

ARCHITECT & ENGINEER SPECIFICATIONS
SECTION 16780
VIDEO SURVEILLANCE SYSTEMS

SNC-P1 High Resolution Camera with 10/100 Base T Ethernet

PART 2 PRODUCTS

2.01 CCTV / NETWORK CAMERA SPECIFICATIONS

A. GENERAL REQUIREMENTS:

1. The SNC- P1 Shall be a CS mount, network enabled High Resolution Camera, utilizing a 1/4 type progressive scan CCD. The camera has an analog video output producing 400 TV lines of horizontal resolution.
2. The SNC-P1 network interface is via an 8-pin RJ-45 connector, 10 Base T /100 Base TX Ethernet.
3. The SNC- P1 shall utilize JPEG and MPEG-4 compression. Compression levels are user selectable in 5 levels of compression ratios, based on an image of 24bits per picture element (8bits each for YUV).
4. The SNC- P1 shall incorporate a built-in web server, such that standard web browser Internet Explorer can be used to view the camera view without need for special viewer software. The supported operating system is Windows® 2000 and Windows XP. Minimum PC requirements shall be 1 GHz, Pentium® IV Processor, with 256MB RAM or more supporting 1024X768 True Color display capability with Ethernet 100 Base T.
5. The SNC- P1 shall be capable of supporting up to 20 users in the JPEG format or 10 users in the MPEG 4 format simultaneously over the network.
6. There are up to 4 user level settings. Access to functions shall be determined as follows:
 - a. User level 1 Viewing only
 - b. User level 2 Capture image
 - c. User level 3 Trigger relay outputs, capture images, FTP or Email image, & save image into memory
 - d. User level 4 All functions (Administrator)
7. Maximum frame rate capability of the SNC-P1 over LAN will up to 30 frames per second on MJPEG or MPEG 4 at a capture size of 320 x 240 QVGA.
8. The SNC-P1 shall have the capability of selecting either JPEG or MPEG-4 compression formats.
9. The SNC-P1 shall be capable of compressing MPEG-4 and JPEG at:

MPEG-4	JPEG
640 x 480 @ 15 fps,	640 x 480 @ 18 fps,
320 x 240 @ 30 fps,	320 x 240 @ 30 fps,

10. Image sizes are user selectable for the following:

MPEG-4	JPEG
640 x 480	640 x 480
480 x 360	480 x 360
384 x 288	384 x 288
320 x 240	320 x 240
256 x 192	256 x 192
160 x 120	160 x 120

11. The SNC-P1 minimum slow shutter setting shall be 1 to 1/30 (On/Off selectable)
12. The SNC- P1 shall support the following Network protocols: TCP/IP, DNS, RTCP, UDP, RTP, ARP, HTTP, ICMP, SMTP, FTP, DHCP, NTP and SNMP (MIB2). Network security shall be via Password (basic authentication) and IP filtering.
13. The SNC-P1 shall have both FTP client and server capabilities.
14. The SNC-P1 shall have user configurable port settings.
15. The SNC-P1 shall be capable of dynamic IP address change notification. It shall accomplish this via an email to a specified address when its IP address changes.
16. The SNC-P1 shall be capable of limiting the bandwidth on all ports from 64kbps to 2048 mbps.
17. The SNC-P1 shall have an internal image memory size of 8MB for alarm buffering.
18. The SNC-P1 shall be capable of pre and post alarm buffering.
19. The SNC-P1 shall be capable of adaptive control and also multicast capabilities.
20. The SNC-P1 shall be capable of specifying up to 10 or 20 depending on format selected users inclusive of administrator, and allow each user to have one of four levels of access.
21. The SNC-P1 shall be equipped with a built-in motion detection function that can generate an alarm through an alarm-output port or trigger various actions
22. The SNC-P1 shall be capable of multicasting that enables efficient video and audio streaming to a large number of users without overloading the network.
23. The SNC-P1 shall be capable of store several seconds of pre-alarm and post-alarm images when an alarm is triggered by the motion detection, the sensor-input, or both

B. CAMERA LENS SPECIFICATIONS:

1. The SNC-P1 lens shall be auto-focus type, but can be switched to manual, which can be set by the administrator
2. The SNC-P1 shall have minimum object distance of 50cm.
3. The SNC-P1 shall have a F Number of F= 2.0
4. The SNC-P1 shall have a focal length of F= 3.8

5. The SNC-P1 shall require a minimum scene illumination of: 3.0 lux.
6. The SNC-P1 shall have a continuously variable shuttering capability, a feature called CCD Iris mode. CCD iris mode shall be from 1 to 1/100, 00 sec.

C. VIDEO-ELECTRICAL REQUIREMENTS

1. The power connection shall be by means of screw down mini terminals connector.
2. The scanning system shall be 400 lines.
3. The video output of the SNC-P1 shall meet the EIA/NTSC standard.
4. Camera synchronization shall be Internal.
5. The SNC-P1 shall be have Normal AGC of 18dB.
6. The SNC-P1 composite video output shall be 1.0 V peak to peak @ 75 ohms.
7. The SNC-P1 video signal to noise ratio shall be more than 50dB
8. The SNC-P1 White balance shall be Auto, Indoor 1, Indoor 2, Outdoor, One push AWB.
9. The SNC-P1 shall employ a center weighted backlight compensation system, and shall be selectable for on/off.
12. The SNC-P1 shall employ Auto Tracking White (ATW) balance.
13. The SNC-P1 auto tracking white (ATW) balance range shall be 2,000 degrees Kelvin to 10,000 degrees Kelvin.

D: AUDIO REQUIREMENTS:

1. The SNC-P1 shall support audio. Audio compression standards supported shall be G.711 (64kbps) & G.726 (40, 32, 24, 16Kbps).
2. The SNC-P1 shall also support an external microphone. External microphone connectivity shall be via a single channel stereo type mini- jack, supporting 2.0 VDC power at 2.2 ohm external microphone input.
3. The SNC-P1 shall support an external active speaker via a mini-jack. Audio output shall be a maximum level of 0.9 Vrms.
4. The SNC-P1 shall be capable of bi-direction audio transmission.
5. The SNC-P1 shall incorporate Adaptive Rate Control, ARC shall utilize the optimum bit transfer rare to unsure best possible video and audio quality.

E: MECHANICAL REQUIREMENTS:

1. The SNC-P1 shall have a 4 pin I/O interface located on rear of the base. There shall be one (1) alarm input port, and one (1) Alarm/relay output Ports. The alarm input port shall be opto-isolated.
2. The SNC-P1 relay outputs shall be rated at 1 Amp at less than 12 VDC
3. The SNC-P1 analog video output from the P1 shall be a mini – jack type of connector.
4. The SNC-P1 dimensions shall be 4.0118 (W) 1.8921(H) 5.5267(D) inches, 99.5mm (W) x 35.0mm (H) x 138.5mm (D).
5. The SNC-P1 shall weigh approximately 8oz (225g).

F. POWER REQUIREMENTS

1. The SNC-P1 power requirements shall be DC12V.
2. Power consumption for the SNC-P1 shall be 3.5 watts.

G. ENVIRONMENTAL REQUIREMENTS

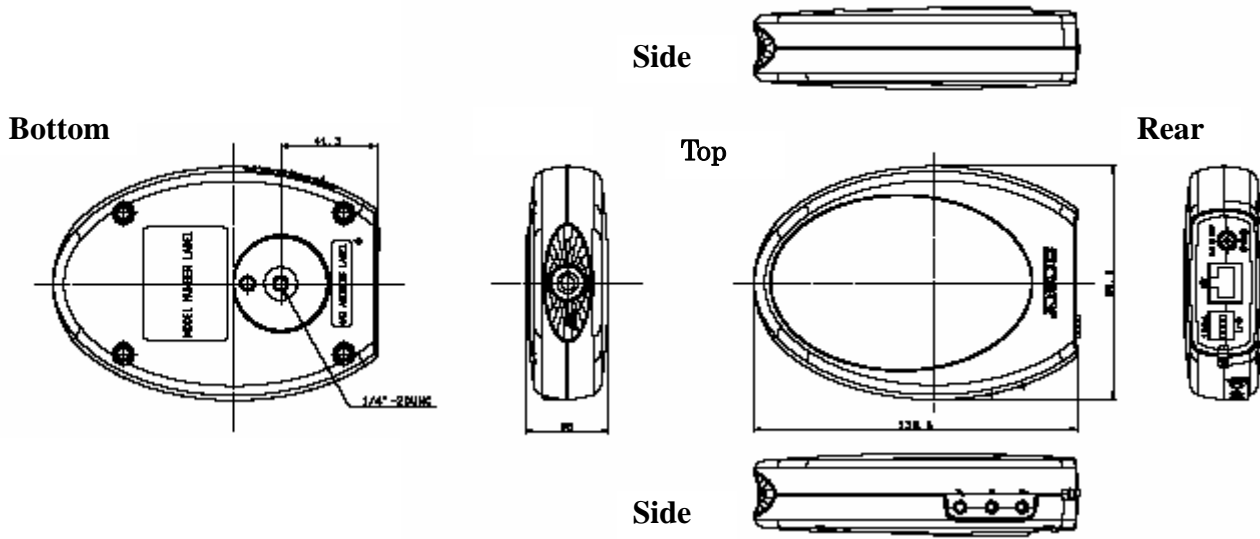
1. The operating temperature shall be 32°F to 95°F (0°C to +35°C)
2. Storage temperature shall be within -4°F to 140°F (-20°C to +60°C)

H. SYSTEM REQUIREMENTS

1. Operating system requirements: Microsoft Windows 2000/XP.
2. Minimum processor requirements: Pentium IV, 1 GHz or higher.
3. Minimum memory requirements : 256MB RAM
4. Web browser requirements: shall be Internet Explorer version 5.5 or 6.0.

I. SUPPLIED ACCESSORIES

1. CD ROM containing User guide & setup program (1)
2. Installation manual (1)
3. Warranty card (1)
4. Power supply (1)
5. Camera mount (1)



Pin assignment / Connector

I/O port

Pin No	Pin name
1	Sensor In +
2	Sensor In -
3	Alarm Out +
4	Alarm Out -

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