

TRM-1610M/1610S

16CH Mobile Network NVR

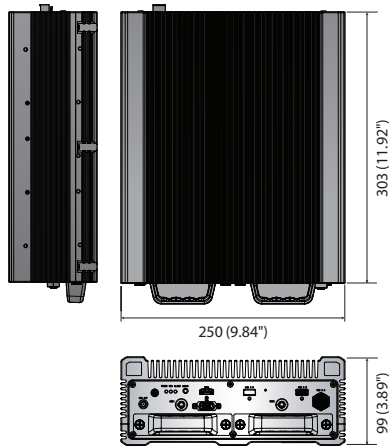


Key Features

- 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 Hot swap HDDs (Max. 4TB)
- RAID 1 support

Dimensions

Unit : mm (inch)



Contents



Optional



		TRM-1610M	TRM-1610S
DISPLAY			
N/W Camera	Inputs / Resolution	Max. 16CH (4 PoE) / 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	
Storage	Default Built-in	2 SATA (Front-swap) - Max. 4TB (HDD, Non-RAID mode), Max. 4TB (SSD, Non-RAID mode)	
	Internal HDD	RAID-1	
	RAID	RAID-1	
	File Backup	Exe (GUI), JPG (Network)	
Backup	Function	Multi channel (Upto 16CH) Play, Date-time / Title / GPS display	
	Type / Wifi Backup Performance	Auto (Wifi), Manual / TBD	
Sensor	Input / Output	16 / 6 (NO/NC selectable)	
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	Wired (LAN)	TBD	
Bandwidth	Wireless (Wifi, IEEE802.11ac)	TBD	
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 a/b/g/n/ac, Dual antenna)	
	3G/LTE	Support external 3G/LTE router	
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, Firefox	
Viewer	Type	SSM Transportation, WebViewer, Wisenet Mobile Viewer	
Software	CMS Support	Support SDK/C/G (SUNAPI) for integration to 3rd party VMS	
FUNCTIONS			
Camera Setup	Register	Auto mode, Manual mode	
	Setup Items	IP address, Add profile edit, Bitrate, Compression, GOP, Quality, Camera MD setup, Camera video setup (Simple focus, Brightness/Contrast, Flip/Mirror, IRIS, WDR, D&N, SSNR, Shutter, SSDR, DIS), Fisheye Dewarping Mode, Hallway View Setup, Camera Webpage, Wisestream On/Off	
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			
Front	Indicator	LED (Status indicator) 3EA : Power 1, Alarm 1, Record 1	
	Power Switch	1ea	
	HDMI / VGA	2ea (Support Live screen upto 16 div. mode, Clone) HDMI : Upto 4K (3840 x 2160), VGA : Max. 1080p	
	USB	3ea (M12 x 1, USB-A x 2)	
	GPS / Glonass	1ea (SMA)	
	HDD Key Lock	2ea	
	Audio	Out 1ea (RCA, Line)	
Connections	Ethernet	LAN / WAN : 2ea (1Gbps, M12)	LAN / WAN : 2ea (1Gbps, RJ-45), PoE Camera Input : 4ea (100Mbps, M12)
	Control I/O	DB15 1ea (External control box)	
	Alarm	(1) Status LED, (2) Impact sensor, (3) Emergency recording button	
	Serial / Reset	DB25 1ea (1) In 16ea, (2) Alarm reset 1ea (3) Out 6ea	
	Power Cord	Reserved / Switch 1ea 6pin connector 1ea	
SYSTEM			
Power Management	Shutdown Delay	Max. 4Hrs (User selectable), Support CGI shutdown	
	Startup Delay	0sec (Default) ~ 30sec (User selectable)	
	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	TBD (Max. 32W)	
Environmental	Storage Temperature / Humidity	-40°C ~ +70°C (-40°F ~ +158°F) 20% ~ 85% RH	
	Color / Material	Black / Metal	
Mechanical	Dimensions (WxHxD)	Main unit : Approx. 250 x 99 x 303mm (9.84" x 3.89" x 11.92")	
	Weight	7.35Kg (16.20 lb)	
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 / HDD Key Lock	1ea / 2ea	
Connections	Audio / Power Button	Out 1ea (RCA, Line) / 1ea	
	Main I/O	DB9 1ea	
SYSTEM			
Mechanical	Color / Material	Black / Metal	
	Dimensions (WxHxD)	Approx. 118 x 29.2 x 70mm (4.64" x 1.15" x 2.75")	
	Weight	0.2Kg (0.44 lb)	

* The latest product information / specification can be found at hanwha-security.com
* Design and specifications are subject to change without notice.