

ARCHITECT & ENGINEER SPECIFICATIONS
SECTION 16780
VIDEO SURVEILLANCE SYSTEMS

SNC-CS50N High Resolution Color Camera with 10/100 Base T Ethernet

PART 2 PRODUCTS

2.01 CCTV / NETWORK CAMERA SPECIFICATIONS

A. GENERAL REQUIREMENTS:

1. The SNC-CS50N shall be a CS mount, network enabled color camera, utilizing a 1/3 type SuperExwave™ CCD. The camera shall have an analog video output producing 540 TV lines of horizontal resolution.
2. The SNC-CS50N minimum illumination shall be 0.45 lux, (AGC ON, F 0.95, 50% video) in color, and 0.04 lux (AGC ON, F0.95, 50% video) in monochrome mode.
3. The SNC-CS50N shall be day/night capable. During normal illumination or daytime use, the camera shall be in color mode. Upon initiation of night mode, the IR cut filter shall move away from the CCD imager, to allow the camera to 'view' the scene using near IR illuminators. The camera shall switch to monochrome in night mode.
4. The SNC-CS50N network interface shall be 10 Base T /100 Base TX Ethernet.
5. The SNC-CS50N shall utilize JPEG and MPEG-4 compression. JPEG Compression levels shall be user selectable in 10 levels of compression ratios, based on an image of 24bits per picture element (8bits each for YUV).
6. The SNC-CS50N shall be capable of streaming both MPEG4 and JPEG data simultaneously.
7. The SNC-CS50N shall have unicast or multicast capability in MPEG4.
8. The SNC-CS50N shall have the capability to stream MPEG4 in TCP or UDP mode.
9. The SNC-CS50N shall support RS-232C data transparency.
10. The SNC-CS50N shall utilize hardware based PKI technology that sends a digital signature along with the video data from the camera to authenticate the images and the source of the image. This feature shall be available in JPEG mode only.
11. The SNC-CS50N shall incorporate built-in motion detection and object detection capabilities.
12. Object detection capability on the SNC-CS50N shall allow the camera to detect an object that was not part of the original scene and conversely detect and trigger an alert when an object is removed from the scene. Minimum amount of time for the camera to detect such an object shall be 40 seconds. Minimum object size shall be 8x8 pixels in VGA, and 4x4 pixels in QVGA.

13. The SNC-CS50N shall have a user adjustable release time for the intelligent object detection. Release time shall be a minimum of 1 minute, with a maximum of 12 hours, in 1 minute increments. Release time shall mean the time after which the camera detects the object or the removal thereof, to allow the camera to take the current scene as the basis for further object detection.
14. To alleviate false triggers, the SNC-CS50N motion detection shall compare the current image with prior 15 frames within the camera .
15. The SNC-CS50N shall incorporate the Dynamic Frame Integration feature which allows the camera to dynamically assign field integration on moving objects only within the image, to prevent blurring or deinterlace artifacts on the captured image.
16. The SNC-CS50N shall incorporate a digital image stabilization that compensates for camera motion. When activated, 5% of the edge of the images shall be used to correcting the blur caused by the motion. Blurring occurring due to motion between 2 Hz to 30Hz, shall be compensated. Frame rate of the camera dropping by 50% when this is activated shall be allowed.
17. The SNC-CS50N shall provide a user option to choose between object detection or motion detection.
18. The SNC- CS50N shall incorporate a built-in web server, such that standard web browser Internet Explorer® (version 6.0 recommended) 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 1.5 GHz or higher, Pentium® IV Processor, with 256MB RAM or more supporting 1024X768 True Color display capability with Ethernet 100 BaseTX.
19. The SNC-CS50N shall be capable of supporting up to 20 users simultaneously over the network.
20. The SNC-CS50N shall be capable of specifying up to 10 users/groups, inclusive of administrator, and shall have up to 4 user defined settings shown below, with each access level having capability to trigger ftp and/or have audio.

a. View	Viewing only
b. Light	Capture image, digital zoom, view size
c. Full	All of the above, including trigger for email, ftp, day/night, output relays
d. Administrator	Parameter changes plus all of the above
21. Maximum frame rate capability of the SNC-CS50N over LAN shall be up to 30 frames per second, VGA size, in either MPEG4 or JPEG, and up to 30 frames per second on dual stream mode of MJPEG and MPEG 4, at a capture size of QVGA.
22. The SNC-CS50N shall equalize file sizes in JPEG compression, for stable data file management.
23. The SNC-CS50N shall be capable of compressing MPEG-4 and JPEG at:

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

24. Image sizes are user selectable for the following:

MPEG-4	JPEG
640 x 480	640 x 480
320 x 240	320 x 240
160 x 120	160 x 120

25. The SNC-CS50N minimum slow shutter setting shall be 1/60 second, and a maximum high speed shutter of 1/10,000 sec.

26. The SNC- CS50N shall support the following Network protocols: TCP/IP, DNS, RTP/RTCP, UDP, ARP, HTTP, ICMP, SMTP, FTP, DHCP, NTP and SNMP (MIB2). Network security shall be via Password (basic authentication) and IP filtering.

27. The SNC-CS50N shall have both FTP client and server capabilities.

28. The SNC-CS50N shall have user configurable port settings.

29. The SNC-CS50N 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.

30. The SNC-CS50N shall have an internal image memory size of 8MB for pre and post alarm buffering.

31. SNC-CS50N shall include a CS mount, 2.9 to 8mm F0.95– F1.6, IR compensated DC auto-iris type vari-focal lens, as standard accessory.

32. The SNC-CS50N shall have a 12 pin I/O interface located on rear of the base. There shall be 2 opto-isolated alarm input port, and 2 normally open Alarm/relay output ports, as well as an RS-232C port.

33. The SNC-CS50N shall support data transparency for RS-232C.

34. The SNC-CS50N shall be capable limiting the bandwidth on all ports from 0.5Mbps to 4Mbps in JPEG mode.

35. The SNC-CS50N shall be Power over Ethernet capable, compliant to the 802.3af standard.

36. The SNC-CS50N shall have a PCMCIA type II PC card slot, supporting additional memory, or accept the use of the SNCA-CFW1 802.11b wireless card, using a type II CF to PC card adaptor.

B. CAMERA LENS SPECIFICATIONS:

1. Camera lens supplied as standard accessory shall be a 2.9 to 8mm, F0.95 DC type auto iris lens, IR compensated.

2. Aperture in the wide angle position shall be F0.95, and shall ramp down to no less than F1.6 in the telephoto end.

3. Camera lens shall be 1/3 type, CS mount.

4. Horizontal viewing angle shall be 35 degrees to 94.0 degrees
5. Minimum object distance shall be 0.3 meter (0.98 feet)

C. VIDEO-ELECTRICAL REQUIREMENTS

1. The SNC-CS50N shall use an input power voltage of either AC24V or DC12V, via screw down terminals on the rear of the camera.. A screw for chassis ground shall also be provided.
2. The SNC-CS50N shall have power over Ethernet capability, under the IEEE 802.3af standard.
3. The scanning system shall be 525 lines, 60 fieldes/30 frames, 2:1 interlace.
4. The video output of the SNC-CS50N shall meet the EIA/NTSC standard.
5. The SNC-CS50N color camera shall require a minimum scene illumination of: 0.45 lux at F0.95 (50 IRE, AGC ON), or 0.04 lux at F0.95 (50 IRE, AGC ON) Camera synchronization shall be Internal.
6. The SNC-CS50N shall be have an AGC range of 24dB.
7. The composite video output shall be 1.0 V peak to peak @ 75 ohms, sync negative via a BNC connector.
8. The video signal to noise ratio shall be 50dB (Normal AGC, Weight ON).
9. White balance shall be ATW PRO, ATW, and one push AWB.
10. ATW range shall be from 2000°Kelvin to 10,000°Kelvin.
11. Power consumption shall be 9W maximum.

AUDIO REQUIREMENTS:

1. The SNC-CS50N shall support audio. Audio compression standards supported shall be G.711 (64kbps) & G.726 (40, 32, 24, 16Kbps).
2. The SNC-CS50N shall also support an external microphone. External microphone connectivity shall be via a single channel stereo type mini-jack, 2.2 kilo Ohm supporting 2.4 VDC power.
3. The SNC-CS50N shall support an external active speaker via a mini-jack. Audio output shall be a maximum level of 1.0 Vrms.
4. The SNC-CS50N shall be capable of bi-directional audio transmission.

5. The SNC-CS50N shall be capable of storing up to 3 pre-recorded audio files, uploaded via a personal computer. Upon initiation, either through external trigger or intelligent object or motion detection, the camera shall output the pre-recorded audio file, through an active speaker connected to the active speaker jack, or to an audio system.

D: MECHANICAL REQUIREMENTS:

1. SNC-CS50N camera lens mount shall be CS type.
2. Input/Output Alarm or sensor input & outputs, as well as the RS-232C port shall be via a 12 pin push type spring lock connector.
3. The SNC-CS50N shall support 2 optically isolated Alarm or sensor input, and 2 relay outputs via a 12 pin push type spring lock connector.
4. Relay outputs shall be rated at 1 Amp at less than 24V DC
5. Video output connector shall be BNC type.
6. Top or bottom camera mounting shall be accomplished via a removable plate with ¼" X 20 mounting screw hole. The height of the plate shall be 9mm, and shall be secured to the main camera body via 4 screws.
7. The camera dimensions shall be 3-3/8(W) x 2 3/4(H) x 7 3/4(D) inches, 84mm(W) x 69mm(H) x 196mm(D) with attached lens, without the front, rear, auto iris connector covers, or protruding parts,
8. The camera shall weigh approximately 1 lb 10 oz (750g).

E. ENVIRONMENTAL REQUIREMENTS

1. The operating temperature shall be 32°F to 122°F (0°C to +50°C)
2. Storage temperature shall be within -4°F to 140°F (-20°C to +60°C)
3. Operating humidity shall be within 20% to 80% , non condensing
4. Storage humidity shall be within 20% to 95%, non condensing.

F. SUPPLIED ACCESSORIES

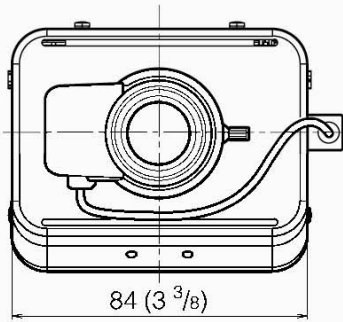
1. CD-ROM (Setup program, User's guide)
2. Installation manual
3. Front cover
4. Cable (Rear) cover
5. Lens cable cover
6. Front cover screw
7. Shoulder screw
8. Wire rope

G. OPTIONAL ACCESSORIES:

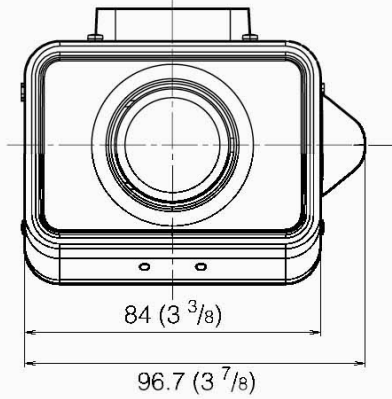
- a. SNCA-CFW1 IEEE-802.11b Wireless LAN Card
- b. SNCA-AN1 External antenna for SNCA-CFW1
- c. MSX-2GN Memory Stick Pro® (2GB)
- d. MSX-1GS Memory Stick Pro® (1GB)
- e. MSX-M512S Memory Stick Pro® (512MB)
- f. MSH-128 Memory Stick® (128MB)

● Dimensions

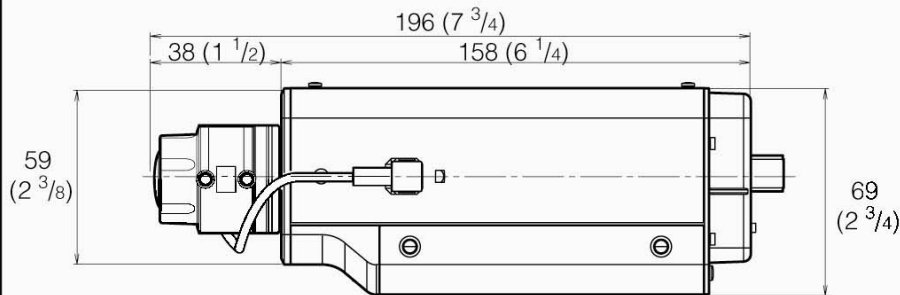
Front (without covers)
 Avant (sans le couvercle et
 l'enveloppe)



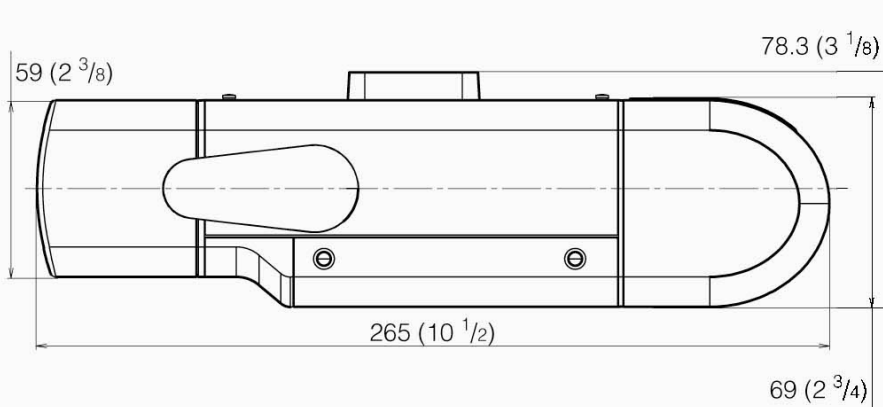
Front (with covers)
 Avant (avec le couvercle et
 l'enveloppe)



Side (without covers)
 Côté (sans le couvercle et l'enveloppe)

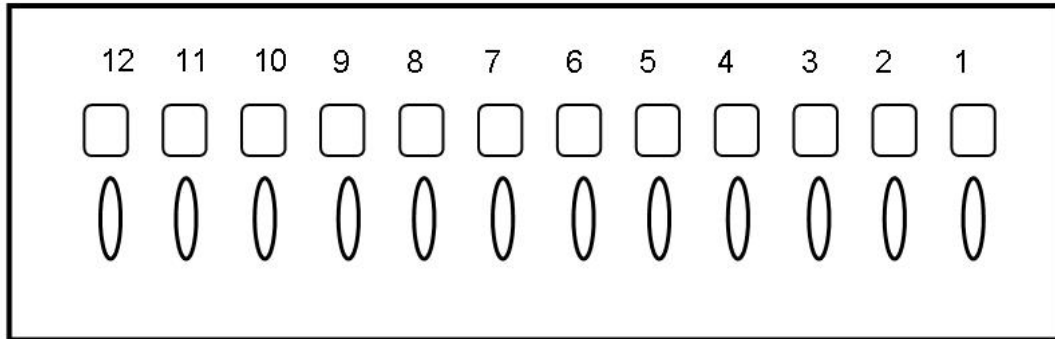


Side (with covers)
 Côté (avec le couvercle et l'enveloppe)



Unit: mm (inches) / Unité : mm (pouces)

Pin assignment / Connector I/O port



Pin No	Pin name
1	Sensor in 1+
2	GND
3	Sensor in 2+
4	GND
5	Alarm out 1+
6	Alarm out 1-
7	Alarm out 2+
8	Alarm out 2-
9	GND
10	GND
11	RS232C_RX
12	RS232C_TX

