

TRM-1610M/1610S

16CH Mobile Network Video Recorder

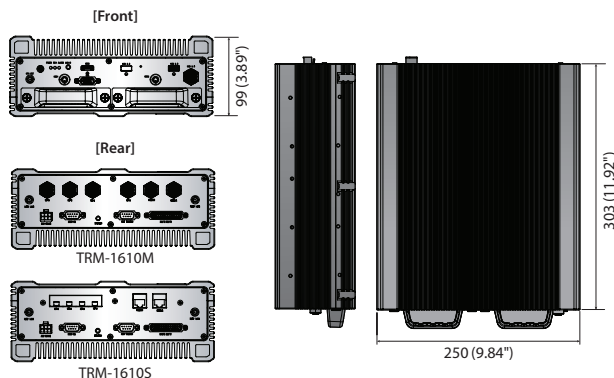


Key Features

- 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



Optional



		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] 12M (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	2 SATA (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 (Up to 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	
	Support Model / Protocol Support	I-Phone, Android / RTP, RTSP, HTTP, CGI (SUNAPI)	
Smart Phone	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	
	Power Switch / Audio	1ea / Out (1ea, Line)	
Front	HDMI / VGA	2ea (Support Live screen up to 16 div. mode, Clone)	
	USB / GPS	HDMI: Up to 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) PoE Camera Input: 4ea (100Mbps, M12)	LAN / WAN: 2ea (1Gbps, RJ-45), 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	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	Operating 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	
	Color / Material	Black / Aluminium	
Mechanical	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 EMC)	

	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: 200 g (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.