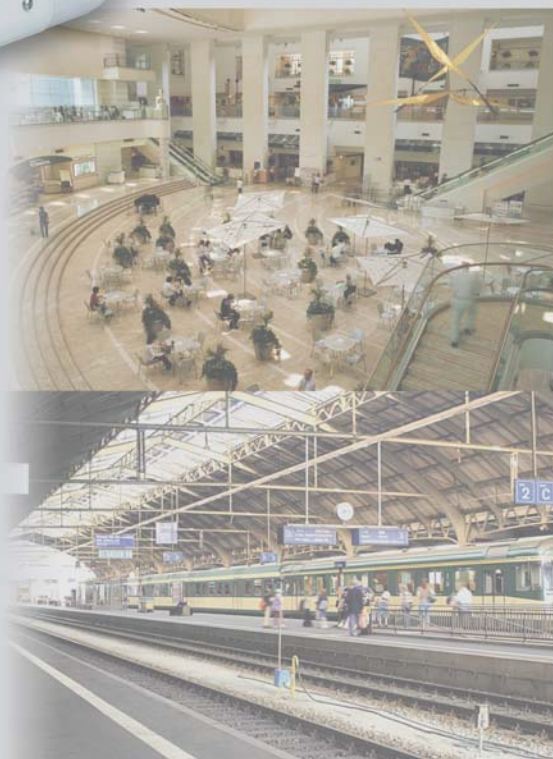


**SONY**

Network Camera

# SNC-CS50N



**IPELA**  
INTEGRATED VISUAL COMMUNICATION

Stunning video and audio brought to you by the IPELA series of visual communication products that encompass the three-pronged concept of "Reality," "Intelligence," and "Usability." IPELA is the identity symbolizing the SONY vision for the workplace of the future, connecting people, places, and information with reality that has never before been achieved. IPELA products let you share, understand, and experience as if you are actually there, when in fact, you are miles away. It allows you to quickly grasp a situation to make better business decisions.

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

### Reality

- High Frame Rate (30 fps)
- High Sensitivity (Minimum illumination 0.4 lx)

### Intelligence

- Intelligent Motion Detection
- Intelligent Object Detection
- Anti-tampering Function

### Usability

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

## *The Sony SNC-CS50N 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-CS50N. 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-CS50N 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, Intelligent Motion Detection, and Intelligent Object Detection.*

*Using advanced image processing technology, the SNC-CS50N provides three compression formats: JPEG, MPEG-4, and H.264\*1 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-CS50N 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-CS50N to meet your IP monitoring needs.*

\*1 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-CS50N 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<sup>\*2</sup> Compression Formats

The SNC-CS50N 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 utilized. The image size can be selected from three modes to meet your network environment and application requirements.

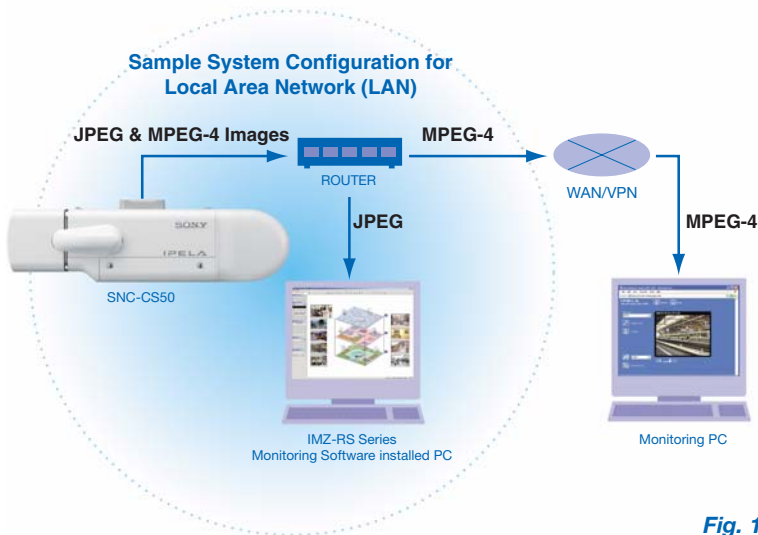
<sup>\*2</sup> H.264 compressed video cannot be viewed using a browser. This function is planned to be available through a software upgrade in the future.

## High Frame Rate

The SNC-CS50N 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-CS50N comes equipped with a stylish front lens cover and a convenient rear panel cover for cable management, thus, the camera is less likely to detract from the natural décor of the room in which it is installed.



**Fig. 1**

Dual Codec (Dual Streaming)

## Dual Codec (Dual Streaming) Capability (Fig. 1)

The SNC-CS50N 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.

## Vari-Focal Lens

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The SNC-CS50N comes equipped with a CS-mount, IR compensated vari-focal lens with an auto iris function that covers the frequently used horizontal viewing angles 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 purchasing another lens with a CS-mount lens having a different focal length to meet the application requirements.



## Image Stabilizer

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The image stabilizer function of the SNC-CS50N 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

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The SNC-CS50N 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

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### Intelligent Motion Detection

The SNC-CS50N 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 helps prevent unwanted noise components from accidentally triggering an alarm, providing a more robust detection method.

### Intelligent Object Detection<sup>\*3</sup>

The SNC-CS50N can detect objects that have been left in one place for a specified period. Up to four detection areas can be specified. This feature can be useful for applications such as detecting suspicious objects in public spaces or illegally parked cars.

<sup>\*3</sup> The intelligent object detection function and the intelligent motion detection function cannot be used simultaneously.

### Sensor IN/Alarm OUT ports

Equipped with two sensor inputs, the SNC-CS50N 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-CS50N can store several seconds of pre- and post-alarm images when the motion and intelligent object detection systems or the sensor inputs trigger an alarm.

### Image Transfer Using FTP/SMTP<sup>\*4</sup>

All of the pre-/post-alarm images stored in the SNC-CS50N 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.

<sup>\*4</sup> All images transferred using SMTP are in JPEG format.

## Network Features

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### Simultaneous Access

Up to 20 users can simultaneously access the SNC-CS50N and monitor images separately.

### Multicasting Capability

The SNC-CS50N 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

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The SNC-CS50N 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 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

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Incorporating an external microphone input, the SNC-CS50N allows for audio as well as video monitoring. The use of an external microphone greatly enhances the ability to pick up the desired sound from the preferred location. This unit is also equipped with an active speaker output, enabling users to send an alert or make an announcement, significantly expanding the possibilities for remote monitoring applications.

### Voice Alert Function

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An audio file can be uploaded to the camera, such that the camera can play this audio file on alarm trigger or on schedule.

## Network Security Features

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### IP Filtering

With IP filtering, access to the SNC-CS50N 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 to the SNC-CS50N. 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<sup>5</sup>

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Incorporating a digital signature technology using Public Key Infrastructure (PKI), the SNC-CS50N allows users to verify the origin of images and determine if images have been tampered with. 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; thus, the image produced by a camera is unique only to that camera.

<sup>5</sup> This function is available only with the recording software that comply with Sony digital signature scheme. For more details, please consult your nearest Authorized Sony Reseller.

### PC Card Slot

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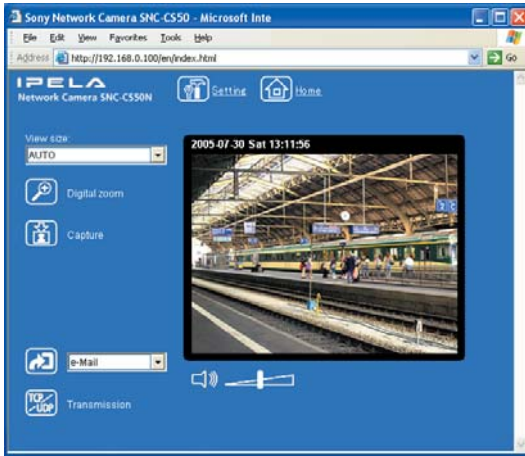
A PC card slot is integrated into the SNC-CS50N, enabling you to store images on removable media as required.



REAR PANEL

## Simple GUI Operation

The SNC-CS50N 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-CS50N also has 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.

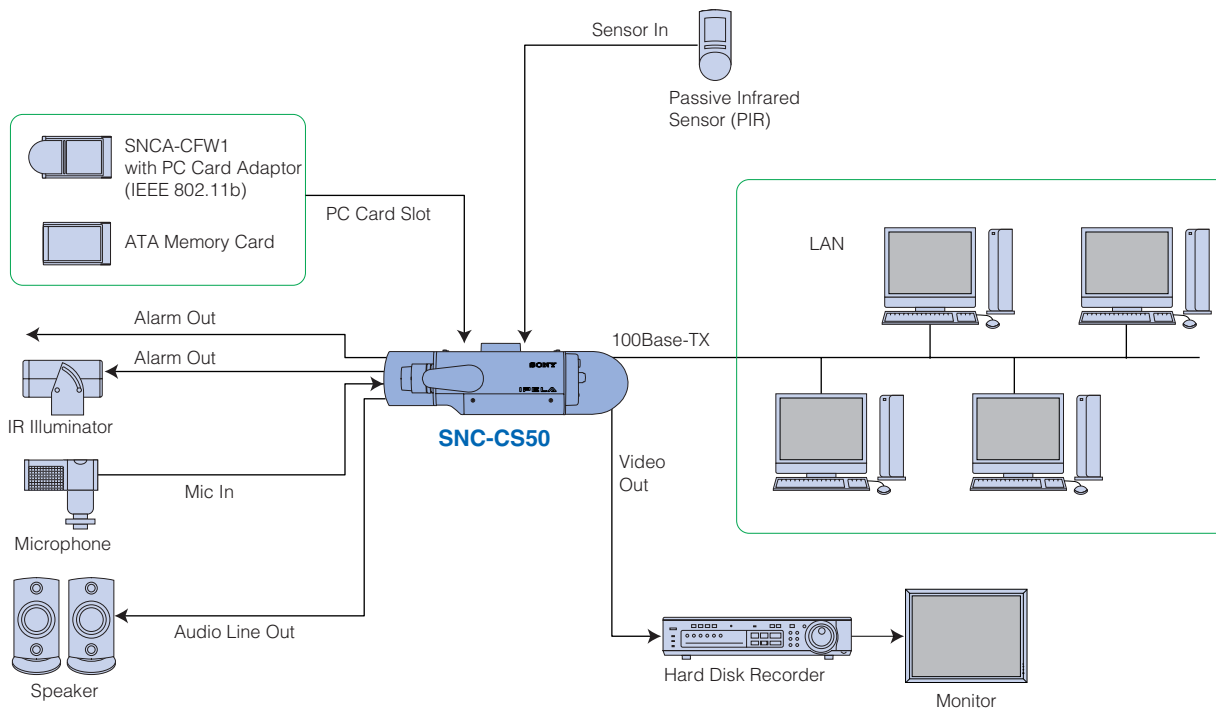
## RS-232C Interface

The SNC-CS50N has a transparency function available via the RS-232C interface. External equipment can be connected to the network on which the SNC-CS50N resides.

## AC 24 V, DC 12 V, or PoE Operation

The SNC-CS50N 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.

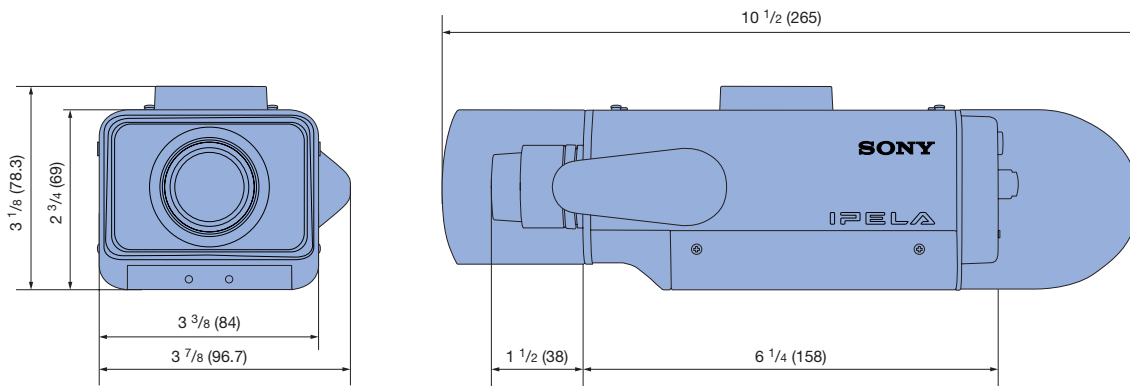
## SYSTEM CONFIGURATION



## REAR PANEL LAYOUT



## DIMENSIONS



Unit: inches (mm)

## OPTIONAL ACCESSORIES



**SNCA-CFW1**  
Wireless LAN Card



**SNCA-AN1**  
Wireless LAN Antenna  
(Optional accessory for the  
SNCA-CFW1 Wireless LAN Card)

# SPECIFICATIONS

SNC-CS50N	
<b>Camera</b>	
Image device	1/3-type SuperExwave CCD
Number of effective pixels	380,000 pixels
Electronic shutter	1/60 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 angles	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, Intelligent Motion Detection, Intelligent Object Detection, Anti-tampering, Image stabilizer
<b>Image</b>	
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)
H.264	10 fps (640 x 480)
Compression ratio	approx. 1/5 to 1/60 (10 steps)
<b>Audio</b>	
Audio compression	G.711/G.726 (40/32/24/16 kb/s)
<b>Network</b>	
Protocols	TCP/IP, HTTP, ARP, ICMP, FTP, SMTP, DHCP, DNS, NTP, SNMP (MIB-2) and RTP/RTCP
Number of clients	20
<b>Interface</b>	
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
<b>Analog video output</b>	
Signal system	NTSC (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)
<b>General</b>	
Weight	1 lb 10 oz (750 g) excl. cover equipment, 1 lb 15 oz (880g) incl. cover equipment
Dimensions (W x H x D)	3 3/8 x 2 3/4 x 7 3/4 inches (84 x 69 x 196 mm) excl. cover equipment, 3 3/8 x 2 3/4 x 10 1/2 inches (84 x 69 x 265 mm) incl. cover equipment
Power requirements	AC 24 V, DC 12 V, PoE
Power consumption	9 W max. (AC 24V)
Operating temperature	32 °F to 122 °F (0 °C to 50 °C)
Storage temperature	-40 °F to 140 °F (-40 °C to 60 °C)
<b>Supplied accessories</b>	
	CD-ROM (setup program and user's guide), Wire rope, Shoulder screw M4, Cable cover, Front cover, Lens cable cover, Screw for front cover
<b>System requirements</b>	
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

# SONY®

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S-SNCCS50N  
MK10286V1

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