

## Network Disk Recorder

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

Supports 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 communication and high compression recording

- 9 ch. expandable to 16 ch. camera input. Supports H.265 / H.264 mixed recordings.
- 384 Mbps total through put (including 192 Mbps recording bandwidth)
- (2) integrated drive-bays RAID1
- 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
- Time-saving playback: High-speed(Max. 4x\*) all frames playback when there is no motion; normal-speed playback when there is motion.  
\*It depends on resolution and number of screens.
- Image search with thumbnails
- High-speed copy to USB storage

### High reliability and high efficiency data reading/writing

- Eco-writing: Acceleration of data access (reading/writing) by original file system
- Instantaneous power failure measures: Normal operation at instantaneous power failure within 200 ms; safe shutdown at power failure of 200 ms or more.

### Industry examples

- Retail / Quick-Service Restaurants
- Hospitals / Education
- Banks
- Factories



\*ONVIF is a trademark of ONVIF, Inc.

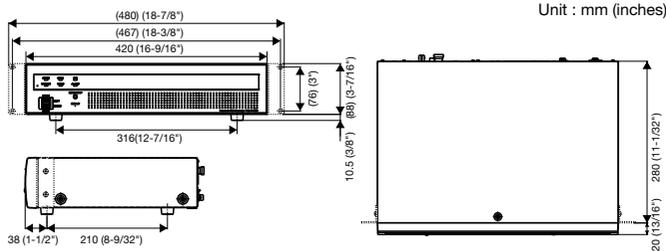
## Specifications

<b>Supported Camera</b>	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)	<b>•Aspect ratio [4 : 3]</b> 4000x3000, 2560x1920, 2048x1536, 1280x960, 800x600, 640x480 <b>•Aspect ratio [16 : 9]</b> 3840x2160, 2560x1440, 1920x1080, 1280x720, 640x360 <b>•Aspect ratio [1 : 1]</b> 2992x2992, 2816x2816, 2048x2048, 1280x1280 <b>•Aspect ratio [9 : 16]</b> 1080x1920, 720x1280, 360x640	
	Supported Audio Format	G.711 for Onvif, G.726 (ADPCM) 32 kbps, AAC-LC	
	Maximum Number of Cameras	MAX. 16 <sup>1</sup> (Default number of cameras : 9)	
<b>Recording</b>	Recording Mode	Event, Schedule, Emergency	
	Pre-alarm Recording	Up to 15 seconds *When the delivery speed from the network camera is less than 4 Mbps.	
	Sub-stream Recording	64 / 128 / 256 / 384 / 512 / 768 kbps	
	Scheduled Recording Mode	16 programs, 6 time zones/day, Independent setup for each day of the week	
	Frame Rate/Camera	Up to 60 fps (Depending on the camera)	
<b>Main Unit Functions</b>	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	<b>[Main monitor]</b> • Control screen 4 / 9 / 16 split screen display • Wide view screen 2 / 3 / 4 / 5 / 6 / 7 / 9 / 12 / 16 split screen display, 1 screen sequence, 4 / 9 / 16 split screen sequence <b>[Sub monitor]</b> 1 / 4 / 9 / 16 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	
	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)	
	<b>Browser GUI</b>	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	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	

<b>Alarm/Event</b>	Alarm Source	9x Terminal inputs, 16x 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	
	<b>Input / Output</b>	Spot Output Connector	1x 1 V [p-p] / 75 Ω (BNC) NTSC / PAL (selectable in setup menu)
		Monitor (HDMI) Connector	<b>[Main monitor]</b> HDMI 4K UHD(3840x2160p) /30Hz, 4K UHD(3840x2160p) /25Hz, 1920x1080p /60Hz, 1920x1080p /50Hz, 1920x1080i /60Hz, 1920x1080i /50Hz <b>[Sub monitor]</b> HDMI 1920x1080p /60Hz, 1920x1080p /50Hz, 1920x1080i /60Hz, 1920x1080i /50Hz
		Audio Output Connector	-10 dBV, 600 Ω, unbalanced x1 (RCA pin jack)
		Alarm / Control Terminal	Alarm input 1 - 9 <sup>2</sup> , Alarm output <sup>3</sup> , Alarm reset input <sup>2</sup>
		Control Terminal	Time adjustment input/output <sup>3</sup> , +5 V output <sup>4</sup> , Emergency recording input <sup>3</sup> , Network error output <sup>3</sup> , HDD error / Recording error output <sup>3</sup> , Camera error output <sup>3</sup> , Recorder error output <sup>3</sup>
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)	
<b>Network</b>		Network Interface	2x 10BASE-T / 100BASE-TX / 1000BASE-T (RJ45)
		Maximum Recording Rate	192 Mbps or less
	Maximum Band Width	Total 384 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	
<b>Other Functions</b>	Time Synchronization	Terminal (Master/Slave), NTP (Server/Client)	
	Summer Time	User definable (using menu setup)	
	Remote Monitoring on Smartphone/Tablet	16 clients or less *5	
<b>HDD</b>	Type	8.89 cm (3.5 inch) Serial ATA HDD, Up to 2x HDDs can be installed.	
	Maximum Capacity	Up to 12 TB will be supported.*6	
	RAID	RAID 1	
<b>Viewer Software</b>	Playback Control	PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image	
	Additional NX Viewer 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	
<b>General Specifications</b>	Safety / EMC Standard	cUL (UL60065), FCC Part15 ClassA	
	Power Source	120 V AC 50 Hz/60 Hz	
	Power Consumption	approx. 56 W	
	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	420 mm(W) x 88 mm(H) x 300 mm(D) {16-9/16 inches (W) x 3-7/16 inches (H) x 11-13/16 inches (D)}	
	Mass (approx.)	When no HDD is installed: 5.2 kg {11.5 lbs}	

\*1 WJ-NXE20W is necessary.  
 \*2 Non-voltage make contact input, +3.3 V pull-up Approx. 23 kΩ  
 \*3 Open collector output, 24 V DC, -200 mA max.  
 \*4 +5V ±0.5 V 200 mA max.  
 \*5 i-PRO Mobile APP is required on smartphone/tablet PC.  
 \*6 Please check the following URL for the latest information. ( <https://i-pro.com/global/en/surveillance/training-support/documentation-database-list> )

## Appearance



**Trademarks and registered trademarks**  
 - HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.  
 - ONVIF is a trademark of ONVIF, Inc.  
 - All other trademarks identified herein are the property of their respective owners.  
 • Masses and dimensions are approximate. • Specifications are subject to change without notice.

## Optional Accessories

<b>Additional Camera Kit</b> Number of cameras used in the system can be increased to 16 (maximum) by purchasing the Additional Camera Kit (WJ-NXE20W : One license for 16 cameras).		
<b>Secure Communication Kits</b> The Secure Communication Kits are license kits to use the security function of the network disk recorder. Each Secure Communication Kit allows the following number of cameras to be registered.		
<b>WJ-NXS01W</b> 1 camera	<b>WJ-NXS04W</b> 4 cameras	<b>WJ-NXS16W</b> 16 cameras
<b>Rack Mount Bracket</b> <b>WV-Q202</b>		

**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.