# ARCHITECT & ENGINEER SPECIFICATIONS SECTION 16780 VIDEO SURVEILLANCE SYSTEMS

SNC-DF40N High Resolution Minidome Color Camera with 10/100 Base T Ethernet

#### PART 2 PRODUCTS

#### 2.01 CCTV / NETWORK CAMERA SPECIFICATIONS

#### A. GENERAL REQUIREMENTS:

- 1. The SNC-DF40N is a CS mount, network enabled minidome color camera, utilizing a 1/4 type Super HAD™ interline transfer CCD. The camera has an analog video output producing 480 TV lines of horizontal resolution.
- 2. Network interface is via an 8-pin RJ-45 connector, 10 Base T /100 Base TX Ethernet.
- 3. The SNC-DF40N utilizes 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- DF40N incorporates 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® III Processor, with 256MB RAM or more supporting 1024X768 True Color display capability with Ethernet 100 Base T.
- 5. The SNC-DF40N is 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-DF40N over LAN is up to 18 frames per second on 640 X 480 capture size on JPEG and 15 frames per second on MPEG4.
- 8. The SNC-DF40N has the capability of selecting either JPEG or MPEG-4 compression formats.

9. The SNC-DF40N is capable of compressing MPEG-4 and JPEG at:

MPEG-4 JPEG
i. 640 x 480 @ 15 fps,
ii. 320 x 240 @ 30 fps,
iii. 320 x 240 @ 30 fps,

10. Image sizes are user selectable for the following:

	MPEG-4		JPEG
i.	640 x 480	i.	640 x 480
ii.	320 x 240	ii.	320 x 240
iii.	160 x 120	iii.	. 160 x 120

- 11. The minimum slow shutter setting is 1/60 second, and a maximum of 1/100,000 sec
- 14. The SNC-DF40N shall have a 6 pin I/O interface located on rear of the base. There shall be an alarm input port, and 2 Alarm/relay output ports. The Alarm input port shall be opto-isolated.
- 15. The SNC-CS3N 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.
- 16. The SNC-DF40N shall have both FTP client and server capabilities.
- 17. The SNC-DF40N shall have user configurable port settings.
- 18. The SNC-DF40N 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.
- 19. The SNC-DF40N shall be capable limiting the bandwidth on all ports from 64kbps to 2048 mbps.
- 20. The SNC-DF40N shall have an internal image memory size of 8MB for alarm buffering.
- 21. The SNC-DF40N shall be capable of pre and post alarm buffering.
- 22. The SNC-DF40Nshall be capable of specifying up to 10 users inclusive of administrator, and allow each user to have one of four levels of access.

#### **B. CAMERA LENS SPECIFICATIONS:**

- 1. Camera lens supplied as standard accessory shall be a 3.0 to 8mm DC type auto iris lens, F=1.0
- 2. Horizontal viewing angle shall be 66.6 degrees to 26.9 degrees
- 3. Minimum object distance shall be 200mm

## C. VIDEO-ELECTRICAL REQUIREMENTS

- 1. The SNC-DF40N shall use an input power voltage of either AC24V or DC12V.
- 2. The power connection shall be by means screw down mini terminals connector.
- 3. The scanning system shall be 525 lines, 60 fieldes/30 frames, 2:1 interlace.
- 4. The video output of the SNC-DF40N shall meet the EIA/NTSC standard.
- 5. The SNC-DF40N color mini dome camera shall require a minimum scene illumination of: 0.8 lux at F1.0 (50 IRE, AGCTurbo ON)
- 6. Camera synchronization shall be Internal.
- 7. The SNC-DF40N shall be have Normal AGC of 18dB, and an additional 6dB for Turbo AGC for a total range of 24dB.
- 9. The composite video output shall be 1.0 V peak to peak @ 75 ohms.
- 10. The video signal to noise ratio shall be 50dB (Normal AGC, Weight ON).
- 11. White balance shall be Auto, Indoor 1, Indoor 2, Outdoor, One push AWB
- 12. The SNC-DF40N power requirements shall be AC24 V 50/60 Hz or DC12V.
- 13. The SNC-DF40N shall support Power Over Ethernet (PoE) 802.3af standard.
- 14. Power consumption for the SNC-DF40N shall be 7.5 watts maximum.

### D: AUDIO REQUIREMENTS:

- 1. The SNC-DF40N shall support audio. Audio compression standards supported shall be G.711 (64kbps) & G.726 (40, 32, 24, 16Kbps).
- 2. The SNC-DF40N shall also support an external microphone in lieu of the built-in mic. External microphone connectivity shall be via a single channel stereo type mini- jack, supporting 2.4 VDC power at 4.7 ohm external microphone input.
- 3. The SNC-DF40N shall support an external active speaker via a mini-jack. Audio output shall be a maximum level of 1Vrms.
- 4. The SNC-DF40N shall be capable of bi-direction audio transmission.

#### E: MECHANICAL REQUIREMENTS:

- 1. SNC-DF40N camera lens mount shall be CS type.
- 2. Input/Output Alarm or sensor input & outputs, shall be via a 6 pin push type spring lock connector.
- 3. The camera shall support 1 optically isolated Alarm or sensor input, and 2 relay outputs via a 6 pin push type spring lock connector.
- 4. Relay outputs shall be rated at 1 Amp at less than 24V DC
- 5. Video output connector from the DF40N shall be a two (2) pin mini jack screw down connector to a pigtail BNC type of connector.
- 6. The camera dimensions shall be 4.8818(W) 5.1996 (H) 4.9606(D) inches, 124mm (W) x 132mm (H) x 126mm (D).
- 7. The camera shall weigh approximately 1lb 7oz (750g).
- 8. The CCD/lens combination shall be user settable at  $\pm$  150 degrees Pan, and tilt of  $\pm$ 75 degrees, lens leveling rotation of  $\pm$ 150 degrees.
- 9. A black sleeve shall be incorporated such that only the lens viewing area is exposed to via the lower clear dome cover.
- 10. The angle of the CCD / lens assembly shall be fixed via a locking screw.
- 11. The lower dome shall have a lock screw to avoid being tampered with.

### F. ENVIRONMENTAL REQUIREMENTS

- 1. The operating temperature shall be  $14^{\circ}F$  to  $122^{\circ}F$  (- $10^{\circ}C$  to  $+50^{\circ}C$ )
- 2. Storage temperature shall be within  $-4^{\circ}F$  to  $140^{\circ}F$  ( $-20^{\circ}C$  to  $+60^{\circ}C$ )

#### G. SYSTEM REQUIREMENTS

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

### H. SUPPLIED ACCESSORIES

- 1. CD ROM containing User guide & setup program(1)
- 2. Installation manual (1)
- 3. Wire rope (1)
- 4. Installation screws (2)
- 5. Dome cover (1)
- 6. Mini power connector
- 7. Warranty card

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