SNC-RX Series
Network Cameras

www.sony.com/security
Intelligent and Feature Rich – Sony High-Performance Multi-Codec Network Cameras Deliver Efficient 24/7 Monitoring

The SNC-RX Series, SNC-RZ50, and SNC-CS50 third-generation Network Cameras are the latest in a series of Sony network cameras that support “Intelligent Video Analytics.” This efficient and intelligent processing method can provide greater operational efficiency and a high level of security.

These cameras incorporate advanced compression technologies to transmit image data in three different formats: JPEG, MPEG-4, and H.264. Users can choose any of these compression formats to match their system’s network environment and application requirements. What’s more, these third-generation cameras can simultaneously stream JPEG and MPEG-4 data for even greater operational flexibility.

These latest Sony cameras employ robust detection methods - Intelligent Motion Detection (IMD) and Intelligent Object Detection (IOD) to maximize the efficiency of the monitoring system. Object ‘tags’ (or IDs) and associated position data are created within the cameras. This data – also called metadata – can be streamed independently or along with video over a network to work in conjunction with rules or filters (such as virtual borderlines) defined in application software to perform actions such as initiating alarms or beginning to record. This rules-based processing can minimize server workload, network bandwidth, and storage requirements. In addition, a number of other convenient features have been incorporated into these cameras to meet your needs such as, a Day/Night function, Voice Alert, Privacy Zone Masking, and wireless capability.

With their built-in intelligence and rich features, the Sony multi-codec cameras are ideal for a wide variety of surveillance and monitoring applications.

* Intelligent video analytics is available when these cameras are used in conjunction with the Sony Network Recorders the NSR Series Ver. 4.0 or higher, the Sony Intelligent Monitoring Software IMZ-RS400 Series Ver. 4.0 or higher, or third party hardware and software designed to operate with these cameras to perform video analytics.
FEATURES

The DEPA Platform – Intelligent Video Analytics

The DEPA™ solution is a combined function of the camera intelligence incorporated in the SNC-RX Series, SNC-RZ50, and SNC-CS50 and the rules or filters on the recorder or software to determine what is to be recorded or when to trigger an alarm. When the network cameras perform IMD or IOD, “tagged” objects and their associated metadata, including object position data, are sent to the NSR Series or the IMZ-RS400 Series. These products then use the metadata, together with filters, to analyze any object movement. This method of distributed processing minimizes the server workload, network bandwidth, and storage requirements.

SNC-RX Series
The SNC-RX Series has a high-speed 360° endless panning (or rotation) capability, which allows users to precisely capture almost any object surrounding the camera. In addition, by employing a 1/4-type Exwave HAD™ CCD, the camera delivers exceptional picture quality for any remote monitoring application, even in low-light conditions.

SNC-RZ50
The SNC-RZ50 is a compact PTZ network camera that allows users to monitor a wide viewing area thanks to pan and tilt ranges of 340° and 115°, respectively. The camera also has an image-flip function for desktop use and supports the Dynamic Domain Name System (DDNS) for use over the Internet – making it ideal for a number of different monitoring applications.

SNC-CS50
The SNC-CS50 is a fixed-type network camera that incorporates the latest 1/3-type CCD with SuperExwave™ Technology. The minimum illumination is 0.4 lx in color and 0.04 lx in black and white (B/W), providing high-contrast images even in low-light conditions. The camera also comes equipped with a varifocal zoom lens that covers a wide range of horizontal viewing angles (35° to 94°).
High-Quality Images

High Frame Rate
These cameras support a maximum frame rate of 30 fps (NTSC)/25 fps (PAL) when the image size is VGA (640 x 480) in both MPEG-4 and JPEG modes, resulting in clear and smooth-moving images. The frame rate can be set to meet your specific network environment and system requirements.

Dynamic Frame Integration
These cameras incorporate Dynamic Frame Integration (DFI) technology to reproduce clear images for both still and moving objects within an image. DFI technology detects movement within the image and reproduces those areas with minimal blurring, while areas in the image with little or no movement are displayed naturally with minimal jagged edges. This unique algorithm also takes advantage of the interlaced-scanning CCD, which is inherently more sensitive than progressive-scan CCDs and can provide clear images even under low-lighting conditions.

JPEG Picture Quality Settings With Constant Bitrate Algorithm
Users can preset the JPEG picture quality from among ten levels. In addition, because these cameras incorporate a constant bitrate algorithm, they limit the data bitrate while maintaining high-quality images. This is useful for calculating the required storage capacity and bandwidth during installation.

Image Stabilizer
The image stabilizer function of these cameras minimizes the appearance of shaky images caused by low-frequency vibration to provide stable and sharp images. This function is useful for outdoor surveillance and traffic monitoring applications when environmental vibration effects such as wind are common.

Wide Dynamic Range With DynaView Technology
The SNC-RX570 incorporates DynaView™ technology, which dramatically improves camera dynamic range by 128 times when compared to conventional cameras. This results in clear image reproduction, even in extreme high-contrast environments. The camera captures the same image twice - first with a normal shutter speed, and then with a high shutter speed. The dark areas captured at normal shutter speed and the bright areas captured at high shutter speed are then combined into one image using an advanced DSP LSI. Additionally, as these high-contrast scenes may have different lighting conditions, two white balance circuits are employed - one for normal shutter speed and the other for high shutter speed. This advanced technique reproduces high-contrast images with proper color.

DynaView Technology

Powerful and Versatile Zoom Capability
The SNC-RX570 incorporates a powerful 36x optical zoom lens, allowing for a zoom capability of up to 432x when used in combination with its 12x digital zoom. The SNC-RX550 and SNC-RZ50 incorporate a 26x optical zoom lens and the SNC-RX530 incorporates an 18x optical zoom lens. Users can choose a camera that has the appropriate zoom ratio for their specific application requirements.
Operational Flexibility

Selectable JPEG, MPEG-4, H.264 Compression Formats
These multi-codec cameras support three compression formats, JPEG, MPEG-4, and H.264. The “industry standard” JPEG compression format can be selected when high-quality still images are preferred. MPEG-4 provides clear moving images efficiently over networks when bandwidth is limited. For more efficient compression, when bandwidth is even more limited, the H.264 compression format, which is approximately twice as efficient as MPEG-4, is also available.

Bi-Directional Audio
Users can connect an external microphone to these cameras in order to pick up audio from a preferred location. These cameras are also equipped with a speaker output, enabling users to send an alert or make an announcement from a remote location – significantly expanding the possibilities of their monitoring applications.

Voice Alert
The Voice Alert function allows users to upload up to three pre-recorded audio files to these cameras, for playback upon an alarm trigger or on a pre-specified time schedule.

High Level of Security

Intelligent Motion Detection
The built-in IMD function can trigger a variety of actions such as the storage and transfer of images or can trigger an external device through its output relays. False alarms caused by noise and repeated motion patterns are minimized thanks to an advanced Sony algorithm. Plus, when used in conjunction with DEPA-enabled recorders or software, a multitude of filter functions is available to actuate triggers based on more specific movement.

Intelligent Object Detection*4
These cameras can detect objects that have been abandoned or have become stationary for a specified duration. Up to four detection areas can be designated. This feature is useful for detecting suspicious objects left in public places, or for detecting stalled cars or accidents on the road. Like IMD, filters can be used when configured with DEPA-enabled products.

*4 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, these cameras can receive triggers from external sensors. Two alarm outputs can also be used to trigger other devices to perform a variety of actions.

Pre-/Post-Alarm Image Storage
These cameras are capable of storing both pre-and post-alarm images on 16 MB of built-in memory or on removable storage media.

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 an FTP server for viewing at a later time. Also, a still image generated 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

Adaptive Rate Control
In order to control QoS (Quality of Service) levels over a network, these cameras employ an adaptive rate control (ARC) function. ARC automatically varies the video bit-transfer rate to meet changing network conditions and selects the most appropriate frame rates, thus preventing video breakup.

Simultaneous Access
Up to 20 users can simultaneously access these cameras and monitor images separately.

Multicasting Capability
When configured with a multicast router, these cameras can efficiently stream MPEG-4 and H.264 video and audio to a large number of users.

DDNS Support*6
Because the SNC-RZ50 supports DDNS, a unique host name can be assigned to the camera when using a dynamic IP address over the Internet.

Network Security Features

IEEE802.1X Compliant
These cameras support IEEE802.1X port-based network access control. This means they can be integrated to a network environment that uses the IEEE802.1X client-authorization protocol for security purposes. This feature can be used on both wired- and wireless-connections.

SSL Compliant
The SNC-RZ50 supports the SSL protocol for encrypting data, to enable secure data transmission over networks.

Versatile Interfaces

Analog Composite Video Output
These cameras can output an analog composite video signal via the BNC connector. This feature is ideal for local video recording or monitoring. Also, the analog composite video signal provides a high-horizontal resolution ranging from 450 to 540 TV lines depending on the model, delivering amazingly clear and detailed images.

RS-232C Interface
Transparency Function:
These cameras have a transparency function that allows external equipment connected via the RS-232C interface to be controlled or monitored, by a PC over a network.

VISCA™ Protocol:
The SNC-RX Series and the SNC-RZ50 can interface with external control equipment using the Sony VISCA protocol. This configuration allows for local control of Pan/Tilt/Zoom and adjustment of camera settings.

Other Convenient Features

Date/Time Superimposition
The date and time of recorded images can be superimposed on the video while it is being monitored and recorded. This feature is ideal not only for easily identifying the exact date and time of an event during playback, but because the information becomes part of the video image, it is also useful when providing video evidence to authorities.

File Export to Various Removable Media
The SNC multi-codec cameras are equipped with a PC card slot and/or other removable media slots, allowing users to store images on removable media as required.

Privacy Zone Masking Functions*7
Spherical Privacy Zone Masking:
This technology allows masked areas to be interlocked with the camera’s Pan/Tilt/Zoom movements regardless of the camera angle or even if it is circling. Up to eight unwanted or prohibited areas within an image can be masked precisely and appropriately.

Privacy Zone Masking:
Up to seven unwanted or prohibited areas within an image can be masked.

*7 Supplied “SNC Privacy Masking Tool” software is required to set masking areas.

Mechanical “Auto-Flip” Function
The SNC-RX Series combines a 90-degree tilt capability with 360-degree rotation to track subjects passing beneath it. First, the camera tilts down 90 degrees until the subject is directly beneath it. Then it rotates 180 degrees, and tilts back up to track the subject as it moves away. This combination of moves is known as the Auto-Flip function.

24 V AC, 12 V DC, or PoE Operation
The SNC-CS50 offers a choice of three types of power: 24 V AC, 12 V DC, or PoE (Power-over-Ethernet, IEEE 802.3af). The camera automatically adapts to the applied power source for fast and effective operation.
OPTIONAL ACCESSORIES

SNCA-CFW5®
IEEE802.11g/11b Wireless LAN Card
SNC-RX Series
SNC-R250
SNC-C550

SNCA-CFW1
IEEE802.11b Wireless LAN Card
SNC-RX Series
SNC-R250
SNC-C550

SNCA-AN1
Wireless LAN Antenna
(Optional accessory for the SNCA-CFW5/SNCA-CFW1)
SNC-RX Series
SNC-R250
SNC-C550

YT-ICB550/T
In-ceiling Mount Kit
(Tinted dome)
SNC-RX Series
SNC-R250
SNC-C550

YT-ICB550/C
In-ceiling Mount Kit
(Clear dome)
SNC-RX Series
SNC-R250
SNC-C550

YT-MA550
Adaptor for the
YT-ICB550
SNC-R250

* The SNCA-CFW5 is not available in some areas. For more details, please contact your nearest Sony dealer.

SYSTEM CONFIGURATIONS

Stand-alone Configuration

Client-server Configuration

REAR PANELS
## SPECIFICATIONS

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

*The SNC-RZ50 includes cryptographic software written by the OpenSSL Project for use in the OpenSSL Toolkit. (http://www.openssl.org/)

*The SNC-RZ50 includes cryptographic software written by Eric Young (eay@cryptsoft.com).

### Camera

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