



Video Network Camera

INTRODUCTION

With its network functionality, superb picture quality, and sophisticated features, the Sony SNC-Z20P is the right choice for your networked monitoring applications.

The SNC-Z20P incorporates a highly sensitive 1/4 type CCD with Exwave HAD™ technology for superb picture quality. Images are compressed using the JPEG-compression format for efficient distribution over a network. Equipped with an auto-focus 18x optical-zoom lens, this camera can zoom in on a small or distant object with exceptional clarity. The frame rate can be set as high as 25 fps¹ at VGA resolution to reproduce very smooth-moving images. Its built-in web server allows images to be viewed and controlled from a PC running a standard web browser or the optional Sony IMZ-RS Series Monitoring Software (which belongs to the RealShot Manager Software line-up). The SNC-Z20P also has sophisticated features such as Day/Night, Slow Shutter, and Activity Detection functions for further convenience in monitoring operations.



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SNC-Z20P

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FEATURES

High Picture Quality and High Zoom Ratio

The SNC-Z20P incorporates a 1/4 type CCD with Exwave HAD technology, offering high-resolution images with excellent sensitivity and achieves a horizontal resolution of 460 TV lines. The built-in auto-focus 18x optical zoom lens enables the user to obtain clear images even when enlarged. A maximum 216x zoom ratio is available when the optical zoom and 12x digital zoom are used together. To cover a wide angle of view, an optional VCL-0637H Wide Conversion Lens can be attached.

Remote Monitoring / Control Over Networks

The SNC-Z20P is equipped with a 100Base-TX/10Base-T (RJ-45) interface and a built-in web server. This allows a PC running a standard web browser to monitor its live images and control the unit without the need for additional software or plug-ins. Up to 50 users can simultaneously access, monitor, and control the images of a single SNC-Z20P camera. And, by installing the optional IMZ-RS Series Monitoring Software, up to 32 cameras can be simultaneously monitored and controlled from a single or multiple PCs. The images from these cameras can also be recorded to the PC's hard drive. In addition, images can be viewed from a personal digital assistant² (PDA).

High Frame Rate

The SNC-Z20P offers a maximum frame rate of 25 fps¹, allowing clear and smooth frame-accurate images to be viewed. The frame rate can be set to a fixed or variable frame rate, which is automatically adjusted according to the available bandwidth.

Network Security Features

IP Filtering

Using the IP-filtering feature, access to the SNC-Z20P 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. Setting these groups restricts access to the camera to the defined IP-address range, while denying access to all other addresses.

Password Protection

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

Selectable Image Quality and Size / Image Flip Function

The SNC-Z20P gives you the flexibility to select image quality and image size according to your network bandwidth. Employing the industry-standard JPEG-compression format, the SNC-Z20P has a selectable compression ratio between 1/5 and 1/60. Also, the image size can be selected from four modes: 736 x 544, 640 x 480, 320 x 240, and 160 x 120. Images from the camera can be electrically reversed upside down – allowing the camera to be installed in a variety of locations and positions.

Day / Night Function and Slow Shutter

The SNC-Z20P offers a Day / Night function to provide optimised sensitivity in both day and night shooting scenarios. As the scene illumination reduces and the image darkens, the infrared filter is automatically removed and the camera switches to B/W mode, achieving a minimum illumination of 0.01 lx (F1.4, 50IRE, Slow shutter OFF) – a drastic improvement from 0.7 lx minimum illumination in colour mode.

In addition, the slow shutter mode provides a remarkable enhancement in sensitivity by allowing the charge accumulation period of the CCD to be extended to a maximum of 1 second.

Backlight Compensation (BLC)

The Backlight Compensation (BLC) function helps to overcome strong backlighting effects, which often cause the subject of the picture to be cast into shadow. The picture brightness can be adjusted automatically to allow for changes in lighting conditions, optimising the image intelligibility under very adverse lighting conditions.

Versatile Interfaces

PC Card Slot⁴

A built-in PC card slot on the front panel of the SNC-Z20P enables you to increase the SNC-Z20P storage capacity for pre/post-alarm recording by adding either a flash ATA memory card or an ATA hard disk drive (HDD) card. IC recording media such as a Memory Stick™ media card with a Memory Stick/PC card adaptor can also be used.

Wireless Network Operation

The SNC-Z20P is compatible with an IEEE 802.11b-compliant wireless PC card allowing wireless network operation⁵.

RS-232C Interface (Transparency Function or VISCA™ Protocol)

The SNC-Z20P has a transparency function available via the RS-232C interface. This allows external equipment connected to the RS-232C port of the camera to be controlled from a PC over the network. Also, the SNC-Z20P can be controlled with the VISCA protocol from an external control device, allowing local control of zoom and camera settings.

Analogue Composite Video Output

The SNC-Z20P can output an analogue composite video signal from a BNC connector located on its rear panel. This allows recording or monitoring of the local image by connecting video equipment such as time-lapse recorders, hard disk recorders, multiplexers, and video monitors.

1: In order to achieve the maximum frame rate, adequate PC processing power and network bandwidth are required.

2: Please contact your local Sony office or authorised dealer for a recommended PDA.

3: Network equipment capable of supplying IEEE 802.3af-compliant power is required. Please contact your local Sony office or authorised dealer for recommended network equipment.

4: Please contact your local Sony sales office or authorised dealer for compatible PC cards for use with the SNC-Z20P.

5: Please contact your local Sony sales office or authorised dealer for compatible Wireless LAN cards for use with the SNC-Z20P.

Alarm Function

Activity Detection / Alarm Trigger

The SNC-Z20P is equipped with a built-in activity-detection sensor that can be set to trigger an alarm or a switch through alarm-output ports.

If a change in luminance level is detected in the field of view, an alarm is automatically triggered. In addition, the camera comes with an alarm-input port to receive a trigger from an external sensor.

Pre- / Post-Alarm Image Storage

With the internal 8 MB buffer or a memory card installed in the PC card slot, the SNC-Z20P can store hundreds of pre-alarm and post-alarm still images at an alarm trigger received either from the activity-detection sensor or the alarm input.

Image Transfer using FTP / SMTP

The pre- / post-alarm images stored at the time of an alarm event can be transferred to an FTP server, and the still image can also be sent to a specified e-mail address as a JPEG attachment, enabling the user to see what happened before and after an alarm occurred.

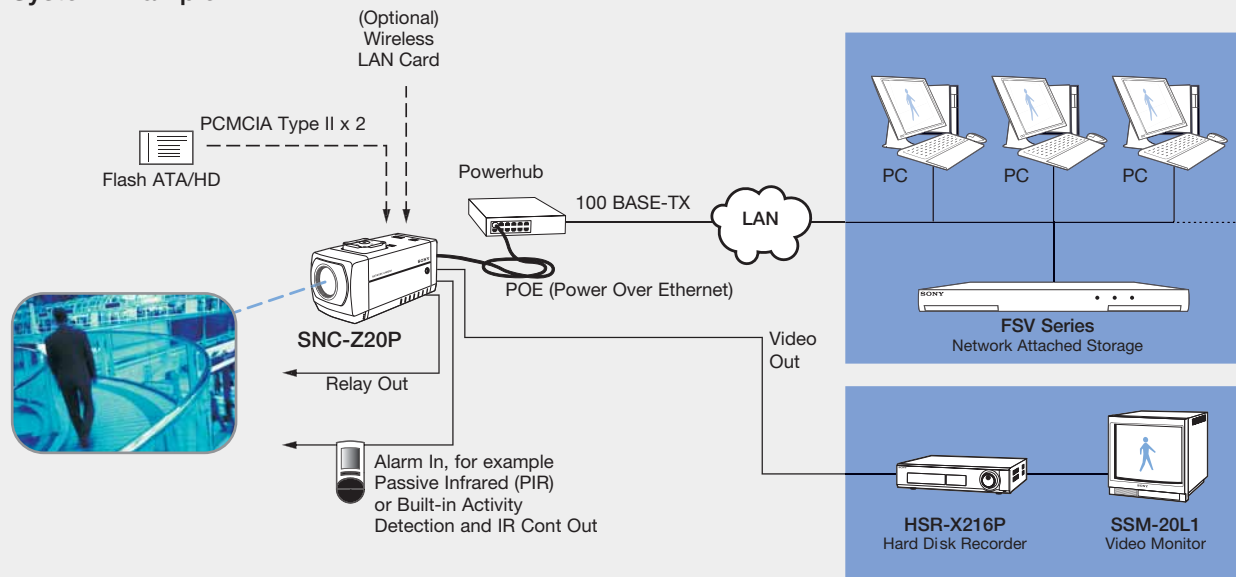


Power over Ethernet

AC 24V/DC 12V/Power-over-Ethernet Operation

The SNC-Z20P offers a choice of three different power supplies. AC 24 V or DC 12 V can be supplied through the standard power terminal. Power can also be supplied via an Ethernet CAT5 cable from an IEEE 802.3af-compliant power supply system³ allowing single cable operation. AC 24 V, DC 12 V, or PoE (Power over Ethernet) is automatically selected according to the power supplied.

System Example



SPECIFICATIONS

SNC-Z20P

Camera

Image device	1/4 type Interline Transfer CCD with Exwave HAD technology
Number of effective pixels (H x V)	752 x 582
Electronic shutter	1 to 1/10 000 s
Exposure	Auto [Full Auto (including backlight compensation), Shutter-priority, Iris-priority] and manual
White balance	Auto, ATW, Indoor, Outdoor, One-push, Manual
EV compensation	-1.75 to +1.75 EV (15 steps)
Iris	Auto/Manual (F1.4 to close)
Gain	Auto/Manual (-3 dB to +28 dB)
Focus mode	Auto/Manual (Near, Far, One-push, Auto-focus)

Lens

Type	Auto-focus zoom lens
Zoom ratio	18x optical, 216x with digital zoom
Focal length	f = 4.1 mm to 73.8 mm
Horizontal viewing angle	48° (wide) to 2.7° (tele)
F-number	F1.4 (wide), F3.0 (tele)
Minimum object distance	10 mm (wide), 800 mm (tele)

System/Network

CPU	32-bit RISC processor
RAM	32 MB (includes 8-MB alarm buffer)
Flash memory	8 MB
Image size (H x V)	736 x 544, 640 x 480, 320 x 240, 160 x 120
Compression	JPEG
Compression ratio	1/5 to 1/60 (10 steps)
Frame rate	Max. 25 fps (640 x 480)
Protocols	TCP/IP, ARP, ICMP, HTTP, FTP, SMTP, DHCP, DNS, NTP, and SNMP (MIB-2)

Interface

Ethernet	100Base-TX/10Base-T (RJ-45)
PC card slot	1 x PCMCIA Type II
Video output	Analogue composite (1 x BNC), 1.0 Vp-p, 75 Ω, unbalanced, sync negative
Sensor in	1
Alarm out	2
Serial interface	RS-232C (transparency function or VISCA protocol)

Analogue video output

Signal system	PAL
Sync system	Internal
Horizontal resolution	460 TV lines
S/N ratio	More than 50 dB (AGC OFF, Weight ON)
Minimum illumination	0.7 lx (F1.4, 50 IRE, Colour, Slow shutter OFF) 0.01 lx (F1.4, 50 IRE, B/W, Slow shutter OFF)

General

Mass	800 g (1 lb. 12 oz.)
Dimensions (W x H x D)	80 x 77 x 177 mm (3 1/4 x 3 1/8 x 7 inches)
Power requirements	DC 12 V, AC 24 V, or Power over Ethernet IEEE 802.3af
Power consumption	9 W
Operating temperature	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Operating humidity	20% to 80%, Non-condensing
Storage humidity	20% to 95%, Non-condensing
Supplied accessories	CD-ROM (setup program and user guide), Wire rope, Shoulder screw M4, Installation manual

Optional accessories

MSA-128A/64A/32A/16A Memory Stick
MSA-M32A/M16A Memory Stick Duo
MSX-1G/512/256 Memory Stick Pro
MSAC-PC3 Memory Stick/PC Card Adaptor
VCL-0637H Wide Angle Conversion Lens

System requirements

OPERATING SYSTEM AND WEB BROWSERS

Operating system	Microsoft® Windows® 98/98SE/ME/NT4.0/2000/XP
Processor	Intel® Pentium® III, 500 MHz or higher (Intel Pentium 4, 1 GHz or higher recommended)
Memory	128 MB RAM minimum
Display	1024 x 768, true colour or more

SYSTEM REQUIREMENTS FOR THE PC RUNNING IMZ-RS SERIES SOFTWARE

Operating system	Microsoft Windows 2000/XP
Processor	Intel Pentium 4, 2.4 GHz or higher
Memory	256 MB RAM minimum
Video card	Supporting 1024 x 768 at 16/24 bits colour depth
Network Interface Card	Ethernet 100Base-TX
Sufficient video storage	(local PC hard disk or Network Attached Storage)



Side View



Rear Panel