SRN-1673S 16CH NETWORK VIDEO RECORDER WITH POE SWITCH

# 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 SRN-1673S 16CH NETWORK VIDEO RECORDER WITH POE SWITCH

1. The network video recorder (NVR) shall support 16 channels and provide recording rates of 80Mbps. The NVR shall display high-resolution images at a maximum of 8M pixels
2. The NVR shall offer 16 ports PoE Switch for connecting network camera; Each PoE port can be used as downlink port for camera.
3. The NVR shall offer 2 network ports for uplink to CMS.
4. The NVR shall offer combined VGA/HDMI video output for main display; H.264 video compression and G.711, G.726 and AAC audio compression; up to 4 audio inputs, and PTZ control using GUI, Webviewer or SPC-2000.
5. The NVR shall support network monitoring and integration using Samsung central monitoring system.
6. All operation and configuration menus shall be provided in several languages, including English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai.

2.03 DISPLAY

|  |  |  |
| --- | --- | --- |
| A. N/W Camera | |  |
|  | 1. Inputs | Up to 16CH |
|  | 2. Resolution | CIF ~ 8M |
|  | 3. Protocols | Samsung, ONVIF |
| B. Live | |  |
|  | 1. Local Display | HDMI / VGA |
|  | 2. Multi Screen Display | [Local monitor] 1 / 4 / 6 / 8 / 9 / 13 / 16 / Auto sequence,  [Web] 1 / 4 / 9 / 16 / Auto sequence |
|  | 3. Performance | [Local monitor] 8M (20fps), 5M (30fps), 3M (50fps), 2M (150fps), 720p (240fps), D1(480fps)  [Web] 5M (30fps), 3M (60fps), 2M (120fps), 720p (240fps), D1 (480fps) |

2.04 PERFORMANCE

|  |  |  |
| --- | --- | --- |
| A. Operating System | | Embedded Linux |
| B. Recording | |  |
|  | 1. Compression | H.264, MJPEG |
|  | 2. Recording Bandwidth | 80Mbps, 2M 16 camera real-time recording |
|  | 3. Resolution | CIF ~ 8M |
|  | 4. Mode | Normal, Scheduled, Event (Pre / Post) |
|  | 5. Event Trigger | Alarm input (8), Video loss, Camera event (Alarm in, MD, Video analytics)  VA event (Tampering, Enter/Exit, Passing, (Dis)Appear, Face detection, Audio detection) |
|  | 6. Event Action | E-mail, PTZ preset, Alarm out, Buzzer, Monitor out |
| C. Search & Playback | |  |
|  | 1. Playback Bandwidth | 32Mbps |
|  | 2. Performance | Max. 3 users |
|  | 3. Search Mode | Date & Time (Calendar) / Event log list / Text search (POS) |
|  | 4. Simultaneous Playback | [Local monitor] Up to 16CH  [Web, CMS] Up to 16CH |
|  | 5. Resolution | CIF ~ 8M |
|  | 6. Fish-eye Dewarping | Via Smartviewer |
|  | 7. Playback Control | Fast/Slow Forward/Backward, Move one step up/down |
| D. Storage | |  |
|  | 1. Default Built-in | 2TB |
|  | 2. Internal | 4 SATA (HDD removable at front) |
|  | 3. External (DAS) | 1 e-SATA |
|  | 4. Max. Capacity | Internal 16TB |
| E. Back up | |  |
|  | 1. File Backup | BU/EXE (USB), JPG/AVI (Web, CMS) |
|  | 2. Function | Max. 16CH playback, Date-time/title display |
| F. Sensor (Input/Output) | | 8 / 4 (NO 3ea, NO/NC 1ea) |
| G. Audio | |  |
|  | 1. Input | 16CH (Network) |
|  | 2. Compression | G.711, G.726, AAC (16/48KHz) |
|  | 3. Audio Communication | 2-way |

2.05 NETWORK

|  |  |  |
| --- | --- | --- |
| A. Protocol Support | | TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, Client), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S) |
| B. DDNS | | Samsung iPOLiS DDNS |
| C. Transmission Bandwidth | | Max. 160Mbps |
| D. Max. Remote Users | | Search 3 / Live unicast 10 / Live multicast 20 |
| E. IP | | IPv4 / IPv6 |
| F. Security | | IP address filtering, User access log, 802.1x authentication,  Encryption (ID/PW, Recording, Transmission, Back up) |
| G. Language | | English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai |
| H. OS | | Window XP (Service pack 2 or above), Vista, 7, 8,  Mac OS X (10.6 or above |
| I. Web Browser | | Microsoft Internet Explorer (Updated Ver. 8 ~10, IE 9 or higher recommended)  Mozilla Firefox (Ver. 19.x or above),  Google Chrome (Ver. 26.x or above),  Apple Safari (Ver. 6.0.3 or higher) |
| J. Viewer Software | |  |
|  | 1. Type | SSM, Webviewer, SmartViewer, iPOLiS mobile viewer |
|  | 2. CMS Support | SDK / CGI (SUNAPI) |

2.06 FUNCTIONS

|  |  |  |
| --- | --- | --- |
| A. Camera Setup | |  |
|  | 1. Register | PnP mode, Manual mode |
|  | 2. Setup Items | 1) IP address, Add profile edit, Bitrate, Compression, GOP, Quality  2) Camera MD setup  3) Video setup (Simple focus, Brightness/Contrast, Flip/Mirror, IRIS, WDR, D&N,  SSNR, Shutter, SSDR, DIS, etc) |
| B. Camera Control | |  |
|  | 1. PoE | 1) Monitor PoE power consumption  2) On/Off control for each PoE camera  3) Remote reset for each PoE camera |
| C. Easy Configuration | | Setup Wizard (Date/Time, Network, Auto camera configuration) |
| D. PTZ | |  |
|  | 1. Control | Via GUI, Webviewer, SPC-2000 |
|  | 2. Preset | 255 |
| E. Smart phone | |  |
|  | 1. OS | Android, iOS |
|  | 2. Control | Live (4CH) / Playback (1CH) |
| F. System Control | | Mouse, IR Remote controller, Web, SPC-2000 (USB controller) |

2.07 INDICATOR / INTERFACE

|  |  |  |
| --- | --- | --- |
| A. Front | |  |
|  | 1. Indicator | Power status LED 1ea, HDD action LED 1ea,  Alarm status LED 1ea Record status LED 1ea,  Network action LED 1ea, Back up LED 1ea |
|  | 2. USB | 2ea (Front 1ea / Rear 1ea) |
| B. Connections | |  |
|  | 1. VGA/HDMI | 1ea / 1ea |
|  | 2. Audio | Out 1ea (RCA, Line) |
|  | 3. Ethernet | 16ea (PoE/PoE+, 100Mbps)  - 8 PoE+ when 2 PoE ports aggregated to 1 port  - Each PoE port can be used as downlink port for camera / PoE Hub  2ea (LAN/WAN, 1Gbps)  - LAN : Downlink to camera / PoE Hub - WAN : Uplink to CMS |
|  | 4. Alarm | In 8ea (Terminal block) / Out 4ea (Terminal block) |
|  | 5. Reset | Yes (Factory reset, Alarm reset) |

2.08 SYSTEM

|  |  |
| --- | --- |
| A. Log List | Max. 20000 (System log, Event log each) |

2.09 GENERAL

|  |  |  |
| --- | --- | --- |
| A. Electrical | |  |
|  | 1. Input Voltage / Current | 100 ~ 240V AC |
|  | 2. Power Consumption | Max. 309W (NVR w / 4 x HDD, PoE on), 57W (NVR w / 4 x HDD, PoE off) |
|  | 3. PoE Budget | Max. 200W |
| B. Environmental | |  |
|  | 1. Operating Temperature | +0°C ~ +40°C (+32°F ~ +104°F) |
|  | 2. Operating Humidity | 20% ~ 85% RH |
| C. Mechanical | |  |
|  | 1. Color / Material | Black / Metal |
|  | 2. Dimensions (WxHxD) | 440.0 x 88.0 x 384.8mm (17.32" x 3.46" x 15.15") (2U) |
|  | 3. Weight | 5.6Kg (12.35 lb) (1TB HDD included) |
| D. Accessories | |  |
|  | 1. IR Remote Controller  / Mouse | Included / Included |
|  | 2. Viewer CD / IB | Backup Viewer, Installation Manual / Included |
|  | 3. Power Cord | Included |
|  | 4. Terminal Block | Included |

**2.10 CERTIFICATIONS**

A. CE mark

B. FCC mark

2.11 WARRANTY

A. 3 years, parts and labor.