

## 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) 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) 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 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°

## 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
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) 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
-------------------	------

---

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

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



Operating System	Business Edition Windows 7 (32/64 bit) Ultimate, Professional Edition Windows 8 Pro (32/64 bit) 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, Ver. 8.0, Ver. 9.0, Ver. 10.0, Ver. 11.0 Firefox Ver. 19.02 (plug-in free viewer only) Safari Ver. 5.1 (plug-in free viewer only) Google Chrome Ver. 25.0 (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.

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 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 (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 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 95 %
Dimensions *2	φ148 x 108 mm φ5 7/8 inches x 4 3/8 inches
Mass	Approx. 800 g Approximate 1 lb 12 oz
External Material	Top cover: ABS + PC Dome cover: PC
External Color	Top cover: Munsell 4.4BG 8.4/0.2
Fire Retardant	UL2044
Safety Regulations	JATE Technical standard (LAN) UL2044, IEC60950-1 (CB) VCCI (Class A), FCC (Class A), IC (Class A) Emission: EN55022 (Class A) + EN50130-4 Immunity: EN55022 (Class A) + EN55024 Emission: AS/NZS CISPR22 (Class A) KCC 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

