensuring emergency situations will be recorded at the maximum frame rate available.



Adjustable WDR (Wide Dynamic Range)

WDR technology ensures proper lighting contrast and image clarity when experiencing severe backlighting or glare. 3-megapixel AVer IP cameras (e.g. FX3000-R, FV3028-RT) come equipped with True WDR, a sensor-based WDR technology perfect for the most challenging lighting environments, while many other AVer IP cameras are equipped with Digital WDR (D-WDR). In addition, WDR level can be precisely adjusted to produce the best image under various lighting conditions.



Adjustable IR LED Strength

AVer IP cameras employ Osram IR LEDs, essentially guaranteeing excellent quality, long lifespan and energy efficiency. Built-in illuminators allow for manual adjustment of infrared light intensity (6 levels available). Users can access the camera's UI via the web to fine-tune IR level to fit specific location requirements, avoiding potential lighting issues like overexposure.



	3-megapixel	2-megapixel (HD1080p)	2-megapixel (HD720p)	1.3-megapixel
RUGGED Rugged Series bullet	<ul style="list-style-type: none"> True WDR IP68 MFZ 	<ul style="list-style-type: none"> IP68 MFZ 		
	<ul style="list-style-type: none"> True WDR IP68 	<ul style="list-style-type: none"> IP68 		
RUGGED Rugged Series vandal dome	<ul style="list-style-type: none"> True WDR IP68 IK10 MFZ 	<ul style="list-style-type: none"> IP68 IK10 MFZ 		
	<ul style="list-style-type: none"> True WDR IP68 IK10 	<ul style="list-style-type: none"> IP68 IK10 		
bullet	<ul style="list-style-type: none"> IP67 	<ul style="list-style-type: none"> IP67 	<ul style="list-style-type: none"> IP66 	
		<ul style="list-style-type: none"> IP67 		
		<ul style="list-style-type: none"> IP66 		
vandal dome	<ul style="list-style-type: none"> IP68 IK10 	<ul style="list-style-type: none"> IP68 IK10 	<ul style="list-style-type: none"> IP66 	
		<ul style="list-style-type: none"> IP68 IK10 		
		<ul style="list-style-type: none"> IP66 		
dome	<ul style="list-style-type: none"> MFZ 	<ul style="list-style-type: none"> MFZ 		
mini dome		<ul style="list-style-type: none"> IP66 		<ul style="list-style-type: none"> IP66
speed dome				<ul style="list-style-type: none"> IP66
box	<ul style="list-style-type: none"> True WDR 			
cube		<ul style="list-style-type: none"> wireless 		<ul style="list-style-type: none"> wireless



**Protect your assets
under the harshest conditions**

RUGGED





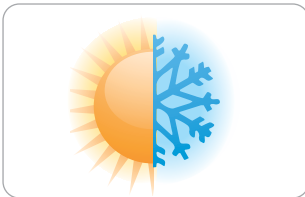
AVer Rugged Series

AVer Rugged Series IP cameras can handle anything you throw at them. These tough 3M and 2M bullets and vandal domes are designed for operation in the harshest outdoor environments and working conditions to ensure your property is safe. Rugged Series IP cameras adhere to the industry's strictest standards for protection against dust and water (IP68), vandalism (IK10), power surges (EN50130-4), and extreme temperatures to provide reliable IP surveillance in winter storms and steel mills, tropical typhoons and container ports. These tough cameras are fully prepared to operate 24 hours a day, with built-in mechanical ICR, adjustable Osram IR LEDs, and dynamic 2D/3D noise reduction (DNR) to capture quality surveillance footage in the dark of night and poorly lighted buildings. In addition, Rugged Series IP cameras are outfitted with a number of useful features including a motorized lens (MFZ), Smart Stream, ROI and local storage (up to 64GB).



Top-Notch Weatherproofing

Rugged Series IP cameras are outfitted with IP68-rated weatherproof housing, the highest attainable Ingress Protection rating. Each camera is dust-tight to prevent against damage due to foreign contaminants and waterproof to a degree that it can be continuously submerged in water at depths exceeding one meter.



Extreme Temperature Protection

Rugged Series IP cameras are designed to withstand extreme cold – -60°C for bullets and -50°C for vandal domes – and extreme heat – 60°C for bullets and 50°C for vandal domes. Thanks to built-in heaters and cooling components, these robust IP cameras will deliver clear imaging no matter whether it is freezing cold or scorching hot outside.



Robust Vandal-Proofing

Rugged Series vandal dome IP cameras have been tested against stringent mechanical impact standards, achieving the industry's highest mechanical protection rating – IK10. These robust models can withstand a strike with a steel bat of at least 20 joules, making it particularly well suited for environments prone to vandalism.



Enhanced Electromagnetic Resistance

With EN50130-4 electromagnetic compatibility certification for alarm systems, Rugged Series IP cameras present you with enhanced electric surge and electrostatic discharge resistance. Immune to power grid disturbances, the cameras will remain undamaged even during a severe thunderstorm.



Quality and Reliability Guaranteed

Rugged Series IP cameras are produced in AVer's factory in Taiwan, which is ISO 9001/14001/14064-1/28000, OHSAS 18001, IECQ QC 080000, Authorized Economic Operator (AEO), WEEE 2002/96/EC, ErP Directive 2009/125/EC, PAS 2050 and SONY Green Partner certified. In addition to adherence to strict production standards, AVer Rugged Series IP cameras feature an industry-leading 3-year warranty, attesting to its durability and reliability. In adopting the Rugged Series, you can rest assured that your property is well secured.



NEW FB2028-T1
FB2028-T2
FB2028-TM



NEW FB3028-RT1
FB3028-RT2
FB3028-RTM



rugged bullet

application environment		
indoor / outdoor	indoor / outdoor	indoor / outdoor
weatherproof	IP68	IP68
vandal-proof	-	-
day / night control	auto / manual / schedule	auto / manual / schedule
camera image		
sensor	1/2.7" CMOS	1/3" CMOS
min. illumination	FB2028-T1 / TM: color: 0.2 lux @ F1.2 black & white: 0.03 lux @ F1.2 0 lux @ F1.2 (IR LED on) FB2028-T2: color: 0.3 lux @ F1.2 black & white: 0.04 lux @ F1.2 0 lux @ F1.2 (IR LED on)	FB3028-RT1 / RTM: color: 0.8 lux @ F1.2 black & white: 0.1 lux @ F1.2 0 lux @ F1.2 (IR LED on) FB3028-RT2: color: 1.2 lux @ F1.2 black & white: 0.15 lux @ F1.2 0 lux @ F1.2 (IR LED on)
built-in LED	yes - adjustable strength (Osram)	yes - adjustable strength (Osram)
IR distance	FB2028-T1 / TM: 30m FB2028-T2: 50m	FB3028-RT1 / RTM: 30m FB3028-RT2: 50m
built-in mechanical ICR	yes	yes
auto iris	yes	yes
lens		
lens type	FB2028-T1 / T2: vari-focal lens FB2028-TM: motorized vari-focal lens	FB3028-RT1 / RT2: vari-focal lens FB3028-RTM: motorized vari-focal lens
F/no	F1.2	F1.2
focal length	FB2028-T1 / TM: f=3~9mm FB2028-T2: f=10~23mm	FB3028-RT1 / RTM: f=3~9mm FB3028-RT2: f=10~23mm
angle of view	FB2028-T1 / TM: 121.2° (W) ~ 38.1° (T) (horizontal) 62.1° (W) ~ 21.3° (T) (vertical) FB2028-T2: 33.7° (W) ~ 14.8° (T) (horizontal) 18.3° (W) ~ 8.3° (T) (vertical)	FB3028-RT1 / RTM: 96.4° (W) ~ 31.7° (T) (horizontal) 69.6° (W) ~ 23.7° (T) (vertical) FB3028-RT2: 27.7° (W) ~ 12.4° (T) (horizontal) 20.4° (W) ~ 9.3° (T) (vertical)
bracket adjustment	-	-
video		
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	full HD (1920 x 1080)	2048 x 1536
max. frame rate	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)	H.264 / MJPEG up to 20fps (2048 x 1536) H.264 / MJPEG / MPEG-4 up to 30fps (1920 x 1080)
streaming	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3
WDR (Wide Dynamic Range)	D-WDR	True WDR
BLC (Backlight Compensation)	yes	yes
DNR (Digital Noise Reduction)	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)
Smart Stream	yes	yes
ROI (Region of Interest)	yes	yes
IMD (Intelligent Motion Detection) zone	3	3
privacy mask	3	3
audio		
audio encoder	G.711 / G.726 / AAC audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio
microphone	external input	external input
network		
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm		
trigger event	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba
interface		
digital input / output	1 / 1	1 / 1
built-in storage option	microSDHC / microSDXC card (64GB max.), Class 6 or higher	microSDHC / microSDXC card (64GB max.), Class 6 or higher
general		
power supply	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 4 (IEEE802.3at)	PoE Class 4 (IEEE802.3at)
dimensions (W x H x D)	111 x 114.5 x 265.2 mm	111 x 114.5 x 265.2 mm
net weight	2180g (w/ bracket)	2180g (w/ bracket)
temperature and humidity	-60°C ~ 60°C, 20% ~ 90% (DC) -40°C ~ 60°C, 20% ~ 90% (PoE)	-60°C ~ 60°C, 20% ~ 90% (DC) -40°C ~ 60°C, 20% ~ 90% (PoE)
other value-added features	FB2028-T1 / T2: Quick Focus, ePTZ, EN50130-4 FB2028-TM: MFZ, ePTZ, EN50130-4	FB3028-RT1 / RT2: Quick Focus, ePTZ, EN50130-4 FB3028-RTM: MFZ, ePTZ, EN50130-4



NEW FV2028-T
FV2028-TM



NEW FV3028-RT
FV3028-RTM



rugged vandal dome

application environment		
indoor / outdoor	indoor / outdoor	indoor / outdoor
weatherproof	IP68	IP68
vandal-proof	yes (IK10)	yes (IK10)
day / night control	auto / manual / schedule	auto / manual / schedule
camera image		
sensor	1/2.7" CMOS	1/3" CMOS
min. illumination	color: 0.4 lux @ F1.2 black & white: 0.05 lux @ F1.2 0 lux @ F1.2 (IR LED on)	color: 0.8 lux @ F1.2 black & white: 0.1 lux @ F1.2 0 lux @ F1.2 (IR LED on)
built-in LED	yes - adjustable strength (Osram)	yes - adjustable strength (Osram)
IR distance	30m	30m
built-in mechanical ICR	yes	yes
auto iris	yes	yes
lens		
lens type	FV2028-T: vari-focal lens FV2028-TM: motorized vari-focal lens	FV3028-RT: vari-focal lens FV3028-RTM: motorized vari-focal lens
F/no	F1.2	F1.2
focal length	f=3~9mm	f=3~9mm
angle of view	121.2° (W) ~ 38.1° (T) (horizontal) 62.1° (W) ~ 21.3° (T) (vertical)	96.4° (W) ~ 31.7° (T) (horizontal) 69.6° (W) ~ 23.7° (T) (vertical)
bracket adjustment	pan: 280°, tilt: 30° ~ 90°, rotation: 100°	pan: 280°, tilt: 30° ~ 90°, rotation: 100°
video		
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	full HD (1920 x 1080)	2048 x 1536
max. frame rate	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)	H.264 / MJPEG up to 20fps (2048 x 1536) MPEG-4 up to 30fps (1920 x 1080)
streaming	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3
WDR (Wide Dynamic Range)	D-WDR	True WDR
BLC (Backlight Compensation)	yes	yes
DNR (Digital Noise Reduction)	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)
Smart Stream	yes	yes
ROI (Region of Interest)	yes	yes
IMD (Intelligent Motion Detection) zone	3	3
privacy mask	3	3
audio		
audio encoder	G.711 / G.726 / AAC audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio
microphone	external input	external input
network		
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm		
trigger event	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba
interface		
digital input / output	1 / 1	1 / 1
built-in storage option	microSDHC / microSDXC card (64GB max.), Class 6 or higher	microSDHC / microSDXC card (64GB max.), Class 6 or higher
general		
power supply	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 4 (IEEE802.3at)	PoE Class 4 (IEEE802.3at)
dimensions (W x H x D)	144.3 x 114.4 mm	144.3 x 114.4 mm
net weight	1200g	1200g
temperature and humidity	-50°C ~ 50°C, 20% ~ 90%	-50°C ~ 50°C, 20% ~ 90%
other value-added features	FV2028-T: Quick Focus, ePTZ, EN50130-4 FV2028-TM: MFZ, ePTZ, EN50130-4	FV3028-RT: Quick Focus, ePTZ, EN50130-4 FV3028-RTM: MFZ, ePTZ, EN50130-4



SF2012H-B



SF2111H-BR



SF2121H-BHR-30
SF2121H-BHR-50

bullet			
application environment			
indoor / outdoor	indoor / outdoor	indoor / outdoor	indoor / outdoor
weatherproof	IP66	IP66	IP67
vandal-proof	-	-	-
day / night control	auto	auto / manual / schedule	auto / manual / schedule
camera image			
sensor	1/3.2" CMOS	1/2.7" CMOS	1/2.7" CMOS
min. illumination	color: 1.0 lux @ F1.2 black & white: 0.05 lux @ F1.2 0 lux @ F1.2 (IR LED on)	color: 0.5 lux @ F1.2 black & white: 0.0018 lux @ F1.2 0 lux @ F1.2 (IR LED on)	color: 0.2 lux @ F1.2 black & white: 0.03 lux @ F1.2 0 lux @ F1.2 (IR LED on)
built-in LED	yes	yes	yes
IR distance	20m	25m	SF2121H-BHR-30: 30m SF2121H-BHR-50: 50m
built-in mechanical ICR	yes	yes	yes
auto iris	yes	yes	yes
lens			
lens type	vari-focal lens	vari-focal lens	vari-focal lens
F/no	F1.2	F1.2	F1.2
focal length	f=3.6~16mm	f=3.6~16mm	f=3~9mm
angle of view	75.4° (W) ~ 20.8° (T) (horizontal) 54.9° (W) ~ 15.7° (T) (vertical)	97.9° (W) ~ 23.6° (T) (horizontal) 51.6° (W) ~ 14.2° (T) (vertical)	121.2° (W) ~ 38.1° (T) (horizontal) 62.1° (W) ~ 21.3° (T) (vertical)
bracket adjustment	-	-	-
video			
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	1600 x 1200	full HD (1920 x 1080)	full HD (1920 x 1080)
max. frame rate	H.264 / MJPEG up to 15fps (1600 x 1200) H.264 / MJPEG up to 30fps (1280 x 1024) MJPEG-4 up to 5fps (176 x 144)	H.264 / MJPEG up to 30fps (1920 x 1080) MJPEG-4 up to 15fps (640 x 480)	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)
streaming	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	-	D-WDR	D-WDR
BLC (Backlight Compensation)	yes	yes	yes
DNR (Digital Noise Reduction)	2D	2D, 3D	2D, 2D/3D (dynamic)
Smart Stream	-	-	yes
ROI (Region of Interest)	-	-	yes
IMD (Intelligent Motion Detection) zone	3	3	3
privacy mask	3	3	3
audio			
audio encoder	G.711 audio compression	G.711 / G.726 audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio	2-way audio
microphone	external input	external input	external input
network			
protocol	HTTP, TCP/IP (IPv4), UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba	HTTP, HTTPS, TCP/IP (IPv4, IPv6), SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	mail, FTP, relay, Samba	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	1 / 1	1 / 1	1 / 1
built-in storage option	-	microSDHC card (32GB max.)	microSDHC card (32GB max.)
general			
power supply	DC 12V / PoE	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 0 (IEEE802.3af)	PoE Class 0 (IEEE802.3af)	PoE Class 4 (IEEE802.3at)
dimensions (W x H x D)	83 x 180 mm	83 x 180 mm	111 x 114.5 x 265.2 mm
net weight	1000g (w/o bracket)	1100g (w/ bracket)	2180g (w/ bracket)
temperature and humidity	-10°C ~ 40°C, 20% ~ 80%	-10°C ~ 45°C, 20% ~ 80%	-40°C ~ 50°C, 20% ~ 90%
other value-added features	ePTZ	ePTZ	ePTZ, EN50130-4



NEW FB2027-1
FB2027-2



NEW FB2027-3



NEW FB3027

	bullet		
application environment			
indoor / outdoor	indoor / outdoor	indoor / outdoor	indoor / outdoor
weatherproof	IP67	IP67	IP67
vandal-proof	-	-	-
day / night control	auto / manual / schedule	auto / manual / schedule	auto / manual / schedule
camera image			
sensor	1/2.5" CMOS	1/2.5" CMOS	1/2.5" CMOS
min. illumination	color: 1 lux @ F1.6 black & white: 0.15 lux @ F1.6 0 lux @ F1.6 (IR LED on)	color: 1 lux @ F1.4 black & white: 0.15 lux @ F1.4 0 lux @ F1.4 (IR LED on)	color: 1 lux @ F1.4 black & white: 0.15 lux @ F1.4 0 lux @ F1.4 (IR LED on)
built-in LED	yes - adjustable strength (Osram)	yes - adjustable strength (Osram)	yes - adjustable strength (Osram)
IR distance	30m	30m	30m
built-in mechanical ICR	yes	yes	yes
auto iris	yes	yes	yes
lens			
lens type	fixed lens	vari-focal lens	vari-focal lens
F/no	F1.6	F1.4	F1.4
focal length	FB2027-1: f=4.0mm FB2027-2: f=6.0mm	f=2.8~12mm	f=2.8~12mm
angle of view	FB2027-1: 62.4° (horizontal), 46.5° (vertical) FB2027-2: 46.8° (horizontal), 34.7° (vertical)	97° (W) ~ 28.7° (T) (horizontal) 61.2° (W) ~ 21.6° (T) (vertical)	97° (W) ~ 28.7° (T) (horizontal) 61.2° (W) ~ 21.6° (T) (vertical)
bracket adjustment	-	-	-
video			
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	full HD (1920 x 1080)	full HD (1920 x 1080)	2048 x 1536
max. frame rate	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)	H.264 / MJPEG up to 20fps (2048 x 1536) H.264 / MJPEG / MPEG-4 up to 30fps (1920 x 1080)
streaming	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	D-WDR	D-WDR	D-WDR
BLC (Backlight Compensation)	yes	yes	yes
DNR (Digital Noise Reduction)	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)
Smart Stream	yes	yes	yes
ROI (Region of Interest)	yes	yes	yes
IMD (Intelligent Motion Detection) zone	3	3	3
privacy mask	3	3	3
audio			
audio encoder	G.711 / G.726 / AAC audio compression	G.711 / G.726 / AAC audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio	2-way audio
microphone	external input	external input	external input
network			
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	1 / 1	1 / 1	1 / 1
built-in storage option	microSDHC / microSDXC card (64GB max.), Class 6 or higher	microSDHC / microSDXC card (64GB max.), Class 6 or higher	microSDHC / microSDXC card (64GB max.), Class 6 or higher
general			
power supply	DC 12V / PoE	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 4 (IEEE802.3at)	PoE Class 4 (IEEE802.3at)	PoE Class 4 (IEEE802.3at)
dimensions (W x H x D)	81 x 81 x 200 mm	81 x 81 x 200 mm	81 x 81 x 200 mm
net weight	1110g	1110g	1110g
temperature and humidity	-25°C ~ 45°C, 20% ~ 90%	-25°C ~ 45°C, 20% ~ 90%	-25°C ~ 45°C, 20% ~ 90%
other value-added features	Quick Focus, ePTZ	Quick Focus, ePTZ	Quick Focus, ePTZ



SF2012H-DV



SF2111H-DVR



SF2121H-DVR

	vandal dome		
application environment			
indoor / outdoor	indoor / outdoor	indoor / outdoor	indoor / outdoor
weatherproof	IP66	IP66	IP68
vandal-proof	yes	yes	yes (IK10)
day / night control	auto	auto / manual / schedule	auto / manual / schedule
camera image			
sensor	1/3.2" CMOS	1/2.7" CMOS	1/2.7" CMOS
min. illumination	color: 1.0 lux @ F1.2 black & white: 0.05 lux @ F1.2 0 lux @ F1.2 (IR LED on)	color: 0.5 lux @ F1.8 black & white: 0.0018 lux @ F1.8 0 lux @ F1.8 (IR LED on)	color: 0.4 lux @ F1.2 black & white: 0.05 lux @ F1.2 0 lux @ F1.2 (IR LED on)
built-in LED	yes	yes	yes
IR distance	15m	15m	30m
built-in mechanical ICR	yes	yes	yes
auto iris	yes	yes	yes
lens			
lens type	vari-focal lens	vari-focal lens	vari-focal lens
F/no	F1.2	F1.8	F1.2
focal length	f=2.7~9mm	f=3~9mm	f=3~9mm
angle of view	101° (W) ~ 30.4° (T) (horizontal) 75° (W) ~ 23° (T) (vertical)	126.9° (W) ~ 35.3° (T) (horizontal) 69.4° (W) ~ 21.6° (T) (vertical)	121.2° (W) ~ 38.1° (T) (horizontal) 62.1° (W) ~ 21.3° (T) (vertical)
bracket adjustment	pan: 348°, tilt: 75°, rotation: 180°	pan: 348°, tilt: 30° ~ 90°, rotation: 360°	pan: 280°, tilt: 30° ~ 90°, rotation: 100°
video			
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	1600 x 1200	full HD (1920 x 1080)	full HD (1920 x 1080)
max. frame rate	H.264 / MJPEG up to 15fps (1600 x 1200) H.264 / MJPEG up to 30fps (1280 x 1024) MPEG-4 up to 5fps (176 x 144)	H.264 / MJPEG up to 30fps (1920 x 1080) MPEG-4 up to 15fps (640 x 480)	H.264 / MPEG-4 up to 30fps (1920 x 1080) H.264 / MPEG-4 / MJPEG up to 30fps (1280 x 1024)
streaming	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	-	D-WDR	D-WDR
BLC (Backlight Compensation)	yes	yes	yes
DNR (Digital Noise Reduction)	2D	2D, 3D	2D, 2D/3D (dynamic)
Smart Stream	-	-	yes
ROI (Region of Interest)	-	-	yes
IMD (Intelligent Motion Detection) zone	3	3	3
privacy mask	3	3	3
audio			
audio encoder	G.711 audio compression	G.711 / G.726 audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio	2-way audio
microphone	external input	external input	external input
network			
protocol	HTTP, TCP/IP (IPv4), UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba	HTTP, HTTPS, TCP/IP (IPv4, IPv6), SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	1 / 1	1 / 1	1 / 1
built-in storage option	microSDHC card (32GB max.)	microSDHC card (32GB max.)	microSDHC card (32GB max.)
general			
power supply	DC 12V / PoE	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 0 (IEEE802.3af)	PoE Class 0 (IEEE802.3af)	PoE Class 3 (IEEE802.3af)
dimensions (W x H x D)	140 x 130 mm	140 x 130 mm	144.3 x 114.4 mm
net weight	1300g	1300g	1200g
temperature and humidity	-10°C ~ 40°C, 20% ~ 80%	-10°C ~ 45°C, 20% ~ 80%	-25°C ~ 50°C, 20% ~ 90%
other value-added features	ePTZ	ePTZ	ePTZ, EN50130-4



NEW FV2028



NEW FV3028

vandal dome		
application environment		
indoor / outdoor	indoor / outdoor	indoor / outdoor
weatherproof	IP68	IP68
vandal-proof	yes (IK10)	yes (IK10)
day / night control	auto / manual / schedule	auto / manual / schedule
camera image		
sensor	1/2.5" CMOS	1/2.5" CMOS
min. illumination	color: 1 lux @ F1.4 black & white: 0.15 lux @ F1.4 0 lux @ F1.4 (IR LED on)	color: 1 lux @ F1.4 black & white: 0.15 lux @ F1.4 0 lux @ F1.4 (IR LED on)
built-in LED	yes - adjustable strength (Osram)	yes - adjustable strength (Osram)
IR distance	30m	30m
built-in mechanical ICR	yes	yes
auto iris	yes	yes
lens		
lens type	vari-focal lens	vari-focal lens
F/no	F1.4	F1.4
focal length	f=2.8~12mm	f=2.8~12mm
angle of view	97° (W) ~ 28.7° (T) (horizontal) 61.2° (W) ~ 21.6° (T) (vertical)	97° (W) ~ 28.7° (T) (horizontal) 61.2° (W) ~ 21.6° (T) (vertical)
bracket adjustment	pan: 280°, tilt: 30° ~ 90°, rotation: 100°	pan: 280°, tilt: 30° ~ 90°, rotation: 100°
video		
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	full HD (1920 x 1080)	2048 x 1536
max. frame rate	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)	H.264 / MJPEG up to 20fps (2048 x 1536) H.264 / MJPEG / MPEG-4 up to 30fps (1920 x 1080)
streaming	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3
WDR (Wide Dynamic Range)	D-WDR	D-WDR
BLC (Backlight Compensation)	yes	yes
DNR (Digital Noise Reduction)	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)
Smart Stream	yes	yes
ROI (Region of Interest)	yes	yes
IMD (Intelligent Motion Detection) zone	3	3
privacy mask	3	3
audio		
audio encoder	G.711 / G.726 / AAC audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio
microphone	external input	external input
network		
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm		
trigger event	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba
interface		
digital input / output	1 / 1	1 / 1
built-in storage option	microSDHC / microSDXC card (64GB max.), Class 6 or higher	microSDHC / microSDXC card (64GB max.), Class 6 or higher
general		
power supply	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 3 (IEEE802.3af)	PoE Class 3 (IEEE802.3af)
dimensions (W x H x D)	144.3 x 114.4 mm	144.3 x 114.4 mm
net weight	1200g	1200g
temperature and humidity	-25°C ~ 50°C, 20% ~ 90%	-25°C ~ 50°C, 20% ~ 90%
other value-added features	Quick Focus, ePTZ, EN50130-4	Quick Focus, ePTZ, EN50130-4



SF2012H-D



SF2111H-DR

		dome	
application environment			
indoor / outdoor	indoor	indoor	indoor
weatherproof	-	-	-
vandal-proof	-	-	-
day / night control	auto	auto / manual / schedule	auto / manual / schedule
camera image			
sensor	1/3.2" CMOS	1/2.7" CMOS	1/2.7" CMOS
min. illumination	color: 1.0 lux @ F1.2 black & white: 0.05 lux @ F1.2 0 lux @ F1.2 (IR LED on)	color: 0.5 lux @ F1.8 black & white: 0.0018 lux @ F1.8 0 lux @ F1.8 (IR LED on)	color: 0.5 lux @ F1.8 black & white: 0.0018 lux @ F1.8 0 lux @ F1.8 (IR LED on)
built-in LED	yes	yes	yes
IR distance	15m	15m	15m
built-in mechanical ICR	yes	yes	yes
auto iris	yes	yes	yes
lens			
lens type	vari-focal lens	vari-focal lens	vari-focal lens
F/no	F1.2	F1.8	F1.8
focal length	f=2.7~9mm	f=3~9mm	f=3~9mm
angle of view	101° (W) ~ 30.4° (T) (horizontal) 75° (W) ~ 23° (T) (vertical)	126.9° (W) ~ 35.3° (T) (horizontal) 9.4° (W) ~ 21.6° (T) (vertical)	126.9° (W) ~ 35.3° (T) (horizontal) 9.4° (W) ~ 21.6° (T) (vertical)
bracket adjustment	pan: 172°, tilt: 30° ~ 90°, rotation: 180°	pan: 175°, tilt: 30° ~ 90°, rotation: 172°	pan: 175°, tilt: 30° ~ 90°, rotation: 172°
video			
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	1600 x 1200	full HD (1920 x 1080)	full HD (1920 x 1080)
max. frame rate	H.264 / MJPEG up to 15fps (1600 x 1200) H.264 / MJPEG up to 30fps (1280 x 1024) MPEG-4 up to 5fps (176 x 144)	H.264 / MJPEG up to 30fps (1920 x 1080) MPEG-4 up to 15fps (640 x 480)	H.264 / MJPEG up to 30fps (1920 x 1080) MPEG-4 up to 15fps (640 x 480)
streaming	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 (3GPP only) / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	-	D-WDR	D-WDR
BLC (Backlight Compensation)	yes	yes	yes
DNR (Digital Noise Reduction)	2D	2D, 3D	2D, 3D
Smart Stream	-	-	-
ROI (Region of Interest)	-	-	-
IMD (Intelligent Motion Detection) zone	3	3	3
privacy mask	3	3	3
audio			
audio encoder	G.711 audio compression	G.711 / G.726 audio compression	G.711 / G.726 audio compression
audio streaming	2-way audio	2-way audio	2-way audio
microphone	external input	external input	external input
network			
protocol	HTTP, TCP/IP (IPv4), UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba	HTTP, HTTPS, TCP/IP (IPv4, IPv6), SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour	HTTP, HTTPS, TCP/IP (IPv4, IPv6), SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	1 / 1	1 / 1	1 / 1
built-in storage option	SDHC card (32GB max.)	SDHC card (32GB max.)	SDHC card (32GB max.)
general			
power supply	DC 12V / PoE	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 0 (IEEE802.3af)	PoE Class 0 (IEEE802.3af)	PoE Class 0 (IEEE802.3af)
dimensions (W x H x D)	132 x 108 mm	132 x 108 mm	132 x 108 mm
net weight	680g	680g	680g
temperature and humidity	-10°C ~ 40°C, 20% ~ 80%	0°C ~ 45°C, 20% ~ 80%	0°C ~ 45°C, 20% ~ 80%
other value-added features	ePTZ	ePTZ	ePTZ



NEW FD2020
FD2020-M



NEW FD3020
FD3020-M

		dome	
application environment			
indoor / outdoor	indoor	indoor	indoor
weatherproof	-	-	-
vandal-proof	-	-	-
day / night control	auto / manual / schedule	auto / manual / schedule	auto / manual / schedule
camera image			
sensor	1/2.5" CMOS	1/2.5" CMOS	1/2.5" CMOS
min. illumination	FD2020: color: 1 lux @ F1.4 black & white: 0.15 lux @ F1.4 0 lux @ F1.4 (IR LED on) FD2020-M: color: 0.8 lux @ F1.2 black & white: 0.1 lux @ F1.2 0 lux @ F1.2 (IR LED on)	FD3020: color: 1 lux @ F1.4 black & white: 0.15 lux @ F1.4 0 lux @ F1.4 (IR LED on) FD3020-M: color: 0.8 lux @ F1.2 black & white: 0.1 lux @ F1.2 0 lux @ F1.2 (IR LED on)	FD3020: color: 1 lux @ F1.4 black & white: 0.15 lux @ F1.4 0 lux @ F1.4 (IR LED on) FD3020-M: color: 0.8 lux @ F1.2 black & white: 0.1 lux @ F1.2 0 lux @ F1.2 (IR LED on)
built-in LED	yes - adjustable strength (Osram)	yes - adjustable strength (Osram)	yes - adjustable strength (Osram)
IR distance	30m	30m	30m
built-in mechanical ICR	yes	yes	yes
auto iris	yes	yes	yes
lens			
lens type	FD2020: vari-focal lens FD2020-M: motorized vari-focal lens	FD3020: vari-focal lens FD3020-M: motorized vari-focal lens	FD3020: vari-focal lens FD3020-M: motorized vari-focal lens
F/no	FD2020: F1.4 FD2020-M: F1.2	FD3020: F1.4 FD3020-M: F1.2	FD3020: F1.4 FD3020-M: F1.2
focal length	FD2020: f=2.8~12mm FD2020-M: f=3~9mm	FD3020: f=2.8~12mm FD3020-M: f=3~9mm	FD3020: f=2.8~12mm FD3020-M: f=3~9mm
angle of view	FD2020: 97° (W) ~ 28.7° (T) (horizontal) 61.2° (W) ~ 21.6° (T) (vertical) FD2020-M: 96.4° (W) ~ 31.7° (T) (horizontal) 69.6° (W) ~ 23.7° (T) (vertical)	FD3020: 97° (W) ~ 28.7° (T) (horizontal) 61.2° (W) ~ 21.6° (T) (vertical) FD3020-M: 96.4° (W) ~ 31.7° (T) (horizontal) 69.6° (W) ~ 23.7° (T) (vertical)	FD3020: 97° (W) ~ 28.7° (T) (horizontal) 61.2° (W) ~ 21.6° (T) (vertical) FD3020-M: 96.4° (W) ~ 31.7° (T) (horizontal) 69.6° (W) ~ 23.7° (T) (vertical)
bracket adjustment	pan: 280°, tilt: 30° ~ 90°, rotation: 100°	pan: 280°, tilt: 30° ~ 90°, rotation: 100°	pan: 280°, tilt: 30° ~ 90°, rotation: 100°
video			
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	full HD (1920 x 1080)	2048 x 1536	2048 x 1536
max. frame rate	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)	H.264 / MJPEG up to 20fps (2048 x 1536) H.264 / MJPEG / MPEG-4 up to 30fps (1920 x 1080)	H.264 / MJPEG up to 20fps (2048 x 1536) H.264 / MJPEG / MPEG-4 up to 30fps (1920 x 1080)
streaming	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	D-WDR	D-WDR	D-WDR
BLC (Backlight Compensation)	yes	yes	yes
DNR (Digital Noise Reduction)	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)
Smart Stream	yes	yes	yes
ROI (Region of Interest)	yes	yes	yes
IMD (Intelligent Motion Detection) zone	3	3	3
privacy mask	3	3	3
audio			
audio encoder	G.711 / G.726 / AAC audio compression	G.711 / G.726 / AAC audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio	2-way audio
microphone	external input	external input	external input
network			
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	1 / 1	1 / 1	1 / 1
built-in storage option	microSDHC / microSDXC card (64GB max.), Class 6 or higher	microSDHC / microSDXC card (64GB max.), Class 6 or higher	microSDHC / microSDXC card (64GB max.), Class 6 or higher
general			
power supply	DC 12V / PoE	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 3 (IEEE802.3af)	PoE Class 3 (IEEE802.3af)	PoE Class 3 (IEEE802.3af)
dimensions (W x H x D)	144.6 x 113.4 mm	144.6 x 113.4 mm	144.6 x 113.4 mm
net weight	770g	770g	770g
temperature and humidity	0°C ~ 45°C, 20% ~ 90%	0°C ~ 45°C, 20% ~ 90%	0°C ~ 45°C, 20% ~ 90%
other value-added features	FD2020: Quick Focus, ePTZ FD2020-M: MFZ, ePTZ	FD3020: Quick Focus, ePTZ FD3020-M: MFZ, ePTZ	FD3020: Quick Focus, ePTZ FD3020-M: MFZ, ePTZ



FD2000



FV1306



FV2006

	mini ceiling dome	mini dome	mini dome
application environment			
indoor / outdoor	indoor	indoor / outdoor	indoor / outdoor
weatherproof	-	IP66	IP66
vandal-proof	-	yes	yes
day / night control	auto / manual	-	-
camera image			
sensor	1/3" CMOS	1/4" CMOS	1/4" CMOS
min. illumination	color: 0.8 lux @ F2.0 black & white: 0.8 lux @ F2.0	color: 1.6 lux @ F1.6	color: 1.6 lux @ F1.6
built-in LED	-	-	-
IR distance	-	-	-
built-in mechanical ICR	-	-	-
auto iris	-	-	-
lens			
lens type	fixed lens	fixed lens	fixed lens
F/no	F2.0	F1.6	F1.6
focal length	f=3.4mm	f=4.2mm	f=3.6mm
angle of view	68° (horizontal) 38° (vertical)	52.6° (horizontal) 32.9° (vertical)	53.1° (horizontal) 29.5° (vertical)
bracket adjustment	pan: 360°; tilt: 20° ~ 90°	pan: 360°; tilt: 20° ~ 90°	pan: 360°; tilt: 20° ~ 90°
video			
compression	H.264 / MJPEG	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	full HD (1920 x 1080)	1280 x 1024	full HD (1920 x 1080)
max. frame rate	H.264 / MJPEG up to 30fps (1920 x 1080)	H.264 / MJPEG up to 20fps (1280 x 1024) H.264 / MJPEG up to 30fps (1024 x 800) MPEG-4 up to 20fps (1024 x 800)	H.264 / MJPEG up to 25fps (1920 x 1080) H.264 / MJPEG up to 30fps (640 x 480) MPEG-4 up to 20fps (1920 x 1080)
streaming	H.264 / MJPEG	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	D-WDR	D-WDR	D-WDR
BLC (Backlight Compensation)	yes	-	-
DNR (Digital Noise Reduction)	2D	2D	2D
Smart Stream	-	-	-
ROI (Region of Interest)	-	-	-
IMD (Intelligent Motion Detection) zone	4	3	3
privacy mask	4	3	3
audio			
audio encoder	G.711 audio compression	G.711 / G.726 audio compression	G.711 / G.726 audio compression
audio streaming	1-way audio	2-way audio	2-way audio
microphone	built-in	external input	external input
network			
protocol	HTTP, TCP/IP (IPv4), RTSP, RTP, RTCP, ICMP, UDP, IGMP, NTP, UPnP, DNS, DHCP, ARP	HTTP, HTTPS, TCP/IP (IPv4, IPv6), SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour	HTTP, HTTPS, TCP/IP (IPv4, IPv6), SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	-	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	-	1 / 1	1 / 1
built-in storage option	-	microSDHC card (32GB max.)	microSDHC card (32GB max.)
general			
power supply	PoE	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 0 (IEEE 802.3af)	PoE Class 3 (IEEE802.3af)	PoE Class 3 (IEEE802.3af)
dimensions (W x H x D)	97 x 104.5 mm	80 x 67 mm	80 x 67 mm
net weight	380g	350g	350g
temperature and humidity	-10°C ~ 50°C, 20% ~ 90%	0°C ~ 45°C, 20% ~ 80%	0°C ~ 45°C, 20% ~ 80%
other value-added features	-	-	-



NEW SD1306

	speed dome
application environment	
indoor / outdoor	indoor / outdoor
weatherproof	IP66
vandal-proof	-
day / night control	auto / manual / schedule
camera image	
sensor	1/3" CMOS
min. illumination	color: 1 lux @ F1.6 black & white: 0.05 lux @ F1.6
built-in LED	-
IR distance	-
built-in mechanical ICR	yes
auto iris	yes
lens	
lens type	22X zoom lens
F/no	F1.6~F3.1
focal length	f=4.7~103.4 mm
angle of view	54.6° (W) ~ 2.7° (T) (horizontal) 42.6° (W) ~ 2.1° (T) (vertical)
bracket adjustment	-
PTZ control	
pan range	360° (endless)
tilt range	10° ~ 170°
manual pan speed	0.45° ~ 90°/s
manual tilt speed	0.35° ~ 45°/s
preset positions	256
preset speed	pan & tilt: 200°/s
auto patrol	8 groups with 24 points
video	
compression	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	1280 x 1024
max. frame rate	H.264 / MPEG-4 / MJPEG up to 30 fps (1280 x 1024)
streaming	H.264 / MPEG-4 / MJPEG
multiple streams	3
WDR (Wide Dynamic Range)	D-WDR
BLC (Backlight Compensation)	yes (HSBLC)
DNR (Digital Noise Reduction)	3D
Smart Stream	-
ROI (Region of Interest)	-
IMD (Intelligent Motion Detection) zone	-
privacy mask	-
audio	
audio encoder	G.711 / G.726 audio compression
audio streaming	2-way audio
microphone	external input
network	
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6), SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba
Ethernet	Ethernet (10/100 Base-T), RJ45 connector
security	password protection, IP address filtering, HTTPS encrypted data transmission
alarm	
trigger event	mail, FTP, save to memory card, relay, Samba
interface	
digital input / output	2 / 1
built-in storage option	microSD / microSDHC card (32GB max.)
general	
power supply	AC 24V / PoE
PoE	PoE Class 4 (IEEE802.3at)
dimensions (W x H x D)	219 x 330.7 mm
net weight	4.5kg (w/ bracket)
temperature and humidity	-20°C ~ 50°C, 20% ~ 80%
other value-added features	-



SF2012H



FX2000
(SF2121H-R)



FX3000-R



box			
application environment			
indoor / outdoor	indoor (outdoor with suitable housing)	indoor (outdoor with suitable housing)	indoor (outdoor with suitable housing)
weatherproof	-	-	-
vandal-proof	-	-	-
day / night control	auto / manual	auto / manual / schedule	auto / manual / schedule
camera image			
sensor	1/3.2" CMOS	1/2.7" CMOS	1/3" CMOS
min. illumination	color: 1.0 lux @ F1.2 black & white: 0.05 lux @ F1.2	color: 0.15 lux @ F1.2 black & white: 0.001 lux @ F1.2	color: 0.15 lux @ F1.2 black & white: 0.0015 lux @ F1.2
built-in LED	-	-	-
IR distance	-	-	-
built-in mechanical ICR	yes	yes	yes
auto iris	yes	yes	yes
lens	optional		
lens type	(CS mount)	vari-focal lens (CS mount)	vari-focal lens (CS mount)
F/no	-	F1.2	F1.2
focal length	-	f=3.1~8mm	f=3.1~8mm
angle of view	-	105.4° (W) ~ 42.2° (T) (horizontal) 57.9° (W) ~ 23.8° (T) (vertical)	86.7° (W) ~ 35.2° (T) (horizontal) 64.4° (W) ~ 26.5° (T) (vertical)
bracket adjustment	-	-	-
video			
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	1600 x 1200	full HD (1920 x 1080)	2048 x 1536
max. frame rate	H.264 / MJPEG up to 15fps (1600 x 1200) H.264 / MJPEG up to 30fps (1280 x 1024) MPEG-4 up to 5fps (176 x 144)	H.264 / MPEG-4 up to 30fps (1920 x 1080) MJPEG up to 30fps (1280 x 1024)	H.264 / MJPEG up to 20fps (2048 x 1536) H.264 / MJPEG/ MPEG-4 up to 30fps (1920 x 1080)
streaming	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	-	D-WDR	True WDR
BLC (Backlight Compensation)	yes	yes	yes
DNR (Digital Noise Reduction)	2D	2D, 2D/3D (dynamic)	2D, 2D/3D (dynamic)
Smart Stream	-	yes	yes
ROI (Region of Interest)	-	yes	yes
IMD (Intelligent Motion Detection) zone	3	3	3
privacy mask	3	3	3
audio			
audio encoder	G.711 audio compression	G.711 / G.726 audio compression	G.711 / G.726 / AAC audio compression
audio streaming	2-way audio	2-way audio	2-way audio
microphone	built-in	built-in, external input	built-in, external input
network			
protocol	HTTP, TCP/IP (IPv4), UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X	HTTP, HTTPS, TCP/IP (IPv4, IPv6), QoS, UPnP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, 3GPP (video only), Samba, SNMP(V1/V2c/V3), 802.1X
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
security	password protection	password protection, IP address filtering, HTTPS encrypted data transmission	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba	Event Booster, mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	1 / 1	1 / 1	1 / 1
built-in storage option	SDHC card (32GB max.)	SDHC / SDXC card (64GB max.), Class 6 or higher	SDHC / SDXC card (64GB max.), Class 6 or higher
general			
power supply	DC 12V / PoE	DC 12V / PoE	DC 12V / PoE
PoE	PoE Class 0 (IEEE802.3af)	PoE Class 3 (IEEE802.3af)	PoE Class 3 (IEEE802.3af)
dimensions (W x H x D)	65 x 58 x 132 mm	69 x 58.6 x 165.05 mm	69 x 58.6 x 165.05 mm
net weight	450g (w/o bracket)	490g (w/o bracket)	490g (w/o bracket)
temperature and humidity	0°C ~ 40°C, 20% ~ 80%	0°C ~ 50°C, 20% ~ 90%	0°C ~ 50°C, 20% ~ 90%
other value-added features	ePTZ	Quick Focus, ePTZ, EN50130-4	Quick Focus, ePTZ, EN50130-4



FC1320-P
FC1320-PW



SF2012H-C



FC2020-P
FC2020-PW

	cube		
application environment			
indoor / outdoor	indoor	indoor	indoor
weatherproof	-	-	-
vandal-proof	-	-	-
day / night control	auto / manual / schedule	-	auto / manual / schedule
camera image			
sensor	1/4" CMOS	1/3.2" CMOS	1/3.2" CMOS
min. illumination	color: 1.0 lux @ F1.6 0 lux @ F1.6 (IR LED on)	color: 1.5 lux @ F2.0 black & white: 0.5 lux @ F2.0	color: 1.0 lux @ F1.6 0 lux @ F1.6 (IR LED on)
built-in LED	yes	-	yes
IR distance	5m	-	5m
built-in mechanical ICR	yes	-	yes
auto iris	-	-	-
lens			
lens type	fixed lens (manual focus adjustable)	fixed lens (manual focus adjustable)	fixed lens (manual focus adjustable)
F/no	F1.6	F2.0	F1.6
focal length	f=4.2mm	f=4.3mm	f=3.6mm
angle of view	52.6° (horizontal) 32.9° (vertical)	51.83° (horizontal) 31.32° (vertical)	53.1° (horizontal) 29.5° (vertical)
bracket adjustment	-	-	-
video			
compression	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously	H.264 / MPEG-4 / MJPEG simultaneously
max. resolution (H.264 / MJPEG)	1280 x 1024	1600 x 1200	full HD (1920 x 1080)
max. frame rate	H.264 / MJPEG up to 20fps (1280 x 1024) H.264 / MJPEG up to 30fps (1024 x 800) MPEG-4 up to 20fps (1024 x 800)	H.264 / MJPEG up to 15fps (1600 x 1200) H.264 / MJPEG up to 30fps (1280 x 1024) MPEG-4 up to 5fps (176 x 144)	H.264 / MJPEG up to 25fps (1920 x 1080) H.264 / MJPEG up to 30fps (640 x 480) MPEG-4 up to 20fps (1920 x 1080)
streaming	H.264 / MPEG-4 / MJPEG	H.264 / MPEG-4 (3GPP only) / MJPEG	H.264 / MPEG-4 / MJPEG
multiple streams	3	3	3
WDR (Wide Dynamic Range)	D-WDR	-	D-WDR
BLC (Backlight Compensation)	-	yes	-
DNR (Digital Noise Reduction)	2D	2D	2D
Smart Stream	-	-	-
ROI (Region of Interest)	-	-	-
IMD (Intelligent Motion Detection) zone	3	3	3
privacy mask	3	3	3
audio			
audio encoder	G.711 / G.726 audio compression	G.711 audio compression	G.711 / G.726 audio compression
audio streaming	2-way audio	2-way audio	2-way audio
microphone	built-in	built-in	built-in
network			
protocol	HTTP, HTTPS, TCP/IP (IPv4, IPv6) SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour	HTTP, TCP/IP (IPv4), UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba	HTTP, HTTPS, TCP/IP (IPv4, IPv6) SNMP, QoS/DSCP, Access list, RTSP, UDP, SMTP, FTP, PPPoE, DHCP, DDNS, NTP, UPnP, 3GPP (video only), Samba, Bonjour
Ethernet	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector	Ethernet (10/100 Base-T), RJ45 connector
wireless	FC1320-PW: 802.11 b/g/n; WEP, WPA-PSK, WPA2-PSK	-	FC2020-PW: 802.11 b/g/n; WEP, WPA-PSK, WPA2-PSK
security	password protection, IP address filtering, HTTPS encrypted data transmission	password protection	password protection, IP address filtering, HTTPS encrypted data transmission
alarm			
trigger event	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba	mail, FTP, save to memory card, relay, Samba
interface			
digital input / output	1 / 1	-	1 / 1
built-in storage option	microSDHC card (32GB max.)	microSDHC card (16GB max.)	microSDHC card (32GB max.)
general			
power supply	DC 12V / PoE (FC1320-P only)	DC 12V	DC 12V / PoE (FC2020-P only)
PoE	FC1320-P: PoE Class 0 (IEEE 802.3af)	-	FC2020-P: PoE Class 0 (IEEE 802.3af)
dimensions (W x H x D)	59 x 93.7 x 45.5 mm	94.3 x 59.1 x 45.2 mm	59 x 93.7 x 45.5 mm
net weight	150g (w/o bracket)	240g (w/o bracket)	150g (w/o bracket)
temperature and humidity	0°C ~ 40°C, 20% ~ 80%	-10°C ~ 40°C, 20% ~ 80%	0°C ~ 40°C, 20% ~ 80%
other value-added features	FC1320-P: PIR FC1320-PW: PIR, WPS	-	FC2020-P: PIR FC2020-PW: PIR, WPS

Next-generation full HD IP surveillance solution

Reliable performance · optimized bandwidth & storage · easy setup

The seamless integration between AVer IP cameras, DVRs/NVRs and central management software (CMS) not only provides reliability and enhanced performance but also guarantees easy setup thanks to the standardized user interface across all devices. Clever functions like Smart Stream and ROI create an optimized solution for bandwidth and storage efficiency. And, with regularly scheduled feature and performance upgrades, expect your AVer IP surveillance solution to actually get better with age, allowing you to save more on bandwidth and storage investment.

- Full line of AVer IP cameras
- E-series DVRs/NVRs
- Central management software CM5000



SDKs

Unified Software Development Kits available for AVer IP cameras and AVer DVRs/NVRs make it much easier to integrate AVer solution components with any of external systems. SDKs can significantly speed up customization process, saving your time and efforts.



CM5000 CMS

The all-new CM5000 central management software (CMS) is designed for remote management of AVer's next generation of DVRs/NVRs. Users can leverage CM5000 to remotely control E-series DVRs/NVRs, including support for live preview, instant playback, settings adjustment, and E-maps. Full GUI standardization between local (DVR/NVR) and remote (CMS) sites ensures a low learning curve and smooth everyday operation.



Integrated Setup with Standardized UI

With the complete integration between AVer IP cameras, E-series DVRs/NVRs, and CM5000, all camera settings, including not only the basic ones like IP address, but also camera-embedded advanced options like ROI, Smart Stream, motion detection or motorized focus/zoom (MFZ), can now be set directly via DVRs /NVRs and CMS interface.





Free Video Management Software (VMS) – NXU Lite

- ▶ Supports up to 32 IP camera channels
- ▶ Up to 5 megapixels per channel with a total of 80 megapixels for all channels
- ▶ Supports H.264 / MPEG-4 / MJPEG formats (tri-codec)
- ▶ Supports plug and play and Active IP with AVer IP cameras
- ▶ Step-by-step setup wizard for simplified system configuration
- ▶ Dual monitor application for the display of up to 8 E-maps
- ▶ Supports live playback, event search, intelligent search and visual search

Premium version of VMS software – **NXU8000** – is also available, offering enhanced functionality and additional advanced features.

		NXU8000	NXU Lite
alarm event	max. support	64 alarms	32 alarms
	abnormal event	yes	yes
	POS alarm	yes	no
alarm trigger	send to CMS	yes	yes
	send to FTP	yes	yes
	send SMS	yes	no
	make a phone call	yes	no
	video encryption	yes	yes
video intelligence	intelligent search	yes	yes
	motion detection	yes	yes
	object counting	yes	no
	FaceFinder	yes	no
	missing / suspicious object	yes	no
	scene change	yes	no
	PTZ tracking	yes	no
network	3GPP	yes	no
POS integration		yes	no

* supported languages: English, Arabic, Bulgarian, Czech, Danish, Dutch, Finnish, French, German, Greek, Hebrew, Hungarian, Italian, Japanese, Norwegian, Polish, Portuguese, Romanian, Russian, Simplified Chinese, Slovak, Spanish, Swedish, Thai, Traditional Chinese, Turkish



Free Mobile Access Applications

- ▶ Access up to 32 camera channels with iViewer (iOS devices) or AndroidViewer (Android devices)
- ▶ View 4 channels at once and control PTZ cameras
- ▶ Make connection simple and secure with savable profiles, address book and authorization mechanism

Central Management Software (CMS) – CM3000 & CM3000 Gold

- ▶ Connect and control up to 1000 AVer DVRs, NVRs, and/or VMS
- ▶ Quad monitor support
- ▶ Supports up to 64 E-maps or Google maps to integrate and display incident alerts and live video
- ▶ Remote playback and backup for reviewing recorded video and retrieving critical images
- ▶ Advanced alarm center with multiple operator management
- ▶ Remote iAlarm for monitoring live alarm events and assigning them to remote managers
- ▶ Remote iMatrix for grouping up to 128 monitor views into myriad combinations to create a TV-wall command center
- ▶ Remote Setup for remote configuration of cameras, recordings, schedules and alarms

