ARCHITECT & ENGINEER SPECIFICATIONS
SECTION 16780
VIDEO SURVEILLANCE SYSTEMS

SNC-Z20N   High Resolution Day/Night Camera with Integrated 18X Optical Zoom Lens and
              10 BaseT/100 Base TX Ethernet

PART 2   PRODUCTS

2.01   CCTV / NETWORK CAMERA SPECIFICATIONS

A. GENERAL REQUIREMENTS:

1. The SNC-Z20N shall be a network enabled, integrated 18X optical zoom lens color
    camera utilizing a 1/4 type Exwave HAD™ interline transfer CCD. The camera shall
    have an analog video output producing better than 470 TV lines of horizontal resolution.

2. Network interface shall be via an 8-pin RJ-45 connector, 10 Base T /100 Base TX
    Ethernet.

3. The SNC-Z20N shall be capable of being powered over Ethernet, IEEE 802.3af standard
    compliant.

4. The SNC-Z20N shall utilize JPEG compression, baseline compliant YCbCr422.
    Compression levels shall be user selectable in 10 steps, ranging from 1/5 to 1/60
    compression ratios, based on an image of 24bits per picture element (8bits each for R, G
    &B).

5. The SNC-Z20N 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. Supported operating system shall be Windows 98, 98SE, NT4.0, Me, 2000 and
    XP. Minimum PC requirements shall be 500MHz, PIII Processor, with 128MB RAM
    supporting 1024X768 True Color display capability.

6. Internet Explorer browser on the client PC shall be version 5.5 or 6.0.

7. The SNC-Z20N shall be capable of supporting up to 50 users simultaneously over the
    network.

8. There shall be up to 4 user level settings. Access to functions shall be determined as
    follows:
        a. User level 1   Viewing only
        b. User level 2   Zoom lens control, capture images
        c. User level 3   Trigger alarm outputs, capture images, FTP or Email
                               image, activate alarm outputs, or save images to memory
        d. User level 4   All functions (Administrator)

9. Maximum frame rate capability of the SNC-Z20N over LAN shall be up to 30 frames per
    second on 640 X 480 capture size.

10. Image sizes shall be user selectable for the following:
    i. 736 x 480
    ii. 640 x 480
    iii. 320 x 240
    iv. 160 x 12

11. The minimum slow shutter setting shall be 1 second, and the maximum at 1/10,000 sec.

12. The SNC-Z20N shall have Color and B/W mode capability. The switching between modes shall be accomplished automatically by sensing the luminance level, by time schedule, or manually by the administrator or user level 3.
    On B/W mode, the IR cut filter shall move away from the CCD imager, allowing the camera to fully utilize the sensitivity of the CCD in the near IR range, beyond 700 nm.

13. SNC-Z20N shall have an integral 18X Optical auto focus zoom lens. The camera shall also feature 12X digital zoom that extends the total zoom range to 216X.

14. The SNC-Z20N shall feature an Exclusive Control Mode that shall allow multiple users (up to 20) to come in queue for control of the camera. Exclusive control mode duration shall be 10 to 600 seconds.

15. The SNC-Z20N shall also incorporate an Activity Detection circuit to detect changes in luminance levels in the designated area. Detection area shall rectangular, variable in size, set by the administrator. Camera shall have 9 levels of sensitivity.

16. The SNC-Z20N shall have an 18 pin I/O interface located on rear of the base. There shall be 1 alarm/sensor input port, and 2 relay output ports, an RS-232C port and an RS-485 port. The input port shall be normally open type, active on closure.

17. The SNC-Z20 shall support RS-232C (data transparency, or VISCA protocol).

18. Network protocols supported shall be TCP/IP, ARP, HTTP, ICMP, SMTP (client), FTP (server/client), DHCP (client) and SNMP (MIB2), NTP, DNS. Network security shall be via Password (basic authentication) and IP filtering.

19. The SNC-Z20N shall be capable limiting the bandwidth on all ports from 0.5Mbps to 8Mbps.

20. The SNC-Z20 shall have an internal image memory size of 8MB for alarm buffering.

21. The SNC-Z20 shall be capable of pre and post alarm buffering. Image capture rate using the internal memory shall be up to 30 fps.

22. There shall be 1 PCMCIA type II expansion slot. It shall support the use of additional memory, or an 802.11b Wireless network card. Manufacturer recommended MemoryStick® with PCMCIA memory stick adapter, Compact Flash as well as ATA HDD card shall be supported. Wireless network card supported shall be Cisco Aironet C350 series 802.11b wireless Ethernet PC card.

23. On alarm, user shall have the option of utilizing the onboard image memory area, or an attached PCMCIA memory device. Recording rate to an external memory device shall be

limited to 1 fps. Additionally, captured images on alarm may also be sent via FTP to a server. Moment of alarm image captured shall also be capable of being attached to an email, to an email address specified by the administrator.

B. CAMERA LENS SPECIFICATIONS:

1. Camera lens shall have an optical zoom range of 18X.

2. Focal length range shall be 4.1mm to 73.8mm, F1.4 (wide end) to F3.0(tele end)

3. Horizontal viewing angle shall be 2.7 degrees to 48 degrees

4. Camera lens shall feature an inner focus type mechanism

5. Camera lens shall be auto-focus type, but shall be capable of being switched to manual.

6. Minimum object distance shall be factory preset for 29mm minimum on wide angle, and 800mm on maximum zoom.

7. The camera shall accept the use of 37mm diameter lens wide angle lens adapter, such as the VCL-0637H, a 0.6X optical adaptor. User shall be responsible for checking suitability or compatibility of lens extenders, other than the one specified above.

C. VIDEO-ELECTRICAL REQUIREMENTS

1. The SNC-Z20N shall accept an input voltage of either DC 12V, AC 24V or Power over Ethernet (PoE, IEEE 802.3af standard).

2. DC12V & AC24V connection shall be by means of screw terminals on the rear of the camera.

3. The scanning system shall be 525 lines, 60 fieldes/30 frames, 2:1 interlace.

4. The video output of the SNC-Z20N shall meet the EIA/NTSC standard.

5.   The analog video output of the camera shall be capable of image flip to support both ceiling and desk mount applications.

6.   The SNC-Z20N color camera shall require a minimum scene illumination of:
Color: 0.71 lux at f1.4 (50 IRE, shutter at 1/60 sec.)
B&W: 0.061 lux at F1.4 (50 IRE, shutter at 1/60 sec.)
Color: 0.51 lux at f1.4 (50 IRE, shutter at 1/4 sec.)
B&W: 0.011 lux at F1.4 (50 IRE, shutter at 1/4sec.)

7. Camera synchronization shall be Internal

8. The composite video output shall be 1.0 V peak to peak @ 75 ohms, sync negative via a BNC connector.

9. The video signal to noise ratio shall be more than 50dB (AGC OFF, Weight ON).

10. Video gain shall be Auto or manual with a range of –3 to +28dB

11. White balance shall be Auto, Indoor, Outdoor, One push AWB, ATW, or manual.

12.   Power consumption shall be 9W.

D: MECHANICAL REQUIREMENTS:

1. Network interface shall be an 8-pin, RJ-45 connector.

2. The camera shall employ a motor driven mechanism that removes the IR cut filter position from the front of the CCD when it switches to B/W mode, On B/W mode, the IR cut filter shall move away from the CCD imager, allowing the camera to fully utilize the sensitivity of the CCD in the near IR range, beyond 700 nm.

3. I/O port shall be 18pin.

4. There shall be 1 alarm/sensor input and 2 relay outputs. Relay outputs shall be 1A, less than 24V DC isolated outputs.

5. The SNC-Z20N shall have a single (1) PCMCIA type II slot.

6. Video output connector shall be BNC type.

7. The camera mounting hole shall be ¼" - 20.

8. The camera dimensions shall be 3-14(W) x 3-1/8(H) x 7(D) inches, 80mm (W) x 77mm (H) x 177mm (D).

9. The camera shall weigh approximately 1 lb 12 oz (800 grams).

E. ENVIRONMENTAL REQUIREMENTS

1. The operating temperature shall be 32°F to 104°F (0°C to +40°C), relative humidity of 20 to 80%, non condensing.

2. Storage temperature shall be within -4°F to 140°F (-20°C to +60°C), relative humidity of 20% to 95%, non condensing.

F. SUPPLIED ACCESSORIES

1. CD ROM containing User guide & setup program(1)
2. Wire Rope (1)
3. I/O interface connector (1)
4. Shoulder screw M4 (1)
5. Installation manual (1)
6. B&P Warranty card

G. OPTIONAL ACCESSORIES:

1. Memory Stick PC Card Adaptor   MSAC-PC3
2. Memory Stick, 128MB   MSA-128A
3. Wide conversion lens   VCL-0637H