

SRD-1670DC 16 CHANNEL DIGITAL VIDEO RECORDER

**TECHNICAL SPECIFICATIONS
SYSTEM**

SECURITY

DIVISION – 28 ELECTRONIC SAFETY AND SECURITY

LEVEL 1 __28 20 00 ELECTRONIC SURVEILLANCE

LEVEL 2 __28 23 00 VIDEO SURVEILLANCE

LEVEL 3 __28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS

PART 2 – PRODUCTS

2.01 GENERAL

- A. All equipment and materials used shall be standard components that are regularly manufactured and used in the manufacturer’s system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with an explicit manufacturer warranty.

2.02 SRD-1670DC 16 CHANNEL H.264 REAL TIME DIGITAL VIDEO RECORDER

- A. The digital video recorder (DVR) shall support 16 channels camera channel, 4CIF recording and real time rates of 480 images per second (ips) on NTSC systems and 400 fps on PAL systems. The DVR shall display high resolution images at a maximum of 704 x 480 pixels on NTSC systems and 704 x 576 on PAL systems.
- B. The DVR shall be equipped with a maximum of 5 internal hard disk drives (HDD).
- C. The DVR shall offer combined BNC and VGA/HDMI video output for main display; H.264 video compression and ADPCM audio compression; up to 16 audio inputs and 1 audio output, and PTZ control using coaxial cable.
- D. The DVR shall support network monitoring and integration using Samsung central monitoring system.
- E. All operation and configuration menus shall be provided in several languages, including English, Spanish, French, German, Italian, Portuguese, Polish, Russian, Turkish, Japanese, Korean, Czech, Swedish, Danish, Chinese, and Dutch.

2.03 DISPLAY

- A. Video
 - 1. Inputs 16 Composite video 0.5-1 Vpp, 75 ohm automatic termination
 - 2. Resolution NTSC: 704 x 480, PAL: 704 x 576
- B. Live
 - 1. Frame Rate NTSC: 480ips, PAL: 400ips
 - 2. Resolution NTSC: 704 x 480, PAL: 704 x 576
 - 3. Multi Screen Display 1, 4, 6, 8, 9, 13, 16, PIP

2.04 PERFORMANCE

- A. Operating System Linux, embedded
- B. Recording
 - 1. Compression H.264
 - 2. Record Rate NTSC: to 480ips@704 x 480; to 480ips@704 x 240, to 480ips@352 x 240

	PAL : to 400ips@704 x 576; to 400ips@704 x 288, to 400ips@352 x 288
3. Mode	NTSC: Manual, Schedule (Continuous, Event), Event (Pre, Post), Time lapse (0.9, 1.9, 3.8, 7.5, 15ips) PAL: Manual, Schedule (Continuous, Event), Event (Pre, Post), Time lapse (0.8, 1.6, 3.1, 6.2, 12.5ips)
4. Overwrite Modes	Continuous
5. Pre Alarm	Up to 30 sec. (5, 10, 20, 30 sec.)
6. Post Alarm	Up to 6 hour. (5, 10, 20, 30 sec, 1, 3, 5, 10, 20 min, 1, 2, 3, 4, 5, 6 hours)
C. Search & Playback	
1. Search Mode	Date/Time, Event, Back up, Position, Motion (All searching mode include preview function)
2. Playback Function	Fast forward/backward, Slow forward/backward, Step forward/backward
D. Network	
1. Transmission Speed	Up to 15 Mbps, Unlimited 4M, 2, 1.5, 1 Mbps, 800, 600, 500, 400, 300, 200, 100, 50 kbps
2. Bandwidth Control	Automatic
3. Multi Stream	H.264 (4CIF, 2CIF, CIF)
4. Max. Remote Users	Search 3, Live Unicast 10, Live multicast 20
5. Protocol Support	TCP/IP, DHCP, PPPoE, SMTP, NTP, HTTP, DDNS, RTP, RTSP
6. Monitoring	Net-i viewer, Smart viewer, Web viewer
E. Storage (Back up)	
1. Internal HDD	Up to 5 SATA HDDs
2. External HDD	Up to 2 expansion bays (up to 4 HDD each)
3. DVD Writer	Yes
4. USB	3 USB ports for backup
5. File Format	AVI, MDB (DVR play back), EXE (Include player) for backup
F. Security	
1. Password Protection	1 Admin, 10 Group, 20 User per 1 Group, User can be assigned authority for function
2. Data Authentication	Watermark

2.05 INTERFACE

A. Monitors	
1. VGA	Analog RGB 800 x 600, 1024 x 768, 1280 x 1024 resolution
2. HDMI	480p, 720p, 1090p resolution
3. Main Composite	BNC, 1 Vp-p, 75 ohm
4. Spot Composite	1 BNC, 1 Vp-p, 75 ohm, Support multi screen and camera title
5. Loop Outputs	16
B. Audio	
1. Inputs	16 Line in (built in 4ch, option: audio extension cable)
2. Output	1 line
3. Compression	ADPCM
4. Sampling Rate	16KHz
C. Alarm	
1. Inputs	Terminal 16 inputs, NO/NC
2. Outputs	Terminal 4 relay outputs, NO/NC
3. Remote Notification	Notification via e-mail
D. Connections	
1. Ethernet	1 RJ-45 10/100/1000 Base-T
2. Serial Interface	RS-232
3. PTZ Control Interface	RS-485
4. P TZ Keyboard	RS-485
5. USB	USB 2.0, 3 ports
6. eSATA	2 external SATA ports
7. Application Support	Mouse, Remote controller

- E. Protocols Supported Samsung-E, Samsung-T, Pelco-D, Pelco-P, Panasonic, Phillips, AD, Diamond, Erna, Kalatel, VCL TP, Vicon
- 1. PTZ via coaxial cable Samsung CCVC, Coaxtron

2.06 GENERAL

- A. Electrical
 - 1. Input Voltage 100 ~ 240V AC \pm 10%, 50/60Hz, Auto ranging
 - 2. Power Consumption Max. 55W (with 1x HDD), Max. 65W (with 4x HDD)
- B. Environmental
 - 1. Operating Temperature $+0^{\circ}\text{C} \sim +40^{\circ}\text{C}$ ($+32^{\circ}\text{F} \sim +104^{\circ}\text{F}$)
 - 2. Operating Humidity 20% ~ 85%RH
- C. Dimensions 440 x 88 x 430mm (17.32" x 3.46" x 16.93")
 - 1. Mechanical Weight (2x Hard Disks) Approx. 7.5Kg (16.53 lb)
 - 2. Rack Mount Kit 2 each
- D. Languages English, Korean, Spanish, French, German, Italian, Portuguese, Polish, Russian, Turkish, Japanese, Czech, Swedish, Danish, Chinese, Dutch

2.07 CERTIFICATIONS

- A. UL Listed
- B. UL Listed to Canadian safety standards
- C. CE mark
- D. FCC mark

2.08 WARRANTY

3 years, parts and labor.