

Sony Security Products

Quick Reference 

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Series Features At a Glance

X Series = Affordable HD with Fixed Focal Lens

- Extremely discreet, small footprint and cost effective indoor HD camera line
- 1080p Exmor® HD CMOS and 720p HD CMOS models (3MP/1.3MP modes)
- Dual Stream, Triple Codec: H.264/MPEG4/JPEG
- High Quality Pan Focal Lens
- Fixed Wide Angle Lens
- IK10 ratings on vandal resistant models: SNC-DH210T, SNC-DH110T
- POE only for single cable installation

E Series = Economical HD with Varifocal Lens

- Economical cost down version of V series cameras
- 1080p and 720p HD models. (3MP/2MP/1.3MP modes)
- Dual Stream, Triple Codec: H.264/MPEG4/JPEG
- Exmor HD CMOS Sensor. High Speed, Low Noise image sensor
- Auto Back Focus on all E series. EZ Focus, local and remote
- Motorized Zoom Adjustments on Mini Dome and Bullet cameras EZ Zoom, local and remote
- Analog output and ball joint mechanism for quick and easy installation
- True Day/Night cameras with IR cut filter removal in B/W mode
- IK10 ratings on vandal resistant models: SNC-DH120T, SNC-DH220T, SNC-DH160, SNC-DH260
- IP66 rating on outdoor ready models with built-in IR. SNC-DH160, SNC-DH260, SNC-CH160, SNC-CH260
- POE only for single cable installation

V Series = Value Added Premium HD with Varifocal Lens

- Top-of-the-line cameras with value added features
- 1080p and 720p HD models. (3MP/1.3MP modes.)
- Dual Stream, Triple Codec: H.264/MPEG4/JPEG
- Exmor HD CMOS Sensor. High Speed, Low Noise image sensor
- View-DR™ Technology: Ultra Wide Dynamic Range for clear images in high contrast lighting conditions
- XDNR™ Technology: 2D/3D Dynamic Noise Reduction for better clarity with virtually no motion blur
- DEPA™ Advanced: built-in camera analytics
- 2-Way Audio with Echo Cancellation and Voice Alert function
- Auto Back Focus on all V series. EZ Focus, local and remote
- Motorized Zoom Adjustments on Mini Dome and Bullet cameras EZ Zoom, local and remote
- Analog output and ball joint mechanism for quick and easy installation. Full Video output
- True Day/Night cameras with IR cut filter removal in B/W mode
- IK10 ratings on vandal resistant models: SNC-DH140T, SNC-DH240T, SNC-DH180, SNC-DH280
- IP66 rating on outdoor ready models with built-in IR: SNC-DH180, SNC-DH280, SNC-CH180, SNC-CH280
- AC24/DC12/POE for flexible power options

Z Series = IP and Analog-over-Coax Technology for Existing Analog CCTV Systems

- Cost-effective and environmentally-friendly surveillance systems that can be easily migrated from an analog CCTV system to an IP network-based system, making the most of any existing surveillance infrastructure
- Simultaneous use of IP HD video and analog SD video
- Utilization of the advanced features and functionalities offered by IP network cameras
- Extended cable length of up to 1,000 feet (300m)*
- Minimized latency of analog video for live monitoring

*Cable length varies according to cable grade.

Hybrid Camera Solutions

IPELA HYBRID™ – Sony's IP and Analog-over-Coax Technology*1 – Offers Cost-effective Retrofit Solutions for Existing Analog CCTV Systems

Sony offers a new video surveillance technology that can simultaneously transmit both IP and analog signals on a single coaxial cable. It allows customers to easily migrate to HD IP video surveillance systems with minimal investment, utilizing their existing analog infrastructure. Based on this technology – IPELA HYBRID – Sony offers solutions that comprise hybrid cameras along with SLOC-compatible devices*2 as their counterparts.

These unique solutions deliver the following advantages:

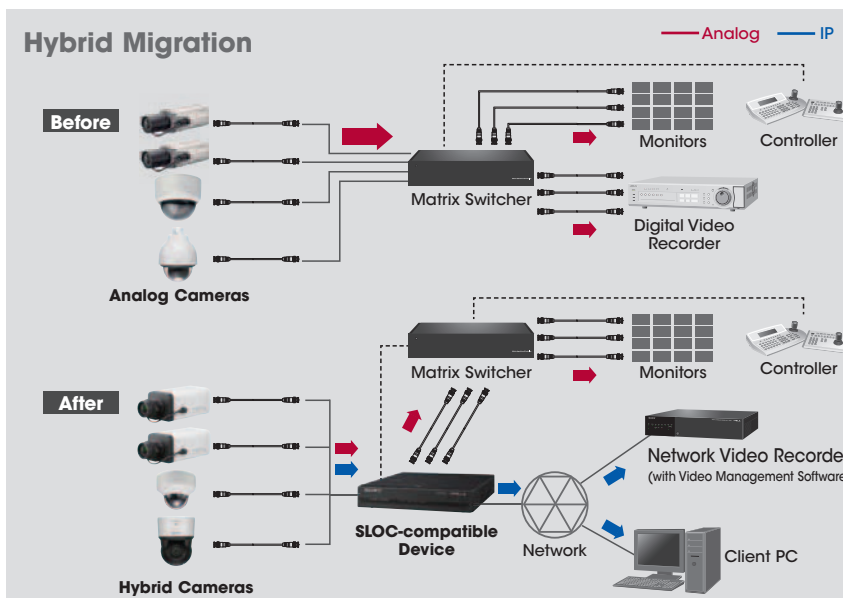
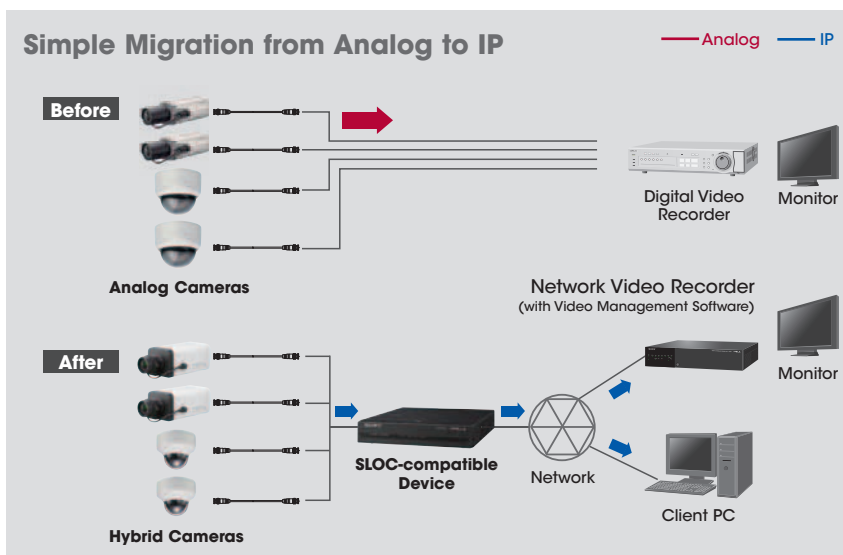
- Cost-effective surveillance systems that can be easily migrated from an analog CCTV system to an IP network-based system, making the most of any existing surveillance infrastructure (e.g. coaxial cables, local power supplies, matrix switchers, controllers, and video wall monitors)
- Simultaneous transmission of IP HD video and analog SD video (see diagram below)
- Utilization of the advanced features and functionalities offered by IP network cameras
- Maximum cable length of 1,000 feet (300 m) with an RG-59 coaxial cable*3
- Minimized latency of analog video and PTZ control for video monitoring

Sony's hybrid camera solutions can be used in a wide variety of surveillance applications, and in locations such as commercial facilities, financial institutions, office buildings, casinos, airports, government-related facilities, and schools.

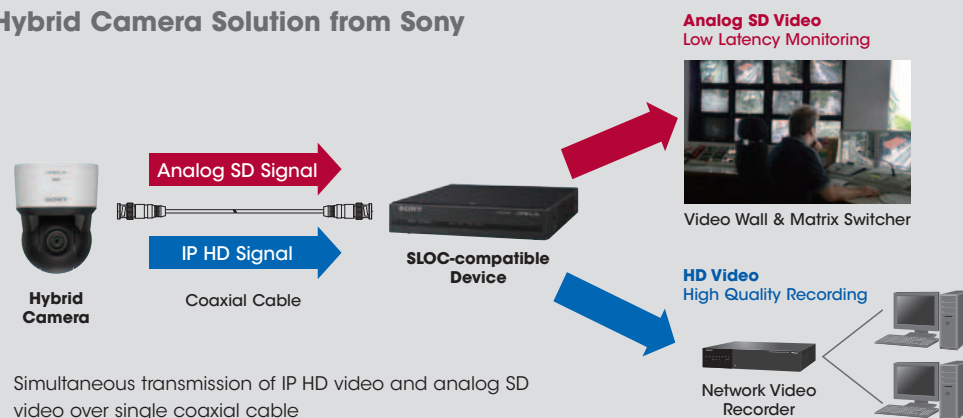
*1 Sony's IP and analog-over-coax technology is developed based on Intersil Corporation's SLOC™ (Security Link Over Coax) technology.

*2 For information on SLOC-compatible devices, please contact your nearest Authorized Sony Reseller.

*3 Cable length varies according to cable grade and quality.



Hybrid Camera Solution from Sony



Hybrid Cameras

Model name	Z Series				
	SNC-ZB550 Hybrid Fixed Camera	SNC-ZM551 Hybrid Vandal Mini Dome Camera	SNC-ZM550 Hybrid Mini Dome Camera	SNC-ZR550 Hybrid Rapid Dome Camera	SNC-ZP550 Hybrid PTZ Camera
					
Video compression format	H.264/MPEG-4/JPEG				
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format) ^{(*)1}				
Computer display format	HD ^{(*)2}	HD ^{(*)2}	HD ^{(*)2}	HD ^{(*)2}	HD ^{(*)2}
Maximum resolution (IP)	1280 x 1024 (1.3 Mega) 	1280 x 1024 (1.3 Mega) 	1280 x 1024 (1.3 Mega) 	1280 x 720 	1280 x 720 
Signal system	NTSC color system/PAL color system (switchable)				
Vandal resistant	No	IK10	No	No	No
Horizontal viewing angle	96.5° to 33.9°	85.4° to 31.2°	85.4° to 31.2°	55.9° to 2.1°	55.9° to 2.1°
Zoom ratio	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	28x optical zoom	28x optical zoom
Focal length	f=2.8 mm to 8.0 mm	f=3.1 mm to 8.9 mm	f=3.1 mm to 8.9 mm	f=3.5 mm to 98 mm	f=3.5 mm to 98 mm
Lens type	CS mount lens	Built-in variable focal lens	Built-in variable focal lens	Auto-focus zoom lens	Auto-focus zoom lens
Image sensor	1/3-type Exmor CMOS sensor <i>Exmor</i>	1/3-type Exmor CMOS sensor <i>Exmor</i>	1/3-type Exmor CMOS sensor <i>Exmor</i>	1/4-type Exmor CMOS sensor <i>Exmor</i>	1/4-type Exmor CMOS sensor <i>Exmor</i>
Minimum illumination	Color: 0.50 lx, B/W: 0.30 lx (F1.2, shutter 1/30 s, AGC 42 dB, 50 IRE [IP])	Color: 0.50 lx, B/W: 0.30 lx (F1.2, shutter 1/30 s, AGC 42 dB, 50 IRE [IP])	Color: 0.50 lx, B/W: 0.30 lx (F1.2, shutter 1/30 s, AGC 42 dB, 50 IRE [IP])	Color: 1.00 lx, B/W: 0.10 lx (F1.35, shutter 1/30 s, AGC ON, 50 IRE [IP])	Color: 1.00 lx, B/W: 0.10 lx (F1.35, shutter 1/30 s, AGC ON, 50 IRE [IP])
Maximum frame rate	30 fps (H.264, MPEG-4, JPEG) at 1280 x 720	30 fps (H.264, MPEG-4, JPEG) at 1280 x 720	30 fps (H.264, MPEG-4, JPEG) at 1280 x 720	30 fps (H.264, MPEG-4, JPEG) at 1280 x 720	30 fps (H.264, MPEG-4, JPEG) at 1280 x 720
Day/Night	True Day/Night	True Day/Night	True Day/Night	True Day/Night	True Day/Night
Wide-D	No	No	No	Yes, DynaView™	Yes, DynaView
Noise reduction	Yes	Yes	Yes	Yes	Yes
Card slots	No	No	No	SD/SDHC card x 1	SD/SDHC card x 1
Wireless capability	No	No	No	No	No
Composite Video output	Yes, when SLOC switch is OFF	Yes, when SLOC switch is OFF	Yes, when SLOC switch is OFF	Yes, when SLOC switch is OFF	Yes, when SLOC switch is OFF
DEPA (Intelligence)					
ONVIF					
Rapid Dome or PTZ	No	No	No	 Rapid Dome	 PTZ
Pan range	No	Rotation and pan range, + or - 180 degrees	Rotation and pan range, + or - 180 degrees	360 degrees endless rotation	340 degrees
Total tilt range	No	Tilt range +/- 70 degrees	Tilt range +/- 70 degrees	210° (15° above horizon)	105° (15° above horizon)
Power requirements	AC 24 V, DC 12 V	AC 24 V, DC 12 V	AC 24 V, DC 12 V	hPoE, AC 24 V ^{(*)3}	hPoE, AC 24 V ^{(*)3}
Power consumption	6 W max.	7 W max.	7 W max.	25 W max.	25 W max.
Dimensions	2 7/8 x 2 1/2 x 7 7/8 inches (72 x 63 x 197 mm) with lens, not including projecting parts	ø5 5/8 x 4 3/4 inches (ø140 x 119 mm)	ø5 5/8 x 4 3/4 inches (ø140 x 118 mm)	ø5 7/8 x 7 5/8 inches (ø147.4 x 190.9 mm)	ø5 7/8 x 7 5/8 inches (ø147.4 x 190.9 mm)

(*)1 Dual streaming is available when analog output settings for the SLOC port are OFF.

(*)2 Definition of HD: More than 720p with H.264 streaming capability of more than 30/25 fps.

(*)3 When selecting the IP and Analog-over-Coax mode, the power supply supports only AC 24 V.

All cameras in this sheet comply with UL2044.

Hybrid Camera Receiver

Model name	Z Series SNCA-ZX104 4CH Hybrid Camera Receiver
	
Number of supported hybrid camera	4
Camera input	BNC x 4
Analog video output	BNC x 4
Network port	RJ45 x 1 (100Base-TX/10Base-T)
Serial interface	RS-485 x 1
Supported Serial PTZ control protocol	Pelco-D
Power requirements	DC 12 V (AC 100 V to AC 127 V, AC 200 V to AC 240 V, 50/60 Hz for AC adaptor)
Dimensions (W x H x D)	8 1/3 x 1 3/4 x 9 7/8 inches (210 x 44 x 250 mm) not including projecting parts

IPELA HYBRID

sloc

IP Mini Dome Cameras

Model name	V Series			E Series			X Series		V Series		
	SNC-DH280	SNC-DH240T	SNC-DH240	SNC-DH260	SNC-DH220T	SNC-DH220	SNC-DH210T	SNC-DH210	SNC-DH180	SNC-DH140T	SNC-DH140
											
Video compression format	H.264/MPEG-4/JPEG										
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format)										
Computer display format	Full HD 1080	Full HD 1080	Full HD 1080	Full HD 1080	Full HD 1080	Full HD 1080	Full HD 1080	Full HD 1080	HD (*1)	HD (*1)	HD (*1)
Maximum resolution	1920 x 1440 (3 Mega) 	1920 x 1440 (3 Mega) 	1920 x 1440 (3 Mega) 	1920 x 1440 (3 Mega) 	1920 x 1440 (3 Mega) 	1920 x 1440 (3 Mega) 	2048 x 1536 (3 Mega) 	2048 x 1536 (3 Mega) 	1280 x 1024 (1.3 Mega) 	1280 x 1024 (1.3 Mega) 	1280 x 1024 (1.3 Mega) 
Outdoor use/ Ingress protection	Yes/IP66	No	No	Yes/IP66	No	No	No	No	Yes/IP66	No	No
Vandal resistant	IK10	IK10	No	IK10	IK10	No	IK10	No	IK10	IK10	No
IR illuminators	IR	No	No	IR	No	No	No	No	IR	No	No
Horizontal viewing angle	88.5° to 32.3°	88.5° to 32.3°	88.5° to 32.3°	88.5° to 32.3°	88.5° to 32.3°	88.5° to 32.3°	86°	88°	85.4° to 31.2°	85.4° to 31.2°	85.4° to 31.2°
Optical zoom ratio	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	Fixed focal lens	Fixed focal lens	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom
Focal length	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=3.3	f=3.3	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm
Imager	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/2.8-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/3-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/3-type progressive scan Exmor CMOS sensor <i>Exmor.</i>	1/3-type progressive scan Exmor CMOS sensor <i>Exmor.</i>
Minimum illumination	Color: 0.4 lx, B/W: 0 lx (IR ON) (F1.2/View-DR OFF/XDNR ON-Middle/VE OFF/AGC High/50 IRE [IP])	Color: 0.4 lx, B/W: 0.25 lx (F1.2 View-DR OFF/ XDNR ON-Middle/ VE OFF/AGC High/50 IRE [IP])	Color: 0.4 lx, B/W: 0.25 lx (F1.2 View-DR OFF/ XDNR ON-Middle/VE OFF/AGC High/50 IRE [IP])	Color: 0.7 lx, B/W: 0 lx (IR ON) (F1.2/ AGC 42dB/ 50IRE [IP])	Color: 0.7 lx, B/W: 0.25 lx (F1.2/AGC 42 dB/ 50 IRE [IP])	Color: 0.7 lx, B/W: 0.45 lx (F1.2/AGC 42 dB/ 50 IRE [IP])	2.3 lx (AGC 38 dB/50 IRE [IP])	2.0 lx (AGC 38dB)/ 50 IRE [IP])	Color: 0.2 lx, B/W: 0 lx (IR ON) (F1.2 View-DR OFF/ XDNR ON-Middle/ VE OFF/AGC High/ 50 IRE [IP])	Color: 0.2 lx, B/W: 0.1 lx (F1.2 View-DR OFF/ XDNR ON-Middle/ VE OFF/AGC High/50 IRE [IP])	Color: 0.2 lx, B/W: 0.1 lx (F1.2 View-DR OFF/ XDNR ON-Middle/ VE OFF/AGC High/50 IRE [IP])
Maximum frame rate	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264/ MPEG-4/JPEG at 1280 x 720; 15 fps H.264/ MPEG-4/JPEG at 1920 x 1080	30 fps H.264/ MPEG-4/JPEG at 1280 x 720; 15 fps H.264/ MPEG-4/JPEG at 1920 x 1080	30 fps H.264/ MPEG-4/JPEG at 1280 x 720	30 fps H.264/ MPEG-4/JPEG at 1280 x 720	30 fps H.264/ MPEG-4/JPEG at 1280 x 720
Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Electrical D/N	Electrical D/N	Day/Night	Day/Night	Day/Night
Wide-D	Yes/ 	Yes/ 	Yes/ 	No	No	No	No	No	Yes/ 	Yes/ 	Yes/ 
Visibility Enhancer (VE)	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes
Noise reduction	XDNR	XDNR	XDNR	Yes	Yes	Yes	Yes	Yes	XDNR	XDNR	XDNR
Card slot(s)	No	No	No	No	No	No	No	No	No	No	No
Wireless capability	No	No	No	No	No	No	No	No	No	No	No
Composite video output	Yes	Yes	Yes	Yes, for setup only	Yes, for setup only	Yes, for setup only	Yes, for setup only	Yes, for setup only	Yes	Yes	Yes
DEPA (Intelligence)											
Audio Capability	Yes	Yes	Yes	No	No	No	No	No	Yes	Yes	Yes
ONVIF software											
Power requirement	AC 24 V, DC 12 V, PoE (Class 0)	AC 24 V, DC 12 V, PoE (Class 0)	AC 24 V, DC 12 V, PoE (Class 0)	PoE (Class 0)	PoE (Class 2)	PoE (Class 2)	PoE (Class 1)	PoE (Class 1)	AC 24 V, DC 12 V, PoE (Class 0)	AC 24 V, DC 12 V, PoE (Class 0)	AC 24 V, DC 12 V, PoE (Class 0)
Power consumption	29 W max.	10.2 W max.	10.2 W max.	12.9 W max.	6 W max.	6 W max.	2.4 W max.	2.4 W max.	28 W max.	8 W max.	10.2 W max.
Dimensions	ø6 5/8 x 4 3/4 inches (166 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 118 mm)	ø6 5/8 x 4 3/4 inches (166 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 118 mm)	ø4 1/4 x 2 1/4 inches (106 x 56.5 mm)	ø4 1/4 x 2 1/8 inches (106 x 50.5 mm)	ø6 5/8 x 4 3/4 inches (166 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 118 mm)

(*1) Definition of HD: More than 720p with H.264 streaming capability at more than 30 fps.

IP Mini Dome Cameras

Model name	E Series			X Series		SNC-EM521	SNC-EM520
	SNC-DH160	SNC-DH120T	SNC-DH120	SNC-DH110T	SNC-DH110		
							
Video compression format	H.264/MPEG-4/JPEG						
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format)						
Computer display format	HD ^(*)	HD ^(*)	HD ^(*)	HD ^(*)	HD ^(*)	SD	SD
Maximum resolution	1280 x 1024 (1.3 Mega) 	1280 x 1024 (1.3 Mega) 	1280 x 1024 (1.3 Mega) 	1280 x 960 (1.3 Mega) 	1280 x 960 (1.3 Mega) 	800 x 600	800 x 600
Outdoor use/ Ingress protection	Yes/ IP66	No	No	No	No	No	No
Vandal resistant	IK10	IK10	No	IK10	No	IK10	No
IR illuminators	IR	No	No	No	No	No	No
Horizontal viewing angle	85.4° to 31.2°	85.4° to 31.2°	85.4° to 31.2°	79°	80.7°	85.4° to 31.2°	85.4° to 31.2°
Zoom ratio	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	Fixed focal lens	Fixed focal lens	2.9x optical zoom	2.9x optical zoom
Focal length	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm	f=2.34	f=2.34	f=3.1 to 8.9 mm	f=3.1 to 8.9 mm
Image device	1/3-type progressive scan Exmor CMOS sensor Exmor	1/3-type progressive scan Exmor CMOS sensor Exmor	1/3-type progressive scan Exmor CMOS sensor Exmor	1/3.8-type progressive scan CMOS sensor	1/3.8-type progressive scan CMOS sensor	1/3-type progressive scan Exmor CMOS sensor Exmor	1/3-type progressive scan Exmor CMOS sensor Exmor
Minimum illumination	Color: 0.5 lx, B/W: 0 lx (IR ON) (F1.2/AGC 42 dB/50 IRE [IP])	Color: 0.5 lx, B/W: 0.3 lx (F1.2/AGC 42 dB/50 IRE [IP])	Color: 0.5 lx, B/W: 0.3 lx (F1.2/AGC 42 dB/50 IRE [IP])	5.5 lx (AGC 30 dB/50 IRE [IP])	5.0 lx (AGC 30 dB/50 IRE [IP])	Color: 0.5 lx, B/W: 0.3 lx (F1.2/AGC ON/50IRE [IP])	Color: 0.5 lx, B/W: 0.3 lx (F1.2/AGC ON/50IRE [IP])
Maximum frame rate	30 fps H.264/MPEG-4/JPEG at 1280 x 720	30 fps H.264/MPEG-4/JPEG at 1280 x 720	30 fps H.264/MPEG-4/JPEG at 1280 x 720	30 fps H.264/MPEG-4/JPEG at 1280 x 960/1280 x 720	30 fps H.264/MPEG-4/JPEG at 1280 x 960/1280 x 720	30 fps	30 fps
Day/Night	Day/Night	Day/Night	Day/Night	Electrical D/N	Electrical D/N	Day/Night	Day/Night
Wide-D	No	No	No	No	No	No	No
Visibility Enhancer (VE)	No	No	No	No	No	No	No
Noise reduction	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Card slot(s)	No	No	No	No	No	No	No
Wireless capability	No	No	No	No	No	No	No
Composite video output	Yes, for setup only	Yes, for setup only	Yes, for setup only	Yes, for setup only	Yes, for setup only	Yes, for setup only	Yes, for setup only
DEPA (Intelligence)							
Audio Capability	No	No	No	No	No	No	No
ONVIF software	ONVIF	ONVIF	ONVIF	ONVIF	ONVIF	ONVIF	ONVIF
Power requirement	PoE (Class 0)	PoE (Class 2)	PoE (Class 2)	PoE (Class 1)	PoE (Class 1)	PoE (Class 2)	PoE (Class 2)
Power consumption	12.9 W max.	6 W max.	6 W max.	2.4 W max.	2.4 W max.	6 W max.	6 W max.
Dimensions	ø6 5/8 x 4 3/4 inches (166 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 118 mm)	ø4 1/4 x 2 1/4 inches (106 x 56.5 mm)	ø4 1/4 x 2 1/8 inches (106 x 50.5 mm)	ø5 5/8 x 4 3/4 inches (140 x 119 mm)	ø5 5/8 x 4 3/4 inches (140 x 118 mm)

(*) Definition of HD: More than 720p with H.264 streaming capability at more than 30 fps.

IP Rapid Dome and PTZ Cameras

P/T/Z: Pan/Tilt/Zoom

Model name	E Series				SNC-RH164	SNC-RH124
	SNC-ER580	SNC-EP580	SNC-ER550	SNC-EP550		
						
Video compression format	H.264/MPEG-4/JPEG					
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format)					
Computer display format	Full HD 1080	Full HD 1080	HD (*)	HD (*)	HD (*)	HD (*)
Maximum resolution	1920 x 1080 	1920 x 1080 	1280 x 720 	1280 x 720 	1280 x 720 	1280 x 720 
Outdoor use/ Ingress protection	No	No	No	No	Yes/IP66	No
Vandal resistant	No	No	No	No	IK10	No
Horizontal viewing angle	55.4° to 2.9°	55.4° to 2.9°	55.9° to 2.1°	55.9° to 2.1°	50° to 5.4°	50° to 5.4°
Zoom ratio	20X optical zoom	20X optical zoom	28X optical zoom	28X optical zoom	10x optical zoom	10x optical zoom
Focal length	f=4.7 to 94 mm	f=4.7 to 94 mm	f=3.5 to 98 mm	f=3.5 to 98 mm	f=5.1 to 51 mm	f=5.1 to 51 mm
Image device	1/2.8-type Exmor CMOS sensor <i>Exmor</i>	1/2.8-type Exmor CMOS sensor <i>Exmor</i>	1/4-type Exmor CMOS sensor <i>Exmor</i>	1/4-type Exmor CMOS sensor <i>Exmor</i>	1/3-type HD CMOS sensor	1/3-type HD CMOS sensor
Minimum illumination	Color: 1.7 lx, B/W: 0.07 lx (F1.6, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.7 lx, B/W: 0.07 lx (F1.6, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.0lx, B/W:0.1lx (F1.35, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.0lx, B/W:0.1lx (F1.35, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 2.1 lx, B/W: 0.19 lx (XDNR ON, VE ON, Slow Shutter OFF, 50 IRE [IP])	Color: 1.9 lx, B/W: 0.17 lx (XDNR ON, VE ON, Slow Shutter OFF, 50 IRE [IP])
Maximum frame rate	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264/ MPEG-4/JPEG	30 fps H.264/ MPEG-4/JPEG	30 fps H.264/ MPEG-4/JPEG at 1280 x 720	30 fps H.264/ MPEG-4/JPEG at 1280 x 720
Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night
Wide-D	Yes/ DynaView	Yes/ DynaView	Yes/ DynaView	Yes/ DynaView	No	No
Visibility Enhancer (VE)	No	No	No	No	Yes	Yes
Noise reduction	Yes	Yes	Yes	Yes	XDNR	XDNR
Card slot(s)	SD card x1	SD card x1	SD card x1	SD card x1	CF card x1	CF card x1
Wireless capability	No	No	No	No	Yes (option) (*)	Yes (option) (*)
Composite video output	No	No	No	No	Yes	Yes
DEPA (Intelligence)						
Audio Capability	Yes, 2-way Audio (*)	Yes, 2-way Audio (*)	Yes, 2-way Audio (*)	Yes, 2-way Audio (*)	Yes	Yes
ONVIF software						
Rapid Dome or PTZ	Rapid Dome 	PTZ 	Rapid Dome 	PTZ 	Rapid Dome 	Rapid Dome 
Pan angle	360 degrees endless rotation	340 degrees	360 degrees endless rotation	340 degrees	360° endless	360° endless
Tilt angle	-105° to +105° (210° tilt)	-15° to +90°	-105° to +105° (210° tilt)	-15° to +90°	-105° to +105° (210° tilt)	-105° to +105° (210° tilt)
Quick Release mechanism	No	No	No	No	Quick Release	Quick Release
Power requirement	AC 24 V, HPoE (Class 4)	AC 24 V, HPoE (Class 4)	AC 24 V, HPoE (Class 4)	AC 24 V, HPoE (Class 4)	AC 24 V	AC 24 V, DC 12 V, HPoE (Class 4)
Power consumption	25 W max.	25 W max.	25 W max.	25 W max.	80 W max.	25 W max.
Dimensions	ø 5 7/8 x 7 5/8 inches (147.4 x 190.9 mm)	ø 5 7/8 x 7 5/8 inches (147.4 x 190.9 mm)	ø 5 7/8 x 7 5/8 inches (147.4 x 190.9 mm)	ø 5 7/8 x 7 5/8 inches (147.4 x 190.9 mm)	ø 9 3/8 x 13 5/8 inches (238 x 346 mm)	ø 6 1/8 x 9 inches (154 x 226 mm)

(*)1 Definition of HD: More than 720p with H.264 streaming capability of more than 30 fps.

(*)2 Requires SNCA-CFW5 wireless card, and an SNCA-CW5 wireless antenna cable kit.

(*)3 Requires SNCA-CFW5 wireless card.

(*)4 Cables are not included.

All cameras in this sheet comply with UL2044.

IP Rapid Dome and PTZ Cameras

P/T/Z: Pan/Tilt/Zoom

Model name	E Series		SNC-RS86N	SNC-RS84N	SNC-RS46N	SNC-RS44N	SNC-RX570N	SNC-RX550N	SNC-RX530N	SNC-RZ25N
	SNC-ER520	SNC-EP520								
										
Video compression format	H.264/MPEG-4/JPEG		H.264/MPEG-4/JPEG						MPEG-4/JPEG	
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format)						Dual streaming (MPEG-4 and JPEG combination only)			Single streaming (MPEG4/JPEG selectable)
Computer display format	SD	SD	SD	SD	SD	SD	SD	SD	SD	SD
Maximum resolution	720 x 480	720 x 480	704 x 480	704 x 480	704 x 480	704 x 480	704 x 480	704 x 480	704 x 480	640 x 480
Outdoor use/Ingress protection	No	No	Yes/IP66	Yes/IP66	No	No	No	No	No	No
Vandal resistant	No	No	IK10	IK10	No	No	No	No	No	No
Horizontal viewing angle	57.8° to 1.7°	57.8° to 1.7°	57.8° to 1.7°	48.0° to 2.8°	57.8° to 1.7°	48.0° to 2.8°	57.8° to 1.7°	54.2° to 2.2°	48.0° to 2.8°	48° to 2.7°
Zoom ratio	36x optical zoom	36x optical zoom	36x optical zoom	18x optical zoom	36x optical zoom	18x optical zoom	36x optical zoom	26x optical zoom	18x optical zoom	18x optical zoom
Focal length	f=3.4 to 122.4 mm	f=3.4 to 122.4 mm	f=3.4 to 122.4 mm	f=4.1 to 73.8 mm	f=3.4 to 122.4 mm	f=4.1 to 73.8 mm	f=3.4 to 122.4 mm	f=3.5 to 91 mm	f=4.1 to 73.8 mm	f=4.1 to 73.8 mm
Image device	1/4-type EXview HAD CCD	1/4-type EXview HAD CCD	1/4-type Exwave HAD CCD sensor	1/4-type Exwave HAD CCD sensor	1/4-type Exwave HAD CCD sensor	1/4-type Exwave HAD CCD sensor	1/4-type Exwave HAD CCD sensor	1/4-type Exwave HAD CCD sensor	1/4-type Exwave HAD CCD sensor	1/4-type Exwave HAD CCD sensor
Minimum illumination	Color: 1.4 lx, B/W: 0.15 lx (F1.6, shutter 1/60sec, AGC ON, 50 IRE [IP])	Color: 1.4 lx, B/W: 0.15 lx (F1.6, shutter 1/60sec, AGC ON, 50 IRE [IP])	Color: 0.8 lx, B/W: 0.09 lx (50 IRE, XDNR ON, VE ON, Slow Shutter OFF)	Color: 0.4 lx, B/W: 0.09 lx (50 IRE, XDNR ON, VE ON, Slow Shutter OFF)	Color: 0.7 lx, B/W: 0.08 lx (50 IRE, XDNR ON, VE ON, Slow Shutter OFF)	Color: 0.4 lx, B/W: 0.08 lx (XDNR ON /VE ON /Slow Shutter OFF /50 IRE [IP])	Color: 1.4 lx, B/W: 0.15 lx (50 IRE, F1.6, AGC ON)	Color: 1 lx, B/W: 0.15 lx (50 IRE, F1.6, AGC ON)	Color: 0.7 lx (50 IRE, F1.4, AGC ON), B/W: 0.15 lx (50 IRE, F1.4, AGC ON)	Color: 0.7 lx, B/W: 0.06 lx (50 IRE, F1.4, AGC ON)
Maximum frame rate	30 fps H.264/MPEG-4/JPEG	30 fps H.264/MPEG-4/JPEG	30 fps H.264/MPEG-4/JPEG at 720 x 480 resolution	30 fps H.264/MPEG-4/JPEG at 720 x 480 resolution	30 fps H.264/MPEG-4/JPEG at 720 x 480 resolution	30 fps H.264/MPEG-4/JPEG at 720 x 480 resolution	30 fps JPEG/MPEG-4 at 704 x 480 resolution; 10 fps H.264 at 704 x 480 resolution	30 fps JPEG/MPEG-4 at 704 x 480 resolution; 10 fps H.264 at 704 x 480 resolution	30 fps JPEG/MPEG-4 at 704 x 480 resolution; 10 fps H.264 at 704 x 480 resolution	18 fps JPEG or 15 fps MPEG-4 at VGA resolution; 30 fps JPEG or MPEG-4 at QVGA resolution
Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night
Wide-D	Yes/ DynaView	Yes/ DynaView	Yes/ DynaView	Yes/ DynaView	Yes/ DynaView	Yes/ DynaView	Yes/ DynaView	No	No	No
Visibility Enhancer (VE)	No	No	Yes	Yes	Yes	Yes	No	No	No	No
Noise reduction	Yes	Yes	XDNR	XDNR	XDNR	XDNR	No	Yes	Yes	No
Card slot(s)	SD card x1	SD card x1	CF card x1	CF card x1	CF card x1	CF card x1	PC card x1, Memory Stick® x1	PC card x1, Memory Stick x1	PC card x1, Memory Stick x1	CF card x1
Wireless capability	No	No	Yes (option) ^{(*)2}	Yes (option) ^{(*)2}	Yes (option) ^{(*)3}	Yes (option) ^{(*)3}	Yes (option) ^{(*)4}	Yes (option) ^{(*)4}	Yes (option) ^{(*)4}	Yes (option) ^{(*)5}
Composite video output	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
DEPA (Intelligence)										No
Audio Capability	Yes, 2-way Audio ^{(*)6}	Yes, 2-way Audio ^{(*)6}	Yes	Yes	Yes	Yes	No	No	No	Yes
ONVIF software							No	No	No	No
Rapid Dome or PTZ										
Pan angle	360° endless	340 degrees	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless	360° endless	-170° to +170°
Tilt angle	-105° to +105° (210° tilt)	-15° to +90°	-105° to +105° (210° tilt)	-105° to +105° (210° tilt)	-105° to +105° (210° tilt)	-105° to +105° (210° tilt)	0° to -90°	0° to -90°	0° to -90°	0° to +120°
Quick Release mechanism	No	No	Quick Release	Quick Release	Quick Release	Quick Release	No	No	No	No
Power requirement	AC 24 V, HPoE (Class 4)	AC 24 V, HPoE (Class 4)	AC 24 V	AC 24 V	AC 24 V, DC 12 V, HPoE (Class 4) ^{(*)1}	AC 24 V, DC 12 V, HPoE (Class 4) ^{(*)1}	AC 24 V, DC 12 V	AC 24 V, DC 12 V	AC 24 V, DC 12 V	AC 24 V, DC 12 V
Power consumption	25 W max.	25 W max.	78 W max.	78 W max.	23 W max.	23 W max.	25 W max.	25 W max.	25 W max.	17 W max.
Dimensions	ø 5 7/8 x 7 5/8 inches (147.4 x 190.9 mm)	ø 5 7/8 x 7 5/8 inches (147.4 x 190.9 mm)	ø 9 3/8 x 13 5/8 inches (238 x 344 mm)	ø 9 3/8 x 13 5/8 inches (238 x 344 mm)	ø 6 1/8 x 9 inches (154 x 226 mm)	ø 6 1/8 x 9 inches (154 x 226 mm)	6 3/8 x 6 3/8 x 9 1/8 inches (160 x 160 x 230 mm)	6 3/8 x 6 3/8 x 9 1/8 inches (160 x 160 x 230 mm)	6 3/8 x 6 3/8 x 9 1/8 inches (160 x 160 x 230 mm)	5 5/8 x 8 7/8 x 5 7/8 inches (140 x 200 x 148 mm)

Unitized Outdoor PTZ Cameras: ER/EP HPoE Series

	HPoE Series					
Model name	UNI-ONER580C7	UNI-ONER550C7	UNI-ONER520C7	UNI-ONEP580C7	UNI-ONEP550C7	UNI-ONEP520C7
						
	Outdoor unitized pendant mount - HPoE type, with heater/blower and lower clear dome.					
Rapid Dome or PTZ	Rapid Dome 			PTZ 		
Video compression format	H.264/MPEG-4/JPEG					
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format)					
Maximum resolution	1920 x 1080 	1280 x 720 	720 x 480 SD	1920 x 1080 	1280 x 720 	720 x 480 SD
Outdoor use/Ingress protection	YES, IP66	YES, IP66	YES, IP66	YES, IP66	YES, IP66	YES, IP66
Horizontal viewing angle	55.4° to 2.9°	55.9° to 2.1°	57.8° to 1.7°	55.4° to 2.9°	55.9° to 2.1°	57.8° to 1.7°
Zoom ratio	20X optical zoom	28X optical zoom	36X optical zoom	20X optical zoom	28X optical zoom	36X optical zoom
Focal length	f=4.7 to 94 mm	f=3.5 to 98 mm	f=3.4 to 122.4 mm	f=4.7 to 94 mm	f=3.5 to 98 mm	f=3.4 to 122.4 mm
Image device	1/2.8-type Exmor CMOS sensor Exmor.	1/4-type Exmor CMOS sensor Exmor.	1/4-type EXview HAD CCD	1/2.8-type Exmor CMOS sensor Exmor.	1/4-type Exmor CMOS sensor Exmor.	1/4-type EXview HAD CCD
Minimum illumination	Color: 1.7 lx, B/W: 0.3 lx (F1.6, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.0lx, B/W: 0.1lx (F1.35, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.4 lx, B/W: 0.15 lx (F1.6, shutter 1/60sec, AGC ON, 50 IRE [IP])	Color: 1.7 lx, B/W: 0.3 lx (F1.6, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.0lx, B/W: 0.1lx (F1.35, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.4 lx, B/W: 0.15 lx (F1.6, shutter 1/60sec, AGC ON, 50 IRE [IP])
Maximum frame rate	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264/MPEG-4/JPEG	30 fps H.264/MPEG-4/JPEG	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264/MPEG-4/JPEG	30 fps H.264/MPEG-4/JPEG
Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night
Wide-D	Yes/ DynaView 86dB	Yes/ DynaView 86dB	Yes/ DynaView 92dB	Yes/ DynaView 86dB	Yes/ DynaView 86dB	Yes/ DynaView 92dB
Visibility Enhancer (VE)	No	No	No	No	No	No
Noise reduction	Yes	Yes	Yes	Yes	Yes	Yes
Edge Storage	SD card slot x1	SD card slot x1	SD card slot x1	SD card slot x1	SD card slot x1	SD card slot x1
DEPA (Intelligence)						
Audio Capability	Yes, 2-way Audio ⁽⁺²⁾	Yes, 2-way Audio ⁽⁺²⁾	Yes, 2-way Audio ⁽⁺²⁾	Yes, 2-way Audio ⁽⁺²⁾	Yes, 2-way Audio ⁽⁺²⁾	Yes, 2-way Audio ⁽⁺²⁾
Alarm I/O	Yes, 2/1	Yes, 2/1	Yes, 2/1	Yes, 2/1	Yes, 2/1	Yes, 2/1
ONVIF Compliant						
Pan range	360 degrees endless rotation	360 degrees endless rotation	360 degrees endless rotation	340 degrees	340 degrees	340 degrees
Total tilt range	210° (15 degrees above horizon)	210° (15 degrees above horizon)	210° (15 degrees above horizon)	105° (15 degrees above horizon)	105° (15 degrees above horizon)	105° (15 degrees above horizon)
Power requirement	HPoE+ (60W) injector included	HPoE+ (60W) injector included	HPoE+ (60W) injector included	HPoE+ (60W) injector included	HPoE+ (60W) injector included	HPoE+ (60W) injector included
Power consumption	60 W max.	60 W max.	60 W max.	60 W max.	60 W max.	60 W max.
Dimensions	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L
Shipping Weight	15 lbs.	15 lbs.	15 lbs.	15 lbs.	15 lbs.	15 lbs.
Operating temperature	-20° to 122° F	-20° to 122° F	-20° to 122° F	-20° to 122° F	-20° to 122° F	-20° to 122° F

(*1) Definition of HD: More than 720p with H.264 streaming capability of more than 30 fps.

(*2) Cables are not included.

Unitized Outdoor PTZ Cameras: ER/EP AC24V Series

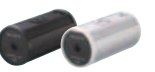
	AC24V Series					
Model name	UNI-ONER580C2	UNI-ONER550C2	UNI-ONER520C2	UNI-ONEP580C2	UNI-ONEP550C2	UNI-ONEP520C2
						
	Outdoor unitized pendant mount - AC24V operation, with heater/blower and lower clear dome.					
Rapid Dome or PTZ	Rapid Dome 			PTZ 		
Video compression format	H.264/MPEG-4/JPEG					
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format)					
Maximum resolution	1920 x 1080 	1280 x 720 	720 x 480 SD	1920 x 1080 	1280 x 720 	720 x 480 SD
Outdoor use/ Ingress protection	YES, IP66	YES, IP66	YES, IP66	YES, IP66	YES, IP66	YES, IP66
Horizontal viewing angle	55.4° to 2.9°	55.9° to 2.1°	57.8° to 1.7°	55.4° to 2.9°	55.9° to 2.1°	57.8° to 1.7°
Zoom ratio	20X optical zoom	28X optical zoom	36X optical zoom	20X optical zoom	28X optical zoom	36X optical zoom
Focal length	f=4.7 to 94 mm	f=3.5 to 98 mm	f=3.4 to 122.4 mm	f=4.7 to 94 mm	f=3.5 to 98 mm	f=3.4 to 122.4 mm
Image device	1/2.8-type Exmor CMOS sensor <i>Exmor.</i>	1/4-type Exmor CMOS sensor <i>Exmor.</i>	1/4-type EXview HAD CCD	1/2.8-type Exmor CMOS sensor <i>Exmor.</i>	1/4-type Exmor CMOS sensor <i>Exmor.</i>	1/4-type EXview HAD CCD
Minimum illumination	Color: 1.7 lx, B/W: 0.3 lx (F1.6, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.0lx, B/W: 0.1lx (F1.35, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.4 lx, B/W: 0.15 lx (F1.6, shutter 1/60sec, AGC ON, 50 IRE [IP])	Color: 1.7 lx, B/W: 0.3 lx (F1.6, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.0lx, B/W: 0.1lx (F1.35, shutter 1/30sec, AGC ON, 50IRE[IP])	Color: 1.4 lx, B/W: 0.15 lx (F1.6, shutter 1/60sec, AGC ON, 50 IRE [IP])
Maximum frame rate	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264/MPEG-4/JPEG	30 fps H.264/MPEG-4/JPEG	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264/MPEG-4/JPEG	30 fps H.264/MPEG-4/JPEG
Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Day/Night
Wide-D	Yes/ <i>DynaView</i> 86dB	Yes/ <i>DynaView</i> 86dB	Yes/ <i>DynaView</i> 92dB	Yes/ <i>DynaView</i> 86dB	Yes/ <i>DynaView</i> 86dB	Yes/ <i>DynaView</i> 92dB
Visibility Enhancer (VE)	No	No	No	No	No	No
Noise reduction	Yes	Yes	Yes	Yes	Yes	Yes
Edge Storage	SD card slot x1	SD card slot x1	SD card slot x1	SD card slot x1	SD card slot x1	SD card slot x1
DEPA (Intelligence)						
Audio Capability	Yes, 2-way Audio ^{(*)3}	Yes, 2-way Audio ^{(*)3}	Yes, 2-way Audio ^{(*)3}	Yes, 2-way Audio ^{(*)3}	Yes, 2-way Audio ^{(*)3}	Yes, 2-way Audio ^{(*)3}
Alarm I/O	Yes, 2/1	Yes, 2/1	Yes, 2/1	Yes, 2/1	Yes, 2/1	Yes, 2/1
ONVIF Compliant						
Pan range	360 degrees endless rotation	360 degrees endless rotation	360 degrees endless rotation	340 degrees	340 degrees	340 degrees
Total tilt range	210° (15 degrees above horizon)	210° (15 degrees above horizon)	210° (15 degrees above horizon)	105° (15 degrees above horizon)	105° (15 degrees above horizon)	105° (15 degrees above horizon)
Power requirement	AC 24 V ^{(*)2}	AC 24 V ^{(*)2}	AC 24 V ^{(*)2}	AC 24 V ^{(*)2}	AC 24 V ^{(*)2}	AC 24 V ^{(*)2}
Power consumption	52 W max.	52 W max.	52 W max.	52 W max.	52 W max.	52 W max.
Dimensions	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L	11.5"W x 21.5"H x 11.5L
Shipping Weight	13 lbs.	13 lbs.	13 lbs.	13 lbs.	13 lbs.	13 lbs.
Operating temperature	-20° to 122° F	-20° to 122° F	-20° to 122° F	-20° to 122° F	-20° to 122° F	-20° to 122° F

(*)1 Definition of HD: More than 720p with H.264 streaming capability of more than 30 fps.

(*)2 AC 24V power supply not included.

(*)3 Cables are not included.

IP Fixed Cameras

Model name	V Series		E Series		X Series	V Series		E Series		X Series
	SNC-CH280	SNC-CH240	SNC-CH260	SNC-CH220	SNC-CH210	SNC-CH180	SNC-CH140	SNC-CH160	SNC-CH120	SNC-CH110
										
Video compression format	H.264/MPEG-4/JPEG									
Codec streaming capability	Dual streaming (Any combination with H.264/MPEG-4/JPEG, including multiple streams of the same format)									
Computer display format										
Maximum resolution	1920 x 1440 (3 Mega)	1920 x 1440 (3 Mega)	1920 x 1440 (3 Mega)	1920 x 1440 (3 Mega)	2048 x 1536 (3 Mega)	1280 x 1024 (1.3 Mega)	1280 x 1024 (1.3 Mega)	1280 x 1024 (1.3 Mega)	1280 x 1024 (1.3 Mega)	1280 x 960 (1.3 Mega)
Outdoor use/Ingress protection	Yes/IP66	No	Yes/IP66	No	No	Yes/IP66	No	Yes/IP66	No	No
IR illuminators	IR	No	IR	No	No	IR	No	IR	No	No
Horizontal viewing angle	88.5° to 32.3°	101.2° to 47.0°	88.5° to 32.3°	101.2° to 47.0°	88°	85.4° to 31.2°	96.5° to 33.9°	85.4° to 31.2°	96.5° to 33.9°	80.7°
Zoom ratio	2.9x optical zoom	2.1x optical zoom	2.9x optical zoom	2.1x optical zoom	Fixed focal lens	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	2.9x optical zoom	Fixed focal lens
Focal length	f=3.1 to 8.9 mm	f=2.8 to 6 mm	f=3.1 to 8.9 mm	f=2.8 to 6 mm	f=3.3 mm	f=3.1 to 8.9 mm	f=2.8 to 8 mm	f=3.1 to 8.9 mm	f=2.8 to 8 mm	f=2.34
Lens mount	Built-in	CS mount	Built-in	CS mount	Built-in	Built-in	CS mount	Built-in	CS mount	Built-in
Image device	1/2.8-type progressive scan Exmor™ CMOS Sensor	1/2.8-type progressive scan Exmor™ CMOS Sensor	1/2.8-type progressive scan Exmor™ CMOS Sensor	1/2.8-type progressive scan Exmor™ CMOS Sensor	1/2.8-type progressive scan Exmor™ CMOS Sensor	1/3-type progressive scan Exmor™ CMOS Sensor	1/3-type progressive scan Exmor™ CMOS Sensor	1/3-type progressive scan Exmor™ CMOS Sensor	1/3-type progressive scan Exmor™ CMOS Sensor	1/3.8-type progressive scan CMOS sensor
Minimum illumination	Color: 0.4 lx, B/W: 0 lx (IR ON) (F1.2/View-DR™ OFF/XDNR ON-Middle/VE OFF/AGC High/50 IRE [IP])	Color: 0.4 lx, B/W: 0.25 lx (F1.3/View-DR OFF/XDNR ON-Middle/VE OFF/AGC High/50 IRE [IP])	Color: 0.7 lx, B/W: 0 lx (IR ON) (F1.2/AGC 42dB / 50IRE [IP])	Color: 0.7 lx, B/W: 0.45 lx (F1.3/AGC 42 dB/50 IRE [IP])	2.0 lx (AGC 38 dB/50 IRE [IP])	Color: 0.22 lx, B/W: 0 lx (IR ON) (F1.2/View-DR OFF/XDNR ON-Middle/VE OFF/AGC High/50 IRE [IP])	Color: 0.2 lx, B/W: 0.1 lx (F1.2/View-DR OFF/XDNR ON-Middle/VE OFF/AGC High/50 IRE [IP])	Color: 0.5 lx, B/W: 0 lx (IR ON) (F1.2/AGC 42 dB/50 IRE [IP])	Color: 0.5 lx, B/W: 0.3 lx (F1.2/AGC 42 dB/50 IRE [IP])	5.0 lx (AGC 30 dB/50 IRE [IP])
Maximum frame rate	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264 at 1920 x 1080; 20 fps MPEG-4 at 1920 x 1080; 16 fps JPEG at 1920 x 1080	30 fps H.264/MPEG-4/JPEG at 1280 x 720; 15 fps H.264/MPEG-4/JPEG at 1920 x 1080	30 fps H.264/JPEG/MPEG-4 at 1280 x 720	30 fps H.264/JPEG/MPEG-4 at 1280 x 720	30 fps H.264/JPEG/MPEG-4 at 1280 x 720	30 fps H.264/JPEG/MPEG-4 at 1280 x 720	30 fps H.264/MPEG-4/JPEG at 1280 x 960/1280 x 720
Day/Night	Day/Night	Day/Night	Day/Night	Day/Night	Electrical D/N	Day/Night	Day/Night	Day/Night	Day/Night	Electrical D/N
Wide-D	Yes/	Yes/	No	No	No	Yes/	Yes/	No	No	No
Visibility Enhancer (VE)	Yes 	Yes 	No	No	No	Yes 	Yes 	No	No	No
Noise reduction	XDNR™ technology	XDNR technology	Yes	Yes	Yes	XDNR technology	XDNR technology	Yes	Yes	Yes
Card slot(s)	CF card x1	CF card x1	No	CF card x1	No	CF card x1	CF card x1	No	No	No
Wireless capability	Yes (option)	Yes (option)	No	No	No	Yes (option)	Yes (option)	No	No	No
Composite video output	Yes	Yes	Yes, for setup	Yes, for setup	Yes, for setup	Yes	Yes	Yes, for setup	Yes, for setup	Yes, for setup
DEPA (Intelligence)										
Audio Capability	Yes	Yes	No	No	No	Yes	Yes	No	No	No
ONVIF software										
Power requirement	AC 24 V, DC 12 V, PoE (Class 0)	AC 24 V, DC 12 V, PoE (Class 0)	PoE (Class 0)	PoE (Class 2)	PoE (Class 1)	AC 24 V, DC 12 V, PoE (Class 0)	AC 24 V, DC 12 V, PoE (Class 0)	PoE (Class 0)	PoE (Class 2)	PoE (Class 1)
Power consumption	33 W max.	11.2 W max.	12.9 W max.	5 W max.	2.4 W max.	30 W max.	9 W max.	12.9 W max.	5 W max.	2.4 W max.
Dimensions	ø3 3/4 x 7 3/8 inches (93 x 186 mm)	ø3 3/4 x 2 1/2 x 7 7/8 inches (72 x 63 x 197.3 mm) with lens, not including projecting parts	ø3 3/4 x 7 3/8 inches (93 x 186 mm)	2 7/8 x 2 1/2 x 7 7/8 inches (72 x 63 x 197.3 mm) with lens, not including projecting parts	ø1 3/4 x 3 3/4 inches (44 x 93 mm)	ø3 3/4 x 7 3/8 inches (93 x 186 mm)	ø3 3/4 x 2 1/2 x 7 7/8 inches (72 x 63 x 197 mm) with lens, not including projecting parts	ø3 3/4 x 7 3/8 inches (93 x 186 mm)	2 7/8 x 2 1/2 x 7 7/8 inches (72 x 63 x 197 mm) with lens, not including projecting parts	ø1 3/4 x 3 3/4 inches (44 x 93 mm)

(*) Definition of HD: More than 720p with H.264 streaming capability at more than 30 fps.

IP Fixed Cameras

Model name	SNC-EB520
	
Video compression format	H.264/MPEG-4/JPEG
Codec streaming capability	Dual streaming (Any combination with H.264/ MPEG-4/JPEG including multiple streams of the same format)
Computer display format	SD
Maximum resolution	800 x 600
Outdoor use/ Ingress protection	No
IR illuminators	No
Horizontal viewing angle	89.2 ° to 34.6 °
Zoom ratio	2.6x optical zoom
Focal length	f=3.0 to 8 mm
Lens mount	CS mount lens
Image device	1/3-type progressive scan Exmor CMOS sensor Exmor
Minimum illumination	Color: 0.47 lx, B/W: 0.27 lx (F1.0/AGC ON /50IRE [IP])
Maximum frame rate	30 fps
Day/Night	Day/Night
Wide-D	No
Visibility Enhancer (VE)	No
Noise reduction	Yes
Card slot(s)	No
Wireless capability	No
Composite video output	Yes, for setup
DEPA (Intelligence)	
Audio Capability	No
ONVIF software	
Power requirement	PoE (Class 2)
Power consumption	5 W max.
Dimensions	2 7/8 x 2 1/2 x 7 7/8 inches (72 x 63 x 187.8 mm) with lens, not including projecting parts

All cameras in this sheet comply with UL2044.

Security Monitors and Accessory

Model name	SSM-L24F1	SSM-L22F1
LCD Panel		
Type	α-Si TFT TN-type LCD LED backlight	α-Si TFT TN-type LCD LED backlight
Panel Size (Diagonal)	24.0-inch	21.5-inch
Picture Size (H x V)	21 inches x 11 7/8 inches (531.4 mm x 298.9 mm)	18 7/8 inches x 10 5/8 inches (476.6 mm x 268.1 mm)
Panel Resolution (H x V)	1920 x 1080 pixels, Full HD	1920 x 1080 pixels, Full HD
Pixel Pitch	0.28 mm x 0.28 mm	0.25 mm x 0.25 mm
Color Depth	16.7 million colors	16.7 million colors
Brightness	250 cd/m ² (typical)	250 cd/m ² (typical)
Viewing Angle	170° (H)/160° (V) (typical)	170° (H)/160° (V) (typical)
Signal		
Color System	NTSC, PAL	NTSC, PAL
Sampling Rate	25.2 MHz to 148.5 MHz	25.2 MHz to 148.5 MHz
Input/Output		
Digital Video	HDMI (1080p) input x1 with audio input DVI (Rev.1.0 compliant) input	HDMI (1080p) input x1 with audio input DVI (Rev.1.0 compliant) input
Analog Video	HD15 input (RGB/Component video input) S-Video input Composite video input (BNC x1)	HD15 input (RGB/Component video input) S-Video input Composite video input (BNC x1)
Remote Control	RS-232C (for factory service use only)	RS-232C (for factory service use only)
Speaker Output	L/R, 3 W + 3 W (built-in)	L/R, 3 W + 3 W (built-in)
General		
Power Requirements	AC adaptor, 100 V to 240 V, 50/60 Hz	AC adaptor, 100 V to 240V (50/60 Hz)
Power Consumption	34 W (typical)	32 W (typical)
Operating Temperature	41°F to 104°F (5°C to 40°C)	41°F to 104°F (5°C to 40°C)
Storage Temperature	-4°F to +140°F (-20°C to +60°C)	-4°F to +140°F (-20°C to +60°C)
Humidity	10% to 80%, no condensation	10% to 80%, no condensation
Dimensions (W x H x D)	22 1/2 inches x 14 inches x 1 3/4 inches (569.5 mm x 353 mm x 44 mm)(excluding protrusions)	20 3/8 inches x 12 3/8 inches x 2 1/2 inches (516.5 mm x 312.1 mm x 60.5 mm) (excluding protrusions)
Weight	9 lb (4.11 kg)	7 lb 7 oz (3.36 kg)
Regulation Compliance	UL/cUL: UL60950-1, CSA C22.2 No. 60950-1, FCC: Class A, IC: Class A, CB: IEC60950-1, CE: EN55022 Class A, VCCI: Class A, C-Tick: EN55022 Class A, GOST-R	UL/cUL: UL60950-1, CSA C22.2 No. 60950-1, FCC: Class A, IC: Class A, CB: IEC60950-1, CE: EN55022 Class A, VCCI: Class A, C-Tick: EN55022 Class A, GOST-R
Other Features	ISM (Image Sticking Minimization)	ISM (Image Sticking Minimization)
Supplied Accessories	AC adapter (1) VGA cable (1) Logo plates (black, gray) (1 each) Cable clamp (1) Operation Manual (1)	AC adapter (1) VGA cable (1) Cable clamp (1) Operation Manual (1)

OPTIONAL ACCESSORY



SSMA-SU10 Monitor Stand

Note on LCD burn-in

LCD panels are susceptible to burn-in. When a non-moving image is displayed in the same position for prolonged periods or at constant intervals, the image may become permanently burned into the screen.



SSM-L24F1



SSM-L22F1

Analog Fixed Cameras

Model name	SSC-CB574R	SSC-CB564R	SSC-FB560	SSC-FB530	SSC-G213A	SSC-G113A	SSC-G203A	SSC-G103A
								
			Lenses are not included	Lenses are not included	Lenses are not included	Lenses are not included	Lenses are not included	Lenses are not included
Image device	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-type "Super HAD CCD II" Super HAD CCD II	1/3-Type "Super HAD CCD II" Super HAD CCD II	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-type "Super HAD CCD II" Super HAD CCD II	1/3-type "Super HAD CCD II" Super HAD CCD II
Number of effective pixels (H x V)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	380,000 pixels (768 x 494)	380,000 pixels (768 x 494)
Signal system	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard
Horizontal resolution	700 TV lines (sharp mode) 650 TV lines (normal mode)	700 TV lines (sharp mode) 650 TV lines (normal mode)	700 TV lines (sharp mode) 650 TV lines (normal mode)	700 TV lines (sharp mode) 650 TV lines (normal mode)	650 TV lines	650 TV lines	540 TV lines	540 TV lines
Ingress protection	IP66	IP66	No	No	No	No	No	No
IR illuminators	Yes (98 feet (30 m))	Yes (98 feet (30 m))	No	No	No	No	No	No
Minimum illumination	Color: 0.09 lx, B/W: 0 lx (F1.2, 50 IRE) Color: 0.05 lx, B/W: 0 lx (F1.2, 30 IRE)	Color: 0.06 lx, B/W: 0 lx (F1.2, 50 IRE) Color: 0.04 lx, B/W: 0 lx (F1.2, 30 IRE)	Color: 0.08 lx, B/W: 0.01 lx (F1.2/AGC ON/50 IRE) Color: 0.05 lx, B/W: 0.006 lx (F1.2/AGC ON/30 IRE)	Color: 0.08 lx, B/W: 0.05 lx (F1.2/AGC ON/50 IRE) Color: 0.05 lx, B/W: 0.03 lx (F1.2/AGC ON/30 IRE)	Color: 0.15 lx, B/W: 0.01 lx (F1.2, AGC ON/50 IRE) Color: 0.08 lx, B/W: 0.003 lx (F1.2, AGC ON/30 IRE)	Color: 0.15 lx, B/W: 0.1 lx (F1.2, 50 IRE); Color: 0.08 lx, B/W: 0.03 lx (F1.2, 30IRE)	Color: 0.15 lx, B/W: 0.01 lx (F1.2, AGC ON/50 IRE) Color: 0.08 lx, B/W: 0.003 lx (F1.2, AGC ON/30 IRE)	Color: 0.15 lx, B/W: 0.1 lx (F1.2, 50 IRE); Color: 0.08 lx, B/W: 0.03 lx (F1.2, 30 IRE)
Day/Night	Yes (True D/N)	Yes (True D/N)	Yes (True D/N)	Yes (Electrical D/N)	Yes (True D/N)	Yes (Electrical D/N)	Yes (True D/N)	Yes (Electrical D/N)
Wide-D	No	No	Yes, DynaViewSX	Yes, DynaViewSX	No	No	No	No
Synchronization	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable
Lens type	Built-in vari-focal lens	Built-in vari-focal lens	CS mount lens	CS mount lens	CS mount lens	CS mount lens	CS mount lens	CS mount lens
Zoom ratio	Optical 2.4x	Optical 3.7x	-	-	-	-	-	-
Horizontal viewing angle	32.1 ° to 13.1 °	101.8 ° to 27.4 °	-	-	-	-	-	-
Focal length	f=9 to 22 mm	f=2.8 to 10.5 mm	-	-	-	-	-	-
Power requirement	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10 %, DC 12 V ±10 %	AC 24 V ±10 %, DC 12 V ±10 %	AC 24 V ±10 %, DC 12 V ±10 %	AC 24 V ±10 %, DC 12 V ±10 %
Operating temperature	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)
Dimensions	ø 3 1/8 x 4 3/8 inches (ø 77 x 110 mm)	ø 3 1/8 x 4 3/8 inches (ø 77 x 110 mm)	2 1/2 x 2 1/4 x 3 1/2 inches (63 x 57 x 88 mm) without lens, not including projecting parts	2 1/2 x 2 1/4 x 3 1/2 inches (63 x 57 x 88 mm) without lens, not including projecting parts	4 3/4 x 2 1/2 x 2 3/8 inches (117.6 x 63.2 x 57.2 mm) without lens, not including projecting parts	4 3/4 x 2 1/2 x 2 3/8 inches (117.6 x 63.2 x 57.2 mm) without lens, not including projecting parts	4 3/4 x 2 1/2 x 2 3/8 inches (117.6 x 63.2 x 57.2 mm) without lens, not including projecting parts	4 3/4 x 2 1/2 x 2 3/8 inches (117.6 x 63.2 x 57.2 mm) without lens, not including projecting parts

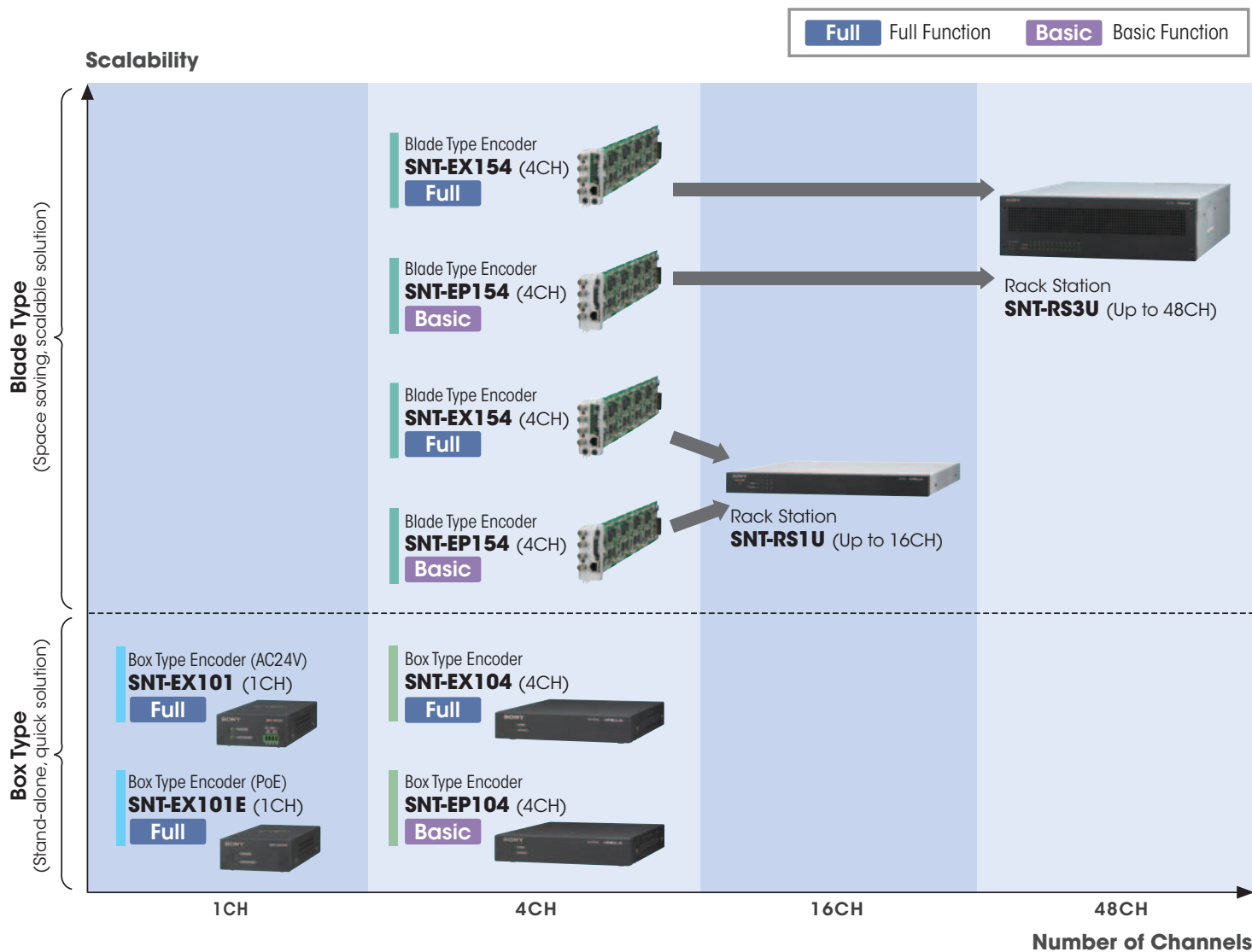
Analog Mini Dome Cameras

Model name	SSC-CM564R	SSC-CM560R	SSC-CM460R	SSC-YM510R	SSC-YM500R	SSC-YM410R	SSC-YM400R	SSC-FM560	SSC-FM530	SSC-N24A	SSC-N21A
											
Image device	1/3-type "EXview HAD CCD II" EXview HAD CCD II.	1/3-type "EXview HAD CCD II" EXview HAD CCD II.	1/3-type "Super HAD CCD II" Super HAD CCD II.	1/3-type "EXview HAD CCD II" EXview HAD CCD II.	1/3-type "EXview HAD CCD II" EXview HAD CCD II.	1/3-type "Super HAD CCD II" Super HAD CCD II.	1/3-type "Super HAD CCD II" Super HAD CCD II.	1/3-type "Super HAD CCD II" Super HAD CCD II.	1/3-type "Super HAD CCD II" Super HAD CCD II.	1/3-type "EXview HAD CCD II" EXview HAD CCD II.	1/3-type "EXview HAD CCD II" EXview HAD CCD II.
Number of effective pixels (H x V)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	380,000 pixels (768 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	380,000 pixels (768 x 494)	380,000 pixels (768 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)
Signal system	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard
Horizontal resolution	700 TV lines (sharp mode) 650 TV lines (normal mode)	700 TV lines (sharp mode) 650 TV lines (normal mode)	540 TV lines	650 TV lines	650 TV lines	540 TV lines	540 TV lines	700 TV lines (sharp mode) 650 TV lines (normal mode)	700 TV lines (sharp mode) 650 TV lines (normal mode)	650 TV lines	650 TV lines
Ingress protection	IP66, Vandal Resistant	No	No	No	No	No	No	No	No	No	No
IR illuminators	Yes (98 feet (30 m))	Yes (52 feet (16 m))	Yes (52 feet (16 m))	Yes (33 feet (10 m))	Yes (33 feet (10 m))	Yes (16 feet (5m))	Yes (16 feet (5m))	No	No	No	No
Minimum illumination	Color: 0.06 lx, B/W: 0 lx (F1.2, 50 IRE) Color: 0.04 lx, B/W: 0 lx (F1.2, 30 IRE)	Color: 0.06 lx, B/W: 0 lx (F1.2, 50 IRE) Color: 0.04 lx, B/W: 0 lx (F1.2, 30 IRE)	Color: 0.06 lx, B/W: 0 lx (F1.2, 50 IRE) Color: 0.04 lx, B/W: 0 lx (F1.2, 30 IRE)	Color: TBD, B/W: 0 lx (F1.8, 50 IRE) Color: TBD, B/W: 0 lx (F1.8, 30 IRE)	Color: TBD, B/W: 0 lx (F2.0, 50 IRE) Color: TBD, B/W: 0 lx (F2.0, 30 IRE)	Color: TBD, B/W: 0 lx (F1.8, 50 IRE) Color: TBD, B/W: 0 lx (F1.8, 30 IRE)	Color: TBD, B/W: 0 lx (F2.0, 50 IRE) Color: TBD, B/W: 0 lx (F2.0, 30 IRE)	Color: 0.1 lx, B/W: 0.01 lx (F1.2, 50 IRE); Color: 0.06 lx, B/W: 0.006 lx (F1.2, 30 IRE)	Color: 0.1 lx, B/W: 0.07 lx (F1.2, 50 IRE); Color: 0.06 lx, B/W: 0.05 lx (F1.2, 30 IRE)	Color: 0.15 lx, B/W: 0.01 lx (F1.2, 50 IRE); Color: 0.08 lx, B/W: 0.003 lx (F1.2, 30 IRE)	Color: 0.15 lx, B/W: 0.1 lx (F1.2, 50 IRE); Color: 0.08 lx, B/W: 0.03 lx (F1.2, 30 IRE)
Day/Night	Yes (True D/N)	Yes (True D/N)	Yes (True D/N)	Yes (True D/N)	Yes (True D/N)	Yes (Electrical D/N with Dual Pass Filter)	Yes (Electrical D/N with Dual Pass Filter)	Yes (True D/N)	Yes (Electrical D/N)	Yes (True D/N)	Yes (Electrical D/N)
Wide-D	No	No	No	No	No	No	No	Yes, DynaViewSX	Yes, DynaViewSX	No	No
Synchronization	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal lock	Internal lock	Internal lock	Internal lock	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable	Internal/AC line lock selectable
Lens type	Built-in vari-focal lens	Built-in vari-focal lens	Built-in vari-focal lens	Mono-focal lens	Mono-focal lens	Mono-focal lens	Built-in vari-focal lens	Built-in vari-focal lens	Built-in vari-focal lens	Built-in vari-focal lens	Built-in vari-focal lens
Zoom ratio	Optical 3.7x	Optical 3.7x	Optical 3.7x	Fixed	Fixed	Fixed	Fixed	Optical 3.7x	Optical 3.7x	Optical 3.7x	Optical 3.7x
Horizontal viewing angle	101.8° to 27.4°	101.8° to 27.4°	101.8° to 27.4°	46.5°	96.3°	46.5°	96.3°	101.8° to 27.4°	99.5° to 27.4°	101.8° to 27.4°	99.5° to 27.4°
Focal length	f=2.8 to 10.5 mm	f=2.8 to 10.5 mm	f=2.8 to 10.5 mm	f=6.0 mm	f=3.1 mm	f=6.0 mm	f=3.1 mm	f=2.8 to 10.5 mm	f=2.8 to 10.5 mm	f=2.8 to 10.5 mm	f=2.8 to 10.5 mm
Pan angle	355°	355°	355°	355°	355°	355°	355°	355°	355°	355°	355°
Tilt angle	±77°	±66°	±66°	±66°	±66°	±66°	±66°	±77°	±77°	±77°	±77°
Swivel range	350°	350°	350°	350°	350°	350°	350°	350°	350°	350°	350°
Power requirement	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	DC 12 V ±10%	DC 12 V ±10%	DC 12 V ±10%	DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%	AC 24 V ±10%, DC 12 V ±10%
Operating temperature	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)
Dimensions	ø5 1/2 x 4 1/8 inches (139.4 x 103 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)	ø4 7/8 x 3 1/2 inches (ø121.6 x 86.5 mm)

Analog Mini Dome Cameras

Model name	SSC-N14A	SSC-N13A	SSC-N22A	SSC-N20A	SSC-N12A	SSC-N11A
						
Image device	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-type "EXview HAD CCD II" EXview HAD CCD II	1/3-Type "Super HAD CCD II" Super HAD CCD II	1/3-Type "Super HAD CCD II" Super HAD CCD II
Number of effective pixels (H x V)	480,000 pixels (976 x 494)	480,000 pixels (976 x 494)	380,000 pixels (768 x 494)	380,000 pixels (768 x 494)	380,000 pixels (768 x 494)	380,000 pixels (768 x 494)
Signal system	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard	NTSC standard
Horizontal resolution	650 TV lines	650 TV lines	540 TV lines	540 TV lines	540 TV lines	540 TV lines
Ingress protection	No	No	No	No	No	No
IR illuminators	No	No	No	No	No	No
Minimum illumination	Color: 0.3 lx, B/W: 0.2 lx (F2.0, 50 IRE); Color: 0.18 lx, B/W: 0.07 lx (F2.0, 30 IRE)	Color: 0.4 lx, B/W: 0.25 lx (F2.0, 50 IRE); Color: 0.2 lx, B/W: 0.08 lx (F2.0, 30 IRE)	Color: 0.15 lx, B/W: 0.01 lx (F1.2, 50 IRE); Color: 0.08 lx, B/W: 0.003 lx (F1.2, 30 IRE)	Color: 0.15 lx, B/W: 0.1 lx (F1.2, 50 IRE); Color: 0.08 lx, B/W: 0.03 lx (F1.2, 30 IRE)	Color: 0.3 lx, B/W: 0.2 lx (F2.0, 50 IRE); Color: 0.18 lx, B/W: 0.07 lx (F2.0, 30 IRE)	Color: 0.55 lx, B/W: 0.3 lx (F2.0, 50 IRE); Color: 0.35 lx, B/W: 0.2 lx (F2.0, 30 IRE)
Day/Night	Yes (Electrical D/N)	Yes (Electrical D/N)	Yes (True D/N)	Yes (Electrical D/N)	Yes (Electrical D/N)	Yes (Electrical D/N)
Synchronization	Internal lock	Internal lock	Internal/ AC line lock selectable	Internal/ AC line lock selectable	Internal lock	Internal lock
Lens type	Mono-focal lens	Mono-focal lens	Built-in vari-focal lens	Built-in vari-focal lens	Mono-focal lens	Mono-focal lens
Zoom ratio	Fixed	Fixed	Optical 3.7x	Optical 3.7x	Fixed	Fixed
Horizontal viewing angle	46°	95.9°	101.8° to 27.4°	99.5° to 27.4°	46°	95.9°
Focal length	f=6.0 mm	f=3.0 mm	f=2.8 to 10.5 mm	f=2.8 to 10.5 mm	f=6.0 mm	f=3.0 mm
Panning range	340°	340°	355°	355°	340°	340°
Tilting range	±75°	±45.3°	±77°	±77°	±75°	±45.3°
Swivel range	340°	340°	350°	350°	340°	340°
Power requirement	DC12 V ±10%	DC12 V ±10%	AC24 V ±10%, DC12 V ±10%	AC24 V ±10%, DC12 V ±10%	DC12 V ±10%	DC12 V ±10%
Operating temperature	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)	14 °F to 122 °F (-10 °C to +50 °C)
Dimensions	ø 3 3/8 x 2 1/2 inches (ø 85.2 x 63.5 mm)	ø 3 3/8 x 2 1/8 inches (ø 84 x 53 mm)	ø 4 7/8 x 3 1/2 inches (ø 121.6 x 86.5 mm)	ø 4 7/8 x 3 1/2 inches (ø 121.6 x 86.5 mm)	ø 3 3/8 x 2 1/2 inches (ø 85.2 x 63.5 mm)	ø 3 3/8 x 2 1/8 inches (ø 84 x 53 mm)

Surveillance Video Encoders



Rack Station



SNT-RS1U

Accepts up to 4 blade encoders
(up to 16 ch)
Universal power capability
AC 100V - AC240V, 50/60 Hz
Anixter Part # 400845



SNT-RS3U

Accepts up to 12 blade encoders
(up to 48 ch)
Universal power capability
AC 100V - AC240V, 50/60 Hz
Anixter Part # 400846

Optional Accessory



SNTA-RP1

Redundant Power Supply Unit
(for SNT-RS3U only)
Anixter Part # 411477

Surveillance Video Encoders

Model name	Full Function				Basic Function	
	1CH Box		4CH Box	4CH Blade	4CH Box	4CH Blade
	SNT-EX101	SNT-EX101E	SNT-EX104	SNT-EX154	SNT-EP104	SNT-EP154
						
Codec image size (HxV)	D1 (NTSC: 720 x 480), VGA (640 x 480), CIF (384 x 288), QVGA (320 x 240)	D1 (NTSC: 720 x 480), VGA (640 x 480), CIF (384 x 288), QVGA (320 x 240)	D1 (NTSC: 720 x 480), VGA (640 x 480), CIF (384 x 288), QVGA (320 x 240)	D1 (NTSC: 720 x 480), VGA (640 x 480), CIF (384 x 288), QVGA (320 x 240)	D1 (NTSC: 720 x 480), VGA (640 x 480), CIF (384 x 288), QVGA (320 x 240)	D1 (NTSC: 720 x 480), VGA (640 x 480), CIF (384 x 288), QVGA (320 x 240)
Video compression format	H.264, MPEG-4, JPEG	H.264, MPEG-4, JPEG	H.264, MPEG-4, JPEG	H.264, MPEG-4, JPEG	H.264, MPEG-4, JPEG	H.264, MPEG-4, JPEG
Codec streaming capability	Dual streaming (Any combination with JPEG/MPEG-4/H.264, including multiple streams of the same format)	Dual streaming (Any combination with JPEG/MPEG-4/H.264, including multiple streams of the same format)	Dual streaming (Any combination with JPEG/MPEG-4/H.264, including multiple streams of the same format)	Dual streaming (Any combination with JPEG/MPEG-4/H.264, including multiple streams of the same format)	Dual streaming (Any combination with JPEG/MPEG-4/H.264, including multiple streams of the same format)	Dual streaming (Any combination with JPEG/MPEG-4/H.264, including multiple streams of the same format)
Maximum frame rate	H.264/MPEG-4/JPEG: 30fps (NTSC: 720 x 480)	H.264/MPEG-4/JPEG: 30fps (NTSC: 720 x 480)	H.264/MPEG-4/JPEG: 30fps (NTSC: 720 x 480)	H.264/MPEG-4/JPEG: 30fps (NTSC: 720 x 480)	H.264/MPEG-4/JPEG: 30fps (NTSC: 720 x 480)	H.264/MPEG-4/JPEG: 30fps (NTSC: 720 x 480)
PTZ control	Yes	Yes	Yes	Yes	No	No
Visibility Enhancer	Yes	Yes	Yes	Yes	Yes	Yes
Noise reduction	XDNR	XDNR	XDNR	XDNR	XDNR	XDNR
Coaxitron® control	Yes	Yes	Yes	Yes	No	No
Serial interface	RS-422/RS-485	RS-422/RS-485	RS-485	RS-485	-	-
USB memory slots	x 1 *1	x 1 *1	x 4 *1	-	-	-
Sensor input	x 2	x 2	x 4	x 4	-	-
Alarm output	x 2	x 2	x 4	x 4	-	-
Audio interface (IN/OUT)	IN x 1, OUT x 1	IN x 1, OUT x 1	IN x 4, OUT x 4	IN x 1, OUT x 1	-	-
Audio support	Yes - Full Duplex	Yes - Full Duplex	Yes - Full Duplex	Yes - Full Duplex	No	No
DEPA Advanced (Intelligence)					No	No
Dimensions (W x H x D)	2 7/8 x 1 3/8 x 6 1/8 inches (73 x 34 x 155 mm)	2 7/8 x 1 3/8 x 6 1/8 inches (73 x 34 x 155 mm)	8 3/8 x 1 3/4 x 9 7/8 inches (210 x 44 x 250 mm)	3 1/8 x 1 3/8 x 15 1/8 inches (78 x 34 x 382 mm)	8 3/8 x 1 3/4 x 9 7/8 inches (210 x 44 x 250 mm)	3 1/8 x 1 3/8 x 15 1/8 inches (78 x 34 x 382 mm)
Power requirements	AC 24V in, with loop through output Input: AC 24V, +/- 20%	PoE (Class 2)	DC12 V	From Rack Station	DC12 V	From Rack Station

*1 USB slots are inside the chassis, not on the front or rear panels.

These products include software developed by the OpenSSL Project for use in the OpenSSL Toolkit. (<http://www.openssl.org/>)

Network Surveillance Recording Servers

NSR-500	
	
Video/Recording	
Number of cameras supported	Max. 16 (Max. 24ch w/NSBK-CLO5) (IP/Analog total)
Number of analog cameras	16, using optional (NSBK-EB05)
Video compression (IP camera)	H.264 / MPEG-4 / JPEG
Video compression (Analog camera)	Option (NSBK-EB05) H.264/JPEG
Recording frame rate	480fps (at H.264, Full-HD, 4Mbps)
Hard disk drives (Physical capacity)	Up to 12TB (2TB x 6)
Hard disk drives (RAID level)	RAID 0, 1, 10 (1+0), 5, 5+hot spare
Optical disc drive	No
Expansion storage	iSCSI storage (max. 16TB)
Video Output	
Monitor OUT 1	Analog RGB (D-sub 15-pin) x 1
Monitor OUT 2	No
Audio Output	
Audio OUT	Stereo mini jack x 1
Sensor Input/Alarm Output	
Sensor input	Compatible with DC3.3V to 24V, photo coupler input x 8 (insulated from main unit)
Alarm output	Max. DC 24V/ 1A, mechanical relay output x 8 (insulated from main unit)
Other Interfaces	
Ethernet	1000BASE-T/100BASE-TX/10BASE-T x 2
USB	USB2.0 x 2 (Front), USB2.0 x 2 (Rear)
Serial interface (for UPS)	RS-232C : D-sub 9-pin x 1
Serial interface (for analog camera control)	RS-232C : D-sub 9pin x 1, RS-422/485 x 1 (when installing NSBK-EB05) *2
General	
Dimensions (W x H x D)	17 3/8 x 3 1/2 x 15 1/2 inches (440 x 89 x 392mm) * excluding protrusions
Weight	Approx. 20 lb 12 oz (9.4kg) (Without HDD model)
Power requirements	100V to 127V AC / 200V to 240V (50/60Hz)
Power consumption	max. 250W (100-240V 3.5-1.5A)
Operating temperature	41 to 104°F (5 to 40°C)
Operation humidity	20 to 80% (no condensing)
Optional accessories	NSBK-EB05, NSBK-CLO5, NSBK-HS05:01, NSBK-HS05:02, RM-NS1000

*1: More than one connector cannot be used at a time.

*2: VISCA and Pelco-D are supported. and recorded. So display out is used for making settings.

NSBK-EB05		
Video/Audio		
Number of analog input		Video input (x16)/Audio input (x4)*3
Input video format		NTSC/PAL
Video codec		H.264/JPEG
Motion detection		Yes
Noise reduction		Yes
Video resolution		NTSC: 720 x 480, 720 x 240, 704 x 480, 704 x 240, 352 x 240 PAL: 720 x 576, 720 x 288, 704 x 576, 704 x 288, 352 x 288
Maximum frame rate		NTSC: 30 fps/camera (total 480 fps) PAL: 25 fps/camera (total 400 fps)
Video quality		Bitrate: 64 Kbps to 2 Mbps (H.264) Quality: Low, Medium, High, Highest (JPEG)*4
Audio codec		G.711, 64 Kbps
Interface		
Input connector (by supplied cable)	Video input connector (cable)	BNC (x16) (black)
	Audio input connector (cable)	RCA (x4) (white)
General		
Operating temperature		41 to 104 °F (5 to 40 °C)
Operating humidity		20 to 80%
Dimensions (Board)		Approx. 7 5/8 x 2 3/4 inches (192 x 69 mm) (exclusive projections)
Weight	Board	Approx. 3.5 oz (100 g)
	Cable	Approx. 8.5 oz (240 g)
Supplied accessories		Analog video/audio input cable (1), Installation manual (1), Warranty booklet (1)

*3: The audio channels from No. 1 to No. 4 are allotted the video channels 1 to 4 respectively.

*4: When using a JPEG format, the total frame rate for the system is decreased to 240 fps in High quality mode and 160 fps in Highest quality mode.

NSBK-DH05	
Video/Audio	
Maximum Decoding Resolution	Up to 1,920 x 1,080
Video Decoding Format *5	H.264/MPEG-4
Monitor Output (Display Resolution)	1,920 x 1,200 (not supported by HDMI)/1,920 x 1,080/1,360 x 768/ 1,600 x 1,200/1,280 x 1,024/1,024 x 768
Display Frame Rate	Max. 60 fps (30 fps x 2 channels) at 1,920 x 1,080 at 4 Mbps Max. 60 fps (15 fps x 4 channels) at 1,920 x 1,080 at 4 Mbps Max. 120 fps (30 fps x 4 channels) at 1,280 x 720 at 2 Mbps Max. 135 fps (15 fps x 9 channels) at 1,280 x 720 at 2 Mbps Max. 270 fps (30 fps x 9 channels) at 720 x 480/576 at 1 Mbps Max. 240 fps (15 fps x 16 channels) at 720 x 480/576 at 1 Mbps
Interface	
Monitor Output *6	HDMI (x1), analog RGB (D-sub 15-pin) (x1)
Audio Output	1 channel (HDMI) *7
General	
Operating Temperature	41°F to 104°F (5°C to 40°C)
	20% to 80%
Dimensions (Board)	6 3/4 inches x 3 1/4 inches x 1 1/8 inches (170 mm x 80 mm x 27 mm) (exclusive projections)
	5 oz (130 g)
Supplied accessories	
Analog RGB cable (for internal wiring) (1), Connector cover (1), Installation manual (1), Warranty booklet (1)	

*5: Sony's HVO-1000MD HD Video Recorder is not supported.

*6: Either the HDMI or analog RGB interface can be used.

*7: When using the HDMI interface, the alarm sound (beep tone) may not be properly produced (this depends on the monitor connected).
If so, please use the NSR-500's audio line output.

Intelligent Monitoring Software

RealShot™ Manager Advanced and RealShot Manager Lite



	IMZ-NS101	IMZ-NS104	IMZ-NS109	IMZ-NS116	IMZ-NS132	RSM Lite (Free Software)
	RSM Advanced with 1 camera license	RSM Advanced with 4 camera licenses	RSM Advanced with 9 camera licenses	RSM Advanced with 16 camera licenses	RSM Advanced with 32 camera licenses	RSM Lite with 9 camera licenses
Specifications						
Video compression	H.264/MPEG-4/JPEG					
Audio compression	G.711/G.726					
Number of clients to be connected (Recommendation) *1	10					3
Number of cameras to be supported	1 *2	4 *2	9 *2	16 *2	32	9
Number of audio to be supported	1	4	9	16	32	9-Sony cameras only
System Requirements						
Operating system	Windows 7 Professional, Windows 7 Enterprise, Windows Vista® Business SP2 (32 bit), Windows Vista® Enterprise SP2 (32 bit), Windows® XP Professional SP3 (32 bit), Windows® Server 2003 Standard Edition SP2(32bit), Windows® Server 2008 Standard Edition SP2 (32 bit), Windows Server 2008 R2 Standard					
CPU	Intel Core™ 2Duo 2.0-GHz or higher					
Main memory	1 GB or more (2 GB Recommended)					
HDD	2 GB spare capacity					
Video card	1024 x 768, 16/24 bit color					
Network interface card (NIC)	100BASE-TX or higher					
Display (Resolution)	1024 x 768 or higher					
Optional accessories	RM-NS1000 (System Controller)					

*1: The figures in the table are recommended numbers of clients to assure high performance. It is technically possible to connect more clients to a server, but such increase may deteriorate the overall performance.

*2: It is possible to operate with combining multiple licenses.

Glossary and Warranty Info

IP66

The "IP" of IP66 stands for Ingress Protection, and its two-digit number shows the durability rating of equipment for outdoor use. The first digit of IP66 relates to the ingress protection against dust, and "6" means "dust tight". The second digit of IP66 relates to the ingress protection against water, and "6" means protected against "heavy jet sprays," such as conditions that can be encountered in hurricanes.

IK10

The IK rating system classifies the level of protection provided by electrical appliances against external impacts from the outside. An IK10-rated camera can withstand the impact of 20 Joules, meaning the camera will withstand the impact of a 5 kg weight dropped on it from a height of 40 cm.

Day/Night

A day/night camera has two modes of operation: a day mode and a night mode. The camera switches from day mode (Color) to night mode (B/W) by replacing its infrared-cut filter with a clear filter. In night mode, the camera becomes sensitive to near-IR light and is capable of reproducing images even when the scene is not visible to the naked eye.

Electrical D/N

Electrical D/N is a technology to make the image more visible in low-light conditions by removing the chroma signal to produce a B/W image.

Wide-D

State-of-the-art technologies to expand the video dynamic range of the camera to improve the visibility of images even in extremely high-contrast environments. Wide-D is a powerful feature to compensate for scenes with extremely poor contrast.

Visibility Enhancer (VE)

VE is one of Sony's new technologies that optimizes contrast and makes a scene more visible. It is ideal for scenes where objects are hard to recognize due to severe backlight or shadows. VE optimizes the brightness and color reproduction of an image dynamically on a pixel-by-pixel basis while continuously adapting to the scene. Technically, VE stretches the contrast in both the backlit portions and the shadows within the given dynamic range, which is different from Wide-D. VE also contributes to the high sensitivity of the camera. By combining VE with XDNR, the camera can reproduce clear and bright images in very low-light conditions, while keeping noise at a minimal level.

View-DR™ Technology



View-DR is Sony's latest technology to produce images with an extremely wide dynamic range. View-DR is a combination of Sony's full-capture Wide-D technology, the high-speed Exmor CMOS sensor, and Visibility Enhancer (VE). The full-capture Wide-D technology used in View-DR technology uses an electronic shutter to capture multiple images, to reproduce each frame. One image is taken using a 'standard' exposure time and either one or three images are taken using very short exposure times depending on the camera type. With the newly developed View-DR algorithm, all of the electrons converted from the captured light is fully used by the imager, which is quite different from DynaView technology and some other Wide-D technologies in the industry that discard approximately 1/2 of the electrons. As a result, View-DR nearly doubles the sensitivity compared to conventional Wide-D technologies. To capture multiple HD resolution images at a very high speed, the "Exmor" CMOS sensor was adopted because of its high-speed readout characteristics. During the process of combining multiple images, the Visibility Enhancer (VE) is employed to provide a high level of chrominance and luminance. With View-DR, the monitored images become very visible – sometimes even more than when viewed with our naked eyes.

XDNR™ Technology (eXcellent Dynamic Noise Reduction)

XDNR is Sony's latest technology for noise reduction in IP security cameras. XDNR utilizes 2D and 3D noise reduction methods adaptively to scenes. Under low-light conditions, XDNR technology provides clear images for both moving objects and still portions of the image, using 2DNR and 3DNR, respectively. This method provides clear images while minimizing motion blur which is a challenge in any outdoor surveillance monitoring applications, such as in parking lots.

ONVIF™ Software



ONVIF software defines a common protocol for the exchange of information between different network video devices regardless of manufacturer, and achieves greater interoperability in multi-vendor network video systems.

PoE (Power-over-Ethernet, IEEE 802.3af)

PoE enables networked devices to receive power up to 12.95 W from PoE-enabled equipment through the same Ethernet cable that transports data. It provides substantial savings in installation costs and can simplify the installation process.

hPoE (High PoE, IEEE 802.3at)

hPoE enables networked devices to receive power up to 25 W from hPoE-enabled equipment through the same Ethernet cable that transports data. hPoE is useful especially for PTZ/Rapid Dome cameras that require motor control.

DEPA™ System



With a Sony DEPA system, DEPA-enabled cameras send not only video images but also related metadata, including object data (size and position) to the DEPA-enabled recorder. Since part of the image processing is done on the camera side, the load to the recorder can be reduced enabling camera expansion. Conventional video analytic systems, on the other hand, process images solely on the recorder side often causing CPU overload.

DEPA Advanced



DEPA Advanced is an enhanced DEPA technology. Unlike DEPA, a camera incorporating DEPA Advanced completes the entire DEPA analysis such as intrusion detection with a virtual borderline on the camera side, and sends only an alarm to the recorder. Enhancements also include a tamper alarm, shadow cancellation, a beam intrusion detector, and audio analysis. Since the analytic processing is completed in the camera, end users can benefit from DEPA Advanced because it can be easily integrated with a variety of recorders and/or video management solutions.



3-Year Warranty for Analog and Network Cameras, Encoders and Accessories

The Sony Security Products 3-year warranty covers labor and materials for repair of defective analog 'SSC' and IPELA™ 'SNC' cameras, 'SNT' encoders and 'UNI' accessories purchased within the United States on or after July 1, 2010. Offer excludes discontinued models and accessories for a period of three years from the date of purchase. For more details, please visit sony.com/security or contact your Sony Sales Representative.

1-Year Warranty for Security Monitors

Security Monitor 'SSM' warranty is 1-year parts and labor from date of purchase.