QNP-6230RH
2 MP H.265 Network 23x IR PTZ Camera

Key Features
- 2 megapixel (1920 x 1080) resolution
- 4.44~102.2mm(23x) lens
- Maximum IR viewable length : 100m
- Day & night (ICR), WDR (120dB), DIS (Built-in gyro sensor)
- Intelligent Analytics
- Multiple streaming, WiseStream II support
- H.265, H.264, MJPEG codec support
- MicroSD / SDHC / SDXC memory
- IP66, IK10
### Video

<table>
<thead>
<tr>
<th><strong>Imaging Device</strong></th>
<th>1/2.8” 2 MP CMOS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Effective Pixels</strong></td>
<td>1944(H)x1212(V)</td>
</tr>
</tbody>
</table>
| **Minimum Illumination** | Color: 0.05Lux(F1.6, 1/30sec)  
BW: 0Lux(IR LED On) |
| **Video Out** | CVBS: 1.0 Vp-p / 75Ω composite, 720x480 for installation |

### Lens

| **Focal Length (Zoom Ratio)** | 4.44~102.2mm(23x) zoom |
| **Maximum Aperture Ratio** | F1.6(Wide)~F3.6(Tele) |
| **Angular Field of View** | H: 61.8°(Wide)~3.08°(Tele) / V: 36.2°(Wide)~1.73°(Tele) |
| **Minimum Object Distance** | Wide: 1.5m(4.92ft), Tele: 2m(6.56ft) |
| **Focus Control** | Oneshot AF |
| **Lens Type** | DC auto iris |

### Pan / Tilt / Rotate

| **Pan Range** | 360° Endless |
| **Pan Speed** | Preset: 400°/sec, Manual: 0.024°/sec~250°/sec |
| **Tilt Range** | 95°(-5°~90°) |
| **Tilt Speed** | Preset: 250°/sec, Manual: 0.024°/sec~250°/sec |
| **Sequence** | Preset(300ea), Swing, Group(6ea), Trace, Tour, Auto Run, Schedule |
| **Preset Accuracy** | ±0.2° |
| **Azimuth Support** | Support |

### Operational

| **IR Viewable Length** | 100m(328.08ft) |
| **Camera Title** | Displayed up to 85 characters |
| **Day & Night** | Auto(ICR) |
| **Backlight Compensation** | BLC, HLC, WDR, SSDR |
| **Wide Dynamic Range** | 120dB |
| **Digital Noise Reduction** | SSNRV |
| **Digital Image Stabilization** | Support(built-in gyro sensor) |
| **Defog** | Support |
| **Motion Detection** | 8ea, 8point polygonal zones |
| **Privacy Masking** | 24ea, rectangular Support  
- Color: Grey/Green/Red/Blue/Black/White  
- Mosaic |
| **Gain Control** | Low / Middle / High |
| **White Balance** | ATW / AWC / Manual / Indoor / Outdoor |
| **Electronic Shutter Speed** | Minimum / Maximum / Anti flicker (2~1/12,000sec) |
| **Video Rotation** | Flip, Mirror |
| **Analytics** | Directional detection, Motion detection, Enter/Exit, Tampering, Virtual line |
| **Serial Interface** | RS-485(Samsung-T, Pelco-D/P, Panasonic, Bosch, AD, GE, Vicon, Honeywell) |
| **Alarm I/O** | Input 4ea / Output 2ea |
| **Alarm Triggers** | Analytics, Network disconnect, Alarm input |
### QNP-6230RH

| **Alarm Events** | File upload via FTP and e-mail  
Notification via e-mail  
SD/SDHC/SDXC or NAS recording at event triggers  
Alarm output  
PTZ Preset |
|------------------|---------------------------------------------------------------|
| **Audio In**     | Selectable(mic in/line in)  
Supply voltage: 2.5VDC(4mA), Input impedance: 2K Ohm |
| **Audio Out**    | Line out, Max.output level: 1Vrms |

| **Network**      | RJ-45(10/100BASE-T), SFP(Optional) |
| **Video Compression** | H.265/H.264, MJPEG |
| **Resolution**   | 1920x1080, 1280x1024, 1280x960, 1280x720, 1024x768, 800x600, 800x448, 720x576, 720x480, 640x480, 640x360, 320x240 |
| **Maximum Framerate** | H.265/H.264: Maximum 30fps  
MJPEG: Maximum 30fps |
| **Smart Codec**  | Manual(Sea area), WiseStreamII |
| **Bitrate Control** | H.264/H.265: CBR or VBR  
MJPEG: VBR |
| **Streaming**    | Unicast(10 users) / Multicast  
Multiple streaming(Up to 10 profiles) |
| **Audio Compression** | G.711 u-law / G.726 Selectable  
G.726(ADPCM) 8KHz, G.711 8KHz  
G.726: 16Kbps, 24Kbps, 32Kbps, 40Kbps  
AAC-LC: 48Kbps at 16KHz |
| **Protocol**     | IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTCP(RTCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, PIM-SM, UPnP, Bonjour, LLDP, SRTP |
| **Security**     | HTTPS(SSL) Login Authentication  
Digest Login Authentication  
IP Address Filtering  
User access log  
802.1X Authentication(EAP-TLS, EAP-LEAP) |
| **Edge Storage** | Micro SD/SDHC/SDXC 1 slot 256GB |
| **Application Programming Interface** | ONVIF Profile S/G/T  
SUNAPI(HTTP API)  
Wisenet open platform |
| **Web Viewer**   | Supported OS: Windows 7, 8.1, 10, Mac OS X 10.12, 10.13, 10.14  
Recommended Browser: Google Chrome  
Supported Browser: MS Explore 11, MS Edge, Mozilla Firefox (Window 64bit only), Apple Safari (Mac OS X only) |
| **Memory**       | 1024MB RAM, 256MB Flash |

| **Environmental** | 24VAC: -50°C~+55°C (-58°F ~ +131°F) / Less than 90% RH  
HPoE: -40°C~+55°C (-40°F ~ +131°F) / Less than 90% RH  
* Start up should be done at above -35°C |
| **Operating Temperature / Humidity** | 24VAC: -50°C~+60°C (-58°F ~ +140°F) / Less than 90% RH |
| **Certification** | IP66, IK10 |

| **Electrical**    | 24VAC, HPoE (IEEE802.3bt, Class7) |
| **Input Voltage** | 24VAC: Maximum 83W (typical : 30W)  
HPoE: Maximum 51W (typical : 30W) |

| **Mechanical**    | QNP-6230RH  
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- 3 - |
<table>
<thead>
<tr>
<th>Color / Material</th>
<th>Body: Ivory / Plastic, Head: Black / Plastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product dimensions / weight</td>
<td>Ø236.9x407.7mm(9.33x16.05&quot;), 6.8Kg(14.99 lb)</td>
</tr>
</tbody>
</table>

- The latest 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, formerly known as Samsung Techwin.
QNF-9010
12MP Network Fisheye Camera

Key Features
• Maximum 3008 x 3008 resolution
• H.265, H.264, MJPEC codec
• On-camera dewarping with multi-channel support: Original fisheye view, Single panorama, Double panorama, Quad view
• 120dB WDR, WiseStreamII
• Digital PTZ
• People counting, Heatmap
• Micro SD/SDHC/SDXC slot maximum 256 GB, PoE powered
### Video

**Imaging Device**  
1/2.3” 12M CMOS

**Effective Pixels**  
3008(H) x 3008(V)

**Minimum Illumination**  
Color: 0.39 Lux (F2.2, 1/30sec)

**Video Out**  
CVBS : 1.0 Vp-p / 75Ω composite, 720x480, for Installation

### Lens

**Focal Length (Zoom Ratio)**  
1.08mm fixed focal

**Maximum Aperture Ratio**  
F2.2

**Angular Field of View**  

**Minimum Object Distance**  
0.5m(1.64ft)

### Operational

**Camera Title**  
Displayed up to 85 characters

**Day & Night**  
Auto(Electrical)

**Backlight Compensation**  
BLC, WDR, SSDR

**Wide Dynamic Range**  
120dB

**Digital Noise Reduction**  
SSNRV

**Motion Detection**  
4ea, polygonal zones

**Privacy Masking**  
6ea, Rectangle zones

**Gain Control**  
Low / Middle / High

**White Balance**  
ATW / AWC / Manual / Indoor / Outdoor

**Electronic Shutter Speed**  
Minimum / Maximum / Anti flicker (2~1/12,000sec)

**Video Rotation**  
Flip, Mirror

**Analytics**  
Defocus detection, Motion detection, Tampering

**Business Intelligence**  
People counting, Heatmap

**Alarm Triggers**  
Analytics, Network disconnect

**Alarm Events**  
File upload via FTP and e-mail  
Notification via e-mail  
SD/SDHC/SDXC or NAS recording at event triggers

### Network

**Ethernet**  
RJ-45(10/100BASE-T)

**Video Compression**  
H.265/H.264: Main/High, MJPEG

**Resolution**  
Overview : 3008x3008, 640x640  
Double panorama: 2560x1280, 1920x960, 1280x640, 1024x512, 640x320  
Single panorama: 3200x800, 2560x640, 1920x480, 1280x320, 1024x256  
Quad view: 2560x1920, 1920x1440, 1280x960, 1024x768, 640x480

**Max. Framerate**  
H.265/H.264:  
Overview-Maximum 30fps@3008x3008,  
Double panorama-Maximum 28fps@2560x1280,  
Single panorama-Maximum 28fps@3200x800,  
MJPEG: Maximum 5fps

**Smart Codec**  
Manual(5ea area), WiseStreamⅡ

**Bitrate Control**  
H.264/H.265: CBR or VBR  
MJPEG: VBR

**Streaming**  
Unicast(6 users) / Multicast  
Multiple streaming(Up to 3 profiles)
### Protocol
- IPv4, IPv6, TCP/IP, UDP/IP, RTP(UDP), RTP(TCP), RTCP, RTSP, NTP, HTTP, HTTPS, SSL/TLS, DHCP, FTP, SMTP, ICMP, IGMP, SNMPv1/v2c/v3(MIB-2), ARP, DNS, DDNS, QoS, UPnP, Bonjour

### Security
- HTTPS(SSL) Login Authentication
- Digest Login Authentication
- IP Address Filtering
- User access log
- 802.1X Authentication(EAP-TLS, EAP-LEAP)
- Device Certificate(Hanwha Techwin Root CA)

### Edge Storage
- Micro SD/SDHC/SDXC slot 256GB

### Application Programming Interface
- ONVIF Profile S/G/T
- SUNAPI(HTTP API)
- Wisenet open platform

### Web Viewer
- Supported OS: Windows 7, 8.1, 10, Mac OS X 10.12, 10.13, 10.14
- Recommended Browser: Google Chrome
- Supported Browser: MS Internet Explorer 11, MS Edge, Mozilla Firefox (Windows 64-bit only), Apple Safari (Mac OS X only)

### Memory
- 2048MB RAM, 256MB Flash

### Environmental
- Operating Temperature / Humidity: -10°C ~ +40°C(+14°F ~ +104°F) / Less than 90% RH
- Storage Temperature / Humidity: -50°C ~ +60°C(-58°F ~ +140°F) / Less than 90% RH
- Certification: IP42

### Electrical
- Input Voltage: PoE(IEEE802.3af, Class3)
- Power Consumption: PoE: Maximum 7.7W, typical 6.4W

### Mechanical
- Color / Material: White / Plastic
- RAL Code: RAL9003
- Product dimensions / weight: Ø99x49mm, 370g

### DORI
- Detect (25PPM/ 8PPF): 34.9m(114.49ft)
- Observe (63PPM/ 19PPF): 13.9m(45.60ft)
- Recognize (125PPM/ 38PPF): 7.0m(22.96ft)
- Identify (250PPM/ 76PPF): 3.5m(11.48ft)

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QNF-9010
**Key Features**

- Max. 12 megapixel (4000 x 3000) resolution
- Max. 20fps@12M, Max. 30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- Max. 12 megapixel (4000 x 3000) resolution
- Privacy Masking
- Off / On (16ea, Polygonal) - Color : Gray / Dark gray / Aluminum
- Defog
- Off / On (8ea, Polygonal)
- Progressive
- Minimum / Maximum / Anti-flicker (2 ~ 1/12,000sec)

**Dimensions**

<table>
<thead>
<tr>
<th>Unit</th>
<th>mm (inch)</th>
</tr>
</thead>
<tbody>
<tr>
<td>190.8</td>
<td>7.51</td>
</tr>
<tr>
<td>178.0</td>
<td>7.01</td>
</tr>
<tr>
<td>170.3</td>
<td>6.7</td>
</tr>
<tr>
<td>348.3</td>
<td>13.71</td>
</tr>
<tr>
<td>368.2</td>
<td>14.5</td>
</tr>
<tr>
<td>348.3</td>
<td>13.71</td>
</tr>
</tbody>
</table>

**Accessories (Optional)**

- SBP-301PM
- SBP-302PM

**ENVIRONMENTAL**

- Operating Temperature / Humidity: -40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH
- Storage Temperature / Humidity: -40°C ~ +60°C (-40°F ~ +140°F) / Less than 90% RH
- Ingress Protection / Vandal Resistance: IP66 / IK10

**ELECTRICAL**

- Input Voltage / Current: 24V AC, 12V DC, PoE (IEEE802.3af, Class3)
- Power Consumption: 12V DC: Max. 11.55W, PoE : Max. 12.95W, 24V AC: 14.08W / Heater on
- MECHANICAL

| Color / Material | Dark gray / Aluminum
| Dimensions (WxHxD) | 384 x 243 x 85.5mm (15.1" x 9.6" x 3.4")
| Weight | 1.43kg (3.13lb)

* The lastest product information / specification can be found at hanwha-security.com
PNV-9080R
4K Vandal-Resistant Network IR Dome Camera

**Key Features**

- Max. 12 megapixel (4000 x 3000) resolution
- Max. 20fps@12M, Max.30fps@8M
- 0.3Lux@F1.6 (Color), 0Lux (B/W : IR LED on)
- 4.5 ~ 10mm (2.2x) motorized varifocal lens
- 0° ~ 354° / 0° ~ 67° / 0° ~ 355°
- Off / Low / Middle / High

**Dimensions**

- Ø160.0 x 118.5mm (Ø6.3” x 4.67”)
- 990g (2.18 lb)

**Accessories (Optional)**

- SHD-3000F1, SBP-300HM6, SBP-300LM, SBP-300CM, SBP-300W1, SBP-300W, SBP-300KM

**ENVIRONMENTAL**

- Operating Temperature / Humidity: -40°C ~ +55°C (40°F ~ +131°F) / Less than 90% RH
- Storage Temperature / Humidity: -40°C ~ +60°C (40°F ~ +140°F) / Less than 90% RH
- Ingress Protection / Vandal Resistance: IP66, IP67 / IK10
- Storage Temperature: -40°C ~ +55°C (-40°F ~ +131°F) / Less than 90% RH
- Power Consumption: 12V DC: Max. 11.55W, 24V AC (50/60Hz): 24W

**ELECTRICAL**

- Input Voltage / Current: 24V AC, 12V DC; POE: 802.3AF (Class 2)
- Power Consumption: 12V DC, Max. 11.55W, 24V AC (50/60Hz): 14.08W

**TECHNICAL**

- Image Sensor: CMOS
- Color / Material: Ivory / Aluminum
- Dimensions (WxH): Ø160.0 x 118.5mm (Ø6.3” x 4.67”)
- Dimensions (Weight): 990g (2.18 lb)

*The latest product information / specification can be found at hanwhasecurity.com*
XRN-3010A
64 Channel Network Video Recorder

Key Features
- Up to 64 Channel, Maximum 12-megapixel camera supported
- Maximum 300Mbps network camera recording
- 4K video output on HDMI monitor support
- Dual monitor output video support
- WiseStream support
- Maximum 8 internal HDDs (64TB), e-SATA storage support
- ARB & Failover (N+1) support
- P2P service (QR code connect) support

Dimensions
Unit: mm (inch)

Network
- Interface: RJ45, gigabit ethernet x 2
- Protocol Support: TCP/IP, UDP/P, RTP (UDP), RTP (TCP), RTSP, HTTP, DHCP (Server, Client), PPPoE, SMTP, HTTP, HTTPS, DNS, DDNS, uPnP, IPv4, IPv6
- DONs: Hanwha (DONs, 3rd party DONs)
- Transmission Bandwidth: 512Mbps
- Maximum Remote Users: 8 / 4 (NO/NC selectable)
- IP: IPv4 / IPv6
- Security: IP address filtering, User access log, 802.1x authentication, Encryption
- Language: English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Swedish, Czech, Portuguese, Danish, Rumanian, Croatian, Hungarian, Greek, Norwegian, Finnish, Japanese, Thai
- Web Browser: MS IE, Google Chrome, Mac Safari, Firefox
- Viewer Software: Wisenet X, VIS, Webviewer, SmartViewer, Wisenet Mobile viewer
- CMS Support: SDK / CGI (Wisenet SUNAPI)

Functions
- Register: Auto, Manual
- Camera Setup: Register
- 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, SSDR, DIS), Multi channel (Up to 16 channels), Multi-profile support, Live screen up to 16 division
- Easy Configuration: P2P (QR code)
- PTZ: Control / Preset
- Via GUI, Webviewer, SPC-2000 / 255 presets
- OS: Android, iOS
- Smart Phone: Protocol Support
- Live (16 channel): Multi-profile support, Playback
- Control: Live (16 channel), Multi-profile support, Playback
- Max Remote Users: Search 3 / Live unicast 10 / Live multicast 20
- Redundancy: Failover / ARB
- N + 1 (include fail-back) / Yes
- System Control: Mouse, Web, SPC-2000 (Controllers)

Indicator / Interface
- Indicator: LED (status indicator): 6 ea
- HDD action 1, Alarm 1, Power 1, Record 1, Backup 1, Network 1
- VGA: Mode: 1600x1200, Sub mode: 1080p, 1080i, HDMI: Main: 1600x1200, Video: 1080p, 1080i, Audio: Out 1 / Out 2
- Ethernet: RJ-45 x 2 (LAN/WAN, 10/100/1000), Alarm: In 2 / Out 2 (Terminal block), Audio: RCA, Line
- USB: 2 ea (Front 1, Rear 1)
- Serial / Reset: RS-232C, Switch 1 / 2
- Power Cord: 1 ea / AC Inlet

System
- Log List: Maximum 40,000 / System log, Event log each

General
- Input Voltage / Current: 100 ~ 240V AC ±10%, 50/60Hz / 4 ~ 2.5A
- Power Consumption: Maximum 999W (338BTU, 8TB HDD x 8 ea)
- Environmental: Operating Temperature: 0°C ~ +40°C, Operating Humidity: 0% ~ 85% RH
- Mechanical: Dimensions (WxHxD): 440.0 x 88.0 x 384.8mm (17.32” x 3.46” x 15.15“)
- Weight: 24.4 lbs (11.1 kg) (without HDD)

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