

# **WJ-NX100**

# **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.

# **Built-in PoE and Space saving**

-4 PoE ports ready, no need to prepare a separate switching hub.

- Space saving in a compact size (24% reduction in capacity compared to WJ-NX200)

# Secure communication and high compression recording

- Pre-installed 2.5"HDD 2 TB (Max. 4 TB)
- Significant reduction of storage space usage through H.265 and Smart Coding.
- 4 ch. camera input. Supports H.265 / H.264 mixed recordings
- Pre-installed device certificates \*Secure Communication Kits are necessary.

# **PC-less non-VMS surveillance solution**

- No annual license updates required.
- Built-in GUI and HDMI (4K/FHD) outputs
- Automatic camera configuration
- Image search with thumbnails
- High-speed copy to USB storage

# High efficiency data reading/writing

- ECO-writing: Acceleration of data access (reading/writing) by original file system











#### **Specifications**

•	C 1111	
	Compatible vendor	Panasonic i-PRO series Network cameras,
Camera	<u> </u>	ONVIF NVT conformant camera and encoder
	Supported Image Format Supported Image Resolution	H.265(HEVC), H.264, JPEG •Aspect ratio [4 : 3]
	(Depending on the camera)	4000x3000, 3072×2304, 2560x1920, 2048x1536, 1280x960, 800x600, 640x480
	(Depending on the camera)	•Aspect ratio [16 : 9]
		3840x2160, 3072×1728, 2560x1440, 1920x1080, 1280x720, 640x360
		•Aspect ratio [1:1]
		2992x2992, 2816x2816, 2192×2192, 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. 4
Recording	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	4 programs, 6 time zones/day, Independent setup for each day of the week
	Frame Rate/Camera	Up to 60 fps (Depending on the camera)
Main Unit	Camera Control	Pan/Tilt, Zoom, Focus, Brightness, Preset position call and program (up to 256),
Functions		Auto mode, Click centering, Wheel zoom, Zoom reset, Auto Back Focus,
		Aux, Wiper (for WV-SUD638)
	Multiscreen Mode	[Main monitor]
		Control screen 4 split screen display
		Wide view screen 2 / 3 / 4 split screen display,1 screen sequence
		[Sub monitor]
		1 screen sequence, 4 split screen display
	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
	Сору	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, 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
_	<u> </u>	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),
GOI	Blauback Control	Auto mode, Click centering, Wheel zoom, Zoom reset, , Aux, Wiper (for WV-SUD638) PLAY, Rev PLAY, Pause, Stop, FF, FR, Prev Record, Next Record,
	Playback Control	
	Search Mode	Prev Image, Next Image, Go to Date, Go to Last (30 s) Search criteria: Time date, Event type, VMD, Camera number
	Display Mode	1/4 screen
	Image Download	File Format: Original Format / MP4
	inage Download	
		Recorded data of selected camera and time range can be downloaded to a PC Viewer software can be downloaded separately.
	Сору	File Format: Original Format / MP4
	сору	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,
	D 1 100	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 <sup>®</sup> DirectX <sup>®</sup> 9.0c or later

Alarm/ Event			
event	Alarm Source		2x Terminal inputs, 4x Camera alarms (Panasonic Alarm Protocol), 128x Command alarm
	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		
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
	Alarm /	Alarm	Alarm input 1 - 2 <sup>*1</sup> , Alarm output <sup>*2</sup>
	Control	Control	Time adjustment input/output*1, +5 V output*3,
	Terminal		Emergency recording input, Face matching output*4
		Error / Warning	HDD error / Recording error output <sup>12</sup> , Camera error output <sup>12</sup>
		nnection Port	1 (USB 2.0)
	Network Port (PC)		10BASE-T / 100BASE-TX / 1000BASE-T (RJ45)
	Network Port (Camera)		4x 10BASE-T / 100BASE-TX(RJ45), PoE(IEEE802.3af compliant),
	USB Storage		PoE Budget (61.6W, 4x 15.4W/port)
			USB 3.0 / USB 2.0 memory,
			USB 3.0 / USB 2.0 connected HDD (except bus powered device)
Vetwork	Network Interface		10BASE-T / 100BASE-TX / 1000BASE-T (RJ45)
	Maximum Recording Rate		96 Mbps or less
	Maximum Band Width		Total 192 Mbps or less
	Supported Protocol		IPv4: TCP/IP, UDP/IP, HTTP, HTTPS, FTP, SMTP, DNS, NTP, SNMP, RTP, RTSP, ICMP, AR
			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	Time Sync	hronization	Terminal (Slave), NTP (Server/Client)
Functions	Summer Time		User definable (using menu setup)
	Remote Monitoring on		
	Remote M	onitoring on	16 clients or less *5
	Smartphor	5	16 clients or less *5
		5	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed.
	Smartphor	ne/Tablet	
	Smartphor Type	ne/Tablet	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed.
IDD	Smartphor Type Maximum	Capacity	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. <sup>*6</sup> (Installed HDD : 2 TB x 1) RAID 1
IDD /iewer	Smartphor Type Maximum RAID Playback C	Capacity	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. <sup>*6</sup> (Installed HDD : 2 TB x 1) RAID 1
1DD /iewer	Smartphor Type Maximum RAID Playback C	Capacity	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. <sup>+</sup> 6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image
IDD /iewer	Smartphor Type Maximum RAID Playback C Additional Functions	Capacity	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. <sup>76</sup> (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy,
1DD /iewer ioftware	Smartphor Type Maximum RAID Playback C Additional Functions Supported	ne/Tablet Capacity Control NX Viewer	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported.*6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display
IDD /iewer Goftware	Smartphor Type Maximum RAID Playback C Additional Functions Supported	Capacity Control NX Viewer OS, Language	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported.'6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese
IDD /iewer oftware General	Smartphor Type Maximum RAID Playback C Additional Functions Supported	Capacity Control NX Viewer OS, Language MC Standard	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. '6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEC, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese cUL (UL62368-1 3Ed), FCC Part15 ClassA
IDD /iewer oftware General	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EN	Capacity Capacity Control NX Viewer OS, Language MC Standard rcc	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported.*6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL62368-1 3Ed), FCC Part15 ClassA C [EN62368-1, EN55032 ClassB, EN55035)
IDD /iewer Goftware	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EM Power Sou	Capacity Capacity Control NX Viewer OS, Language MC Standard rrce isumption	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported.'6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL62368-1 3Ed), FCC PartIS ClassA CE (EN62368-1, EN55032 ClassB, EN55035) 100 V AC to 240 V AC S0 Hz/60 Hz (included AC power adapter)
IDD /iewer oftware General	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EN Power Sou Power Cor	Capacity Capacity Control NX Viewer OS, Language MC Standard rrce susumption Operating	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported.'6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL62368-1 3Ed), FCC Part15 ClassA CE (EN62368-1, EN55032 ClassB, EN55035) 100 V AC to 240 V AC 50 Hz/E0 Hz (included AC power adapter) DC48 V 1.875 A approx.81.6 W
1DD /iewer Software General	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EN Power Cou Power Cou Ambient C Temperatu	Capacity Capacity Control NX Viewer OS, Language MC Standard rrce susumption Operating	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. '6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL6268-13Ed), FCC PartIS ClassA CE (EN62368-1, EN55032 ClassB, EN55035) 100 V AC to 240 V AC 50 H2/60 H2 (included AC power adapter) DC48 V 1.875 A approx.81.6 W Main body: +5 °C (to +45 °C (41 °F to 113 °F)
HDD Viewer Software General	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EN Power Sou Power Cor Ambient C Temperatu Ambient O	Capacity Capacity Control NX Viewer OS, Language MC Standard rrce usumption Operating ure	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. '6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL62368-1 3Ed), FCC PartIS ClassA CE (EN62368-1, ENS5032 ClassB, ENS5035) 100 V AC to 240 V AC 50 Hz/60 Hz (included AC power adapter) DC48 V 1.875 A approx.81.6 W Main body : +5 °C to +40 °C (41 °F to 104 °F)
1DD /iewer Software General	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EN Power Sou Power Cor Ambient C Temperatu Ambient O	Capacity Capacity Control NX Viewer OS, Language MC Standard rcce usumption Opperating Jure perating Humidity Opperating Altitude	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. '6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL6268-13Ed), FCC PartIS ClassA CE (EN62368-1, EN55032 ClassB, EN55035) 100 V AC to 240 V AC 50 H2/60 Hz (included AC power adapter) DC48 V 1.875 A approx.81.6 W Main body: +5 °C to +45 °C (41 °F to 113 °F) Mouse (provided): +5 °C to +40 °C (41 °F to 104 °F) 5 % to 90 % (without condensation) 2,000 m (6,562 feet) above sea level
HDD Viewer Software General ipecifications	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EN Power Sou Power Cor Ambient O Temperatu Ambient O Maximum O	Capacity Capacity Control NX Viewer OS, Language MC Standard rcce usumption Opperating Jure perating Humidity Opperating Altitude	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. '6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL62368-1, 3Ed), FCC Part15 ClassA CE (EN62368-1, EN55032 ClassB, EN55035) 100 V AC to 240 V AC 50 Hz/60 Hz (included AC power adapter) DC48 V 1.875 A approx.81.6 W Main body : +5 °C to +45 °C (41 °F to 104 °F) 5 % to 90 % (without condensation) 2,000 m (6,562 feet) above sea level 280 mm(W) x 44 mm (H) x 212 mm(D)
1DD /iewer Software General	Smartphor Type Maximum RAID Playback C Additional Functions Supported Safety / EN Power Sou Power Cor Ambient O Temperatu Ambient O Maximum O	Capacity Capacity Control NX Viewer NX Viewer OS, Language MC Standard rcc usumption Opperating preating Humidity Opperating Altitude Is	2.5 inch Serial ATA HDD, Up to 2x HDDs can be installed. Up to 4 TB will be supported. '6 (Installed HDD : 2 TB x 1) RAID 1 PLAY, Rev PLAY, Pause, FF, FR, Prev Record, Next Record, Prev Image, Next Image Alteration detection, Save as JPEG, Two times zoom, Print, Copy, Aspect ratio switching, fish eye correction, corridor display Language of the software will be English or Japanese CUL (UL6268-1364), FC PartIS ClassA CE (EN62368-1, EN55032 ClassB, EN55035) 100 V AC to 240 V AC 50 H2/60 Hz (Included AC power adapter) DC48 V 1.875 A approx.81.6 W Main body: +5 °C to +45 °C (41 °F to 113 °F) Mouse (provided): +5 °C to +40 °C (41 °F to 104 °F) 5 % to 90 % (without condensation) 2,000 m (6,562 feet) above sea level

\*1 Non-voltage make contact input, +3.3 V pull-up Approx. 23 kΩ

\*2 Open collector output, 24 V DC, -200 mA max

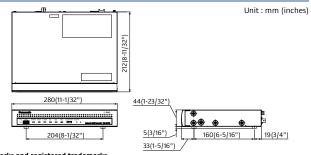
\*3 +5V ±0.5 V 200 mA max.

**Optional Accessories** 

\*4 Additional Business Intelligence Kit WJ-NXF02W is necessary. \*5 Panasonic Security Viewer v.3.0 or later is required on smartphone/tablet PC.

\*6 Please check the following URL for the latest information. ( https://security.panasonic.com/training\_support/documentation\_database/ )

### Appearance



Trademarks and registered trademarks

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

#### Additional Business Intelligence Kit WJ-NXF02W WJ-NXF02W is a license kit intended to improve the usefulness of Network Disk Recorder WJ-NX100 After registering the WJ-NXF02W into WJ-NX100, WJ-NX100 is enabled statistical processing functions such as "People counting" and "Face matching / Age & Gender judgment" \*2ch input per license Secure Communication Kits 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. WJ-NXS01W WJ-NXSO4W 1 camera 4 cameras WV-Q202 \*When installing WJ-NX100, WV-Q202 is used for vertical installation and wall mounting. WJ-NX100 cannot be mounted in a rack using WV-Q202.

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

# Panasonic

# **Panasonic Corporation**

# Panasonic i-PRO Sensing Solutions Co., Ltd.

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