SONY

SNC-XM631

Minidome 1080p/30 fps Camera Powered by IPELA ENGINE EX™ – X Series

Overview

Excellent Full HD picture quality in a compact, discreet indoor housing: ideal for retail, banking and education applications
The SNC-XM631 minidome IP camera is suited to a wide range of indoor security and surveillance environments, from banks and retail spaces to schools and colleges.

It's compact and easy to install, vandal resistant with an IK10 rating for protection against tampering or deliberate damage.

Full HD picture quality is assured by the sensitive, high-resolution Exmor™ CMOS sensor that's teamed with Sony's latest-generation IPELA ENGINE EX™ signal processing system. Every scene looks clearer, sharper and more detailed – even in challenging low-light conditions or with harsh backlighting. Extra intelligence is added by DEPA Advanced Intelligent Video Analytics that can intelligently trigger an alarm based on user-defined rules.

Full HD pictures from the wide-angle lens are fine-tuned by the advanced IPELA ENGINE EX™ processing engine. This delivers wide dynamic range and cuts noise for crisp, clear results – even in less-than-perfect lighting conditions. Built-in image stabilisation reduces the effects of vibration, making it easier to see what's happening.

Installation is simplified with e-Varifocal technology that allows convenient electronic adjustment of zoom and field of view. For even greater flexibility, there's a choice of three alternative optional lenses to accommodate a wide range of horizontal viewing angle requirements.

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Features

- **See every detail with Full HD quality**

  The sensitive, high-resolution Exmor CMOS sensor captures crisp, detail-packed Full HD (1920 x 1080) video images.

- **Wide angle lens**

  A horizontal viewing angle of 113 degrees makes the camera ideal for wide area surveillance, requiring fewer cameras to cover the same space.

- **Latest generation imaging power**

  High quality imaging is assured by Sony's unique IPELA ENGINE EX™ signal processing platform that combines powerful signal processing with intelligent video analytics technologies. XDNR (eXcellent Dynamic Noise Reduction) assures clear low-light images, while Visibility Enhancer (VE) dynamically optimises brightness and colour reproduction on a pixel-by-pixel basis. Extra intelligence is added by DEPA Advanced analytics with face detection that can trigger alarms based on user-determined rules.

- **Wide dynamic range**

  Innovative View-DR technology achieves a dynamic range equivalent to 90 dB, capturing objects clearly and adaptively – even with harsh backlighting or sun-drenched highlights.

- **Excellent low-light sensitivity**

  The camera is capable of capturing clear images in very low light conditions: minimum illumination of 0.3 lx in Colour mode and 0.3 lx in B/W mode (at 50 IRE).

- **Better pictures, day or night**

  Electronic Day/Night function automatically switches the camera between Day (colour) and Night (B/W) modes, depending on light levels.

- **Steadier, more stable images**

  The in-built image stabiliser reduces the effects of camera shake or vibration for steadier images with reduced blur.

- **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.

- **Automatic edge recording to memory card**

  Edge Storage allows recording of video directly to an optional SD/SDHC card, even when a network connection isn't available.

- **Power over Ethernet**

  The camera is powered using PoE (IEEE 802.3af) via a standard RJ-45 connector, simplifying installation and eliminating the need for additional power cables.

- **Easy mounting on wall or ceiling with three-axis lens adjustment**

This allows the lens unit to be turned in pan, tilt and rotate axes for versatile camera angle adjustment.

- **Easy, flexible field-of-view adjustments**

  e-Varifocal allows electronic zooming and adjustment of field of view – for easy, flexible installation without cumbersome focus re-adjustment that's needed with optical varifocal lenses.

- **Optional lenses for flexible control over field-of-view**

  In addition to the camera's supplied lens (with 113 degree horizontal viewing angle), three optional fixed lenses are also available with a horizontal viewing angle of 83 degrees, 51 degrees and 25 degrees respectively to allow flexible field-of-view camera settings.

- **Vandal resistant design**

  The camera is vandal resistant with an IK10 impact rating, for protection against destructive behaviours.

- **View with your smartphone**

  Securely access the camera using a smartphone or tablet (Android or iOS) to view images and control pan/tilt/zoom functions remotely.

- **Easy IP network configuration**

  Configuration of network settings is made quick and simple using the supplied SNC Easy IP Setup application.

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

  Support for ONVIF Profile-S simplifies integration with a wide range of VMS platforms and hardware, providing video streaming and camera control. 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.

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Technical Specifications

Camera

●	Image Sensor	1/2.9-type progressive scan Exmor CMOS sensor
●	Number of Effective Pixels	Approx. 2.14 Megapixels
●	Minimum Illumination (50 IRE)	Color: 0.3 lx (F2.0, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0.3 lx (F2.0, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)
●	Minimum Illumination (30 IRE)	Color: 0.18 lx (F2.0, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0.18 lx (F2.0, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)
●	Dynamic Range	Equivalent to 90 dB with View-DR technology
●	Gain	Auto
●	Shutter Speed	1/1 s to 1/10,000 s
●	Exposure Control	Exposure compensation, Shutter speed
●	White Balance	ATW, ATW-PRO, Indoor, Outdoor, Fluorescent lamp, Mercury lamp, Sodium vapour lamp, Metal halide lamp, White LED, One push WB, Manual
●	Lens	Fixed lens
●	Zoom Ratio	Digital zoom 4x Total zoom 4x
●	Horizontal Viewing Angle	113°
●	Vertical Viewing Angle	61°
●	Viewing Tilt Angle	151°
●	Focal Length	f = 2.8 mm
●	F-Number	F2.0
●	Minimum Object Distance	500 mm
●	Pan/Tilt/Rotation Angle (manual)	0 ° to 350 ° 0 ° to 60 ° -175 ° to +175 °

Camera Features

●	Day/Night	Electronic D/N
●	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
Compatibility with Cloud Service	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, Turkish, Polish
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: 30 fps (1920 x 1080) JPEG: 30 fps (1920 x 1080)
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

System Requirements

Operating System	Windows XP (32 bit) Professional Edition Windows Vista (32 bit) Ultimate, 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 Corei7 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, RTSP over HTTP, SMTP, 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
● Authentication	IEEE802.1X

Interface

● Network Port	10BASE-T/100BASE-TX (RJ-45)
● Alarm Input (Sensor Input)	x1, make contact, break contact
● Alarm Output	x1, +/- 50 V, 0.4 A (solid state relay outputs electrically isolated from the camera)
● Card Slots	SD x 1
● Confirmed SD Card Type	Max. 64 GB

General

● Power Requirements	IEEE 802.3af compliant (PoE system)
● Power Consumption	4.0 W max.
● Operating Temperature	-10°C to +50°C 14°F to 122°F
● Cold Start Temperature	0°C 32°F
● Storage Temperature	-30 °C to + 60 °C -22 °F to + 140 °F
● Operating Humidity	20 % to 80 %
● Storage Humidity	20 % to 80 %
● Dimensions *1	φ 104.5 × 56.5 mm φ 4 1/8 inches x 2 1/4 inches
● Mass	Approx. 200 g Approx. 7.1 oz
● External Material	Top cover/Dome cover : PC (Polycarbonate) Lower case:AL Die-cast
● External Color	Top cover: Munsell 4.4 BG 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) EMC-TR
	CD-ROM (supplied programs) (1)

● Supplied Accessories		Installation Manual (1) Template (1) Safety regulations (1) Warranty booklet (1) I/O cable (1)
● Optional Accessories		SNCA-L038MF (M12 Mount Lens) SNCA-L060MF (M12 Mount Lens) SNCA-L120MF (M12 Mount Lens)

Notes	
● *1	The values for dimensions are approximate.

Accessories

Mounting Hardware

UNI-WMB4

Gooseneck Wall Mount Bracket

SNC-XM631