SONY

IPELA
INTEGRATED VISUAL COMMUNICATION

SNC-CS50P
Network Camera

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SNC-CS50P

The Sony SNC-CS50P Network Camera – An Easy to Operate, High-Performance Colour IP Network Camera that Takes Remote Monitoring to the Next Level

Sony introduces a new addition to its Network Camera line-up, the SNC-CS50P. This colour IP network camera is ideal for applications ranging from surveillance to remote monitoring in areas such as shopping malls, airports, warehouses and more.

The SNC-CS50P incorporates a highly sensitive 1/3-type CCD with SuperExwave™ technology for superb picture quality and high sensitivity. The camera comes equipped with an auto iris, high-performance vari-focal lens and features a CS mount that offers users the flexibility to replace the existing lens with a different lens to meet different application requirements.

It also offers a variety of key features for surveillance and remote monitoring, such as a Day/Night function to provide clear monitoring images even in low light conditions, Intelligent Motion Detection and Intelligent Object Detection.

Using advanced image processing technology, the SNC-CS50P provides three compression formats: JPEG, MPEG-4, and H.264*, allowing users to choose the appropriate compression format to match the network environment and monitoring applications. A high-frame rate can be achieved, providing clear and smooth moving images while monitoring. Also, because the SNC-CS50P employs a newly developed "Dual Encoding Capability," JPEG and MPEG-4 images can be streamed simultaneously, further expanding monitoring applications possibilities.

This feature-rich, intelligent, high-performance camera can take your surveillance and remote monitoring applications to the next level. Choose the SNC-CS50P to meet your IP monitoring needs.

* H.264 compressed video cannot be viewed using a browser.
This function will be available with a software upgrade in the future.

Features

High-Quality Images

Employing the latest 1/3-type CCD with SuperExwave technology, the SNC-CS50P delivers exceptional picture quality for your remote monitoring applications. Also, because the minimum illumination level is 0.4 lx at F 0.95 in colour, the camera operates extremely well even in low-light conditions.

Selectable JPEG, MPEG-4, H.264* Compression Formats

The SNC-CS50P supports three compression formats, JPEG, MPEG-4, and H.264. MPEG-4 provides clear moving images efficiently over networks even with limited network bandwidth. For higher compression, when bandwidth is even more limited, H.264, which achieves two times more compression than MPEG-4, is available. If high quality still images are preferred, then the industry-standard JPEG compression format can be used. The image size can be selected from three modes to meet your network environment and application requirements.

* H.264 compressed video cannot be viewed using a browser.
This function will be available with a software upgrade in the future.

High Frame Rate

The SNC-CS50P supports a maximum frame rate of 25 fps when the image size is VGA (640 x 480) in both MPEG-4 and JPEG modes, producing clear and smooth-moving images. The frame rate can also be set to a variable rate that automatically adjusts to the available bandwidth according to system requirements.

Stylish and Discreet Design

The SNC-CS50P comes equipped with a stylish front lens cover and a convenient rear panel cover for cable management, so the camera is less likely to detract from the natural décor of the room in which it is installed.

Vari-Focal Lens

The SNC-CS50P comes equipped with a CS-mount, IR compensated vari-focal lens with an auto iris function that covers the horizontal viewing angle of 94 to 35 degrees. Because the maximum aperture is F 0.95, the lens can provide remarkable image quality even in low-light conditions. While this lens provides a viewing range that should cover the requirements of a majority of applications, users have the option of replacing the lens with a CS-mount lens having a different focal length to meet different application requirements.

Simple GUI Operation

The SNC-CS50P has a user-friendly GUI accessible via a PC running the Microsoft® Internet Explorer® browser software. Setup is very easy with intuitive icons and pull-down menus.

Image Stabiliser

The image stabiliser function minimises the appearance of shaky images caused by low-frequency vibration so that stable and sharp images are provided. This function is useful for outdoor surveillance and traffic monitoring applications.

Day/Night Function

The SNC-CS50P offers a Day/Night function to provide optimised sensitivity in both day and night environments. As the scene darkens, the infrared cut filter is automatically replaced with a clear filter and the camera switches to B/W mode, achieving a minimum illumination of less than 0.04 lx.

Wireless Capability

The SNC-CS50P supports the IEEE 802.11b compliant SNCA-CFW1 Wireless LAN Card when used in combination with a Compact FlashTM Type PC card adaptor. This type of wireless configuration can save both time and money during installation. In addition, the optional SNCA-AN1 External Antenna enables the transmission of wireless signals over a longer distance.

Alarm Functions

Intelligent Motion Detection

The SNC-CS50P is equipped with a built-in intelligent motion detection function that can trigger a variety of actions such as storing and transferring images or that can trigger an external device through its output relays. Unlike with conventional motion detection, the last 15 frames are used to calculate motion detection information and to trigger the alarm when motion is detected. This prevents unwanted noise components from accidentally triggering an alarm, providing a more robust detection method.

Intelligent Object Detection*

The SNC-CS50P can detect objects that have been left in one place for a specified duration. Up to four detection areas can be specified. This feature can be useful for applications such as detecting suspicious objects in public spaces or for detecting illegally parked cars.

* The intelligent object detection function and the intelligent motion detection function cannot be used simultaneously.

Sensor in/Alarm out

Equipped with two sensor inputs, the camera can receive triggers from external sensors. Also, two alarm (relay) outputs can be used to trigger other devices to perform a variety of actions.

Pre-/Post-Alarm Image Storage

With an ATA memory card in a PC card slot, the SNC-CS50P can store several seconds of pre- and post-alarm images directly into the camera when the intelligent motion and object detection systems, or the sensor inputs trigger an alarm.

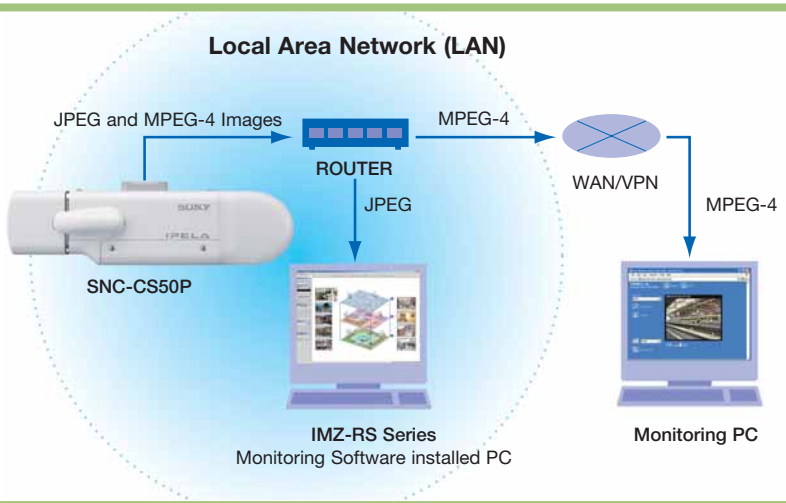
Image Transfer Using FTP/SMTP*

All of the pre-/post-alarm images stored at the time of an alarm event can be transferred to an FTP server for later viewing. Also, a still image at the time of an alarm event can be sent to a designated e-mail address.

* All images transferred using SMTP are in JPEG format.

Bi-Directional Audio

Incorporating an external microphone input, the SNC-CS50P allows for audio as well as video monitoring. The use of an external microphone greatly enhances the ability to pickup the desired sound. This unit is also equipped with a speaker output, enabling users to send an alert or make an announcement, significantly expanding the possibilities for remote monitoring applications. With Voice Alert function, you can play back an audio file by an alarm trigger or scheduling function.



Dual Encoding Capability

The SNC-CS50P is equipped with a dual encoding capability that enables the camera to generate both MPEG-4 and JPEG images simultaneously. For example, you can set up your system to transfer MPEG-4 images over a WAN or an Internet VPN, where network bandwidth is limited, while storing high-resolution JPEG images on a local storage device configured on the LAN.

Network Features

Adaptive Rate Control

In order to control QoS (Quality of Service) levels over a network, the SNC-CS50P employs an adaptive rate control function for MPEG-4 and H.264. This function automatically varies the video bit-transfer rate to meet changing network conditions. Adaptive rate control also selects the most appropriate frame rates, preventing audio and video breakup.

Simultaneous Access

Up to 20 users can simultaneously access the SNC-CS50P and monitor images separately.

Multicasting Capability

The SNC-CS50P has a built-in multicasting capability for MPEG-4 and H.264. When configured with a multicast router, the unit can efficiently stream video and audio to a large number of users.

Network Security Features

IP Filtering

With IP filtering, access to the SNC-CS50P can be restricted to one or more groups of selected users. Up to ten different groups can be established by defining an IP address range for each group.

Password Protection

User names and passwords can be assigned to allow five levels of access. The administrator has complete access/control of the cameras, while the other four levels of access can be set to limit user privileges to functions such as zoom control, viewing and trigger control.

Anti-tampering Function*

Incorporating a digital signature technology using Public Key Infrastructure (PKI), the SNC-CS50P allows users to verify the origin of images and ensure the integrity of images against tampering. This is done by creating a digital certificate for each camera manufactured and applying digital signatures in the form of metadata to all images produced by that camera; this combination assures that an image produced by that camera is unique only to that camera.

* This function is available only with the recording software that comply with Sony digital signature scheme. For more details, please consult your nearest Sony office or authorised dealer.

Rear Panel

PC Card Slot

A PC card slot is integrated into the SNC-CS50P, enabling you to store images on removable media as required.

Analogue Composite Video Output

The SNC-CS50P can output an analogue composite video signal via the BNC connector on the unit's rear panel. This feature is ideal for outputting image data to a local recording device or monitor.

RS-232C Interface

The SNC-CS50P has a transparency function available via the RS-232C interface. External equipment can be connected and controlled by a PC connected to the network on which the SNC-CS50P resides.

AC24V, DC12V, or PoE Operation

The SNC-CS50 offers a choice of three types of power: AC24V, DC12V or PoE (Power-over-Ethernet, IEEE 802.3af). The camera's power system automatically adapts to the supplied power.

IPELA

Business is changing. The vision of integrated visual communication is becoming a reality with Sony IPELA – A suite of intelligent IP-based Network Video Monitoring and videoconferencing products and solutions.

Sony IPELA utilises the rapidly expanding global IP broadband network and advanced high-resolution imaging technology to offer visual communications systems that enable customers to realise the Sony vision for the work place of the future, where better business decisions are made as a result of enhanced, real-time person-to-person and location-to-location communication.

Sony IPELA Network Video Monitoring solutions offer cost benefits and flexibility in the applications of Security, CCTV Surveillance, Remote Monitoring and Leisure. Complete solutions offer customers a choice of IP cameras, Network Video Recorders and Management Software.

Reality

- High Frame Rate (25 fps*)
- High Sensitivity (Minimum illumination 0.4 lx)

* Max depending upon camera set-up

Great picture quality, even in low light

Intelligence

- Intelligent Motion Detection
- Intelligent Object Detection
- Anti-Tampering Function

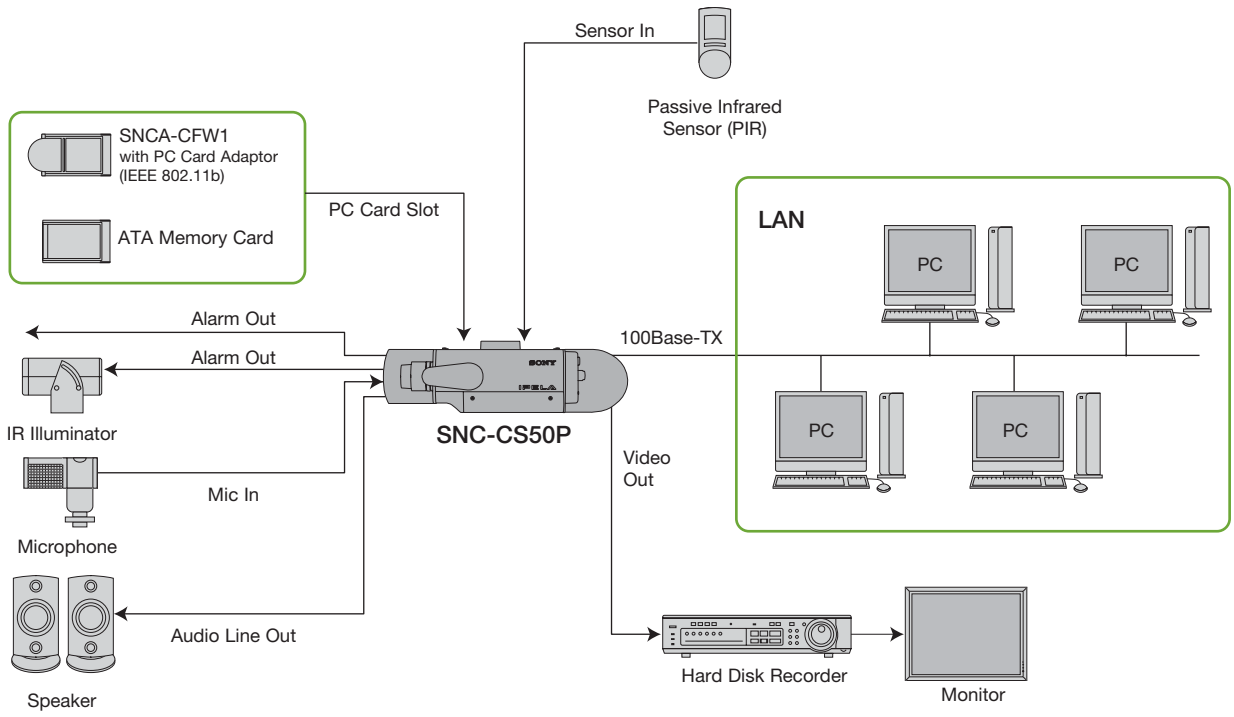
Your applications are enhanced by technology

Usability

- JPEG, MPEG-4, H.264 Compression Formats
- Dual Encoding Capability
- User-Friendly GUI

Flexible and user-friendly

System Configuration



SNC-CS50P Specifications

amera	
Image device	1/3-type SuperExwave CCD
Number of effective pixels	440,000 pixels
Electronic shutter	1/50 to 1/10,000 s
Gain control	Auto/Manual (0 dB to +24 dB)
Exposure control	Auto, Manual, EV compensation, Backlight compensation
White balance mode	ATW, ATW PRO, ONE PUSH
Lens type	Vari-focal zoom lens
Horizontal viewing angle	94 ° to 35 °
Focal length	f=2.9 to 8.0 mm
F-number	F0.95 to F1.6
Minimum object distance	300 mm
Other functions	Day/Night, Advanced Video, Motion detection, Anti-tampering, Unattended Object Detection, Image stabiliser

Image	
Image size (H x V)	640 x 480 (VGA), 320 x 240 (QVGA), 160 x 120 (QQVGA)
Compression format	JPEG, MPEG-4, H.264
Maximum frame rate in VGA size	JPEG/MPEG-4: Max. 25 fps H.264: Max. 8 fps
Compression ratio	approx. 1/5 to 1/60 (10 steps)

Audio	
Audio compression	G.711/G.726 (40, 32, 24, 16 kbps)

Network	
Protocols	TCP/IP, HTTP, ARP, ICMP, FTP, SMTP, DHCP, DNS, NTP, SNMP (MIB-2) and RTP/RTCP
Number of clients	20

Interface	
Ethernet	10Base-T/100Base-TX (RJ-45)
Serial interface	RS-232C (Transparency function)
PC card slot	PC card x1 (Type II)
Analogue video output	BNC x1, 1.0 Vp-p, 75 Ω
I/O ports	Sensor in x2, Alarm out x2
External microphone input	Mini-jack (monaural, 2.2 kΩ 2.5 V plug-in power)
Audio line output	Mini-jack (monaural), Max output level: 1 Vrms

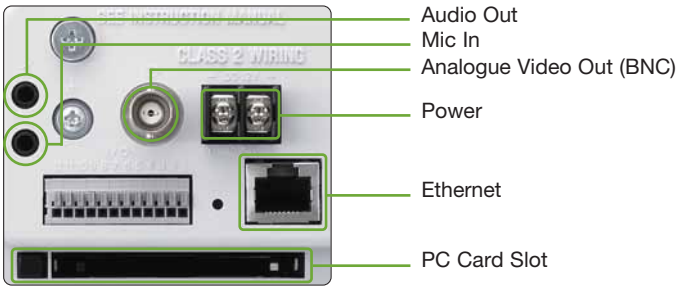
Analogue video output	
Signal system	PAL (Composite)
Horizontal resolution	540 TV lines
S/N ratio	50 dB or more
Min. illumination	Colour: 0.4 lx (F 0.95, 50 IRE, AGC ON) B/W: 0.04 lx (F 0.95, 50 IRE, AGC ON)

General	
Mass	750 g (1 lb 10 oz) excl. cover equipment, 880g (1 lb 15 oz) incl. cover equipment
Dimensions (W x H x D)	84 x 69 x 196 mm (3 3/8 x 2 3/4 x 7 3/4 inches) excl. cover equipment 84 x 69 x 265 mm (3 3/8 x 2 3/4 x 10 1/2 inches) incl. cover equipment
Power requirements	AC 24 V, DC 12 V, PoE
Power consumption	9 W max. (AC 24V)
Operating temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage temperature	-40 °C to 60 °C (-40 °F to 140 °F)

Supplied accessories	
	CD-ROM (setup program and user's guide), Wire rope, Shoulder screw M4, Cable cover, Front cover, Lens cable cover, Screw for front cover

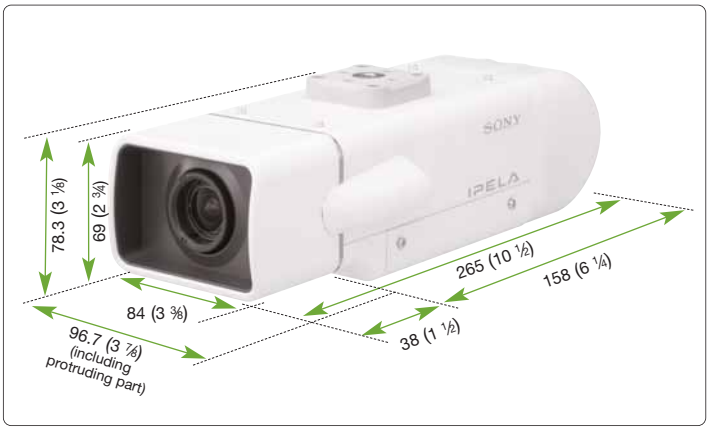
System requirements	
Operating system	Microsoft® Windows® 2000/XP
Processor	CPU: Intel® Pentium® IV 1.5 GHz or higher
Memory	RAM: 256 MB or more
Web browser	Microsoft Internet Explorer® Ver.6.0 or later

REAR PANEL



DIMENSIONS

Unit: mm (inches)



OPTIONAL ACCESSORIES

SNCA-CFW1
Wireless LAN Card

SNCA-AN1
Wireless LAN Antenna

(Optional accessory for the SNCA-CFW1 Wireless LAN Card)

Notes: You should keep in mind that the images or audio you are monitoring may be protected by privacy and other legal rights, and the responsibility for making sure you are complying with applicable laws is yours alone. Access to the images and audio is protected only by a user name and the password you set up. No further authentication is provided nor should you presume that any other protective filtering is done by the service. Since the service is internet-based, there is a risk that the image or audio you are monitoring can be viewed or used by a third-party via the network.

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