

SRD-1656D 16 CHANNEL CIF(1280H AVAILABLE) REAL-TIME 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-1656D 16 CHANNEL CIF(1280H AVAILABLE) REAL-TIME DIGITAL VIDEO RECORDER

- A. The digital video recorder (DVR) shall support 16 channels and provide recording rates of 480 frames per second (fps) at CIF on NTSC systems and 400 fps at CIF on PAL systems. The DVR shall display high-resolution images at a maximum of 1280 x 480 pixels on NTSC systems and 1280 x 576 on PAL systems.
- B. The DVR shall offer combined BNC and VGA/HDMI video output for main display; H.264 video compression and G.711 audio compression and PTZ control using coaxial cable.
- C. The DVR shall support network monitoring and integration using Samsung central monitoring system.
- D. All operation and configuration menus shall be provided in several languages, including English, French, German, Spanish, Italian, Russian, Polish, Czech, Turkish, Netherlands, Portuguese, Swedish, Danish, Rumania, Serbia, Croatia, Hungary, Greek, Finnish, Norwegian, Korean, Japanese, Chinese (Traditional), Thai, Taiwanese (25 Language)

2.03 DISPLAY

- A. Video
 - 1. Inputs 16 Composite video 0.5-1 Vpp, 75 ohm automatic termination
 - 2. Resolution NTSC: 1280 x 480, 720 x 480, PAL: 1280 x 576, 720 x 576
- B. Live
 - 1. Frame Rate NTSC: 480fps, PAL: 400fps
 - 2. Resolution NTSC: 1280 x 480, 720 x 480, PAL: 1280 x 576, 720 x 576
 - 3. Multi Screen Display 1, 4, 7, 9, 13, 16, 16A, PIP, Sequence

2.04 PERFORMANCE

- A. Operating System Linux
- B. Recording
 - 1. Compression H.264
 - 2. Record Rate NTSC: Up to 120fps @ 1280x480/ PAL: Up to 100fps @ 1280x576
NTSC: Up to 120fps @ 704x480/ PAL: Up to 100fps @ 704x576
NTSC: Up to 240fps @ 704x240/ PAL: Up to 200fps @ 704x288
NTSC: Up to 480fps @ 352x240/ PAL: Up to 400fps @ 352x288
 - 3. Mode NTSC: Manual, Schedule (Continuous/Event), Event(Pre/Post),
Time lapse (1~30 fps)

4. Event	PAL: Manual, Schedule (Continuous/Event), Event(Pre/Post), Time lapse (1~25 fps)
5. Overwrite Modes	Video loss, Motion(Level 1 ~ 10), Alarm, Tampering(Level 1 ~ 3)
6. Pre Alarm	Selectable (Stop / Continuous)
7. Post Alarm	Up to 30 sec. (5, 10, 20, 30 sec.)
	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, POS, Motion (All searching mode include preview function)
2. Playback Function	Fast forward / backward(2x, 4x, 8x, 16x, 32x, 64x) *Backward play with i-frame only Slow forward / backward, Step forward / backward *Backward play with i-frame only
D. Network	
1. Transmission Speed	Up to 32 Mbps, 4CIF/2CIF/CIF 120/240/480fps NTSC, 100/200/400fps PAL
2. Bandwidth Control	Selectable
3. Multi Stream	H.264 (4CIF, 2CIF, CIF Selectable)
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, SNMP
6. Monitoring	Smart viewer, Web viewer, SSM(CMS)
E. Smart Phone	
1. Platform	Android, iOS
2. Protocol Support	RTP, RTSP, HTTP, CGI
3. Max. Remote Users	Live 1
F. Storage (Back up)	
1. Internal HDD	Up to 4 SATA HDDs
2. External HDD	2 External SATA ports (*Expansion bay, Model : SVS-5R/5E)
3. DVD Writer(Back up)	YES
4. USB	2 USB ports for backup
5. File Format(Back up)	BU(DVR Player), EXE(Include Player), AVI
G. Security	
1. Password Protection	1 Admin, 10 Group, 10 User per 1 Group
2. Data Authentication	Watermark

2.05 INTERFACE

A. Monitors	
1. VGA	1 VGA (1280x720, 1280x1024, 1920x1080)
2. HDMI	1 HDMI (1280x720, 1280x1024, 1920x1080)
3. Spot Composite	Digital Spot (2CH) ※ Included OSD On Screen, multi mode support(1CH)
4. Loop Outputs	16CH
B. Audio	
1. Inputs	16CH line in (Built in 4CH, Option : Audio Extension Cable)
2. Output	1 line
3. Compression	G.711
4. Sampling Rate	8KHz
C. Alarm	
1. Inputs	Terminal 16 inputs, NO/NC
2. Outputs	Terminal 4 relay outputs, NO/NC
3. Rating	30V DC/2A, 250V AC/0.25A
4. Remote Notification	Notification via e-mail
D. Connections	
1. Ethernet	1 RJ-45 10/100/1000 Base-T
2. Serial Interface	RS-232/RS-485(Full duplex) for PTZ, Samsung System Keyboard

3. USB	USB 2.0, 2 ports(Front / Rear)
4. eSATA	2 external SATA ports
5. Application Support	Mouse, Remote controller
6. RS-485 Protocol	Samsung-T/E, Pelco-D/P, Panasonic, Phillips, AD, DIAMOND, ERNA, KALATEL, VCL TP, VICON, ELMO
7. Coax Protocol	Samsung CCVC, Pelco-C

2.06 GENERAL

A. Electrical	
1. Input Voltage	100 ~ 240V AC $\pm 10\%$, 50/60Hz, Auto ranging
2. Power Consumption	Max. 60 W (with 1x HDD)
B. Environmental	
1. Operating Temperature	+0°C ~ +40°C (+32°F ~ +104°F)
2. Operating Humidity	20% ~ 85%RH
C. Dimensions	W440 x H88 x D388.5(17.32" x 3.46" x 15.29")
1. Mechanical Weight (2x Hard Disks)	Approx. 6.6 kg (14.61 lb)
2. Rack Mount Kit	Yes
D. Languages	English, French, German, Spanish, Italian, Russian, Polish, Czech, Turkish, Netherlands, Portuguese, Swedish, Danish, Rumania, Serbia, Croatia, Hungary, Greek, Finnish, Norwegian, Korean, Japanese, Chinese (Traditional), Thai, Taiwanese (25 Language)

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.