

# QRN-1610S

16Ch Network Video Recorder with built-in PoE Switch

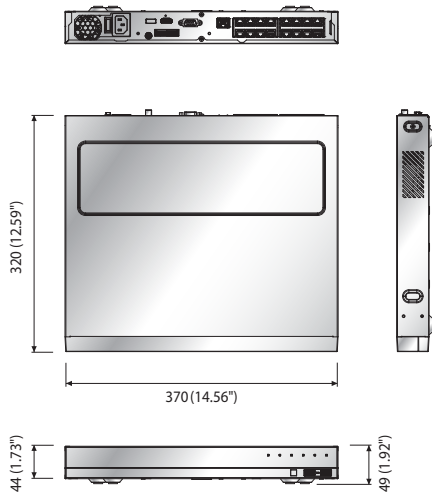


## Key Features

- Up to 16ch 8megapixel supported
- H.265, H.264, MJPEG codec supported
- 128Mbps network camera recording
- Plug & play by 16 PoE ports
- Max. 2HDDs supported
- HDMI / VGA local monitor
- P2P service (QR code connect) support

## Dimensions

Unit : mm (inch)



## QRN-1610S

<b>DISPLAY</b>		
Network Camera	Inputs	Max. 16ch
	Resolution	CIF ~ 8MP
	Protocols	Wisenet, ONVIF (Profile-S)
Live	Local Display	1xHDMI / 1xVGA
	Multi-Channel Display	[Local Monitor] 1 / 2H / 2V / 3V / 4 / 6 / 8 / 9 / 13 / 16 / Auto Sequence [Web] 1 / 4 / 9 / 16 / Auto Sequence
	Performance	[Local Monitor] 8MP (60fps) 5MP (90fps), 3MP (120fps), 2MP (240fps), 720p (480fps), D1 (480fps)
<b>PERFORMANCE</b>		
Operating System	Embedded	Linux
	Compression	H.265, H.264, MJPEG
	Recording Bandwidth	Max. 128Mbps
Record	Resolution	CIF ~ 8MP
	Type	Manual, Schedule (Continuous / Event), Event (Pre / Post)
	Event Trigger	Alarm Input (4), Video Loss, Camera event (Sensor, MD, Video analytics, Defocus)
	Event Action	e-Mail, PTZ Preset, Alarm Out, Buzzer, Monitor Out
	Playback Bandwidth	32Mbps (8ch simultaneously)
Search & Play	Performance	Max. 3 Users (Local 1, Remote 3)
	Mode	Date & Time (Calendar) / Event Log list / Text Search (POS) / ARB Search / Smart Search (Virtual Line w / direction, Enter / Exit)
	Simultaneous playback	Max. 8ch (Local), Max 16ch (Network)
	Resolution	CIF ~ 8MP
	Fish-Eye Dewarping	N/A (processed on Web / CMS)
Storage	Playback Control	Fast / Slow Forward / Backward, Move one step Up / Down
	Default Built-In	0 ~ 6TB
Backup	Internal	2 (Max. 12TB)
	File backup Function	BU / Exe (USB), JPG / AVI (Web, CMS)
Sensor	I/O	Multi channel (Up to 16ch) Play, Date-Time / Title display
	Input	4 / 2 (NO 1EA, NO / NC 1EA)
Audio	Input	16 ch (network)
	Compression	G.711, G.726, AAC (16 / 48KHz)
	Audio Communication	2-Way
<b>NETWORK</b>		
Protocol		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 Security DDNS
Transmission Bandwidth		128Mbps
Max Remote Users		Search (3), Live Unicast (10), Multicast (20)
IP Version		IPv4 / IPv6
Security		User access Log, IP Filtering, 802.1x, Encryption
Language	GUI	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese (Simplified), Japanese, Thai
	Web	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese (Simplified), Japanese, Thai
OS		Windows 7, 8, 10, Mac OS X 10.9, 10.10, 10.11
Web Browser		Plug-in free web viewer : Google Chrome 47, MS Edge 20 Plug-in Webviewer : MS Explorer 11, Apple Safari 9 (Mac OS X only)
Viewer Software	Type	SSM, Webviewer, Smart Viewer, Wisenet Mobile
	CMS Support	Support SDK / CGI (SUNAPI)
<b>FUNCTIONS</b>		
Camera Setup	Register	PnP, Manual
	Setup Items	IP address, Add profile edit, Bitrate, Compression, GOP, Quality, Camera MD setup, Camera video setup (Simple focus, Brightness / Contrast, Flip / Mirror, IRS, WDR, D&N, SSNR, Shutter, SSSDR, DIS), Fisheye Dewarping setup, Hallway View Setup, Camera Webpage
Camera Control	PoE	Monitor PoE Power consumption, On / Off Control for each PoE camera, Remote Reset for each PoE camera
Easy Configuration		Setup Wizard (Date / Time, Network, Auto Camera Configuration), P2P (QR code)
ARB		Yes
PTZ	Control	Via GUI, Webviewer, 255 preset
Smart phone	Support Model	iPhone, Android
	Protocol Support	RTP, RTSP, HTTP, CGI (SUNAPI)
	Control	Live (16ch) : Multi-Profile Support, Playback (4ch), Event push
	Max. Remote Users	Search (3), Live Unicast (10), Multicast (20)
System Control		Mouse, Web, IR Remote control
<b>INDICATOR / INTERFACE</b>		
Front	Indicator	LED (Status indicator) : 6ea HDD action 1, Alarm 1, Power 1, Record 1, Backup 1, Network 1
	VGA	1EA (1920x1080, 1280x720)
	HDMI	1EA (3840 x 2160, 1920x1080, 1280x720)
	Audio	Out (1EA, RCA, Line)
Connectors	Ethernet	16EA (PoE, 100Mbps) 1EA (WAN, 1Gbps) - WAN : Uplink to CMS
	Alarm	In (4EA, Terminal Block) / Out (2EA, Terminal Block)
	USB	Front 2EA (USB2.0), Rear 1 (USB3.0)
	Ext. Storage	N/A
	Serial	N/A
	Reset	Switch (1EA)
	Power Cord	Included
<b>SYSTEM</b>		
Log	Log List	Max. 20000 (System Log, Event Log each)
<b>ENVIRONMENTAL</b>		
Operating Temperature / Humidity		+0°C to +40°C (+32°F to +104°F)
Humidity		20% ~ 85% RH
<b>ELECTRICAL</b>		
Power Input		100 to 240 VAC ±10%
Power Consumption		Max. 158.2W (2HDDs, PoE on), Max. 34.6W (2HDDs, PoE off)
PoE Budget		Max. 100W
<b>MECHANICAL</b>		
Color / Material		Black / Metal
Dimension (WxHxD)		W370.0 x H44.0 x D320 mm (1U) (14.56" x 1.73" x 12.59")
Weight		2.79Kg (6.15 lb) (without HDD)

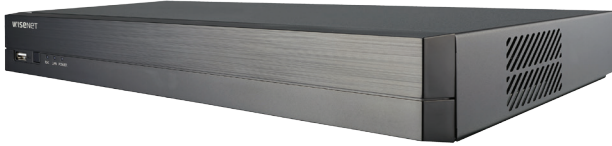
\* The latest product information / specification can be found at [hanwha-security.com](http://hanwha-security.com)

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

# QRN-810S

8Ch Network Video Recorder with built-in PoE Switch

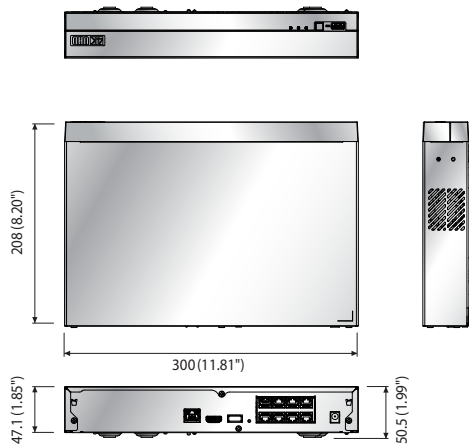


## Key Features

- Up to 8ch 8megapixel supported
- H.265, H.264, MJPEG codec supported
- 80Mbps network camera recording
- Plug & play by 8 PoE ports
- Max. 1HDD supported
- HDMI local monitor
- P2P service (QR code connect) support

## Dimensions

Unit : mm (inch)



## QRN-810S

<b>DISPLAY</b>		
Network Camera	Inputs	Max. 8ch
	Resolution	CIF ~ 8MP
	Protocols	Wisenet, ONVIF (Profile-S)
Live	Local Display	1x HDMI
	Multi-Channel Display	[Local Monitor] 1 / 2H / 2V / 3V / 4 / 6 / 8 / Auto Sequence [Web] 1 / 4 / 8 / Auto Sequence
	Performance	[Local Monitor] 8MP (60fps) 5MP (90fps), 3MP (120fps), 2MP (240fps), 720p (240fps), D1 (240fps)
<b>PERFORMANCE</b>		
Operating System	Embedded	Linux
	Compression	H.265, H.264, MJPEG
	Recording Bandwidth	Max. 80Mbps
Record	Resolution	CIF ~ 8MP
	Type	Manual, Schedule (Continuous / Event), Event (Pre / Post)
	Event Trigger	Video Loss, Camera event (Sensor, MD, Video analytics, Defocus)
	Event Action	e-Mail, PTZ Preset, Buzzer, Monitor Out
	Playback Bandwidth	32Mbps (8ch simultaneously)
Search & Play	Performance	Max. 3 Users (Local 1, Remote 3)
	Mode	Date & Time (Calendar), Event Log list, Text Search (POS), ARB Search, Smart Search (Virtual Line w / direction, Enter / Exit)
	Simultaneous playback	Max. 8ch (Local, Network)
	Resolution	CIF ~ 8MP
	Fish-Eye Dewarping	N/A (processed on Web / CMS)
Storage	Playback Control	Fast / Slow Forward / Backward, Move one step Up / Down
	Default Built-In	0 ~ 6TB
	Internal	1 (Max.6TB)
Backup	File backup	BU / Exe (USB), JPG / AVI (Web, CMS)
	Function	Multi channel (Up to 8ch) Play, Date-Time / Title display
Sensor	I/O	N/A
	Input	8ch (network)
Audio	Compression	G.711, G.726, AAC (16 / 48KHz)
	Audio Communication	2-Way
<b>NETWORK</b>		
Protocol		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 Security DDNS
Transmission Bandwidth		80Mbps
Max Remote Users		Search (3), Live Unicast (10), Multicast (20)
IP Version		IPv4 / IPv6
Security		User access Log, IP Filtering, 802.1x, Encryption
Language	GUI	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese (Simplified), Japanese, Thai
	Web	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese (Simplified), Japanese, Thai
OS		Windows 7, 8, 10, Mac OS X 10.9, 10.10, 10.11
Web Browser		Plug-in free web viewer : Google Chrome 47, MS Edge 20 Plug-in Webviewer : MS Explorer 11, Apple Safari 9 (Mac OS X only)
Viewer Software	Type	SSM, Webviewer, Smart Viewer, Wisenet Mobile
	CMS Support	Support SDK / CGI (SUNAPI)
<b>FUNCTIONS</b>		
Camera Setup	Register	PnP, Manual
	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, SDDR, DIS), Fisheye Dewarping setup, Hallway View Setup, Camera Webpage
Camera Control	PoE	Monitor PoE Power consumption, On / Off Control for each PoE camera, Remote Reset for each PoE camera
Easy Configuration		Setup Wizard (Date / Time, Network, Auto Camera Configuration) P2P (QR code)
ARB		Yes
PTZ	Control	Via GUI, Webviewer, 255 preset
Smart phone	Support Model	iPhone, Android
	Protocol Support	RTP, RTSP, HTTP, CGI (SUNAPI)
	Control	Live (8ch) : Multi-Profile Support, Playback (4ch), Event push
Max. Remote Users		Search (3), Live Unicast (10), Multicast (20)
System Control		Mouse, Web, IR Remote control
<b>INDICATOR / INTERFACE</b>		
Front	Indicator	LED (Status indicator) : 3ea Power Status 1, LAN 1, Record 1
	VGA	N/A
	HDMI	1 EA (3840 x 2160, 1920 x 1080, 1280 x 720)
Connectors	Audio	N/A
	Ethernet	8EA (PoE, 100Mbps) 1EA (WAN, 1Gbps) - WAN : Uplink to CMS
	Alarm	N/A
	USB	Front 1EA (USB2.0), Rear 1 (USB3.0)
	Ext. Storage	N/A
Serial	N/A	
Reset	Switch (1EA)	
Power Cord		Included
<b>SYSTEM</b>		
Log	Log List	Max. 20000 (System Log, Event Log each)
<b>ENVIRONMENTAL</b>		
Operating Temperature / Humidity		+0°C to +40°C (+32°F to +104°F)
Humidity		20% ~ 85% RH
<b>ELECTRICAL</b>		
Power Input		54VDC / 1.67A
Power Consumption		Max. 76.2W (1HDD, PoE on), Max. 8.1W (1HDD, PoE off)
PoE Budget		Max. 50W
<b>MECHANICAL</b>		
Color / Material		Black / Metal
Dimension (WxHxD)		W300.0 x H47.1 x D208.4 mm (1U) (11.81" x 1.85" x 8.20")
Weight		1.01Kg (2.22 lb) (without HDD)

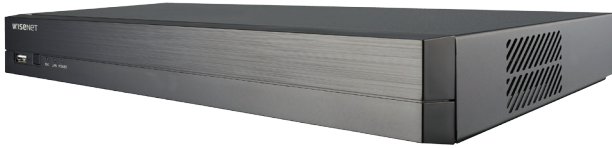
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# QRN-410S

4Ch Network Video Recorder with built-in PoE Switch

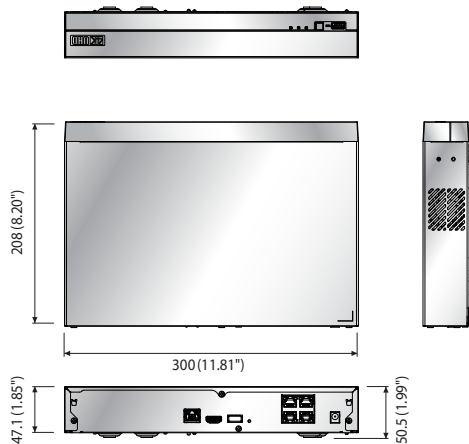


## Key Features

- Up to 4ch 8megapixel supported
- H.265, H.264, MJPEG codec supported
- 40Mbps network camera recording
- Plug & play by 4 PoE ports
- Max. 1HDD supported
- HDMI local monitor
- P2P service (QR code connect) support

## Dimensions

Unit : mm (inch)



## QRN-410S

<b>DISPLAY</b>		
Network Camera	Inputs	Max. 4ch
	Resolution	CIF ~ 8MP
	Protocols	Wisenet, ONVIF (Profile-S)
Live	Local Display	1x HDMI
	Multi-Channel Display	[Local Monitor] 1 / 2H / 2V / 3V / 4 / Auto Sequence [Web] 1 / 4 / Auto Sequence
	Performance	[Local Monitor] 8MP (60fps) 5MP (90fps), 3MP (120fps), 2MP (120fps), 720p (120fps), D1 (120fps)
<b>PERFORMANCE</b>		
Operating System	Embedded	Linux
	Compression	H.265, H.264, MJPEG
Record	Recording Bandwidth	Max. 40Mbps
	Resolution	CIF ~ 8MP
	Type	Manual, Schedule (Continuous / Event), Event (Pre / Post)
	Event Trigger	Video Loss, Camera event (Sensor, MD, Video analytics, Defocus)
	Event Action	e-Mail, PTZ Preset, Buzzer, Monitor Out
Search & Play	Playback Bandwidth	32Mbps (4ch simultaneously)
	Performance	Max. 3 Users (Local 1, Remote 3)
	Mode	Date & Time (Calendar) / Event Log list / Text Search (POS) / ARB Search / Smart Search (Virtual Line w / direction, Enter / Exit)
	Simultaneous playback	Max. 4ch (Local, Network)
	Resolution	CIF ~ 8MP
Storage	Fish-Eye Dewarping	N/A (processed on Web / CMS)
	Playback Control	Fast / Slow Forward / Backward, Move one step Up / Down
	Default Built-In	0 ~ 6TB
Backup	Internal	1 (Max.6TB)
	File backup Function	BU / Exe (USB), JPG / AVI (Web, CMS)
Sensor	I/O	Multi channel (Upto 4ch) Play, Date-Time / Title display
	Input	N/A
Audio	Input	4 ch (network)
	Compression	G.711, G.726, AAC (16 / 48KHz)
	Audio Communication	2-Way
<b>NETWORK</b>		
Protocol		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 Security DDNS
Transmission Bandwidth		50Mbps
Max Remote Users		Search (3), Live Unicast (10), Multicast (20)
IP Version		IPv4 / IPv6
Security		User access Log, IP Filtering, 802.1x, Encryption
Language	GUI	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese (Simplified), Japanese, Thai
	Web	English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese (Simplified), Japanese, Thai
OS		Windows 7, 8, 10, Mac OS X 10.9, 10.10, 10.11
Web Browser		Plug-in free web viewer : Google Chrome 47, MS Edge 20 Plug-in Webviewer : MS Explorer 11, Apple Safari 9 (Mac OS X only)
Viewer Software	Type	SSM, Webviewer, Smart Viewer, Wisenet Mobile
	CMS Support	Support SDK / CGI (SUNAPI)
<b>FUNCTIONS</b>		
Camera Setup	Register	PnP, Manual
	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, SDDR, DIS), Fisheye Dewarping setup, Hallway View Setup, Camera Webpage
Camera Control	PoE	Monitor PoE Power consumption, On / Off Control for each PoE camera, Remote Reset for each PoE camera
Easy Configuration		Setup Wizard (Date / Time, Network, Auto Camera Configuration) P2P (QR code)
ARB		Yes
PTZ	Control	Via GUI, Webviewer, 255 preset
Smart phone	Support Model	iPhone, Android
	Protocol Support	RTP, RTSP, HTTP, CGI (SUNAPI)
	Control	Live (4ch) : Multi-Profile Support, Playback (4ch), Event push
	Max. Remote Users	Search (3), Live Unicast (10), Multicast (20)
System Control		Mouse, Web
<b>INDICATOR / INTERFACE</b>		
Front	Indicator	LED (Status indicator) : 3ea Power Status 1, LAN 1, Record 1
	VGA	N/A
	HDMI	1 EA (3840 x 2160, 1920x1080, 1280x720)
Connectors	Audio	N/A
	Ethernet	4EA (PoE, 100Mbps) 1EA (WAN, 100Mbps) - WAN : Uplink to CMS
	Alarm	N/A
	USB	Front 1EA (USB2.0), Rear 1 (USB3.0)
	Ext. Storage	N/A
Serial	N/A	
Reset	Switch (1EA)	
Power Cord		Included
<b>SYSTEM</b>		
Log	Log List	Max. 20000 (System Log, Event Log each)
<b>ENVIRONMENTAL</b>		
Operating Temperature / Humidity		+0°C to +40°C (+32°F to +104°F)
Humidity		20% ~ 85% RH
<b>ELECTRICAL</b>		
Power Input		54VDC / 1.2A
Power Consumption		Max. 47W (1HDD, PoE on), Max. 7.4W (1HDD, PoE off)
PoE Budget		Max. 25W
<b>MECHANICAL</b>		
Color / Material		Black / Metal
Dimension (WxHxD)		W300.0 x H47.1 x D208.4 mm (1U) (11.81" x 1.85" x 8.20")
Weight		0.99Kg (2.18 lb) (without HDD)

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