



# XRN-820S

8CH NVR



## Key Features

- Up to 8CH 32MP supported
- Max. 120Mbps network camera recording
- HDMI out
- User friendly UI / UX
- AI search support when working with Wisenet AI camera
- Dynamic Event support
  - New event function of cameras is available without software update
- H.265, H.264, MJPEG codec supported
- Plug & play by 8 PoE ports
- Bookmark management (Up to 100 set)
- SATA 2ea (Up to 12TB)

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## Specifications

| Display        |                      |                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network camera | Inputs               | Max. 8CH                                                                                                                                                                                                                                                                                                                                                                   |
|                | Resolution           | 32MP ~ CIF                                                                                                                                                                                                                                                                                                                                                                 |
|                | Protocols            | SUNAPI, ONVIF                                                                                                                                                                                                                                                                                                                                                              |
| Decoding       | Local Display        | FHD : HDMI & VGA Dual monitor<br>UHD : HDMI Single monitor                                                                                                                                                                                                                                                                                                                 |
|                | Multi Screen Display | [Local Monitor]<br>- Dynamic layout, Virtual channel view<br>- Clone mode : Up to 16 Division<br>- Expand mode : Up to 9 Division<br>[Web] 1/ 2H/ 2V/ 3V/ 4/ 6/ 8/ 9                                                                                                                                                                                                       |
|                | Resolution           | [Local Monitor] FHD Clone mode : 32M(15fps, H.265 Only), 12M(30fps, H.265 Only), 8.3M(2ch@25fps), 1080p(8ch@30fps), D1(16ch@30fps)<br>UHD Single mode : 32M(15fps, H.265 Only), 12M(30fps, H.265 Only), 8.3M(2ch@25fps), 1080p(8ch@30fps), D1(9ch@30fps)<br>FHD Expand mode : 32M(12fps, H.265 Only), 12M(25fps, H.265 Only), 8.3M(30fps), 1080p(3ch@30fps), D1(8ch@25fps) |

| Performance      |                       |                                                                                                               |
|------------------|-----------------------|---------------------------------------------------------------------------------------------------------------|
| Operating System | Embedded              | Linux                                                                                                         |
| Record           | Compression           | H.265, H.264, MJPEG                                                                                           |
|                  | Recording Bandwidth   | Max. 120Mbps                                                                                                  |
|                  | Resolution            | 32MP ~ CIF                                                                                                    |
|                  | Mode                  | Normal, Dual Stream, Schedule(Continuous/Event), Event (Pre/Post), Bookmark                                   |
|                  | Event Trigger         | Alarm Input, Video Loss, Camera Event(Sensor, MD, Video Analytics, Defocus, Audio), Dynamic Event, User Event |
|                  | Event Action          | e-Mail, Event Push, PTZ Preset, Alarm Out, Buzzer, Monitor Out, FTP, SUNAPI Command, Shutdown                 |
| Search & Play    | Playback Bandwidth    | Max. 32Mbps                                                                                                   |
|                  | User                  | Max. 4 Users (Local 1, Remote 3)                                                                              |
|                  | Simultaneous playback | Max. 32CH(Local 8CH, Remote 8CH per user)                                                                     |
|                  | Fisheye Dewarping     | CMS                                                                                                           |
|                  | Mode                  | Date & Time(Calendar), Event list, Text Search, Smart Search                                                  |
|                  | Resolution            | CIF ~ 32MP (Up to H.264 9MP, H.265 32MP)                                                                      |
|                  | Playback Control      | Fast/Slow Forward / Backward, Move one step Up / Down                                                         |

## Performance

|         |               |                                                        |
|---------|---------------|--------------------------------------------------------|
| Storage | Supported HDD | Up to 6TB                                              |
|         | HDD Slot      | SATA 2ea(Max 12TB)                                     |
|         | RAID          | RAID-1                                                 |
| Backup  | File backup   | BU/Exe/AVI(GUI), JPG/AVI(Network)                      |
|         | Function      | Multi channel(Up to 8CH) Play, Date-Time/Title display |

## Network

|                        |                     |                                                                                                                                                                                          |
|------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protocol               |                     | IPv4, IPv6, TCP/IP, UDP/IP, RTP (UDP), RTP (TCP), RTSP, NTP, HTTP, DHCP (Server, Client), SMTP, ICMP, IGMP, ARP, DNS, DDNS, uPnP, HTTPS, SNMP, ONVIF (Profile-S), SUNAPI(Server, Client) |
| DDNS                   |                     | Hanwha DDNS                                                                                                                                                                              |
| Transmission Bandwidth |                     | Max. 120Mbps                                                                                                                                                                             |
| Audio                  | Input/Output        | 8 CH(network)                                                                                                                                                                            |
|                        | Compression         | G.711, G.726, AAC(16/48KHz)                                                                                                                                                              |
|                        | Audio Communication | 2-Way                                                                                                                                                                                    |
| Max Remote Users       |                     | Search(3), Live Unicast(10), Multicast(20)                                                                                                                                               |
| Security               |                     | IP address filtering, User access Log, 802.1x, Encryption Device certificate(Hanwha Techwin Root CA), Signed firmware                                                                    |
| Web viewer             | Supported OS        | Windows 10, macOS 10.13                                                                                                                                                                  |
|                        | Supported browser   | Google Chrome, Microsoft Edge, Mac Safari                                                                                                                                                |
| Viewer Software        |                     | WAVE, SSM, Webviewer, Smart Viewer, Wisenet mobile Support CGI(SUNAPI) for integration to 3'rd party VMS                                                                                 |

## Function

|                    |                   |                                                                                                                                                                                                                                                                                     |
|--------------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Camera Setup       | Register          | Auto, Manual                                                                                                                                                                                                                                                                        |
|                    | Item              | IP address, Add profile edit, Bitrate, Compression, GOP, Quality, Camera MD setup (4, 8 point polygon)<br>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 |
| PTZ                | Control           | Via GUI, Webviewer, SPC-2000                                                                                                                                                                                                                                                        |
|                    | Preset            | 300 Presets                                                                                                                                                                                                                                                                         |
| Smart phone        | Support Model     | iOS, Android                                                                                                                                                                                                                                                                        |
|                    | Protocol Support  | RTP, RTSP, HTTP, CGI(SUNAPI)                                                                                                                                                                                                                                                        |
|                    | Control           | Live 8CH(Multi-Profile Support), Playback 4CH                                                                                                                                                                                                                                       |
|                    | Max. Remote Users | Search(3), Live Unicast(10)                                                                                                                                                                                                                                                         |
| Redundancy         | Failover          | N+1                                                                                                                                                                                                                                                                                 |
|                    | ARB               | Support                                                                                                                                                                                                                                                                             |
| Easy configuration |                   | P2P(QR code)                                                                                                                                                                                                                                                                        |

## Interface

|       |           |                                            |
|-------|-----------|--------------------------------------------|
| Front | Indicator | HDD, Alarm, Power, Record, Backup, Network |
|-------|-----------|--------------------------------------------|

## Interface

|             |                                                         |
|-------------|---------------------------------------------------------|
| Storage     | OK                                                      |
| HDMI        | 1EA 3840x2160 30Hz                                      |
| VGA         | 1EA 1920x1080 60Hz                                      |
| Audio       | Out 1EA (3.5mm Audio Jack)                              |
| Ethernet    | PoE+ RJ-45 8EA (LAN, 10/100), RJ-45 2ea (LAN/WAN 1Gbps) |
| Alarm       | In 4EA, Out 2EA                                         |
| USB         | 3EA(Front 2 x USB 2.0, Rear 1 x USB 3.0)                |
| Power inlet | AC 1EA                                                  |

## System

|                |          |                                                                                                                                                                                                                       |
|----------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Log            | Log List | Max. 100,000 (System Log, Event Log each)                                                                                                                                                                             |
| System Control |          | Mouse, Keyboard, Web, Controller (SPC-2000)                                                                                                                                                                           |
| Language       |          | English, French, German, Italian, Spanish, Russian, Turkish, Polish, Dutch, Czech, Portuguese, Danish, Rumanian, Serbian, Croatian, Hungarian, Greek, Norwegian, Finnish, Korean, Chinese, Japanese, Thai, Vietnamese |

## Environmental

|                       |                             |
|-----------------------|-----------------------------|
| Operating Temperature | 0°C to +40°C(32°F to 104°F) |
| Operating Humidity    | 20% ~ 85% RH                |

## Electrical

|                           |                                  |
|---------------------------|----------------------------------|
| Power Input               | 100 ~ 240 VAC $\pm$ 10%, 50/60Hz |
| Power Consumption         | Max. 160W                        |
| Power Consumption w/o PoE | 35W                              |
| PoE Budget                | 100W                             |

## Mechanical

|                  |                                                     |
|------------------|-----------------------------------------------------|
| Color / Material | Black / Metal                                       |
| Dimension        | 370.0 x 50.7 x 324.3 mm (14.57 x 2.00 x 12.77 inch) |
| Weight           | 2.7Kg(5.95lb)                                       |

## Intelligent Analysis

|           |                  |                                   |
|-----------|------------------|-----------------------------------|
| AI Search | Object Attribute | Compatible with Hanwha AI Cameras |
|-----------|------------------|-----------------------------------|

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CAD

Unit: mm [inch]

