QRN-1610S
16Ch Network Video Recorder with built-in PoE Switch

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

Dimensions

Unit: mm (inch)

**PERFORMANCE**

- Operating System: Embedded Linux
- Compression: H.265, H.264, MJPEG
- Resolution: CIF ~ 8MP
- Type: Multi-channel Upto 16ch Play, Date-Time / Title display
- Event Trigger: Video Loss, Camera event (Sensor, MD, Video analytics, Defocus)
- Performance: Max. 3 Users (Local 1, Remote 2)
- Search & Play: Date & Time (Calendar), Event Log list / Text Search (POS) / ARB Search / Smart Search (Virtual Line / direction, Enter / Exit)
- Simultaneous playback: Max. 8ch (Local), Max 16ch (Network)
- Resolution: CIF ~ 8MP
- Fish-Eye Dewarping: N/A (processed on Web / CMS)
- Playback Control: Fast / Slow Forward / Backward, Move one step Up / Down
- Storage: Default Built-in 0 ~ 2TB
- Backup: File backup (BL / EU / EU, JPEG / AVI / Web, CMS)
- Sensor: I/O (4 / 2 / 1 EA: NO / NC, TEA)
- Audio: Input: 16ch (Network), Output: 16ch (Network)
- Compression: G.711, G.726, AAC (16 / 48KHz)
- Communication: G.711, G.726, AAC (16 / 48KHz)
- User access Log, IP Filtering, 802.1x, Encryption
- IPv4 / IPv6
- Search: (3), Live Unicast (10), Multicast (20)
- IP Version: 2019
- Power Consumption: Max. 158.2W (2HDDs, PoE on), Max. 34.6W (2HDDs, PoE off)
- Humidity: 20% ~ 85% RH
- Temperature: -20°C ~ 50°C (+4°F ~ 122°F)
- Power Input: 100 to 240V AC ±10%
- Power Consumption: Max. 128W (2HDDs, PoE on), Max. 34.6W (2HDDs, PoE off)
- PoE Budget: Max. 100W
- Weight: 2.79kg (6.15 Ib) (without HDD)
- Power Cord: Included

**NETWORK**

- Protocol: TCP/IP, UDP / IP, RTSP, RTP, HTTP, HLS, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI (Server, Client), PPPoE, SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, DMX (Profile-5), SUNAPI (Server, Client)
- Transmission Bandwidth: 128Mbps
- Max Remote Users: search (3), Live Unicast (10), Multicast (20)
- IP Version: IPv4 / IPv6
- Camera Setup: IP address, Add profile edit, Bitrate, Compression, G.711, G.726, AAC, Picture, G.711, G.726, AAC, Picture
- Camera Control: Monitor PoE Power consumption, On / Off Control for each PoE camera, Monitor shut-off, Hallway View, Multi-Channel Display (Front Indicator: 6ea)
- Camera Configuration: Setup Wizard (Date / Time, Network, Auto Camera Configuration), Easy Configuration
- Smart phone: Supports Live, Playback, Setup, Control (Max. 16ch), Multi-Profile Support, Playback (4ch), Event Push
- Max. Remote Users: Search (3), Live Unicast (10), Multicast (20)
- System Control: Mouse / Web / Remote control

**FUNCTIONS**

- Camera Setup: IP address, Add profile edit, Bitrate, Compression, G.711, G.726, AAC, Picture, G.711, G.726, AAC, Picture
- Camera Control: Monitor PoE Power consumption, On / Off Control, Hallway View, Multi-Channel Display (Front Indicator: 6ea)
- Camera Configuration: Setup Wizard (Date / Time, Network, Auto Camera Configuration), Easy Configuration
- Smart phone: Supports Live, Playback, Setup, Control (Max. 16ch), Multi-Profile Support, Playback (4ch), Event Push
- Max. Remote Users: Search (3), Live Unicast (10), Multicast (20)
- System Control: Mouse / Web / Remote control

**INDICATOR / INTERFACE**

- Front Indicator: [LED (Status indicator), te, HDD action, 1, Power 1, Record 1, Backup 1, Network 1, VGA 1, H.264 1 (1080p), 1280x720, supports Live, Playback, Setup]
- Audio: Out (1 EA: RCA, LINE)
- HDMI: TEA1 (HDMI), 1920x1080, 1280x720, supports Live, Playback, Setup
- Ethernet: TEA 1 / 2 (100M), RJ45, 1000M, supports Live, Playback, Setup
- USB: Front USB (USB2.0), Rear USB (USB3.0)
- Ext. Storage: N/A
- Serial: N/A
- Reset: Switch (TEA)
- Power Cord: Included

**SYSTEM**

- Log: Log List, Mac, 20000, System Log, Event Log (each)
- Operating Temperature / Humidity: 0°C ~ +40°C (-32°F to +104°F), 20% ~ 85% RH
- Electrical: Power Input: 100 to 240V AC ±10%
- Power Consumption: Max. 128W (2HDDs, PoE on), Max. 34.6W (2HDDs, PoE off)
- PoE Budget: Max. 100W

**ENVIRONMENTAL**

- Weight: 2.79kg (6.15 Ib) (without HDD)
- Color / Material: Black / Metal
- Dimension (WxHxD): 370 (14.56") x 165 (6.5") x 440 mm (14.56" x 1.73" x 17.32")

*The lastest product information / specification can be found at hanwhasecurity.com
*Design and specifications are subject to change without notice.
*Wisenet is the proprietary brand of Hanwha Techwin
# QRN-810S

8Ch Network Video Recorder with built-in PoE Switch

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

## Dimensions

<table>
<thead>
<tr>
<th>Unit</th>
<th>(mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width</td>
<td>300 (11.81&quot;)</td>
</tr>
<tr>
<td>Depth</td>
<td>47 (1.85&quot;)</td>
</tr>
<tr>
<td>Height</td>
<td>58 (2.28&quot;)</td>
</tr>
</tbody>
</table>

## Performance

### Operating System
- Embedded Linux

### Record
- Compression: H.265, H.264, MJPEG
- Recording Bandwidth: Max. 80Mbps,
- 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: 12Mbps, (achimutaneously)
- Performance: Max. 3 users (Local) / 3 (Remote)

### Search & Play
- Date & Time: Calendar, Event Log, Event Search (POS), ARB Search
- Simultaneous playback: Max. 8Ch (Local), Network
- Resolution: CIF – 8MP
- Fish-Eye Dewarping: N/A (processed on Web / CMS)
- Playback Control: Fast / Slow / Forward / Backward, Move one step Up / Down

### Storage
- Default Built-in: 0 - 1TB
- Backup: File backup
- Function: Multi-channel (Up to 8ch), Play / Date-time / Title display
- Sensor: I/O
- Audio: Input 8 (QI, Network)

### Network
- Protocol: TCP/IP, UPnP, RTP, HTTP, HTTPS, DHCP, DNS, DDNS, uPnP, SMTP, DHCP, ARP, DNS
- IP Version: IPv4 / IPv6
- IP address: Static, DHCP, Auto-IP
- IP access list: IP filtering
- PSNR: 80dB
- Encryption: SSL / TLS
- User access list: IPfilter, 802.1x

### Security
- GUI
- Language
- Web

### 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 Explorer 11, Apple Safari 9 (Mac OS X only)
- Max Remote Users: Search (3), Live Unicast (10), Multicast (20)

### Viewers / Software
- Support: Viewer, CMS, Webviewer, Smart Viewer, WiseNet Mobile-viewer

### Viewers / Software
- Type
- CMS Support: WiseNet WAVE, CMS, Webviewer, Smart Viewer, WiseNet Mobile-viewer

### Functions
- Register
- Login
- Setup Items
- Camera setup
- Camera setup
- Camera control
- Easy Configuration
- ARB
- PTZ
- Control
- Support Model
- Protocol Support
- Smart phone
- Control
- System Control

### Indicator Interface
- Front
- Rear
- Connectors
- Power

### System
- Power
- Voltage
- Current
- Power Consumption
- Polarity
- Switch
- Cable

### Environmental
- Operating Temperature / Humidity
- Humidity
- Operating Temperature / Humidity
- Humidity

### Electrical
- Power Input
- Power Consumption
- Polarity
- Weight

### Mechanical
- Color / Material
- Dimension (WxHxD)
- Weight

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QRN-410S

4Ch Network Video Recorder with built-in PoE Switch

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

Dimensions

Unit: mm (inch)

**QRN-410S**

**DISPLAY**

| Network Camera | Inputs | Max. 4ch |
| Local Display | | |
| Performance | [Local Monitor] [BMP] (640x) |

**PERFORMANCE**

| Operating System | Embedded Linux |
| Recording Bandwidth | H.265, H.264, MJPEG |
| Resolution | CIF - BVP |
| Type | Manual, Schedule, Event, Pre/Post |
| Event Trigger | Video Log, Camera event, Sensor MD, Video analytics, In/Out |
| Event Action | e-Mail, P2P, P2P, Buzzer, Motion/Out |
| Playback Bandwidth | 32Mbps (4ch simultaneously) |
| Performance | Max. 3 users (Local / Remote) |

| Search & Play | Date & Time Calendar | Event Log Flag | Text Search (POS) | ARB Search | Smart Search/View (Virtual Monitor / Direction / Filter) |
| Simultaneous playback | 4ch (Local) |
| Resolution | CIF - BVP |
| Fish-Eye Dewarping | N/A (processed on Web / CMS) |
| Playback Control | Fast / Slow / Forward / Backward, Move one step Up / Down |
| Storage | 1 x HDD (Max. 6TB) |

| Backup | File backup | BL / E heuristic, JPG / AVI / Web / CMS |
| Function | Multi-channel Upto [4] ch Play, Date-Time / Time display |
| Sensor | N/A |
| Audio | Input | 4 ch (network) |

**NETWORK**

| Protocol | TCP/IP, UDP/IP, RTSP, HTTP, SMTP, DNS, FTP, SNMP, SSL, RTSP (Server, Client), PPPoE, SMTP, ICMP, IPP, ARP, DNS, DNS, uTP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI (Server, Client) |
| Transmissions 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, Polish, Dutch, Swedish, French, German, Italian, Spanish, Russian, Polish, Dutch, Swedish, English, French, German, Italian, Spanish, Russian, Polish, Dutch, Swedish |

**FONCTIONS**

| Camera Setup | Register | PnP, Manual |
| Setup Items | IP address, Add profile, editor, Bbtree, Compression, G/CQ, Quality, Manual / Camera MD setup, Camera video setup (Simple / Focus, Brightness / Contrast, Flip / Mirror, IRIS, WDR, DNR, SINE, Shutter, SMD, DIS), Fisheye dewarping setup, Hallway View Setup, Camera Webpage |

**Camera Control**

| PoE | Monitor / HDP, Power On / Off, Remote / Off | On / Off for each PoE camera |
| Control | Web / CMS / UTP, Camera Relay, Control, Remote / Off, Reset for each PoE camera |

**Easy Configuration**

| Setting | Setup Wizard (Date / Time, Network, Auto Camera Configuration) |
| Control | 227 (RJ-45) |
| ARB | Yes |

**Smartphone**

| Control | Web / CMS, Webviewer, 225 preset |
| Support Model | KS, Android |
| Protocol Support | H.265, RTSP, HTTP, CMS, MJPEG, RTSP, RTSP, HTTP, CMS, MJPEG |
| Control | Live (4ch), Multi-Profile (4ch), Playback / Live (4ch), Event push |
| Max Remote Users | Search (3), Live Unicast (10), Multicast (20) |

**System Control**

| Search (Virtual Line w / direction, Enter / Exit) |
| Control | Web, Mouse, Webviewer |

**INDICATOR / INTERFACE**

**Front**

| LED/Status indicator | 3 ea |
| Power Status | 1, LAN 1, LAN 2 |
| VGA | 1 ea |
| HDMI | 1 EA (1920 x 1080, 1280 x 720) |
| Audio | N/A |
| Ethernet | 4 EA (1000 Mbps), Ethernet, 1 EA (1000 / 100 Mbps), 1 EA (10 / 100 Mbps) |
| USB | 1 EA (USB2.0, Rear) |
| Ext. Storage | N/A |
| Serial | N/A |
| Reset | Switch (1 EA) |
| Power Cord | Included |

**SYSTEM**

| Log | Log List | Mac / 20000 | System Log, Event Log (each) |
| Operating Temperature / Humidity | 0°C to +40°C / 20% to 80% RH |
| Weight | 3.18Kg (6.96 lbs) (without HDD) |

**ENVIROMENTAL**

| Power Input | 5W (4ch), 21.2A |
| Power Consumption | Max. 45W (HDD on), Max. 74W (HDD on) |
| PoE Budget | Max. 25W |

**MECHANICAL**

| Color / Material | Black / Metal |
| Dimension (WxHxD) | 471 x 145 x 300 (18.5 x 5.71 x 11.81) |

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