⠿ i·PRO

WJ-NX400

WJ-NX400K (120 V AC)
WJ-NX400K/G (220 - 240 V AC)

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 CAVT* to keep your video secured from spoofing and snooping activities. *Using encryption module standardized by FIPS publication 140-2

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 432 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
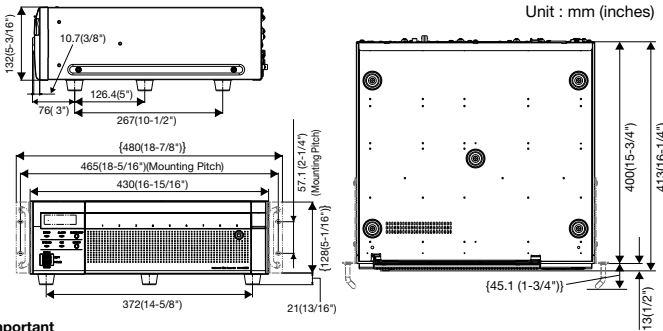- Hospital / Education
- Casino / Stadium
- Factory

HDMI™
HIGH-DEFINITION MULTIMEDIA INTERFACE

ONVIF® | S

H.265
H.264
JPEG

*ONVIF is a trademark of ONVIF, Inc.

Specifications

Supported Camera	Compatible vendor	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]** 4000x3000, 3072x2304, 2560x1920, 2048x1536, 1600x1200, 1280x960, 800x600, 640x480 •**Aspect ratio[16 : 9]** 3840x2160, 3072x1728, 2560x1440, 1920x1080, 1280x720, 640x360 •**Aspect ratio[1 : 1]** 2992x2992, 2816x2816, 2192x2192, 2048x2048, 1280x1280 •**Aspect ratio[9 : 16]** 2160x3840, 1728x3072, 1440x2560, 1080x1920, 720x1280, 360x640
	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	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.
	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)
Main Unit Functions	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 WV-SUD638)
	Multiscreen Mode	**[Main monitor]** • 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]** 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	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	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, Traditional Chinese, Japanese
	360 Camera Dewarp	Only 1ch display mode.
	re-encoding	2Client *Only when 64 ch mode
	SD Memory Data Download	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 WV-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, Traditional 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 Kit 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://i-pro.com/global/en/surveillance/training-support/documentation-database-list)
*6 i-PRO Mobile APP is required on smartphone/tablet PC.

Alarm/ Event	Alarm Source		32x Terminal inputs, 128x Camera alarms (TCP alarm notification), 128x Command alarms
	Event Mode		Off / On
	Alarm Action		Alarm recording, e-mail notification, Alarm message, Camera positioning, Terminal output, TCP alarm notification output, Buzzer, Indicator
	Alarm Control		Reset
	Event log		1000
Input / Output	Spot Output Connector		1x 1 V [p-p] / 75 Ω (BNC) NTSC /PAL (selectable in setup menu)
	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 ×1 (RCA pin jack)
	Alarm / Control Terminal	Alarm	Alarm input 1 - 32*2, Alarm output 1 - 4*3, Alarm reset input*2
		Control	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-NX400K : 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 8 TB will be supported.*5
	RAID (Hardware RAID)		Single, RAID1, 5, 6
Viewer Software	Playback Control		Play, Rev Play, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image
	Additional Functions	NX Viewer	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
General Specifications	Safety / EMC Standard		WJ-NX400K : UL (UL60065), FCC (Part15 ClassA), C-UL (CAN/CSA C22.2 No.60065), DOC (ICES-003 ClassA) WJ-NX400K/G : CE (EN62368-1, 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 8 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

Unit : mm (inches)

132(5-3/16")
10.7(3/8")
126.4(5")
76(3")
267(10-1/2")
{480(18-7/8")}
465(18-5/16")(Mounting Pitch)
430(16-15/16")
372(14-5/8")
21(13/16")
57.1 (2-1/4") (Mounting Pitch)
128(5-1/16")
13(1/2")
400(15-3/4")
413(16-1/4")
{45.1 (1-3/4")}

Important
– Safety Precautions : Carefully read the Basic Information, Installation Guide and Operating Instructions before using this product.
– i-PRO 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 Kit
Number of cameras used in the system can be increased to 96 and 128 (maximum) by purchasing the Additional Camera Kit (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.