

## 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 |
|--------------|---|

|                            |                         |
|----------------------------|-------------------------|
| Number of Effective Pixels | Approx. 2.13 Megapixels |
|----------------------------|-------------------------|

|               |                       |
|---------------|-----------------------|
| Signal System | NTSC/PAL (switchable) |
|---------------|-----------------------|

|             |                          |
|-------------|--------------------------|
| Sync System | Internal synchronization |
|-------------|--------------------------|

|  |                                       |
|--|---------------------------------------|
|  | Color: 0.01 lx (F1.2, View-DR Off, VE |
|--|---------------------------------------|

|                               |  |
|-------------------------------|--|
| Minimum Illumination (50 IRE) | Off, AGC On, 1/30 s, 30 fps)<br>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)<br>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<br>Digital zoom 4x<br>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°<br>-7° to +75°<br>-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<br>(number)       | 20  |
| Privacy Masking<br>(shape)        | Quadrangle formed by any four corner points   |
| Privacy Masking<br>(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 |
| <h2>Video</h2>            |  |
| 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)<br>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<br>Windows 8.1 Pro (32/64 bit)<br>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<br>Firefox Ver. 50.1 (plug-in free viewer only)<br>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<br>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<br>14°F to 122°F                              |
| Cold Start Temperature   | 0°C to +50°C<br>32°F to 122°F                                |
| Storage Temperature      | -20°C to + 60°C<br>-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<br>φ5 7/8 inches x 4 3/8 inches                |
| Mass                     | Approx. 835 g<br>Approximate 1 lb 13 oz                      |
| External Material        | Top cover: PC<br>Dome cover: PC                              |
| External Color           | Top cover: Munsell 4.4BG 8.4/0.2                             |
|                          | UL2044, IEC60950-1 (CB)<br>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

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

The maximum number of event

\*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

