

## SNC-VM631

Vandal-resistant Minidome  
1080p/60 fps Camera Powered  
by IPELA ENGINE EX™ - V Series



### Overview

Certified as IK10 impact resistant, the SNC-VM631 minidome network camera delivers a new range of features and level of performance for a Full HD surveillance camera, with a maximum resolution of 1920 x 1080 and improved sensitivity thanks to a new Exmor CMOS sensor.

The SNC-VM631 features the IPELA ENGINE EX signal processing system, providing advanced features such as high frame rate, and improved image processing with View-DR, XDNR and DEPA Advanced. The high frame rate mode – 60 fps and 50 fps – delivers smoother, more natural movement in the video. View-DR at 90 dB captures objects clearly even under very harsh lighting conditions, such as strong backlight or high contrast conditions. XDNR (eXcellent Dynamic Noise Reduction) delivers clear, low-noise, images in low light conditions. DEPA Advanced Intelligent Video and Audio Analytics triggers alarms according to user-defined rules. In-camera analytics are enhanced by additional features such as face detection, left object and removed object detection.

The camera SNC-VM631 offers a high sensitivity, with a minimum illumination of 0.1 lx in Colour mode and 0.07 lx in B/W mode. It can be powered by PoE (IEEE 802.3af-compliant), by AC 24 V +/- 20% or by DC 12 V +/- 10%, for easy installation.

## Features

### **Excellent 1080p/60 fps Full HD picture quality**

Gain the huge surveillance benefits of excellent picture quality with 1080p/60 fps Full HD, with up to 1920 x 1080 maximum resolution.

### **High quality and low noise images with Exmor CMOS sensor**

Derived from Sony's broadcast range, the high resolution Exmor CMOS sensor improves image acquisition with its low noise characteristics.

### **Unique features from IPELA ENGINE EX signal processing system**

IPELA ENGINE EX delivers high frame rate capability of up to 60 fps\*, View-DR, XDNR (eXcellent Dynamic Noise Reduction) and DEPA Advanced Intelligent Video and Audio Analytics.

\*Note: high frame-rate mode and ViewDR cannot be used at the same time.

### **DEPA delivers intelligent, customisable image capture and alarm triggering**

The Sony DEPA platform offers intelligent video analytics, delivered through a combination of the intelligence built into the camera and the rules and filters that determine which images should be recorded and when an alarm should be triggered.

### **Vandal-resistant**

The camera's vandal-resistant design meets the IK10 standard (protection against mechanical impact).

### **Operates at low minimum illumination**

The SNC-VM631 operates at a minimum illumination of 0.1 lx in Colour mode (F1.2, View-DR OFF, VE OFF, AGC ON, 1/30 s, 30 fps) and 0.07 lx in B/W mode at 50 IRE and 30 fps.

### **Multiple video and audio codecs**

The SNC-VM631 supports H.264 (High/Main/Baseline Profile) /JPEG video codecs and AAC (16 kHz/48 kHz)/G.726/G.711 audio codecs.

### **True Day/Night function for optimised images in all light conditions**

Day/Night function automatically switches the camera between Day (colour) and Night (B/W) modes, depending on the light level. In Night mode, the IR-cut filter is removed so that the camera becomes sensitive to near-IR light and can reproduce images not visible to the naked eye.

### **ONVIF compliance for compatibility and confidence**

The camera conforms to ONVIF (Open Network Video Interface Forum), the widely-accepted protocol for information exchange between network video devices, giving you confidence in its breadth and ease of compatibility.

## Specifications

| Camera                     |   |
|----------------------------|---|
| Image Sensor               | 1/2.9-type progressive scan Exmor CMOS sensor |
| Number of Effective Pixels | Approx. 2.14 Megapixels                       |
| Signal System              | NTSC/PAL (switchable)                         |
| Sync System                | Internal synchronization                      |
|                            | Color: 0.1 lx (F1.2, View-DR Off, VE)         |

|                               |  |
|-------------------------------|--|
| Minimum Illumination (50 IRE) | Off, AGC On, 1/30 s, 30 fps)<br>B/W: 0.07 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)                                       |
| Minimum Illumination (30 IRE) | Color: 0.06 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)<br>B/W: 0.05 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                          | Built-in varifocal lens  |
| Easy Zoom                     | Yes  |
| Zoom Ratio                    | Optical zoom 3x<br>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°<br>-7° to +75°<br>-99° to +99° |

## 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 |
| Smartphone viewer    | Yes  |

## 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)<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  |
| Adaptive Rate Control     | H.264  |

|                   |      |
|-------------------|------|
| Bandwidth Control | JPEG |
|-------------------|------|

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|----------------------------|---------|
| Multi streaming Capability | Yes (3) |
|----------------------------|---------|

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|                   |    |
|-------------------|----|
| Number of Clients | 20 |
|-------------------|----|

## Intelligent Video/Audio Analytics

|                        |               |
|------------------------|---------------|
| Analytics Architecture | DEPA Advanced |
|------------------------|---------------|

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

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|----------------|-----|
| Face Detection | Yes |
|----------------|-----|

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

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|                 |   |
|-----------------|---|
| Scene Analytics | Passing, Intrusion, Left Object Detection, Removed Object Detection |
|-----------------|---|

## Audio

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

## System Requirements

Windows XP (32 bit) Professional Edition  
Windows Vista (32 bit) Ultimate,



|                    |   |
|--------------------|---|
| Operating System   | Business Edition<br>Windows 7 (32/64 bit) Ultimate,<br>Professional Edition<br>Windows 8 Pro (32/64 bit)<br>Windows 8.1 Pro (32/64 bit)   |
| Processor          | Intel Core i7 2.8 GHz or higher   |
| Memory             | 2 GB or more  |
| Web Browser        | Microsoft Internet Explorer Ver. 7.0,<br>Ver. 8.0, Ver. 9.0, Ver. 10.0, Ver. 11.0<br>Firefox Ver. 19.02 (plug-in free<br>viewer only)<br>Safari Ver. 5.1 (plug-in free viewer<br>only)<br>Google Chrome Ver. 25.0 (plug-in<br>free viewer only) |
| SNC toolbox        | Yes   |
| SNC toolbox mobile | Yes   |

## Network

|           |   |
|-----------|---|
| Protocols | IPv4, TCP, UDP, ARP, ICMP, IGMP*,<br>HTTP, DHCP, DNS, NTP, RTP/RTCP,<br>RTSP over TCP, SMTP over HTTP,<br>IPv6, HTTPS, FTP (client), SNMP<br>(v1, v2c, v3), SSL |
|-----------|---|

\*SSM (Source Specific Multicast) is supported.

|                                  |                      |
|----------------------------------|----------------------|
| Number of IP Address/Mac ADDRESS | 1                    |
| 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) *1 |
| 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)   |
| Alarm Input (Sensor Input) | x2, make contact, break contact   |
| Alarm Output               | x2, AC 24V/DC 24 V, 1 A<br>(mechanical relay outputs electrically isolated from the camera) |
| Card Slots                 | SD x1   |
| Confirmed SD Card Type     | 4/8/16/32 GB SDHC (no support for SDXC)   |

## General

|                        |   |
|------------------------|---|
| Power Requirements     | IEEE 802.3af compliant (PoE system), DC 12 V $\pm$ 10%, AC 24 V $\pm$ 20% |
| 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 95 %   |
| Dimensions *2      | φ148 x 108 mm<br>φ5 7/8 inches x 4 3/8 inches  |
| Mass               | Approx. 800 g<br>Approximate 1 lb 12 oz  |
| External Material  | Top cover: ABS + PC<br>Dome cover: PC  |
| External Color     | Top cover: Munsell 4.4BG 8.4/0.2   |
| Fire Retardant     | UL2044   |
| Safety Regulations | JATE Technical standard (LAN)<br>UL2044, IEC60950-1 (CB)<br>VCCI (Class A), FCC (Class A), IC (Class A)<br>Emission: EN55022 (Class A) + EN50130-4<br>Immunity: EN55022 (Class A) + EN55024<br>Emission: AS/NZS CISPR22 (Class A)<br>KCC<br>EMC-TR |
|                    | CD-ROM (supplied programs) (1)   |

|                        |                         |
|------------------------|-------------------------|
| Supplied Accessories   | Installation Manual (1) |
|                        | Template (1)            |
|                        | Audio cable (1)         |
|                        | I/O cable (1)           |
|                        | BNC cable (1)           |
|                        | Power input cable (1)   |
|                        | Screw M3 (1)            |
|                        | Wrench (1)              |
|                        | Bracket (1)             |
|                        | Wire rope (1)           |
| Safety regulations (1) |                         |

|                      |                                |
|----------------------|--------------------------------|
| Optional Accessories | YT-ICB600 (In-ceiling Bracket) |
|                      | YT-LD600S (Smoke Dome Cover)   |

## Notes

\*1 Monitor display ratio 4:3

\*2 The values for dimensions are approximate.

## Related products



### UNI-MDPDH120

Pendant mount for



### UNI-BBB1

Wall/pole mount adapter box for Sony SNC-CH outdoor



### UNI-UMB1

Indoor wall mounting bracket for minidome and PTZ cameras

indoor E Series and V Series minidome cameras series video security cameras

## Gallery

