

SRD-1652D 16 CHANNEL CIF REAL-TIME H.264 DIGITAL VIDEO RECORDER

TECHNICAL SPECIFICATIONS

SECURITY SYSTEM

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-1652D 16-CHANNEL CIF REAL-TIME H.264 NETWORK DIGITAL VIDEO RECORDER

- A. The real-time digital video recorder (DVR) shall support 16 channels and provide CIF recording rates of 480 frames per second (fps) on NTSC systems and 400 fps on PAL systems.
- B. The DVR shall offer a maximum of 4 internal HDD, backup to DVD Writer, and support for smart phone.
- C. All operation and configuration menus shall be provided in 22 languages including Korean, Japanese, Chinese, English, French, German, Spanish, Italian, Russian, Polish, Czech, Turkish, Dutch, Portuguese, Swedish, Danish, Thai, Romanian, Serbian, Croatian, Hungarian and Greek.

2.03 CAMERA

- A. Video
 - 1. Inputs 16 composite video 0.5–1 Vp-p
 - 2. Loop Outputs No
 - 3. Resolution 704x480 NTSC
704x576 PAL
- B. Live
 - 1. Frame Rate 480fps NTSC
400fps PAL
 - 2. Resolution 704x480 NTSC
704x576 PAL
 - 3. Multi Screen display 1, 4, 6, 8, 9, 13, 16, PIP

2.04 PERFORMANCE

- A. OS Embedded Linux
- B. Recording
 - 1. Compression H.264
 - 2. Record Rate NTSC Up to 120fps @ 704 x 480
Up to 240fps @ 704 x 240
Up to 480fps @ 352 x 240
 - 3. Record Rate PAL Up to 100fps @ 704 x 576
Up to 200fps @ 704 x 288
Up to 400fps @ 352 x 288

4. Mode NTSC	Manual, Schedule (Continuous/Event), Event (Pre/Post), Time lapse (0.9, 1.9, 3.8, 7.5, 15, 30 fps)
5. Mode PAL	Manual, Schedule (Continuous/Event), Event (Pre/Post), Time lapse (0.8, 1.6, 3.1, 6.2, 12.5, 25 fps)
6. Event	Video loss, Motion (level 1~10), Alarm
7. Overwrite modes	Continuous
8. Pre-alarm	Up to 5 seconds
9. Post-Alarm	Up to 6 hours (5,10, 20, 30, seconds; 1,3, 5, 10, 20 minutes; 1, 2, 3, 4, 5, 6 hours)
C. Search & Playback	
1. Search mode	Date/time, Event, Backup, Position, Motion (all search included in Preview function)
2. Playback function	Fast Forward/Backward, Slow Forward/Backward, Step Forward/Backward
D. Network	
1. Transmission speed	CIF 120/100 fps
2. Bandwidth	Up to 8Mbps, 2, 1.5, 1 Mbps; 800, 600, 500, 400, 300, 200, 100, 50 kbps
3. Bandwidth control	Selectable
4. Stream	H.264 (CIF 120 Max)
5. Remote users	3 Search, 10 Live Unicast, 20 Live Multicast
6. Protocol support	TCP/IP, DHCP, PPPoE, SMTP, NTP, HTTP, DDNS, RTP, RTSP
7. Monitoring	Net-I Viewer, SmartViewer, Webviewer
E. Smart phone	
1. Phone	Android, i-Phone
2. Protocol support	RTSP/RTP(UDP), CGI, HTTP
3. Transmission speed	Wi-Fi: CIF 4fps (Single Channel), 4fps (Quad Channel) 3G: CIF 4fps(Single Channel), 4fps(Quad Channel)
4. Remote users	1, Live
F. Storage	
1. Internal HDD	Up to 4 SATA HDDs
2. External HDD	Not supported
3. DVD Writer (Back-up)	Yes
4. USB (Back-up)	2 USB Ports
5. File Format (Back-up)	AVI, BU (DVR Player), EXE (includes player)
G. Security	
1. Password Protection	1 Admin, 10 Group, 20 Users per one group. Users can be assigned authority for function
2. Data Authentication	Watermark

2.05 INTERFACE

A. Monitors	
1. VGA	1 (800x600, 1024x768, or 1280x1024 resolution)
2. HDMI	Not supported
3. Main Composite	1 BNC (1Vp-p, 75 ohm)
4. Spot Composite	Analog Spot (1 BNC, 1 Vp-p, 75 ohm), supports multi screen and camera title
5. Inputs/Outputs	4 channel line in (4 channel built-in, RCA); 1 channel line out (RCA)
B. Audio	
1. Inputs/Outputs	4 channel line in (4 channel built-in, RCA); 1 channel line out (RCA)
2. Compression	ADPCM
3. Sampling rate	16KHz
C. Alarm	
1. Inputs	Terminal 16 inputs (NO/NC); Terminal 1 inputs (Alarm Reset)

2. Outputs	Terminal 4 relay outputs (NO/NC)
3. Rating	24V DC, 1A; 125V AC, 0.5A
4. Remote notification	Notification via e-mail
D. Connections	
1. Ethernet	1 RJ45 10/100/1000 Base-T
2. Serial Interface	RS-232/RS-485 for PTZ; Samsung system keyboard
3. USB	USB 2.0, 2 ports (front)
4. e-SATA	Not supported
5. Application Support	Mouse, Remote Controller
6. Protocol support (RS485)	Samsung-E, Samsung-T, Pelco-D, Pelco-P, Panasonic, Phillips, AD, Diamond, Erna, Kalatel, VCL TP, Vicon
7. Protocol Support (Coaxial)	Not supported

2.06 GENERAL

A. Electrical	
1. Input Voltage/Current	100 ~ 240V AC $\pm 10\%$, 50/60Hz, Auto ranging
2. Power consumption	max. 60W (with 1x HDD)
B. Environmental	
1. Operating Temperature	+0°C to +40°C (+32°F to +104°F)
2. Operating Humidity	20% to 85% RH
C. Mechanical	
1. Dimension	440 x 88 x 426.8mm (17.32 x 3.46 x 16.8")
2. Weight w/ hard disks	Approx. 7.5 kg (16.53 lbs.)
3. Rack mount kit	2 each
D. Language	Korean, Japanese, Chinese, English, French, German, Spanish, Italian, Russian, Polish, Czech, Turkish, Dutch, Portuguese, Swedish, Danish, Thai, Romanian, Serbian, Croatian, Hungarian, and Greek

2.07 CERTIFICATIONS

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

2.08 WARRANTY

- A. 3 years, parts and labor.