

SNC-VB635

Box-type 1080p/60 fps Camera
with Half-inch Exmor™ CMOS
Sensor Powered by IPELA
ENGINE EX™ - V Series



Overview

Highly sensitive box camera with the half-inch Exmor CMOS sensor powered by IPELA ENGINE EX, with Full HD image quality, advanced analytics and high frame rate recording.

The SNC-VB635 is a high performance versatile fixed network camera that's ideal for a wide range of security and surveillance applications – from city centres, airports, traffic and transport systems to government and utilities.

This high-sensitivity box camera design is supplied without a lens, giving the freedom to select from a wide range of lenses to suit virtually any surveillance needs.

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 where other cameras struggle. Extra intelligence is added by DEPA Advanced Intelligent Video Analytics that can intelligently trigger an alarm based on user-defined rules.

High frame rate recording captures fast-moving action at a smooth 60 frames per second, making it easier to review and

analyse footage with split-second accuracy.

On-board image stabilisation helps keep images crisp, clear and immune from mechanical vibration, even if the camera's buffeted by wind on an outdoor pole or overlooking a busy motorway.

PoE (Power over Ethernet) capability carries IP video and power over a single connection cable, while easy focus and zoom adjustment further reduces installation time and maintenance costs.

The SNC-VB635 is supplied without lens. Compatible lenses include :

- DV3.4x3.85A-SA1, DV10x8SR4A-SA1, and DV3.8x4SR4A-SA1 from Fujinon
- M12VG412 from Tamron
- HG5Z2518FC-MP and H3Z4518CS-MPIR from Computar

Features

See every detail with Full HD quality

The camera's sensitive, high-resolution Exmor CMOS sensor captures crisp, detail-packed Full HD (1920 x 1080) video images with a high frame rate (up to 60fps).

Latest generation imaging power

Class-leading imaging is assured by Sony's unique IPELA ENGINE EX signal processing platform. 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.

Exceptional low-light sensitivity

The camera is capable of capturing clear images in extremely low

light conditions: minimum illumination of 0.04 lx in Colour mode and 0.03 lx in B/W mode (at 50 IRE and 30 fps).

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.

Better pictures, day or night

True D/N (Day/Night) function automatically switches the camera between Day (colour) and Night (B/W) modes, depending on light levels. In Night mode, the IR-cut filter is removed, making the camera sensitive to near-IR light and capable of reproducing images not visible to the naked eye.

Capture smooth, fluid movement

Video images can be captured at a high frame rate of 60 fps: ideal for applications like casinos or banks where it's essential to see what's happening with split-second accuracy.

Steadier, more stable images

Mechanical vibration – caused by gusts of wind or a busy road bridge – can cause blurred, hard to see images. The in-built image stabiliser reduces the effects of camera shake for crisper, clearer images.

Flexible powering options with PoE

The camera can be powered by AC 24V or DC 12V to suit a wide range of installation requirements. In addition, support for Power over Ethernet (IEEE 802.3af/IEEE 802.3at-compliant (PoE/PoE+)) simplifies installation by eliminating the need for additional power cables.

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 recording to memory card

Edge Storage allows automatic recording of video and audio directly to an optional micro SD/SDHC card for later analysis. Recording can be triggered in response to an alarm event, if there's an attempt to tamper with the camera or in the event of network connection being temporarily lost.

View with your smartphone

Securely access the camera using a smartphone or tablet (Android or iOS) to view images.

Multiple video and audio codecs

For easy integration with a range of VMS solutions the SNC-VB635 supports H.264 (High/Main/Baseline Profile) /JPEG video codecs and AAC (16 kHz/48 kHz)/G.726/G.711 audio codecs. This provides compatibility and choice to suit many applications.

Easy setup and IP network configuration

The Easy Focus feature provides quick, easy adjustment of focus, simplifying installation and reducing maintenance time. Easy Focus can be activated remotely, minimising the need for on-site periodic maintenance, and ensuring excellent images. Configuration of network settings is made simple with the supplied SNC Easy IP Setup application.

ONVIF (Open Network Video Interface Forum) compliance

Support for ONVIF 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.

RS-485 interface

The RS-485 interface transmits serial data simplex redirection to camera peripherals for controlling functions such as powered

zoom of lenses and the Pan/Tilt function of external Pan/Tilt head enclosure.

Specifications

Camera	
Image Sensor	1/1.9-type progressive scan Exmor CMOS sensor
Number of Effective Pixels	Approx. 2.38 Megapixels
Signal System	NTSC/PAL (switchable)
Sync System	Internal synchronization
Minimum Illumination (50 IRE)	Color: 0.04 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0.03 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps)
Minimum Illumination (30 IRE)	Color: 0.02 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0.01 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	C-mount varifocal lens (option)
Easy Focus for Setup	Yes

Camera Features

Day/Night	True D/N
Day/Night linked with Easy Focus	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
Superimpose Number	3 independent positions for characters (Codec, Date & Time, Event, Text (Max. 64 characters)), 1 independent position for logo marks
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)
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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 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
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ONVIF Conformance	Profile S, Profile T
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Authentication	IEEE802.1X
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Interface

Analog Video Output	BNC x1, 1.0 Vp-p, 75 Ω, unbalance, sync negative 700 TV lines (analog video) *1
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Microphone Input	Mini jack (monaural)
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Line Input	Mini jack (monaural)
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Line Output	Mini jack (monaural) Maximum output level: 1 Vrms
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Network Port	10BASE-T/100BASE-TX (RJ-45)
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Alarm Input (Sensor Input)	x2, make contact, break contact
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Alarm Output	x2, AC 24V/DC 24 V, 1 A (mechanical relay outputs electrically isolated from the camera)
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Serial Interface	RS-485
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Card Slots	SD x 1
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 +60°C 14°F to 140°F
Cold Start Temperature	0°C to +60°C 32°F to 140°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	79 mm x 74 mm x 145 mm (without lens) 3 1/8 inches x 3 inches x 5 3/4 inches (without lens)
	Approx. 570 g (without lens)

Mass	Approx. 1 lb 4 oz (without lens)
External Material	Top cover: SECC-CF Bottom cover: SECC-CF Front panel: ADC12 Rear panel: PC
External Color	Top cover: Munsell 3.6GY 8.4/0.3 Bottom cover: Munsell 3.6GY 8.4/0.3 Front panel: Munsell 3.5PB 2.2/0.4 Rear panel: 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) Installation Manual (1)

Supplied Accessories	Wire rope (1)
	Screw (M4 × 8) (1)
	DC 12/AC 24V connector (1)
	Safety regulations (1)
	C Mount adaptor (1)

Notes

*1 Monitor display ratio 4:3

*2 The values for dimensions are approximate.

Gallery

