

TRM-1610M/1610S

16CH Mobile Network Video Recorder

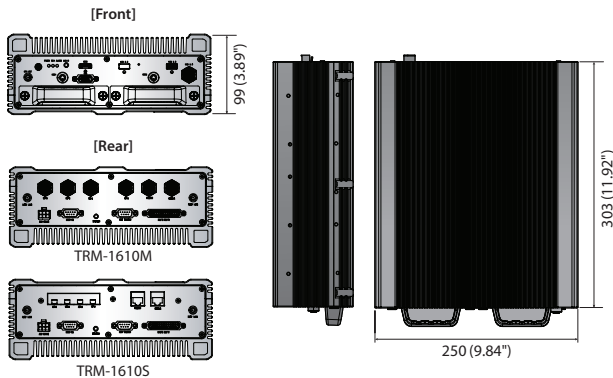


Key Features

- Up to 16CH 12megapixel supported
- H.265, H.264, MJPEG codec supported
- WiseStream support
- SUNAPI / ONVIF camera recording
- Max. 128Mbps recording
- Plug & play by 4 PoE / PoE+ ports
- M12 connector (TRM-1610M)
- 2 SATA (Front-swap)
 - Max. 2TB (HDD, Non-RAID mode)
 - Max. 4TB (SSD, Non-RAID mode)
- RAID 1 support

Dimensions

Unit : mm (inch)



Contents



Control Box

GPS

WiFi Antenna

Optional



SPN-10080P

SPN-10080PM

| | | TRM-1610M | TRM-1610S |
|------------------------------|----------------------------------|---|---|
| DISPLAY | | | |
| N/W Camera | Inputs / Resolution | Max. 16CH (4 PoE, M12) / CIF ~ 12MP | Max. 16CH (4 PoE, RJ-45) / CIF ~ 12MP |
| | Protocols | SUNAPI, ONVIF | |
| | Local Display | HDMI / VGA | |
| Live | Multi Screen Display | [Local monitor] 1 / 2V / 3V / 4 / 6 / 8 / 9 / 13 / 16 / Auto sequence, | [Web] 1 / 4 / 9 / 16 / Auto sequence |
| | Performance | [Local monitor] 1.2M (30fps), 8.3M (120fps), 1080p (480fps) | |
| PERFORMANCE | | | |
| Operating System | Embedded | Linux | |
| | Compression | H.265, H.264, MJPEG, WiseStream (H.265, H.264) | |
| | Recording Bandwidth | Max. 128Mbps | |
| | Resolution | CIF ~ 12MP | |
| Recording | Mode | Manual, Schedule (Continuous / Event), Event (Pre / Post), Emergency | |
| | Retention | Retention per channel (1~400 days) | |
| | Event Trigger | Alarm input (16), Video loss, Camera event (Sensor, MD, Video analytics, Defocus), G-Sensor (3 Axis) | |
| | Event Action | E-mail, Alarm out, Buzzer, Monitor out | |
| | Playback Bandwidth | 32Mbps (16CH simultaneously) | |
| | User | Max. 4 users (Local 1, Remote 3) | |
| Search & Playback | Mode | Date & Time (Calendar) / Event log list / Text search / Smart search | |
| | Simultaneous Playback | Max. 16CH (Local monitor, CMS) | |
| | Resolution | CIF ~ 12MP | |
| | Fish-eye Dewarping | Web / CMS | |
| | Playback Control | Fast/Slow Forward/Backward, Move one step up/down | |
| | Default Built-in | 0TB ~ 4TB | |
| Storage | Internal HDD | 2SATA (Front-swap) - Max. 2TB (HDD, Non-RAID mode) - Max. 4TB (SSD, Non-RAID mode) | |
| | RAID | RAID-1 | |
| | File Backup | Exe (GUI), JPG / AVI (Excluding GPS information) (Network) | |
| Backup | Function | Multi channel (Upto 16CH) Play, Date-time / Title / GPS display | |
| | Type / Wifi Backup Performance | Auto (Wifi), Manual (HDD / SSD) / Max. 150Mbps (IEEE802.11ac) | |
| Sensor | Input / Output | 16 / 6 | |
| Audio | Input / Compression | 16CH (Network) / G.711, G.726, AAC (16 / 48KHz) | |
| | Audio Communication | 2-way | |
| NETWORK | | | |
| Interface | | M12 (Gigabit ethernet x 2) | RJ-45 (Gigabit ethernet x 2) |
| 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), SUNAPI (Server, Client) | |
| DDNS | | Hanwha DDNS | |
| Transmission Bandwidth | Wired (LAN) | Max. 256Mbps | |
| Max. Remote Users | | Search 3 / Live unicast 10 / Live multicast 20 | |
| IP | | IPv4 | |
| Security | | IP address filtering, User access log, 802.1x, Encryption | |
| Wireless | WiFi | Internal (802.11 n (2.4G) / ac (5G), Dual antenna (MIMO)) | |
| | 3G/LTE | Support external 3G / LTE router (Ethernet) | |
| 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 | |
| OS | | Window 7, 8, 10, Mac OS X (10.8 or above) | |
| Web Browser | | MS IE, Google Chrome, Mac Safari | |
| Viewer | Type | SSM Transportation, WebViewer, Wisenet Mobile Viewer | |
| Software | CMS Support | Support SDK / CGI (SUNAPI) for integration to 3rd party VMS | |
| FUNCTIONS | | | |
| | Register | Auto mode, Manual mode | |
| Camera Setup | Setup Items | IP address, Add profile edit, Bitrate, Compression, Camera MD setup, Camera video setup (Simple focus, Brightness / Contrast, Flip / Mirror, IRIS, WDR, D&N, SSNR, Shutter, SSDR, DLS), Fisheye dewarping mode, Hallway View setup, Camera webpage, WiseStream Off / On | |
| Camera Control | PoE Power Control | Monitor PoE/PoE+ power consumption, Off / On control for each PoE/PoE+ camera, Remote reset for each PoE/PoE+ camera | |
| | Time Sync. | NVR time protocol for PoE/PoE+ camera (Time sync based on NVR time), GPS time sync | |
| PTZ | Control / Preset | Via GUI, WebViewer / 300 Presets | |
| Smart Phone | Support Model / Protocol Support | I-Phone, Android / RTP, RTSP, HTTP, CGI (SUNAPI) | |
| | Control | Live (16CH) : Multi-profile support, Playback (1CH) | |
| | Max. Remote Users | Search 3 / Live unicast 10 / Live multicast 20 | |
| System Control | | Mouse, Web | |
| INDICATOR / INTERFACE | | | |
| | Indicator | LED (Status indicator) 3EA : Power 1, Alarm 1, Record 1 | |
| Front | Power Switch / Audio | 1ea / Out (1ea, Line) | |
| | HDMI / VGA | 2ea (Support Live screen upto 16 div. mode, Clone) | |
| | USB / GPS | HDMI : Upto 4K (3840 x 2160), VGA : Max. 1080p | |
| | HDD Key Lock | 3ea (M12 x 1, USB-A x 2) / 1ea (SMA, F) | |
| | Ethernet | LAN / WAN : 2ea (1Gbps, M12) | LAN / WAN : 2ea (1Gbps, RJ-45) |
| | PoE Camera Input | 4ea (100Mbps, M12) | PoE Camera input : 4ea (100Mbps, RJ-45) |
| Connections | Control I/O | DB15 1ea (External control box) | |
| | Alarm | (1) Status LED (2) G-Sensor (3 Axis) (3) Emergency recording button (4) Power Switch (5) Audio out | |
| | Serial / WiFi | DB25 1ea (1) In (16ea) (2) Out (6ea) | |
| | Reset / Power Cord | Reserved / 2ea (RP-SMA, F) | |
| | Switch | 1ea / 6pin connector 1ea | |
| SYSTEM | | | |
| Power Management | Shutdown Delay | Max. 72Hrs (User selectable), Support CGI shutdown | |
| | Startup Delay | 0sec (Default) ~ 10min (User selectable) | |
| Log | Log List | Max. 20,000 (System log, Event log each) | |
| GENERAL | | | |
| Electrical | Input Voltage / Current | 9 ~ 36V DC (Battery power detection & Low power limit setup) | |
| | Power Consumption / PoE Budget | Low temperature in use: Max. 93W, Room temperature: Max. 67W / Max. 32W | |
| Environmental | Storage Temperature / Humidity | -25°C ~ +55°C (-13°F ~ +131°F) : HDD installed | |
| | | -40°C ~ +70°C (-40°F ~ +158°F) : Industrial SSD installed / 20% ~ 85% RH | |
| Mechanical | Color / Material | Black / Aluminium | |
| | Dimensions (WxHxD) | 250 x 99 x 303mm (9.84" x 3.89" x 11.92") | |
| | Weight | 7.35Kg (16.2 lb) | |
| STANDARD APPROVAL | | | |
| General | | CE, FCC, UL | |
| Special | | EN-50155 (Rail shock / Vib), EN-50121-4 (Railway FMC) | |
| Control Box | | | |
| INDICATOR / INTERFACE | | | |
| Top | Indicator | LED (Status indicator) 6ea : Power 1, Alarm 1, Record 1, GPS 1, RAID 1, HDD Error 1 | |
| | Emergency Button | 1ea | |
| Connections | Audio / Power Switch | Out 1ea (RCA, Line) / 1ea | |
| | Main I/O | 1ea (DB9) | |
| SYSTEM | | | |
| Mechanical | Color / Material | Black / Aluminium | |
| | Dimensions (WxHxD) | Approx. 118 x 29.2 x 70mm (4.64" x 1.15" x 2.75") | |
| | Weight | 200g (0.44 lb) | |

* The latest product information / specification can be found at hanwha-security.com

* Design and specifications are subject to change without notice.

* Wisenet is the proprietary brand of Hanwha Techwin, formerly known as Samsung Techwin.