

## SNC-EMX50

Indoor minidome video security camera with 5 megapixel resolution and motorised zoom



### Overview

#### **Excellent image quality in all lighting conditions**

The SNC-EMX50 is a high performance indoor minidome camera, combining Sony's advanced Exmor R CMOS sensor and advanced image processing technologies for high quality 5 megapixel images with wide dynamic range, excellent low-light sensitivity and true day/night capability.

With the additional benefits of smart analytics, convenient installation and powerful security features, the SNC-EMX50 is an ideal choice for demanding security, surveillance and monitoring applications.

### Features

#### **1/2.9-inch 5MP Exmor R CMOS sensor**

The camera's very high resolution 5 megapixel Exmor R CMOS sensor captures exceptionally smooth, detailed video images at 30fps.

#### **Automatic Varifocal Lens**

High quality Automatic Varifocal lens provides 3-10mm focal length range and makes it easy for an installer to quickly and accurately adjust the image for best results.

#### **Better images in high-contrast conditions**

Wide dynamic range technology ensures evenly-exposed video

footage, even in harshly-lit high contrast scenes where ordinary cameras struggle to accommodate bright highlights and dark shadow detail.

## **Powerful video analytics**

Advanced in-built video analytics allow the camera to reliably detect, track and analyse objects, providing alerts and alarm triggers in response to a comprehensive range of pre-defined rules.

## **Day & Night function**

The camera's switchable IR cut filter ensures best colour accuracy in daylight, while boosting sensitivity for exceptional night-time while maintaining sharp focus under all lighting conditions.

## **Support Detect, Observe, Recognize and Identify**

Complies with Detect, Observe, Recognize, Identify standard, defining camera's ability to distinguish persons or objects in a specified area.

## **Area-based encoding**

Allows separate compression parameters to be set for up to eight user-definable image areas, reducing bandwidth while ensuring optimum quality for most important parts of the scene.

## **Encoding Regions of Interest (ROI)**

Up to eight regions of interest can be specified in the camera's field of view, with separate encoding quality settings for each area.

## **Content Based Imaging Technology**

Continually adjusts camera settings, taking into account changing lighting conditions and subject movement for optimised image quality while significantly reducing bandwidth requirements.

## **Intelligent Dynamic Noise Reduction**

Distinguishes between noise and relevant image information,

reducing network bandwidth requirements without compromising video quality.

### **Intelligent Auto Exposure**

Automatically adjusts camera exposure and compensates for backlighting, assuring accurately exposed images in a changing lighting conditions.

### **Intelligent streaming**

Advanced encoding technology is combined with the efficient H.265 compression codec and Intelligent Dynamic Noise Reduction, reducing network bandwidth requirements by up to 80% while maintaining excellent image quality compared with conventional streaming using H.264 compression.

### **Edge recording**

Store up to 2TB of local alarm recording on an optional microSD card. Pre-alarm recording in RAM reduces network bandwidth.

### **Cut through fog and haze**

Intelligent Defog automatically optimises picture quality in foggy, hazy or misty conditions.

### **Latest data security technology**

The camera's on-board Trusted Platform Module (TPM) and Public Key Infrastructure (PKI) offer superior protection against malicious attacks. 802.1x network authentication with EAP/TLS supports TLS 1.2 with updated cipher suites including AES 256 encryption.

### **Automatic calibration**

Integration is simplified by the camera's internal gyro/accelerometer that automatically senses orientation, flipping the image in increments of 90° if the camera is mounted on its side or upside down.

### **Seamless system integration**

Conformance to ONVIF Profile S, Profile T and Profile G specifications ensures interoperability with other network video products and systems. The camera's internal features can be accessed directly by third-party integrators.

## Specifications

| Camera                        |  |
|-------------------------------|--|
| Image Sensor                  | 1/2.9-type progressive scan Exmor-R CMOS sensor                                  |
| Number of Effective Pixels    | 3072 x 1728 (5MP)  |
| Minimum Illumination (30 IRE) | Color: 0.24 lx (F1.3)<br>B/W: 0.03 lx (F1.3)<br>IR mode: 0.0 lx (F1.3)           |
| Dynamic Range                 | 119 dB   |
| S/N Ratio (Gain 0 dB)         | More than 55 dB  |
| Gain                          | Auto   |
| Shutter Speed                 | 1/25[30] s to 1/15,000 s   |
| Exposure Control              | Automatic exposure, Fixed Shutter speed, Default shutter, Automatic iris control |
|                               | 2500 to 10000K, 4 automatic modes (basic, standard, sodium                       |

|               |   |
|---------------|---|
| White Balance | vapor, dominant color), Manual mode and Hold mode |
|---------------|---|

|      |                           |
|------|---------------------------|
| Lens | Automatic Varifocal (AVF) |
|------|---------------------------|

|                          |           |
|--------------------------|-----------|
| Horizontal Viewing Angle | 29° - 92° |
|--------------------------|-----------|

|                        |           |
|------------------------|-----------|
| Vertical Viewing Angle | 18° - 50° |
|------------------------|-----------|

|              |                  |
|--------------|------------------|
| Focal Length | f = 3 mm - 10 mm |
|--------------|------------------|

|          |             |
|----------|-------------|
| F-Number | F1.3 - F360 |
|----------|-------------|

## Camera Features

|           |          |
|-----------|----------|
| Day/Night | True D/N |
|-----------|----------|

|                                  |     |
|----------------------------------|-----|
| Day/Night linked with Easy Focus | Yes |
|----------------------------------|-----|

|              |    |
|--------------|----|
| Night Vision | No |
|--------------|----|

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|--------------------|----|
| Auto-rotation Mode | No |
|--------------------|----|

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|--------|-----|
| e-Flip | Yes |
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|              |     |
|--------------|-----|
| Image Rotate | Yes |
|--------------|-----|

|           |     |
|-----------|-----|
| Mirroring | Yes |
|-----------|-----|

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|--------|-----|
| Wide-D | Yes |
|--------|-----|

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|--------------------------------|---------------------|
| Tone Correction                | Global Tone Mapping |
| Defog Image Processing         | Yes                 |
| Highlight Compensation         | Yes                 |
| Flicker Reduction              | Yes                 |
| Distortion Correction          | No                  |
| Noise Reduction                | Yes                 |
| Image Stabilizer               | No                  |
| Intelligent Scene Capture      | Yes                 |
| Privacy Masking (number)       | Yes (8 areas)       |
| Privacy Masking (shape)        | Polygon             |
| Privacy Masking (color/effect) | Opaque 1 color      |
| Edge Storage                   | Yes                 |
| Voice Alert                    | No                  |
| Hours Meter                    | No                  |

Superimpose Number Yes

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Superimpose Language Roman characters

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## Video

Resolution 3072x1728, 1728x3072 (upright), 2688x1512, 1512x2688 (upright), 2304x1296, 1296x2304 (upright), 1920x1080, 1080x1920 (upright), 1280x1024, 1280x720, 640x480, 320x240

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Compression Format H.265, H.264, M-JPEG

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Maximum Frame Rate 30/25 fps

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Bitrate Control Mode VBR

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Solid PTZ No

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e-Varifocal No

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Adaptive Rate Control Yes

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Bandwidth Control Yes

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Evidence Shot No

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Multi streaming Capability Yes (3)

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|-------------------|---------------|
| Number of Clients | No hard limit |
|-------------------|---------------|

|            |    |
|------------|----|
| Letter Box | No |
|------------|----|

## Intelligent Video/Audio Analytics

|                        |     |
|------------------------|-----|
| Analytics Architecture | Yes |
|------------------------|-----|

|                              |     |
|------------------------------|-----|
| Intelligent Motion Detection | Yes |
|------------------------------|-----|

|                |    |
|----------------|----|
| Face Detection | No |
|----------------|----|

|              |     |
|--------------|-----|
| Tamper Alarm | Yes |
|--------------|-----|

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|--------------------------|-----|
| Advanced Audio Detection | Yes |
|--------------------------|-----|

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|-----------------|---------------------------|
| Scene Analytics | Essential Video Analytics |
|-----------------|---------------------------|

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|----------------|----------------|
| Multi Tracking | Yes, 8 objects |
|----------------|----------------|

## Audio

|                    |  |
|--------------------|--|
| Compression Format | G.711.8 (8 kHz) / L16 (16kHz) / AAC-LC (16kHz) |
|--------------------|--|

## System Requirements

|                  |                                     |
|------------------|-------------------------------------|
| Operating System | Windows 7 or later operating system |
|------------------|-------------------------------------|



|             |                                    |
|-------------|------------------------------------|
| Memory      | 2GB or more                        |
| Web Browser | Internet Explorer Ver. 11 or later |
| SNC toolbox | Yes                                |

## Network

|                             |  |
|-----------------------------|--|
| Protocols                   | IPv4, IPv6, UDP, TCP, HTTP, HTTPS, RTP/RTCP, IGMP V2/V3, ICMP, ICMPv6, RTSP, FTP, ARP, DHCP, APIPA (Auto-IP, link local address), NTP (SNTP), SNMP (V1, V3, MIB-II), 802.1x, DNS, DNSv6, SMTP, UPnP (SSDP), DiffServ (QoS), LLDP, SOAP, Dropbox™, CHAP, Digest Authentication. |
| QoS                         | DiffServ   |
| Multicast Streaming Support | Yes  |
| ONVIF Conformance           | Profile S, Profile G, Profile T  |
| Microphone Input            | No   |
| Built-in Microphone         | Yes  |
| Line Input                  | Yes  |
| Line Output                 | Yes  |

|                            |                     |
|----------------------------|---------------------|
| Network Port               | 10Base-T, 100Base-T |
| Alarm Input (Sensor Input) | Yes                 |
| Alarm Output               | 1 Relay output      |

## Interface

|                        |                           |
|------------------------|---------------------------|
| Card Slots             | microSD x 1               |
| Confirmed SD Card Type | SDHC (~32GB), SDXC (~2TB) |

## General

|                        |   |
|------------------------|---|
| Power Requirements     | +12 VDC $\pm$ 5%, 24 VAC $\pm$ 10% or IEEE 802.3af compliant (PoE system) |
| Power Consumption      | 7.15 W max  |
| Operating Temperature  | -20 °C to + 50 °C<br>-4°F to + 122°F                                      |
| Cold Start Temperature | -20 °C  |
| Storage Temperature    | -30 °C to + 70 °C<br>-22 °F to + 158 °F                                   |

|                       |   |
|-----------------------|---|
| Operating Humidity    | 20% to 90% RH non condensing  |
| Storage Humidity      | up to 98 %  |
| Built-in Heater       | No  |
| Dimensions (Φ x H) *1 | Φ147.6mm x 104.2 mm<br>Φ5.81 inches x 4.09 inches   |
| Mass                  | Approx. 0.530 kg<br>Approx. 1.17 lb   |
| Safety Regulations    | VCCI: V-2/2015.04 & V-3/2015.04<br>UL 60950-1 CAN/CSA-C22.2 No. 60950-1-07 CFR 47 FCC part 15 Class B<br>AS/NZS CISPR 32 equal to CISPR 32<br>CE-EMC-Directive :EN55032 Class B, EN 50130-4: 2011+ A1: 2014, EN 50121-4: 2006 / AC: 2008<br>EN 60950-1:2006 + A11:2009 + A1:2010 + A12:2011 + A2:2013<br>EN 55032: 2012 / AC: 2013 EN 55024: 2010+ A1: 2015 |
| *1                    | The values for dimensions are approximate.  |

## Gallery

