

## 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.

## Features

### **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 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.

## Specifications

### Camera

Image Sensor	1/2.8-type progressive scan Exmor R CMOS sensor
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Number of Effective Pixels	Approx. 2.13 Megapixels
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Signal System	NTSC/PAL (switchable)
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Sync System	Internal synchronization
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	Color: 0.01 lx (F1.2, View-DR Off, VE
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Minimum Illumination (50 IRE)	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)
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## 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 Core i7 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, Profile T
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	φ148 x 108 mm φ5 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
	UL2044, IEC60950-1 (CB) VCCI (Class A), FCC (Class A), IC

Safety Regulations (Class A)  
 Emission: EN55032 (Class A)  
 Immunity: EN55024+ EN50130-4  
 Emission: AS/NZS CISPR32 (Class A)  
 KC  
 EMC-TR

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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)

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Optional Accessories  
 YT-ICB600 (In-ceiling Bracket)  
 YT-LD601S (Smoke Dome Cover)

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## Notes

\*1 The values for dimensions are approximate.

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\*2 Monitor display ratio 4:3

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The maximum number of event

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\*3

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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## Gallery

