

TURBO-RAID System Recorder

H.265/H.264 high-throughput and scalable embedded recorder featuring integrated GUI and robust embedded IP security enabling a secure end-to-end PC-less surveillance solution for mission-critical applications.

Support full data encryption streaming recording for all i-PRO cameras which comply to FIPS 140-2 Level 1 standards to keep your video secured from spoofing and snooping activities.

Secure high bandwidth recording

- 64 ch. expandable to 128 ch. camera input. Support H.265 / H.264 mixed recordings.
- 640 Mbps total through put (including 384 Mbps recording bandwidth)
- Pre-installed device certificates *Secure Communication Kits are necessary.

PC-less non VMS surveillance solution

- No camera license fees with a default number of cameras; no annual license updates required.
- Built-in GUI and Dual HDMI (4K/FHD) outputs
- Automatic camera configuration
- Sub-stream recording for mobile access and low bandwidth system environments

Scalable storage

- (9) integrated drive-bays RAID 1 / 5 / 6
- External storage expansion up to 324 TB

High reliability and redundancy

- Dynamic HDD power management increases HDD life
- Redundant fail-over using 2nd recorder to enable mission-critical recording*
- NVR backup important data to NAS devices.*
- TURBO-RAID for quick RAID recovery without sacrificing recording bandwidth and performance

* KMS registration is necessary for activation.

Industry examples

- Public safety (City / Road / Highway / Port)
- Transportation (Airport / Train / Subway)
- Bank / Retail
- Hospital / Education
- Casino / Stadium
- Factory



HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

ONVIF® | **S**

H.265
H.264 **JPEG**

i-PRO

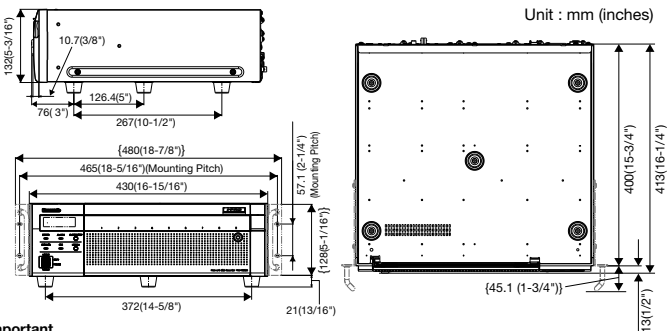
Specifications

| | | |
|-------------------------------|---|---|
| Supported Camera | Compatible vendor | Panasonic i-PRO Series Network cameras, ONVIF NVT conformant camera and encoder |
| | Supported Image Format | H.265(HEVC), H.264, JPEG |
| | Supported Image Resolution (Depending on the camera) | •Aspect ratio [4 : 3] 4,000x3,000, 2,560x1,920, 2,048x1,536, 1,280x960, 800x600, 640x480 •Aspect ratio [16 : 9] 3,840x2,160, 2,560x1,440, 1,920x1,080, 1,280x720, 640x360 •Aspect ratio [1 : 1] 2,992x2,992, 2,816x2,816, 2,048x2,048, 1,280x1,280 •Aspect ratio [9 : 16] 1080x1920, 720x1280, 360x640 |
| Recording | Supported Audio Format | G.711 for Onvif, G.726 (ADPCM) 32 kbps, AAC-LC |
| | Maximum Number of Cameras | MAX. 128 ¹ (Default number of cameras : 64) |
| | Recording Mode | Event, Schedule, Emergency |
| | Pre-alarm Recording | Up to 15 seconds *When the delivery speed from the network camera is less than 3 Mbps. |
| Main Unit Functions | Sub-stream Recording | 64 / 128 / 256 / 384 / 512 / 768 kbps |
| | Scheduled Recording Mode | 16 programs, 3 time zones/day, independent setup for each day of the week |
| | Frame Rate/Camera | Up to 60 ips (Depending on the camera) |
| | Camera Control | Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode, Click centering, Wheel zoom, Zoom reset, Auto Back Focus, Aux, Wiper (for WJ-SUD638) |
| | Multiscreen Mode | [Main monitor] <ul style="list-style-type: none"> Control screen 4 / 9 / 16 split screen display Wide view screen 2 / 3 / 4 / 5 / 6 / 7 / 9 / 12 / 16 / 24 / 32 split screen display, 1 screen sequence, 4 / 9 / 16 split screen sequence [Sub monitor] <ul style="list-style-type: none"> 1 / 4 / 9 / 16 / 32 split screen display, 1 screen sequence, 4 / 9 / 16 split screen sequence |
| | Playback Control | PLAY, Rev PLAY, Pause, Stop, FF, FR, Prev Record, Next Record, Prev Image, Next Image, Go to Date, Go to Last (30 s), Time-saving playback |
| | Search Mode | Search criteria : Time date, Playback by designating a timeline, VMD, Thumbnail Copy |
| | Camera Title | Up to 16 Characters |
| | Clock Display | Time : 12H/24H, Date : 5 formats |
| | Digital Zoom | Live / Play : 1.25x 1.5x 1.75x 2x 2.5x 3x 3.5x 4x 5x 6x 7x 8x (only for 1-screen or 4-screen) |
| System Log | Operator access (500), Network error (100), Error (1,000), Event (1000), Operation (500) | |
| System Setup | Setup page in English, French, Italian, Spanish, German, Russian, Portuguese, Thai, Simplified Chinese, Japanese | |
| 360 Camera Dewarp re-encoding | Only 1ch display mode. | |
| SD Memory Data Download | 2Client *Only when 64 ch mode Images recorded in the SD card in the i-PRO series cameras can be transferred to the recorder automatically. (H.265/H.264) | |
| Browser GUI | Camera Control | Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256), Auto mode, Click centering, Wheel zoom, Zoom reset, Aux, Wiper (for WJ-SUD638) |
| | Playback Control | REC, PLAY, Rev PLAY, Pause, Stop, FF, FR, Prev Record, Next Record, Prev Image, Next Image, Go to Date, Go to Last (30 s) |
| | Search Mode | Search criteria : Time date, Event type, VMD, Camera number |
| | Display Mode | 1 / 4 screen |
| | Image Download | File Format : Original Format / MP4 Recorded data of selected camera and time range can be downloaded to a PC. Viewer software can be downloaded separately. |
| | Copy | File Format : Original Format / MP4 Recorded data of selected cameras and time date range can be copied to USB storage. |
| | Camera Title | Up to 16 characters |
| | Clock Display | On the browser. Time : 12H/24H, Date : 5 formats |
| | Alarm Control | Reset |
| | Digital Zoom | Live/Play : 2x, 4x (only for 1-screen) |
| System Log | Operator access (500), Network error (100), Error (1,000), Event (1000), Operation (500) | |
| GUI Language | Setup page in English, French, Italian, Spanish, German, Russian, Portuguese, Thai, Simplified Chinese, Japanese | |
| Required PC | CPU : Intel® Core™ i7-860 or faster, RAM : 4 GB or more, VRAM : 128 MB or more (Min. 64 MB), Microsoft® Directx® 9.0c or later | |

*1 Two Additional Camera Kits WJ-NXE40, WJ-NXE40W are necessary. *2 Non-voltage make contact input
 *3 Open collector output, 24 V DC, -200 mA max. *4 +5V ±0.5 V 200 mA max.
 *5 Please check the following URL for the latest information. (https://security.panasonic.com/training_support/documentation_database/)
 *6 Panasonic Security Viewer v.3.0 or later is required on smartphone/tablet PC.

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| Alarm/Event | Alarm Source | 32x Terminal inputs, 128x Camera alarms (Panasonic Alarm Protocol), 128x Command alarms | |
| | Event Mode | Off / On | |
| | Alarm Action | Alarm recording, e-mail notification, Alarm message, Camera positioning, Terminal output, Panasonic alarm protocol output, Buzzer, Indicator | |
| | Alarm Control | Reset | |
| | Event log | 1000 | |
| | Spot Output Connector | 1 x 1 V [p-p] / 75 Ω (BNC) NTSC / PAL (selectable in setup menu) | |
| Input / Output | Monitor (HDMI) Connector | [Main monitor] HDMI 4K UHD(3840x2160p)/30Hz, 4K UHD(3840x2160p)/25Hz, 1920x1080p /60Hz, 1920x1080p /50Hz, 1920x1080i /60Hz, 1920x1080i /50Hz [Sub monitor] HDMI 1920x1080p /60Hz, 1920x1080p /50Hz, 1920x1080i /60Hz, 1920x1080i /50Hz | |
| | Audio Output Connector | -10 dBv, 600 Ω, 600 Ω, unbalanced x1 (RCA pin jack) | |
| | Alarm / Control Terminal | Alarm input 1 - 32 ² , Alarm output 1 - 4 ³ , Alarm reset input ² Time adjustment input ² , 2x +5 V output ⁴ , Emergency recording input, External recording mode switching input | |
| | Error/Warning | Network error output ³ , HDD error output ³ , Camera error output ³ , Recorder error output ³ , Recording error output ³ , Outage detection input, Outage processing end output | |
| | Mouse Connection Port | 2 (Front 1, Rear 1) | |
| | Network Port | 2x 10BASE-T / 100BASE-TX / 1000BASE-T (RJ45) | |
| | USB Storage | USB 3.0 / USB 2.0 memory, USB 3.0 / USB 2.0 connected HDD (except bus powered device) | |
| | External Storage | 5x WJ-HXE400 | |
| | Network | Network Interface | 2x 10BASE-T / 100BASE-TX / 1000BASE-T (RJ45) |
| | | Maintenance Network Port | 1x 10BASE-T / 100BASE-TX (RJ45) |
| Maximum Recording Rate | | 384 Mbps or less | |
| Maximum Band Width | | Total 640 Mbps or less | |
| Supported Protocol | | IPv4 : TCP/IP, UDP/IP, HTTP, HTTPS, FTP, SMTP, DNS, NTP, SNMP, RTP, RTSP, ICMP, ARP IPv6 : ICMPv6 | |
| E-mail | | Upon Alarm or Warning | |
| No. of Simultaneous Users | | 16 or less | |
| User Registration | | Up to 32 users | |
| User Level | | 3 Levels (Programmable) | |
| Partitioning | | User level - Camera (View & Control, No Access) | |
| Security Method | User authentication (ID and Password), Host authentication, Alteration detection, SSL/TLS | | |
| Other Functions | Time Synchronization | Terminal (Slave), NTP (Server/Client) | |
| | Summer Time | User definable (using menu setup) | |
| | Remote Monitoring on Smartphone/Tablet | 16 clients or less ⁶ | |
| HDD | Type | WJ-NX400 : 8.89 cm (3.5 inch) Serial ATA HDD, Up to 9x HDDs can be installed. (with HDD canister as standard accessory) | |
| | Maximum Capacity | 54 HDD slots (with 5x WJ-HXE400 Extension Units, 9x HDDs installed in each unit) Up to 6 TB will be supported.*5 | |
| Viewer Software | RAID (Hardware RAID) | Single, RAID1, 5, 6 | |
| | Playback Control | Play, Rev Play, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image | |
| General Specifications | Additional Functions | Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display | |
| | Supported OS, Language | Language of the software will be English or Japanese | |
| | Safety / EMC Standard | WJ-NX400K : UL (UL60065), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60065),DOC (ICES003 ClassA) WJ-NX400K/G : CE (EN60065, EN55032 ClassB, EN55024), EAC | |
| | Power Source | WJ-NX400K : 120 V AC 60 Hz / WJ-NX400K/G : 220 V - 240 V AC 50 Hz/60 Hz | |
| | Power Consumption | approx. 125 W (with 6 TB HDD x9) | |
| | Ambient Operating Temperature | Main body : +5 °C to +45 °C (41 °F to 113 °F) Mouse (provided) : +5 °C to +40 °C (41 °F to 104 °F) | |
| | Ambient Operating Humidity | 5 % to 90 % (without condensation) | |
| | Maximum Operating Altitude | 2,000 m (6,562 feet) above sea level | |
| | Dimensions | 430 mm (W) x 132 mm (H) x 413 mm (D)(From Rack Mount Bracket 400 mm) (16-15/16 inches (W) x 5-3/16 inches (H) x 16-1/4 inches (D)) (From Rack Mount Bracket 15-3/4") (excluding rubber feet and projections) | |
| | Mass (approx.) | When no HDD is installed : 11.5 kg (25.4 lbs) / When 9 HDDs are installed : 20 kg (44.1 lbs) | |

Appearance



Important

- Safety Precautions : Carefully read the Basic Information, Installation Guide and Operating Instructions before using this product.
- Panasonic i-PRO Sensing Solutions Co., Ltd. cannot be held responsible for the performance of the network and/or other manufacturers' products used on the network.

Optional Accessories

| | | | |
|---|--|--|-----------------------------|
| Hard Disk Extension Unit WJ-HXE400 | | WJ-HXE400 | WJ-HXE400/G |
| | Power Source | 120 V AC, 60 Hz | 220 - 240 V AC, 50Hz / 60Hz |
| | Power Consumption | 85 W (170 VA) | 85 W (175 VA) |
| | Dimensions | 430 mm (W) x 132 mm (H) x 413 mm (D) (From Rack Mount Bracket 400 mm) (16-15/16" (W) x 5-3/16" (H) x 16-1/4" (D)) (From Rack Mount Bracket 15-3/4") (excluding rubber feet and projections) | |
| Weight | 11 kg (24.3 lbs) (When no HDD exist) 19.5 kg (43.0 lbs) (When 9 HDDs are installed) | | |

Additional Camera Kits

Number of cameras used in the system can be increased to 96 and 128 (maximum) by purchasing the Additional Camera Kits (WJ-NXE40, WJ-NXE40W : license for 32 cameras).

Secure Communication Kits

The Secure Communication Kits are license kits to use the security function of the network disk recorder (WJ-NX400K). Each Secure Communication Kit allows the following number of cameras to be registered.

| | | | |
|------------------|------------------|------------------|------------------|
| WJ-NXS01W | WJ-NXS04W | WJ-NXS16W | WJ-NXS32W |
| 1 camera | 4 cameras | 16 cameras | 32 cameras |

Trademarks and registered trademarks

- All other trademarks identified herein are the property of their respective owners.

- Masses and dimensions are approximate. • Specifications are subject to change without notice.



Panasonic Corporation

Panasonic i-PRO Sensing Solutions Co., Ltd.

https://ipro.panasonic.com

https://security.panasonic.com

https://www.linkedin.com/company/i-pro-sensing-solutions-co-ltd/

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