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SNC-EM641

Vandal resistant minidome Full HD IP Network Camera (E-Series)

Overview

Monitor and protect people, property and other assets with this minidome-type Full HD network camera that's vandal-resistant for use in a wide range of everyday security applications.
This compact, easy to install minidome network camera brings Full HD imaging quality to a wide range of indoor security and surveillance applications, from offices, banks and retail spaces to schools and colleges.

Its vandal-resistant design meets IK10 standards, making the SNC-EM641 ideal for use in environments where there's a risk of physical tampering.

The camera captures crisp, low-noise Full HD images, even in challenging low-light conditions. The sensitive 1/2.8" type Exmor R CMOS image sensor is teamed with XDNR processing, improving low-light performance and achieving the minimum illumination of 0.006 lux(30 IRE) in colour mode.

View-DR expands dynamic range for significantly improved imaging in high-contrast and strongly backlit scenes, like sun-drenched offices or car park entrances. Image stabilisation keeps video images crisp and clear, even when the camera is subject to vibration on a mounting pole or bracket.

The addition of SD card edge storage allows video/audio data to be recorded directly by the camera when triggered by an alarm event. This provides valuable redundancy in the event of temporary network failure: recording to the network server resumes automatically when normal network connection is restored.

Installation of the SNC-EM641 is simplified by the same familiar user interface, usability and form factor as previous-generation Sony E Series cameras.

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- **Vandal resistant**

    The camera's vandal-resistant design meets IK10 standards (protection against mechanical impact), making the SNC-EM641 ideal for use in environments where there's a risk of physical tampering or damage.

- **See every scene clearly with Full HD image quality**

    View fine detail in a wide range of everyday video security and surveillance environments, from retail spaces to banks and schools. The sensitive 1/2.8" type Exmor R CMOS image sensor is teamed with XDNR processing, improving low-light performance and achieving the minimum illumination of 0.006 lux(30 IRE) in colour mode.

- **Steadier, more stable video footage**

    The in-built image stabiliser minimises the effects of camera shake – for example when the camera's pole mounted or subject to mechanical vibration. With clearer, more stable video images it's easier to see what's happening in any scene.

- **Don't miss that crucial moment with Intelligent Motion Detection and Face Detection**

    In-built motion detection can trigger a range of actions, from storage and transfer of images to sounding of external alarms. False alarms caused by noise, weather and environment noise are minimised by a smart processing algorithm. Human face detection is also supported, allowing rapid indexing of recordings to find events where a face is visible in the scene.

- **Better pictures, day or night**

    True D/N (Day/Night) function automatically switches the camera to Day or Night mode, depending on ambient light levels.

- **Optimum picture quality in any situation**

    A choice of selectable picture modes optimises camera settings for best picture quality in a wide range of applications and lighting environments.

- **Recording quality to suit your network**

    Select CBR (constant bitrate), VBR (variable bitrate) or VBR-with-cap compression modes for optimised recording quality depending on IP network conditions.

- **Edge recording on SD card for reliable operation**

    SD card edge storage allows video/audio data to be recorded directly by the camera when triggered by an alarm event. This provides valuable redundancy in the event of temporary network failure: recording to the network server resumes automatically when normal network connection is restored.

- **Detect in confidence with Edge-based Analytics**

    Powerful DEPA Advanced video analytics enhances Intelligent Motion Detection with rule-based alarm triggers, providing alerts with object filters like 'passing' and 'intrusion' to further reduce false alarms.

- **Reduce cabling costs with Power Over Ethernet (PoE)**

    Power over Ethernet (PoE) allows the camera be powered by the same Ethernet cable that's used for data transfer, reducing installation complexity and costs.

- **View and control with your smartphone**

    Remotely view live camera images with your Android or iOS smartphone or tablet. You don't even need to

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download a special app.

- **ONVIF (Open Network Video Interface Forum) compliance**

  Support for ONVIF simplifies interoperability with other network video devices. The ONVIF (Open Network Video Interface Forum) defines a common protocol for the exchange of information between network video devices, including automatic device discovery and video streaming.

- **Triple streaming for extra operational versatility**

  Configure up to three simultaneous IP video streams to suit your operating needs. For example, one stream for high quality live viewing; another for storage-efficient recording; and a third for viewing over a low bandwidth connection or on mobile devices.

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Technical Specifications

Camera

●	Image Sensor	1/2.8-type progressive scan Exmor R CMOS sensor
●	Number of Effective Pixels	Approx. 2.13 Megapixels
●	Signal System	NTSC/PAL (switchable)
●	Sync System	Internal synchronization
●	Minimum Illumination (50 IRE)	Color: 0.01 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0.007 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)
●	Minimum Illumination (30 IRE)	Color: 0.006 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0.005 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)
●	Dynamic Range	Equivalent to 90 dB with View-DR technology
●	S/N Ratio (Gain 0 dB)	More than 50 dB
●	Gain	Auto
●	Shutter Speed	1/1 s to 1/10,000 s
●	Exposure Control	Exposure compensation, Shutter speed, Iris
●	White Balance	ATW, ATW-PRO, Fluorescent lamp, Mercury lamp, Sodium vapour lamp, Metal halide lamp, White LED, One push WB, Manual
●	Lens	CS-mount varifocal lens
●	Easy Zoom	Yes
●	Zoom Ratio	Optical zoom 3x Digital zoom 4x Total zoom 12x
●	Easy Focus for Setup	Yes
●	Horizontal Viewing Angle	105.3° to 35.6°
●	Vertical Viewing Angle	56.9° to 20.1°
●	Viewing Tilt Angle	127.6°
●	Focal Length	f = 3.0 mm to 9.0 mm
●	F-Number	F1.2 (Wide) to F2.1 (Tele)
●	Minimum Object Distance	300 mm
●	Pan/Tilt/Rotation Angle (manual)	±192° -7 ° to +75 ° -99 ° to +99 °
●	IR Illuminator	No
●	White-light LED Illuminator	No

Camera Features

●	Day/Night	True D/N
●	Day/Night linked with Easy Focus	Yes
●	e-Flip	Yes

● Image Rotate	90°, 270°	
● Mirroring	Yes	
● Wide-D	View-DR	
● Tone Correction	Visibility Enhancer	
● Noise Reduction	XDNR	
● Image Stabilizer	Electronic	
● Picture Mode	Yes	
● Privacy Masking (number)	20	
● Privacy Masking (shape)	Quadrangle formed by any four corner points	
● Privacy Masking (color/effect)	Opaque 14 colors (Black, White, Red, Green, Blue, Cyan, Yellow, Magenta, Gray (6 scales)), Mosaic	
● Edge Storage	Yes	
● Voice Alert	Yes	
● Vandal Resistant	IK10	
● Superimpose Number	3 independent positions for characters (Codec, Date & Time, Event, Text (Max. 64 characters)), 1 independent position for a logo mark	
● Superimpose Language	English	
● Menu Language	English, Japanese, Chinese (simplified), Chinese (traditional), French, Spanish, German, Italian, Korean, Portuguese, Russian, Arabic, Hindi, Vietnamese, Thai	

Video

● Resolution	1920 x 1080, 1280 x 720, 1024 x 576, 720 x 576, 720 x 480, 704 x 576, 640 x 480, 640 x 360, 352 x 288, 320 x 184 (H.264, JPEG)	
● Compression Format	H.264(High/Main/Baseline Profile), JPEG	
● Maximum Frame Rate	H.264: 60 fps (1920 x 1080) JPEG: 60 fps (1280 x 720)	
● Bitrate Control Mode	CBR/VBR (selectable)	
● Range of Bit Rate Setting	64 Kbps to 32 Mbps	
● Solid PTZ	Yes	
● e-Varifocal	Yes	
● Adaptive Rate Control	H.264	
● Bandwidth Control	JPEG	
● Multi streaming Capability	Yes (3)	
● Number of Clients	20	

Intelligent Video/Audio Analytics

● Analytics Architecture	DEPA Advanced	
● Intelligent Motion Detection	Yes	
● Face Detection	Yes	
● Tamper Alarm	Yes	

● Scene Analytics	Passing, Intrusion, Left Object Detection, Removed Object Detection

Audio

● Compression Format	G.711/G.726/AAC (16 kHz, 48 kHz)

System Requirements

● Operating System	Windows 7 (32/64 bit) Ultimate, Professional Edition Windows 8.1 Pro (32/64 bit) Windows 10 Pro (32/64 bit)
● Processor	Intel Corei7 2.8 GHz or higher
● Memory	2 GB or more
● Web Browser	Microsoft Internet Explorer Ver. 11.0 Firefox Ver. 50.1 (plug-in free viewer only) Google Chrome Ver. 55.0 (plug-in free viewer only)
● SNC toolbox	Yes
● SNC toolbox mobile	Yes

Network

● Protocols	IPv4, TCP, UDP, ARP, ICMP, IGMP*, HTTP, DHCP, DNS, NTP, RTP/RTCP, RTSP over TCP, SMTP over HTTP, IPv6, HTTPS, FTP (client), SNMP (v1, v2c, v3), SSL *SSM (Source Specific Multicast) is supported.
● QoS	DSCP
● Multicast Streaming Support	Yes
● ONVIF Conformance	Profile S
● Authentication	IEEE802.1X

Interface

● Analog Video Output	BNC x1, 1.0 Vp-p, 75 Ω, unbalance, sync negative 700 TV lines (analog video)*2
● Analog Monitor Output for Setup	Phono jack x1
● Microphone Input	Mini jack (monaural)
● Line Input	Mini jack (monaural)
● Line Output	Mini jack (monaural) Maximum output level: 1 Vrms
● Network Port	10BASE-T/100BASE-TX (RJ-45)
● Card Slots	SD x 1
● Confirmed SD Card Type	Max. 256GB *3

General

● Power Requirements	IEEE 802.3af compliant (PoE system)
● Power Consumption	6.0 W max.
● Operating Temperature	-10°C to +50°C 14°F to 122°F
● Cold Start Temperature	0°C to +50°C 32°F to 122°F
● Storage Temperature	-20°C to + 60°C -4°F to + 140°F

● Operating Humidity	20 % to 80 %	
● Storage Humidity	20 % to 80 %(no condensation)	
● Dimensions (W x H x D)*1	φ 148 x 108 mm φ 5 7/8 inches x 4 3/8 inches	
● Mass	Approx. 835 g Approximate 1 lb 13 oz	
● External Material	Top cover: PC Dome cover: PC	
● External Color	Top cover: Munsell 4.4BG 8.4/0.2	
● Safety Regulations	UL2044, IEC60950-1 (CB) VCCI (Class A), FCC (Class A), IC (Class A) Emission: EN55032 (Class A) Immunity: EN55024＋ EN50130-4 Emission: AS/NZS CISPR32 (Class A) KC EMC-TR	
● Supplied Accessories	Template (1) Audio cable (1) BNC cable (1) Screw M3 (1) Wrench (1) Bracket (1) Wire rope (1) Safety regulations (1) Operating Instructions - Download site Information (1)	
● Optional Accessories	YT-ICB600 (In-ceiling Bracket) YT-LD601S (Smoke Dome Cover)	

Notes

● *1   The values for dimensions are approximate.

● *2   Monitor display ratio 4:3

● *3   The maximum number of event recording in the SD card is 4000. It may not use the full capacity of the SD card, depending on the limitation set for the event recording.

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Mounting Hardware

UNI-UMB1

Indoor wall mounting bracket for minidome and PTZ cameras

UNI-WMB4

Gooseneck Wall Mount Bracket

Other Accessories

UNI-LD280

Replacement lens capsule

Power Supplies

SNCA-HPOE1

Single port, high-power Gigabit PoE midspan

SNCA-POE1

Compact Power over Ethernet power supply for fixed and minidome cameras

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Features and specifications are subject to change without notice. The values for mass and dimension are approximate.

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