SONY

Network Cameras

SNC-CS50N
SNC-CS50P

Connect Your Vision

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SNC-CS50

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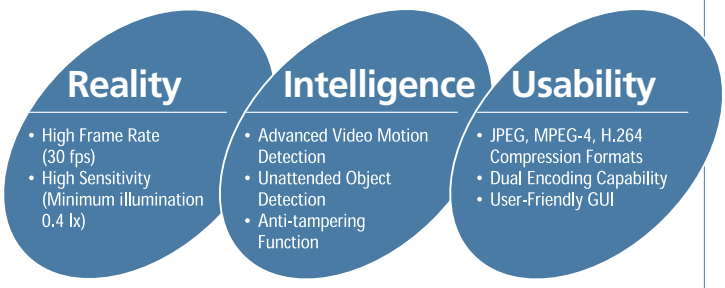


Real audiovisual communication over networks – this is business communication of the future, this is business communication brought to you today, this is "**IPELA**."

The Sony SNC-CS50[*1] *Network Camera – An Easy to Operate, High-Performance Color IP Network Camera that Takes Remote Monitoring to the Next Level*

Sony introduces a new addition to its Network Camera Lineup, the SNC-CS50. This color 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-CS50 incorporates a highly sensitive 1/3-type CCD with SuperExwave™ technology for superb picture quality and high sensitivity with a minimum illumination of 0.4 lx at F 0.95, 50 IRE. This 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 match the application requirements.

This camera 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, Advanced Video Motion Detection, and Unattended Object Detection.

Using advanced image processing technology, the SNC-CS50 provides three compression formats: JPEG, MPEG-4, and H.264[*2] *allowing users to choose the appropriate compression format to match the network environment and monitoring applications. A high-frame rate of 30 fps when the image size is VGA (640 x 480) for JPEG and MPEG-4 can be achieved, providing clear and smooth moving images while monitoring. Also, because the SNC-CS50 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-CS50 to meet your IP monitoring needs.

*1 In the following text, "SNC-CS50" refers to both the SNC-CS50N (NTSC model) and the SNC-CS50P (PAL model).
*2 H.264 compressed video cannot be viewed using a browser. This function will be available with a software upgrade in the future.

High-Quality Images

Employing the latest 1/3-type CCD with SuperExwave technology, the SNC-CS50 delivers exceptional picture quality for your remote monitoring applications. Also, because the minimum illumination level is 0.4 lx at F 0.95 in color, the camera operates extremely well even in low-light conditions.

Selectable JPEG, MPEG-4, H.264*3 Compression Formats

The SNC-CS50 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 untilized. The image size can be selected from three modes to meet your network environment and application requirements.

*3 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-CS50 supports a maximum frame rate of 30fps 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 the system requirements.

Slim and Stylish Design With Front and Rear Covers

The SNC-CS50 comes equipped with a stylish front lens cover and a convenient rear panel cover for cable management, the camera is less likely to detract from the natural décor of the room in which it is installed.

Dual Encoding Capability *(Fig. 1)*

The SNC-CS50 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.

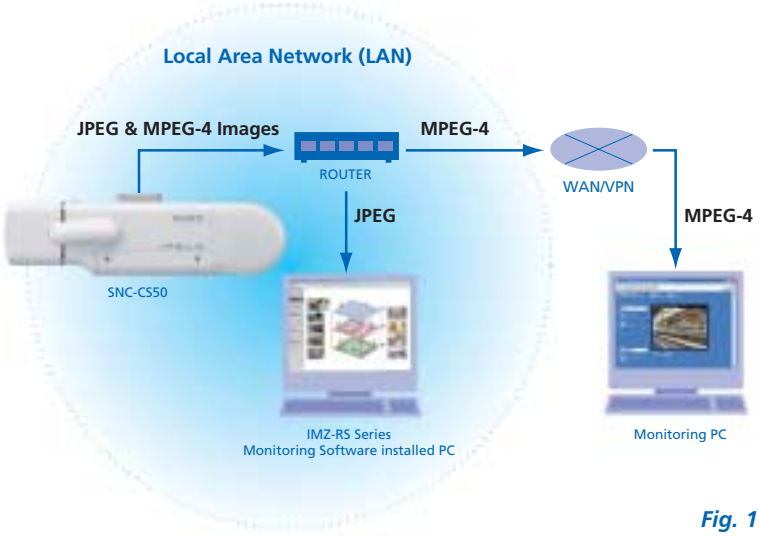


Fig. 1
Dual Image Encoding

Vari-Focal Lens

The SNC-CS50 comes equipped with a CS-mount, IR compensated vari-focal lens with an auto iris function that covers the frequently used 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 the application requirements.

Image Stabilizer

The image stabilizer function minimizes 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-CS50 offers a "Day/Night" function to provide optimized 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.

Alarm Functions

Advanced Video Motion Detection

The SNC-CS50 is equipped with a built-in advanced video 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.

Unattended Object Detection*4

The SNC-CS50 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.

*4 The unattended object detection function and the advanced video motion detection function cannot be used simultaneously.

Sensor IN/Alarm OUT ports

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-CS50 can store several seconds of pre- and post-alarm images when the motion and unattended object detection systems, or the sensor inputs trigger an alarm.

Image Transfer Using FTP/SMTP*5

All of the pre-/post-alarm images stored at the time of an alarm event can be transferred to a 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.

*5 All images transferred using SMTP are in JPEG format.

Network Features

Simultaneous Access

Up to 20 users can simultaneously access the SNC-CS50 and monitor images separately.

Multicasting Capability

The SNC-CS50 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.

Wireless Capability

The SNC-CS50 supports the IEEE802.11b compliant SNCA-CFW1 Wireless LAN Card when used in combination with a Compact Flash™ Type PC card adaptor. This type of wireless configuration can save you time and money during installation. In addition, the optional SNCA-AN1 External Antenna enables the transmission of wireless signal over a longer distance.

Bi-Directional Audio

Incorporating an external microphone input, the SNC-CS50 allows for audio as well as video monitoring. The use of an external microphone greatly enhances the ability to pickup the desired sound from the preferred location. 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.

Network Security Features

IP Filtering

With IP filtering, access to the SNC-CS50 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*6

Incorporating a digital signature technology using Public Key Infrastructure (PKI), the SNC-CS50 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.

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

PC Card Slot

A PC card slot is integrated into the SNC-CS50, enabling you to store images on removable media as required.

REAR PANEL

Simple GUI Operation

The SNC-CS50 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.

Viewer

Analog Composite Video Output

The SNC-CS50 can output an analog 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.

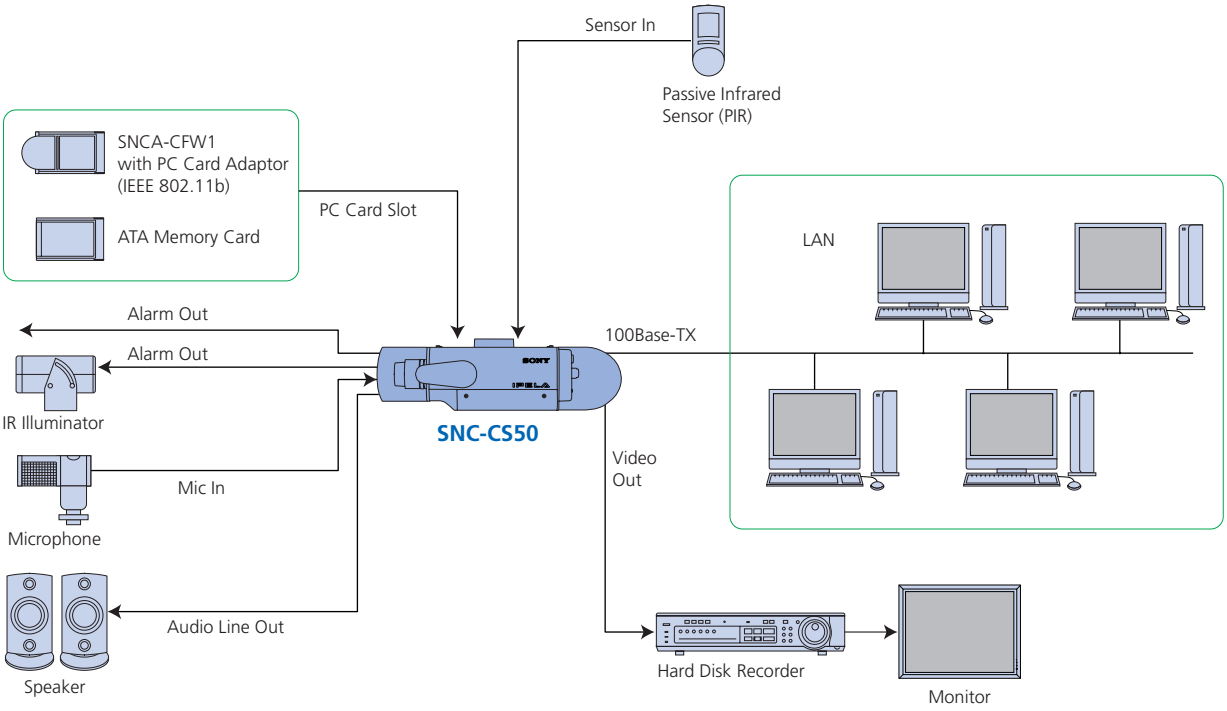
RS-232C Interface

The SNC-CS50 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-CS50 resides.

AC 24 V, DC 12 V, or PoE Operation

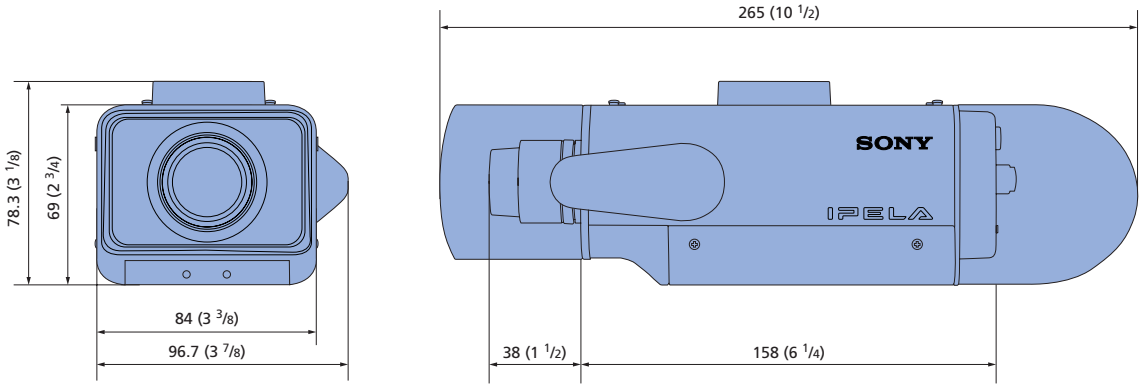
The SNC-CS50 offers a choice of three types of power : AC 24 V, DC 12 V or PoE (Power-over-Ethernet, IEEE 802.3af). The camera's power system automatically adapts to the supplied power.

SYSTEM CONFIGURATION



REAR PANEL LAYOUT

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)

SPECIFICATIONS

	SNC-CS50N	SNC-CS50P
Camera		
Image device	1/3-type SuperExwave CCD	
Number of effective pixels	380,000 pixels	440,000 pixels
Electronic shutter	1/60 to 1/10,000 s	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,Unattended Object Detection, Anti-tampering, Image stabilizer	
Image		
Image size (H x V)	640 x 480, 320 x 240, 160 x 120	
Compression format	JPEG, MPEG-4, H.264	
Maximum frame rate		
JPEG/MPEG-4	30 fps (640 x 480)	25 fps (640 x 480)
H.264	10 fps (640 x 480)	8 fps (640 x 480)
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)	
Analog 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	
Analog video output		
Signal system	NTSC (Composite)	PAL (Composite)
Horizontal resolution	540 TV lines	
S/N ratio	50 dB or more	
Min. illumination	Color: 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	

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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