

## SNC-VM772R

4K Outdoor IR Ruggedised  
Camera with Large-sized Exmor  
R™ CMOS Sensor



### Overview

**Exceptional detail and sensitivity for round-the-clock surveillance applications, indoors or outside**

#### **Extraordinary sensitivity with 4K**

With four times the resolution of Full HD, Sony's first 4K network security camera brings industry-leading clarity and sensitivity to critical video monitoring and surveillance applications.

Thanks to the camera's large, highly sensitive 1.0-type back-illuminated Exmor R™ CMOS image sensor, high-speed image processing engine and high-quality zoom lens, the SNC-VM772R captures detail-packed 4K/30 fps video footage with a minimum illumination of 0.06 lx - even in near darkness.

#### **Automatic selection of picture settings**

Picture settings are automatically selected to suit a wide range of operating environments, such as weather, time, and lighting conditions, providing the best picture quality for the scene. They can also be manually adjusted for even more flexible operation.

#### **Various output modes**

The increased resolution of 4K opens up exciting new monitoring possibilities. Traditional video surveillance requires a PTZ camera or several box cameras to survey a wide area. The SNC-VM772R can stream an overall low-resolution situational view, plus cropped original 4K resolution views of specific areas

of interest in the scene, with Multi Tracking to chase moving subjects. The 20 megapixel sensor also enables high-quality still image recording at beyond 4K resolution to allow close examination of a scene for evidence purposes.

## **Other key features**

- Excellent low-light capabilities are further enhanced with in-built IR illuminators for true night-time coverage.
- Edge Storage (onboard recording with memory cards) safeguards recordings during network outage.
- The camera's outstanding image performance is enhanced with features, including Optical Image Stabilisation for steadier pictures.
- Quick, simple installation and set-up is aided by a smartphone or tablet PC app for remote field of view adjustment (SNC toolbox mobile).
- The discreetly styled minidome camera features a ruggedised vandal- and weather-resistant design that is ideal for tough round-the-clock video security and surveillance assignments, indoors or outside (IK10, IP66).

## Features

### **See and analyse more with 4K detail**

With a resolution of 20 megapixels (5,472 x 3,648), the camera's large 1.0-type back-illuminated Exmor R™ CMOS sensor captures 4K (3,840 x 2,160) video with exceptional detail.

### **Excellent low-light sensitivity**

The large 1.0-type image sensor captures more incident light than conventional security camera sensors, allowing the SNC-VM772R to function effectively at minimum illumination levels as low as

0.06 lx in colour mode.

## **High quality 2.9x optical zoom lens for detailed close-ups**

The motorised Sony lens can zoom in to areas of interest for extremely high resolution close-ups.

## **Best picture settings to suit any conditions**

Intelligent Scene Capture automatically selects optimum picture settings responding to environments such as weather, time, and lighting conditions and providing the best picture quality for the scene. Picture settings can also be adjusted manually, or set according to time schedules, external triggers and lighting conditions.

## **Efficient use of network bandwidth with Intelligent Coding**

Intelligent Coding gives selected of-interest areas maximum detail, while reducing bit-rates in the other areas of the image to save network bandwidth by up to 50% and minimize storage costs.

## **Efficient use of network bandwidth with Intelligent Cropping**

Simultaneously observe specific areas of interest in captured images with VGA or Full HD view with an original 4K resolution, while overviewing the entire image at lower (Full HD) resolution, reducing network bandwidth by up to 50% and minimizing storage costs.

## **Multi Tracking**

A single camera can automatically 'chase' multiple objects in its field of view, tracking each one independently with VGA or Full HD-cropped view with an original 4K resolution. It's a cost-effective alternative to using multiple PTZ cameras to track several objects simultaneously.

## **20 megapixel Evidence Shot for high-resolution still image capture**

High-quality recording of 20 megapixel (5,472 x 3,648) still images can be triggered by the camera's motion detection capability, or by external inputs from third-party equipment such as motion detectors and door sensors.

## **HDMI interface support**

Includes HDMI digital video output

## **Optimum performance under varying network conditions**

Select VBR (variable bit-rate) with Cap or CBR (constant bit-rate) compression modes for optimised recording quality and balanced network load depending on IP network conditions.

## **Smart analytics**

DEPA Advanced Intelligent Video Analytics trigger alarm events based on user-defined rules, including intelligent motion detection, crossing line filter and object detection capabilities.

## **Steadier, more stable images**

On-board Optical Image Stabiliser keeps video images steady and blur-free, even if the camera's subjected to buffeting from wind or traffic vibration on a pole, fence or road bridge.

## **Always ready for action, even in the dark**

Built-in IR (infrared) illuminators give a clear view in complete darkness (0 lx) of objects at a distance of up to 50m from the camera.

## **Accurately exposed night-time viewing, near or far**

Adaptive IR assures high-quality B/W night-time images without overexposure, even with objects that are close to the camera or highly reflective.

## **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.

### **Automatic recording to memory card**

Edge Storage records video and audio directly to an optional SD card for later examination. Recording can be triggered manually or automatically in response to alarm events, by the camera's analytics features, or if network connection is temporarily lost.

### **Clearer views in fog, smog and haze**

Defog Image Processing feature uses powerful image processing to enhance pictures in fog, smog and haze conditions for clearer video images.

### **Highlight Compensation**

Detects and masks intensely localised light sources, such as car headlights and flashlights in dark conditions.

### **Speedy, simple setup with SNC toolbox mobile app**

Save time and integration costs with wireless adjustment of the camera's field view from a smartphone or tablet PC, using an optional IFU-WLM3, USB Wireless LAN Module.

### **Built to handle tough conditions**

The camera's vandal-resistant design meets IK10 standards (protection against mechanical impact). IP66-rated water-resistant and dust-tight, it's ideal for all-weather outdoor surveillance, as well as damp or humid indoor environments.

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

ONVIF Profile S-conformance ensures greater interoperability and flexibility in multi-vendor systems.

### **Versatile powering options**

Choose PoE system, AC 24 V or DC 12 V power for easier, more flexible installation.

## Specifications

### Camera

|              |   |
|--------------|---|
| Image Sensor | 1.0-type progressive scan Exmor R CMOS sensor |
|--------------|---|

|                            |                       |
|----------------------------|-----------------------|
| Number of Effective Pixels | Approx. 20 Megapixels |
|----------------------------|-----------------------|

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

|                               |   |
|-------------------------------|---|
| Minimum Illumination (50 IRE) | Color: 0.1 lx (F1.8, 1/30 s)<br>B/W: 0 lx (IR LED On, F1.8, 1/30 s) |
|-------------------------------|---|

|                               |  |
|-------------------------------|--|
| Minimum Illumination (30 IRE) | Color: 0.06 lx (F1.8, 1/30 s)<br>B/W: 0 lx (IR LED On, F1.8, 1/30 s) |
|-------------------------------|--|

|               |   |
|---------------|---|
| Dynamic Range | Equivalent to 90 dB with View-DR Technology |
|---------------|---|

|      |                              |
|------|------------------------------|
| Gain | Auto/Manual (0 dB to +48 dB) |
|------|------------------------------|

|               |                     |
|---------------|---------------------|
| Shutter Speed | 1/1 s to 1/10,000 s |
|---------------|---------------------|

|                  |   |
|------------------|---|
| Exposure Control | Exposure compensation, AGC, Shutter speed, Iris |
|------------------|---|

|               |  |
|---------------|--|
| White Balance | ATW, ATW-PRO, Fluorescent lamp, Mercury lamp, Sodium vapour lamp, Metal halide lamp, White LED, One push WB, Manual, Indoor, Outdoor |
|---------------|--|

|      |                    |
|------|--------------------|
| Lens | Built-in zoom lens |
|------|--------------------|

|                                  |   |
|----------------------------------|---|
| Easy Zoom                        | Yes   |
| Zoom Ratio                       | Optical zoom 2.9x<br>Clear Image Zoom 2.0x<br>Digital zoom 2.0x<br>Total zoom 11.6x |
| Easy Focus for Setup             | Yes   |
| Horizontal Viewing Angle         | 70.7 ° to 27.5 ° (16:9 aspect ratio)<br>76.6 ° to 29.8 ° (3:2 aspect ratio)         |
| Vertical Viewing Angle           | 39.9 ° to 15.7 ° (16:9 aspect ratio)<br>51.5 ° to 20.1 ° (3:2 aspect ratio)         |
| Focal Length                     | f = 8.8 mm to 25.7 mm   |
| F-Number                         | F1.8 (Wide) to F2.8 (Tele)  |
| Minimum Object Distance          | 300 mm  |
| Pan/Tilt/Rotation Angle (manual) | ±192 °<br>-10 ° to +81 °<br>-100 ° to +100 °  |
| IR Illuminator                   | Yes<br>Wave length (typical): 850 nm, IR LED: 30 pieces                             |
|                                  | 50 m (30 IRE)   |

IR Working Distance      164.0 ft. (30 IRE)

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## Camera Features

Day/Night      True D/N

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Day/Night linked with  
Easy Focus      Yes

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e-Flip      Yes

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Wide-D      View-DR

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Tone Correction      Visibility Enhancer

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Defog Image  
Processing      Yes

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Highlight  
Compensation      Yes

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Flicker Reduction      Yes

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Distortion Correction      Yes

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Noise Reduction      XDNR

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Image Stabilizer      Optical

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Intelligent Scene  
Capture      Yes

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|                                   |   |
|-----------------------------------|---|
| Privacy Masking<br>(number)       | 24  |
| 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   |
| Vandal Resistant                  | IK10  |
| Ingress Protection                | IP66  |
| Superimpose Number                | 4 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, Turkish, Polish |

## Video

|                               |  |
|-------------------------------|--|
| Resolution                    | 5472 x 3648, 3840 x 2160, 2880 x 2160, 1920 x 1080, 1440 x 1080, 1440 x 960, 1280 x 720, 960 x 720, 640 x 480, 640 x 360, 320 x 240, 320 x 180 |
| Compression Format            | H.264 (High/Main Profile), JPEG<br>H.264 (B-picture) is supported for 3840 x 2160 and 2880 x 2160 resolution.                                  |
| Maximum Frame Rate            | H264: 30 fps (3840 x 2160)/10 fps (1920 x 1080)<br>JPEG: 2.5 fps (5472 x 3648)   |
| Bitrate Control Mode          | CBR/VBR with Cap (selectable)  |
| Range of Bit Rate Setting     | 64 Kbps to 32 Mbps   |
| Intelligent Cropping (Mode)   | Dynamic/Static   |
| Intelligent Cropping (Number) | 2 (1920 x 1080), 4 (640 x 480)   |
| Intelligent Coding (Mode)     | Auto/Manual  |
| Intelligent Coding (Number)   | Up to 8 (up to 4 for Auto mode)  |

|                            |                             |
|----------------------------|-----------------------------|
| Evidence Shot              | 20 Megapixels (5472 x 3648) |
| Multi streaming Capability | Yes (5)                     |
| Number of Clients          | 20                          |

## Intelligent Video/Audio Analytics

|                              |  |
|------------------------------|--|
| Analytics Architecture       | DEPA Advanced  |
| Intelligent Motion Detection | Yes  |
| Face Detection               | Yes  |
| Tamper Alarm                 | Yes  |
| Scene Analytics              | Intrusion, Passing, Existing, Disappearance, Capacity, Left object, Removed object |
| Multi Tracking               | Up to 4  |

## Audio

G.711 (bit rate: 64 kbps, sampling frequency: 8 kHz)

G.726 (bit rate: 40, 32, 24, 16 kbps, sampling frequency: 8 kHz)

|                    |   |
|--------------------|---|
| Compression Format | AAC-LC (bit rate: 64 kbps, sampling frequency: 16 kHz)<br>AAC-LC (bit rate: 128 kbps, sampling frequency: 48 kHz) |
|--------------------|---|

## System Requirements

|                    |   |
|--------------------|---|
| Operating System   | Windows 7 (32/64 bit) Ultimate, Professional Edition<br>Windows 8 Pro (32/64 bit)<br>Windows 8.1 Pro (32/64 bit)                                      |
| Processor          | Intel Core i7 3.4GHz or higher*<br>*For 4K (3840 x 2160) output at 30 fps, a GPU capable of 3840 x 2160 resolution and decoding 4K/H.264 is required. |
| Memory             | 8 GB or more  |
| Web Browser        | Microsoft Internet Explorer Ver. 8.0, Ver. 9.0, Ver. 10.0, Ver. 11.0<br>Firefox Ver. 29.0<br>Safari Ver. 5.34<br>Google Chrome Ver. 39.0              |
| SNC toolbox        | Yes   |
| SNC toolbox mobile | Yes   |

## Network

Protocols IPv4, IPv6, TCP, UDP, ARP, ICMP, ICMP v 6, IGMP\*, MLD\*, HTTP, DHCP, DHCPv6, DNS, NTP, RTP/RTCP, RTSP over TCP, SMTP {client}, HTTPS, FTP (client), SNMP (v1, v2c, v3), TLS {v1.0}

\*SSM (Source Specific Multicast) is supported.

Number of IP Address/Mac ADDRESS 1

QoS DSCP

Multicast Streaming Support Yes

ONVIF Conformance Profile S

Wireless Network Yes for setup (IEEE802.11b/g/n with optional IFU-WLM3)

Authentication IEEE802.1X

## Interface

Analog Video Output No

|                                 |   |
|---------------------------------|---|
| Analog Monitor Output for Setup | No  |
| Digital Video Output            | HDMI (type A) x1  |
| Microphone Input                | Mini jack (monaural, 2.2 k $\Omega$ , plug-in-power)  |
| Line Input                      | Mini jack (monaural)  |
| Line Output                     | No*<br>* supported by future version-up   |
| Network Port                    | 10BASE-T/100BASE-TX (RJ-45)   |
| Alarm Input (Sensor Input)      | x2, make contact, break contact   |
| Alarm Output                    | x2, Max. AC 12 V/DC 24 V, 0.4 A (solid-state relay outputs electrically isolated from the camera) |
| Wireless LAN Terminal           | Yes   |
| Card Slots                      | SD x1   |
| Confirmed SD Card Type          | SDHC/SDXC (Max. 128 GB)   |
| SD off Switch                   | Yes   |

## General

|                        |   |
|------------------------|---|
| Power Requirements     | IEEE 802.3af compliant (PoE) Class 3, DC 12 V $\pm$ 10 %, AC 24 V $\pm$ 20 %, 50/60 Hz                    |
| Power Consumption      | Max. 12.95 W  |
| Operating Temperature  | -40 °C to +50 °C<br>-40 °F to +122 °F   |
| Cold Start Temperature | -40 °C to +50 °C<br>-40 °F to +122 °F   |
| Storage Temperature    | -20 °C to + 60 °C<br>-4 °F to + 140 °F  |
| Operating Humidity     | 20 % to 90 % (no condensation)  |
| Storage Humidity       | 20 % to 80 % (no condensation)  |
| Built-in Heater        | Yes   |
| Dimensions *1          | $\phi$ 190 x 146.7 mm<br>$\phi$ 7 1/2 inches x 5 7/8 inches   |
| Mass                   | Approx. 1900 g<br>Approx. 4 lb 3 oz<br>Approx. 2100 g (with Bracket)<br>Approx. 4 lb 10 oz (with Bracket) |
| External Material      | Upper case: AL Die-cast<br>Lower case: AL Die-cast  |

|                      |  |
|----------------------|--|
|                      | Dome cover: PC<br>Cap:PC   |
| External Color       | Munsell 4.4BG 8.4/0.2 (White)  |
| Fire Retardant       | UL2044   |
| Safety Regulations   | JATE Technical Standard (LAN)<br>UL2044, IEC/EN60950-1 (CB)<br>VCCI (Class A), FCC (Class A), IC (Class A)<br>Emission: EN55022 (Class A)<br>Immunity: EN55024 + EN50130-4<br>Emission: AS/NZS CISPR22 (Class A)<br>MSIP<br>EMC-TR |
| Supplied Accessories | Bracket (1)<br>Template (1)<br>Wrench (1)<br>Screw (M4 × 8) (1)<br>Sealing rubber (1)<br>Multi connector cable (1)<br>Read This First (1)<br>Safety Regulations (1)<br>Warranty booklet (1)  |
| Optional Accessories | IFU-WLM3 (USB wireless LAN module)   |



## Notes

\*1

The values for dimensions are approximate.

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## Related products



### **SNC- VB770**

Ultra High Sensitivity  
4K Network Camera  
with 35 mm Full-frame  
Exmor™ CMOS Sensor

## Gallery

