

## SNC-EM602RC

Outdoor IR ruggedized 720p/30  
fps camera powered by IPELA  
ENGINE EX™



### Overview

#### **Tough, round-the-clock surveillance with HD picture quality and IR illumination.**

This ruggedized minidome camera delivers HD quality images around the clock in tough environments – indoors or outside in harsh weather.

The vandal- and weather-resistant SNC-EM602RC is ideal for a wide range of demanding security, surveillance and monitoring applications, from banks, factories, shopping malls and offices to airports, car parks and transportation systems.

HD picture quality is assured by the sensitive, high-resolution Exmor™ CMOS sensor that's teamed with Sony's advanced 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.

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

This 'single box' solution also includes built-in IR (infrared) illumination, allowing viewing of objects up to 30m from the camera in complete darkness.

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 totally sealed minidome unit assures dependable operation in challenging indoor and outdoor environments. It's capable of operating in extreme temperatures (from -40°C to +50°C with PoE+, or from -30°C to +50°C with PoE). For even greater resilience, the camera's vandal-resistant design meets the IK10 standard (protection against mechanical impact), and is IP66 rated for protection against water and dust.

## Features

### **See every detail with HD quality**

The camera's sensitive, high-resolution Exmor CMOS sensor captures crisply detailed video images in HD720P (and 1280 x 1024) at up to 30fps.

### **Powered by IPELA ENGINE EX**

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.

### **Wide dynamic range**

Innovative View-DR technology achieves a dynamic range equivalent to 130 dB, capturing objects clearly and adaptively –

even with harsh backlighting or sun-drenched highlights.

### **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 30m (50 IRE) from the camera. Using View DR and high quality IR, images can be captured without overexposure.

### **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.

### **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.

### **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.

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

The camera's vandal-resistant design meets IK10 standards (protection against mechanical impact). IP66-rated waterproof and dust-tight, the camera is ideal for outdoor surveillance, as well as damp or humid indoor environments where water ingress may be encountered.

### **Flexible powering options with PoE**

The camera can be powered by Power over Ethernet (IEEE

802.3af/IEEE 802.3at-compliant (PoE/PoE+) simplifying installation by eliminating the need for additional power cables.

### **View with your smartphone**

Securely access the camera using a smartphone or tablet to view images remotely and adjust settings.

### **Quick, easy installation**

Quick, easy adjustment of focus and zoom settings simplifies installation while reducing maintenance time. Configuration of network settings is made simple with the supplied SNC Easy IP Setup Guide 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.

## Specifications

Camera	
Image Sensor	1/3-type progressive scan Exmor CMOS sensor
Number of Effective Pixels	Approx. 1.37 Megapixels
Signal System	NTSC/PAL (switchable)
Sync System	Internal synchronization

Minimum Illumination (50 IRE)	Color: 0.05 lx (F1.2, View-DR Off, VE Off, AGC On, 1/30 s, 30 fps) B/W: 0 lx (IR LED On)
Minimum Illumination (30 IRE)	Color: 0.03 lx (F1.2, View-DR Off, VE Off, AGC On 1/30 s, 30 fps) B/W: 0 lx (IR LED On)
Dynamic Range	Equivalent to 130 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
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 varifocal lens
Easy Zoom	Yes
Zoom Ratio	Optical zoom 3x Digital zoom 4x Total zoom 12x

Easy Focus for Setup	Yes
Horizontal Viewing Angle	92.9° to 31.8°
Vertical Viewing Angle	73.1° to 25.5°
Viewing Tilt Angle	121.5°
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°
IR Illuminator	Yes Wave length (typical): 850 nm , IR LED: 20 pieces)
IR Working Distance	30 m (50 IRE) 98 ft. (50 IRE)

## Camera Features

Day/Night	True D/N
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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
Vandal Resistant	IK10
Ingress Protection	IP66
	3 independent positions for characters (Codec, Date & Time,

Superimpose Number	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
<b>Video</b>	
Resolution	1280 x 1024, 1280 x 960, 1024 x 768, 1280 x 720, 800 x 600, 720 x 576, 720 x 480, 704 x 576, 640 x 480, 352 x 288, 320 x 240 (H.264, JPEG)
Compression Format	H.264 (High/Main/Baseline Profile), JPEG
Maximum Frame Rate	H.264: 30 fps (1280 x 1024) JPEG: 30 fps (1280 x 1024)
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 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

IPv4, TCP, UDP, ARP, ICMP, IGMP\*, HTTP, DHCP, DNS, NTP, RTP/RTCP, RTSP over TCP, RTSP over HTTP,

Protocols	SMTP, IPv6, HTTPS, SNMP (v1, v2c, v3), FTP (client), 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 Monitor Output for Setup	Phono jack x1
Network Port	10BASE-T/100BASE-TX (RJ-45)

## General

Power Requirements	IEEE802.3at compliant (PoE/PoE+ system) Max. 17 W (IEEE802.3at (PoE+),
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Power Consumption	PoE+) Max. 12.95 W (IEEE802.3af/at (PoE/PoE+), PoE)
Operating Temperature	<p>-40°C to +50°C (PoE+) -30°C to +50°C (PoE)</p> <p>*If the camera is installed in high-temperature environments and subjected to direct sunlight, it is highly recommended to use the optional SNCA-WP602 Weather Protector.</p> <p>-40°F to +122°F (PoE+) -22°F to +122°F (PoE)</p> <p>*If the camera is installed in high-temperature environments and subjected to direct sunlight, it is highly recommended to use the optional SNCA-WP602 Weather Protector.</p>
Cold Start Temperature	<p>-30°C (PoE+) -20°C (PoE)</p> <p>-22°F (PoE+) -4°F (PoE)</p>
Storage Temperature	<p>-20 °C to + 60 °C</p> <p>-4 °F to + 140 °F</p>
Operating Humidity	20 % to 90 % (no condensation)
Storage Humidity	20 % to 95 % (no condensation)

Built-in Heater	Yes
Dimensions *1	φ166 x 128 mm φ6 5/8 inches x 5 1/8 inches
Mass	1580 g 3 lb 7.7 oz
External Material	Upper case: ADC12 Lower case: ADC12 Dome cover: PC Cap:PC
External Color	Top cover: Munsell 4.4BG 8.4/0.2 Lower case: Munsell 4.4BG 8.4/0.2 Cap: 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

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Supplied Accessories	CD-ROM (supplied programs) (1) Bracket (1) Template (1) Wire rope (1) Wrench (1) Camera unit mounting screws (4) Screw (M4 × 8) (2) Installation Manual (1) Safety Regulations (1) Cable holder (for conduit) (1)
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Optional Accessories	YT-ICB45 (In-ceiling Bracket) SNCA-WP602(Weather Protector)
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### Notes

\*1 The values for dimensions are approximate.

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## Gallery

