NYB

CSM NYB DS F 5 1

Powerful. Tough. Future-Proof.

Our NY industrial Box PC has been designed from first principles to be powerful, reliable and scalable, making it ideally suited to visualization, data handling, measuring and controlling. The latest insights in design simplification eliminates faults caused by complexity which, with other unique design features, maximizes uptime and reduces costs. The future will be IT driven: Omron's Industrial PC platform will make you part of it.







NYB35, NYB2C, NYB65, NYB13



NYB27, NYB2E, NYB37, NYB55



NYB35, NYB2C, NYB2A, NYB13

Features

- · No internal cables to cut faults, maximizes uptime
- Unique simplified thermal design to reduce downtime
- Powerful Intel® CoreTM technology for optimized performance
- Industrial CPU's with long availability
- Three Ethernet ports to increase connectivity
- USB3.0 for fast data-transmission
- Optional NY Monitor Link interface for connectivity up to 100 m

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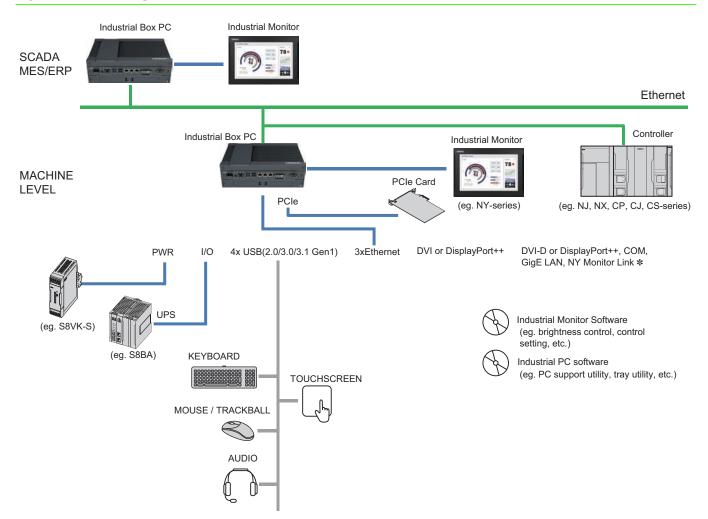
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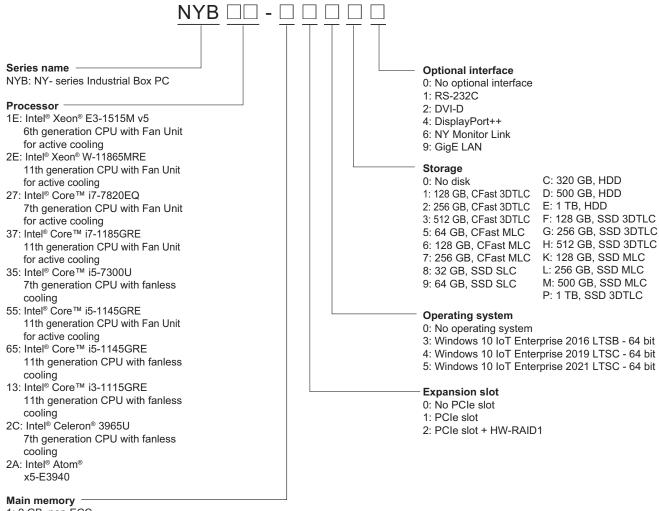
System Configuration



*NY Monitor Link option: Connect monitor up to 100 m via Ethernet cable.

Model Number Structure

The purpose of this model number legend is to provide understanding of the meaning of specifications from the model number. Models are not available for all combinations of code numbers.



- 1: 2 GB, non-ECC
- 2: 4 GB, non-ECC
- 3: 8 GB, non-ECC
- 4: 16 GB, non-ECC
- 5: 32 GB, non-ECC
- 6: 64 GB, non-ECC
- 7: 96 GB, non-ECC
- C: 8 GB, ECC
- D: 16 GB. ECC
- E: 32 GB, ECC
- F: 64 GB, ECC G: 96 GB, ECC

Ordering Information

NY-series Industrial PC Platform

Recommended models

The industrial Box PC has extended configuration possibilities to meet your requirements, below an overview of the most used and recommended models. Selecting one of the models below will bring the benefit of faster delivery times.

In case your preferred model is not listed below, please contact your Omron representative to discuss the possibilities.

Dundant mana			Specifica	tions			Madal
Product name	Operating system	CPU type	RAM memory	Storage size	Interface option	PCle-slot	Model
		Intel® Xeon®	8GB (non-ECC type)	128 GB SSD type	RS-232C	Yes	NYB1E-313K1
	Windows 10 IoT Enterprise 2016	E3-1515M v5	8GB (ECC type)	(MLC)	K3-232C	Yes	NYB1E-C13K1
		Intel® Core™	8 GB	256 GB CFast type (MLC)	No	No	NYB35-30370
	LTSB - 64 bit	i5-7300U	(non-ECC type)	128 GB SSD type (MLC)	RS-232C	Yes	NYB35-313K1
		Intel [®] Celeron™	8 GB	256 GB CFast type (MLC)	No	No	NYB2C-30370
		3965U	(non-ECC type)	128 GB SSD type (MLC)	RS-232C	Yes	NYB2C-313K1
	Windows 10 IoT Enterprise 2019 LTSC - 64bit	Intel® Atom®	4 GB (non-ECC type)	128 GB CFast type (MLC)	No	No	NYB2A-20460
		x5-E3940	8 GB (non-ECC type)	256 GB CFast type (MLC)	No	No	NYB2A-30470
		Intel [®] Core™ i7-7820EQ		128 GB SSD type (MLC)	No	No	NYB27-30460
Industrial Box PC			8 GB (non-ECC type)	500 GB SSD type (MLC)	RS-232C	Yes	NYB27-314M1
				500 GB SSD type (MLC) Hard RAID	RS-232C	Yes	NYB27-324M1
				1 TB SSD type (3DTLC)	RS-232C	Yes	NYB27-314P1
		Intel® Xeon®	32 GB (non-ECC type)	1 TB SSD type	Ethernet	Yes	NYB2E-515P9
		W-11865MRE	32 GB (ECC type)	(3DTLC)	Luiciliet	163	NYB2E-E15P9
	Windows 10 IoT Enterprise 2021	Intel [®] Core™	16 GB	512 GB SSD type (3DTLC)	None	No	NYB37-40530
	LTSC - 64 bit	i7-1185GRE	(non-ECC type)	512 GB SSD type (3DTLC)	Ethernet	Yes	NYB37-415H9
		Intel [®] Core™	16 GB	256 GB SSD type (3DTLC)	None	No	NYB55-40520
		i5-1145GRE	(non-ECC type)	256 GB SSD type (3DTLC)	Ethernet	Yes	NYB55-415G9

Accessories

Optional Hardware

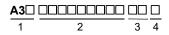
Product name	Specifications	Model
Mounting Brackets ≭ 1	Book mount	NY000-AB00 NY000-AB02 NY000-AB04
	NAC III	NY000-AB05
	Wall mount	NY000-AB01
	Card type: SD Card Capacity: 2 GB	HMC-SD292
	Format: FAT16	1 IIII 0 05202
	Card type: SDHC Card	
SD Memory Cards	Capacity: 4 GB Format: FAT32	HMC-SD492
	Card type: SDHC Card	
	Capacity: 16 GB	HMC-SD1A2
	Format: FAT32	
ISB Flash Drives	Capacity: 2 GB	FZ-MEM2G
OD I lasii Diives	Capacity: 8 GB	FZ-MEM8G
	Storage type: HDD, Capacity: 320 GB	NY000-AH00
	Storage type: HDD, Capacity: 500 GB	NY000-AH01
	Storage type: HDD, Capacity: 1 TB	NY000-AH02
	Storage type: SSD SLC, Capacity: 32 GB	NY000-AS00
	Storage type: SSD SLC (Apacer), Capacity: 64 GB	NY000-AS01
	Storage type: SSD SLC (Hagiwara), Capacity: 64 GB	NY000-AS03
	Storage type: SSD MLC (Innodisk), Capacity: 128 GB	NY000-AS04
	Storage type: SSD MLC, Capacity: 500 GB	NY000-AS05
	Storage type: SSD 3DTLC, Capacity: 1 TB	NY000-AS07
	Storage type: SSD MLC (Innodisk), Capacity: 256 GB	NY000-AS08
Storage Devices	Storage type: SSD 3DTLC (Acon), Capacity: 128 GB	NY000-AS09
	Storage type: SSD 3DTLC (Acon), Capacity: 256 GB	NY000-AS10
	Storage type: SSD 3DTLC (Acon), Capacity: 512 GB	NY000-AS11
	Storage type: SSD 3DTLC (Acon), Capacity: 1 TB	NY000-AS12
	Storage type: SSD 3DTLC (Acon), Capacity: 2 TB	NY000-AS13
	Storage type: CFast MLC, Capacity: 64 GB	NY000-AT01
	Storage type: CFast MLC, Capacity: 128 GB Storage type: CFast MLC, Capacity: 256 GB	NY000-AT01 NY000-AT02
	Storage type: CFast MLC, Capacity: 256 GB Storage type: CFast 3DTLC (Acon), Capacity: 128 GB	NY000-AT02 NY000-AT05
	Storage type: CFast 3DTLC (Acon), Capacity: 126 GB	NY000-AT06
	Storage type: CFast 3DTLC (Acon), Capacity: 512 GB	NY000-AT07
	Cable length: 2 m	N1000-A107
	Supports DVI-D	NY000-AC00 2M
DVI Cables	Minimum bend radius: 36 mm	
JVI Gables	Cable length: 5 m	NIV 000 A 000 FNA
	Supports DVI-D Minimum bend radius: 36 mm	NY000-AC00 5M
	LCD touchscreen	
	Multi-touch functionality	
ndustrial Monitor	Supply voltage: 24 VDC	NYM1□W-C10□□
	2 USB Type-A Connectors Programmable brightness control	
	Standard and 100 m cable models are available.	
	Output voltage: 24 VDC	S8VK-G□□□24
	Push-In Plus terminal blocks	S8VK-GUULZ4
	Output voltage: 24 VDC	S8VK-X□□□24A-EIP
Power Supply	EtherNet/IP, Modbus TCP-Compatible	
,	Output voltage: 24 VDC Compact	S8VK-S□□□24
	Output voltage: 24 VDC	
	Three-phase 200-V Power Supplies	S8VK-WA□□□24
JPS * 2	Output voltage during backup operation: 24 VDC ± 5%	S8BA
	Cable length: 2 m	
	Signals for	
JPS Communication Cable	Signal output (BL, TR, BU, WB) Demote ON/OFF input	S8BW-C02
	Remote ON/OFF input UPS Stop Signal input (BS)	
	re no longer accepted, as of November 30, 2018.	

Note: Orders for NY000-AS02 are no longer accepted, as of November 30, 2018.

^{*1.} Select the required type:

^{*2.} Revision number 09 or higher.

The revision number of the UPS can be retrieved from the serial number label on the product and the product packaging.



Item	Description
1	Product code
2	Product period and sequential number
3	Revision number
4	RoHS status

Spare Parts

The following spare parts for the Industrial Box PC are available.

Product name	Specifications	Model
Battery	One battery is supplied with the Industrial Box PC. The battery supplies power to the real-time clock. The battery is located inside the Industrial Box PC. Service life: 5 years at 25°C	CJ1W-BAT01*
Fan Unit	The Fan Unit is available for the Industrial Box PC that has active cooling. Service life: 70,000 hours of continuous operation at 40°C with 15% to 65% relative humidity. Shelf life: 6 months This is the storage limitation with no power supplied.	NY000-AF00
Accessory Kit	Accessory Kit containing all accessories supplied with the Industrial Box PC. Power connector I/O connector Drive bracket for drive installation 4 mounting screws for drive installation PCIe Card support for PCIe Card installation PCIe Card clip for PCIe Card installation	NY000-AK00
	Power connectors (10 pcs) for Industrial Box PC and Industrial Panel PC	NY000-AK01

^{*} Only for models with replaceable battery.

Installed Support Software

Item	Specifications
Industrial PC Support Utility	The Industrial PC Support Utility is a software utility to assist in diagnosing and resolving problems of the Industrial Box PC. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial PC Tray Utility	The Industrial PC Tray Utility is a software utility that provides information about the current state of the Industrial PC, its related devices, and associated software. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial PC System API	The Industrial PC System API allows programmers to create programs that can retrieve information or set an indicator status of the Industrial Box PC. The API makes use of the included IPC System Service to manage the hardware. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial Monitor Utility	For the optional OMRON Industrial Monitor. The Industrial Monitor Utility provides a user interface to control settings and display details of connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial Monitor Brightness Utility	For the optional OMRON Industrial Monitor. The Industrial Monitor Brightness Utility is a small software utility that allows you to control the brightness of the screen backlight of all connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial Monitor API	For the optional OMRON Industrial Monitor. The Industrial Monitor API allows programmers to create applications that can control the hardware features and retrieve information from connected Industrial Monitors. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.
Industrial PC Rescue Disk Creator	The Industrial PC Rescue Disk Creator creates a USB Rescue Disk which can be used to back-up and restore the Omron IPC Operating System. It is pre-installed on the Industrial Box PC and the Industrial Panel PC.

Soft-NA

Product name	Specifications	Number of licenses	Media	Model
	The Soft-NA is software that displays information on FA manufacturing sites while providing safety, reliability,	– (Media only)	DVD	NA-RTSM
Soft-NA	and maintainability as an industrial display on which operations can be performed as necessary.	1 license		NA-RTLD01
	The Soft-NA runs on the following OS:	3 licenses	USB dongle	NA-RTLD03
	Windows 10 Pro Version 1903 or later 64 bit	10 licenses		NA-RTLD10

System Requirements

	Item	Requirement			
OS		Windows 10 Pro Version 1903 or later 64 bit			
Processor		Intel Atom® x5-E3940 equivalent or higher processor			
RAM		4 GB or more			
Free space in the hard dr	ve necessary for installation	1 GB or more			
Optical disk drive		DVD-ROM drive			
Communication port	USB	USB2.0 Type-A x 2 *1			
Communication port	LAN	Ethernet x 2 *1			

^{*1.} Since one port is for project transfer, it is not required unless the corresponding path is used.

Note: Refer to NA-series catalog (Cat. No. V413) for the system configuration of Soft-NA.

General Specifications

Performance Specifications

	Ite	em		NYB2E- □1□□□/ NYB2E- □2□□□	NYB37- □1□□□/ NYB37- □2□□□	NYB55- □1□□□/ NYB55- □2□□□	NYB65- □1□□□/ NYB65- □2□□□	NYB13- □1□□□/ NYB13- □2□□□	NYB2E-	NYB37- □0□□□	NYB55- □0□□□	NYB65- □0□□□	NYB13- □0□□□		
		CPU type		Intel® Xeon®	Intel® Core™	Intel® Core		Intel® Core™	Intel® Xeon®	Intel® Core™	Intel® Core		Intel® Core™		
				W-11865MRE	i7-1185GRE	i5-1145GR	RE .	i3-1115GRE	W-11865MRE				i3-1115GRE		
		Cores / T		8 / 16	4/8	4/8	I	2/4	8 / 16	4/8	4/8		2/4		
		frequency	у	2.6 GHz	1.8 GHz	2.6 GHz	1.5 GHz	2.2 GHz	2.6 GHz	1.8 GHz	2.6 GHz	1.5 GHz	2.2 GHz		
	CPU	Maximum frequency		4.7 GHz	4.4 GHz	4.1 GHz		3.9 GHz	4.7 GHz 24 MB	4.4 GHz	4.1 GHz		3.9 GHz		
		Cache		24 MB	12 MB					12 MB		8 MB 6 MB			
		Cooling	letails	Active cooling (fan)	oling cooling cooling rassive cooling cooling cooling cooling fant						Passive co (fanless)	ooling			
		Intel CPU	category	` '	(100% opera	` '	al 10yr)		` '	(100% opera	` '	al 10yr)			
		Memory s	size *1	8, 16, 32, 64 or 96 GB	8, 16, 32, 6	4 GB	/		8, 16, 32, 64 or 96 GB	8, 16, 32, 6	64 GB	/			
		Memory t	зуре	DDR4 (ECC is	DDR4				DDR4 (ECC is	DDR4					
Main system	Memory	Package	Memory	available)					available)						
		Format Serial	Speed	3200 MT/s					3200 MT/s						
		Presence Detect	grade CAS	CL17					CL17						
	Trusted p	(SPD) latform mo	latency odule	Available					Available						
	(TPM)												I		
	Graphics controller			Intel® UHD Graphics. Up to four independe nt screens. Intel® Iris® Xe Graphics. Up to four independe nt screens. Intel® UHD Graphics. Up to four independe nt screens.					Intel® UHD Graphics. Up to four independe nt screens.	Intel® Iris® Xe Graphics. Up to four independent screens.			Intel® UHD Graphics. Up to four independe nt screens.		
				Intel® UHD Graphics (32 EU)	Graphics (32 EU) Graphics (96 EU) Graphics (80 EU) Graphics (48 EU) Graphics (32 EU)							Intel® UHD Graphics (48 EU)			
	Watchdog	3		Yes					Yes						
Operating system	Windows	os			0 IoT Enter	prise 2021 L	.TSC - 64 bi	t	Windows 1	0 IoT Enter	prise 2021 L	-TSC - 64 bi	t		
		Hard Disl		500 GB, 1 TB -											
			SLC type	-											
	Drives *1	Solid	MLC												
Storage	<u></u> ተ	State Drive	type						-						
devices			3DTLC type	128 GB, 2	56GB, 512 C	GB, 1 TB			128 GB, 256GB, 512 GB						
	Drive bay	s (HDD/SS	D) *2	2					CFast slot						
	Hardware	-RAID sup	port	RAID1: NYB2E- □2□□□	RAID1: NYB37- □2□□□	NYB55- □2□□□	NYB65- □2□□□	NYB13- □2□□□	N/A						
	Power co	nnector		24 VDC		1	1	1	24 VDC						
	I/O conne	ctor		2 inputs ar	nd 1 output				2 inputs ar	nd 1 output					
		Number of	of ports						-						
	USB2.0 Type-A	Maximum Maximum							-						
		length		 											
	Hebe o	Number	•	4					4						
	USB3.0 Type-A	Maximum Maximum		900 mA 3 m					900 mA 3 m						
		length													
Connectors		Number		3	1000 105	TV 4000DA	OF T 05	NOD 4 OF T	3	1000405	TV 4000DA	OF T 050	NOD 4 OF T		
	Ethernet connectors	Physical Maximum transmissi between Et switch and	on distance	100 m	10BASE-T, 100BASE-TX, 1000BASE-T or 2500BASE-T 100 m					10BASE-T, 100BASE-TX, 1000BASE-T or 2500BASE-T					
		Video inte							-						
	DVI-I	Resolution							-						
	connector		DVI cable						-						
	DisplayPort	Resolution	n	Up to 4,09	6 x 2,304 at	60 Hz			Up to 4,09	6 x 2,304 at	60 Hz				
	++	Maximum (cable length	3 m					Up to 4,096 x 2,304 at 60 Hz 3 m						

	lte	em	NYB2E- □1□□□/ NYB2E- □2□□□	NYB37- □1□□□/ NYB37- □2□□□	NYB55- □1□□□/ NYB55- □2□□□	NYB65- □1□□□/ NYB65- □2□□□	NYB13- □1□□□/ NYB13- □2□□□	NYB2E- □0□□□	NYB37- □0□□□	X or 1000BASE-T		NYB13- □0□□□	
	RS-232C		Standard S	UBD9 conr	ector (Non-	Isolated)		Standard S	UBD9 conn	ector (Non-I	solated)		
		Video interface						-					
	DVI-D	Resolution						-					
	DVI-D	Maximum DVI cable length		-									
		Video interface	Digital only					Digital only					
		Resolution	1,280 x 800	pixels at 6	0 Hz			1,280 x 800	0 pixels at 6	0 Hz			
Optional	NY	Connector type	RJ45					RJ45					
connector (select one per system)	Monitor Link	Cable shielding, type and max. length	S/FTP, Cat	.6A, 100 m				S/FTP, Cat.6A, 100 m					
		USB data throughput	280 Mbps i	nax.				280 Mbps i	max.				
	GigE LAN	Physical layer	10BASE-T	100BASE-	TX or 1000E	BASE-T		10BASE-T, 100BASE-TX or 1000BASE-T					
	DisplayPort	Resolution	Up to 4,096 x 2,304 at 60 Hz					Up to 4,096 x 2,304 at 60 Hz					
	++	Maximum cable length	3 m					3 m					
PCIe	Configura	ition	X4 (4 lanes) up to Gen	1 3			N/A					
Card	Card heig	ht	Standard h	eight cards	4.20 inches	s (106.7 mm) * 3	N/A					
Slot	Card leng	th	Half length	cards, 6.6 i	nches (167.	65 mm)		N/A					
Battery	Model		CJ1W-BAT	01				CJ1W-BAT	01				
Dattery	Service li	fe	5 years at 2	25°C				5 years at 2	25°C				
	Model		NY000-AF0	00			-	NY000-AF0	00			-	
Fan unit	Service life		70,000 hour operation at relative hun	40°C with 1			-		rs of continu t 40°C with 1 nidity			-	
LED			PWR, ERR	, HDD, RUI	N			PWR, ERR, HDD, RUN					

^{*1.} Not all combinations are possible or standard available. Please contact your Omron representative to dicuss the possibilities. *2. Depending on the model one or two drives are supported. *3. Low profile cards, 2.536 inches (64.4 mm) are not supported.

	lte	em		NYB1E- 1000 NYB1E- 12000	NYB27- □1□□□ NYB27- □2□□□	NYB35- □1□□□ NYB35- □2□□□	NYB2C- □1□□□	NYB27- □0□□□	NYB35-	NYB2C-	NYB2A- □0□□□		
		CPU type		Intel® Xeon® E3-1515M v5	Intel® Core™ i7-7820EQ	Intel® Core™ i5-7300U	Intel® Celeron® 3965U	Intel® Core™ i7-7820EQ	Intel® Core™ i5-7300U	Intel [®] Celeron [®] 3965U	Intel [®] Atom [®] x5-E3940		
		Cores / Th	nreads	4/8	4/8	2/4	2/2	4 / 8	2/4	2/2	4 / 4		
		CPU base frequency		2.8 GHz	3.0 GHz	2.6 GHz	2.2 GHz	3.0 GHz	2.6 GHz	2.2 GHz	1.6 GHz		
	CPU	Maximum frequency		3.7 GHz	3.7 GHz	3.5 GHz	-	3.7 GHz	3.5 GHz	-	1.8 GHz		
		Cache	Cache	8 MB	8 MB	3 MB	2 MB	8 MB	3 MB	2 MB	2 MB		
		Cooling d	letails	Requires activifan)	ve cooling	Passive cooli	ng (fanless)	Requires active cooling (fan)	Passive cooli	ng (fanless)			
		Intel CPU	category	Industrial (100)% operation m	ninimal 10yr)							
Main		Memory s	size *1	8, 16 or 32 GB	8, 16 or 32 GB	4 or 8 GB	4 or 8 GB	8, 16 or 32 GB	8 or 16 GB	4 or 8 GB	2, 4 or 8 GB		
system	Memory	Memory t	ype	DDR4 (ECC is available)	DDR4 (non E	CC)					DDR3L (non ECC)		
	Trusted p (TPM)	latform mo	dule	Available									
	Graphics controller			Intel [®] Iris [™] Pro Graphics. Up to two independent screens.	Pro Graphics. Up to two independent screens. Intel® HD Graphics. Up to two independent screens.								
				Intel [®] Iris [™] Pro Graphics P580	Intel® HD Graphics 630	Intel® HD Graphics 620	Intel® HD Graphics 610	Intel® HD Graphics 630	Intel® HD Graphics 620	Intel® HD Graphics 610	Intel [®] HD Graphics 500		
	Watchdog	3		Yes	1								
Operating system	Windows	os		Windows 10 IoT Enterprise 2016 LTSB - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit	Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit	Windows 10 IoT Enterprise 2016 LTSB - 64 bit Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit	Windows 10 loT Enterprise 2016 LTSB - 64 bit Windows 10 loT Enterprise 2019 LTSC - 64 bit Windows 10 loT Enterprise 2021 LTSC - 64 bit	Windows 10 loT Enterprise 2019 LTSC - 64 bit Windows 10 loT Enterprise 2021 LTSC - 64 bit	Windows 10 IoT Enterprise 2016 LTSB - 64 bit Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit		Windows 10 IoT Enterprise 2019 LTSC - 64 bit Windows 10 IoT Enterprise 2021 LTSC - 64 bit		
		Hard Disk		• 320 GB, 500 GB, 1 TB	• 500 GB, 1 TB	• 320 GB		N/A					
	Drives		SLC type	• 64 GB				N/A					
Storage devices	*1	Solid State Drive	MLC type	• 128 GB, 500 GB	• 128 GB, 256 GB, 500 GB	• 128 GB		• 64 GB, 128	3 GB, 256 GB				
			3DTLC type	• 128 GB, 25	6 GB, 512 GB,	1 TB		• 128 GB, 25	66 GB				
	Drive bay	s (HDD/SSI	D) *2	2	2	2	2	CFast slot	CFast slot	CFast slot	CFast slot		
	Hardware	-RAID supp	port	NYB1E- 2000 only	NYB27- □2□□□ only	NYB35- □2□□□ only	N/A	N/A	N/A	N/A	N/A		

	lte	em	NYB1E- 1000 NYB1E- 2000	NYB27- □1□□□ NYB27- □2□□□	NYB35- □1□□□ NYB35- □2□□□	NYB2C- □1□□□	NYB27- □0□□□	NYB35- □0□□□	NYB2C- □0□□□	NYB2A- □0□□□					
	Power co	nnector	24 VDC												
	I/O conne	ctor	2 inputs (UPS si	gnal and pov	wer OFF contro	l) and 1 output	(Industrial Box	PC power stat	e)						
		Number of ports	2												
	USB2.0	Maximum current	500 mA												
	Type-A	Maximum cable length	5 m												
		Number of ports	2												
	USB3.0	Maximum current	900 mA												
Connectors	Type-A	Maximum cable length	3 m												
	Ethernet	Number of ports	3												
	connect	Physical layer		0BASE-T, 100BASE-TX or 1000BASE-T											
	DVI-I	Video interface		gital or analog Digital only											
	connect or	Resolution Maximum DVI cable		Up to 1,920 x 1,200 pixels at 60 Hz Dependent upon connected monitor type and resolution											
		length Resolution	N/A												
	DisplayPort ++	Maximum cable length	N/A N/A												
	RS-232C	lengui	Standard DSUB	9 connector	(Non-Isolated)		N/A								
		Video interface	Digital only		(**************************************		N/A								
	DVI-D	Resolution	Up to 1,920 x 1,2	200 pixels at	: 60 Hz		N/A								
	ט-ועט	Maximum DVI cable length	Dependent upor	n connected	monitor type an	d resolution	N/A								
		Video interface	Digital only												
		Resolution	1,280 x 800 pixe	els at 60 Hz											
Optional	NY	Connector type	RJ45												
connector (select one per system)	Monitor Link	Cable shielding, type and max. length	S/FTP, Cat.6A,	S/FTP, Cat.6A, 100 m											
		USB data throughput	280 Mbps max.												
	GigE LAN	Physical layer	10BASE-T, 100BASE-TX or 1000BASE-T				-	-							
	DisplayPort	Resolution	N/A	-											
	++	Maximum cable length	N/A												
PCle	Configura	ition	X4 (4 lanes) up to Gen 3		X2 (2 lanes) up to Gen 3		N/A								
Card Slot	Card heig	ht	Standard height	cards, 4.20	inches (106.7 n	nm) *3	N/A								
	Card leng	th	Half length cards	s, 6.6 inches	(167.65 mm)		N/A								
Battery	Model		CJ1W-BAT01		Non replaceal	ole battery	CJ1W- BAT01	Non replacea	ble battery						
Datter y	Service li	fe	5 years at 25°C		10 years at 40)°C *4	5 years at 25°C	10 years at 40)°C *4						
	Model		NY000-AF00	-	No fan unit		NY000-AF00	No fan unit							
Fan unit	Service li	re	70,000 hours of operation at 40°C with 159 relative humidity	% to 65%	70,000 hours of continuous operation - at 40°C with 15% to 65% relative humidity				-						

^{*1.} Not all combinations are possible or standard available. Please contact your Omron representative to discuss the possibilities.
*2. Depending on the model one or two drives are supported.
*3. Low profile cards, 2.536 inches (64.4 mm) are not supported.
*4. Battery service life highly depend on circumtance and is in normal operation 20yr longer

Electrical Specifications

	Item	NYB2E- □1□□□ NYB2E- □2□□□	NYB37- 1 NYB37- 2	NYB55- 1 NYB55- 2	NYB65- □1□□□ NYB65- □2□□□	NYB13- □1□□□ NYB13- □2□□□	NYB2E- □0□□□	NYB37- □0□□□	NYB55- □0□□□	NYB65-	NYB13-				
PU typ	oe e	Intel® Xeon® W-11865MRE	Intel® Core™ i7-1185GRE	Intel® Core i5-1145GR		Intel® Core™ i3-1115GRE	Intel® Xeon® W-11865MRE	Intel® Core™ i7-1185GRE	Intel® Core i5-1145GRI		Intel® Core™ i3-1115GRE				
ated p oltage	ower supply	24 VDC, no	24 VDC, non-isolated												
llowab oltage	ole power supply range	20.4 to 28.8 VDC													
round	ing method	Ground to less than 100 Ω													
rush c	current	At 24 VDC: 12 A / 6 ms max. for cold start at room temperature													
vervol	tage category	JIS B3502 and IEC 61131-2: Category II													
MC im	munity level	IEC 61131-	2: Zone B												
TC acc	curacy	At ambient	temperature		to +1.5 min	error per mor error per mor per month									
ower b	outton life	100,000 ope	erations												
attery	life	5 years at 2	5 years at 25°C (for battery CJ1W-BAT01)												
an life		8 years of c 40°C	ontinuous op	eration at				-							
ow <u>er</u> c	consumption *						-	•							
co	aximum power nsumption cluding drives and pansions	167 W	123 W	108 W	89 W	68 W	150 W	106 W	91 W	82 W	61 W				
co	aximum power nsumption cluding drives and pansions	130 W	86 W	71 W	62 W	41 W	130 W	86 W	71 W	62 W	41 W				
Dri	ives	-													
	HDD 320 GB	2 W							-						
	HDD 500 GB	2 W					-								
	HDD 1 TB	2 W					-								
	SSD SLC 32 GB			-			-								
	SSD SLC 64 GB			-			-								
	SSD MLC 128 GB			-					-						
	SSD MLC 500 GB			-			-								
	SSD 3DTLC 128 GB								-						
	SSD 3DTLC 256 GB	1 W					-								
	SSD 3DTLC 512 GB	2 W							-						
	SSD 3DTLC 1 TB	2 W							-						
	CFast MLC 64 GB			-					-						
	CFast MLC 128 GB			-					-						
	CFast MLC 256 GB			-					-						
	CFast 3DTLC 128 GB			-			1 W								
	CFast 3DTLC 256 GB			-			1 W								
	CFast 3DTLC 512 GB			-			2 W								
Exp	pansions						-								
	USB	18 W max.	(4 x 900 mA	at 5 V)											
	PCle	15 W max.			5 W max.				-	-					

Note: Refer to the Industrial Box PC User's Manual (W553) for details.

To guarantee S8BA UPS operation in combination with our IPC, the specified combination of UPS and power-supply must be used.

Item		NYB2E- D1DDD NYB2E- D2DDD	NYB37- 1	NYB55- □1□□□ NYB55- □2□□□	NYB65- □1□□□ NYB65- □2□□□	NYB13- □1□□□ NYB13- □2□□□	NYB2E-	NYB37-	NYB55-	NYB65-	NYB13-
Minimum	Power supply	240 W			120 W		240 W		120 W		
power requirements	UPS	240 W					240 W	120 W			

^{*}The total power consumption is the sum of the power consumption of all items that are installed in your Industrial Box PC.

	Item	NYB1E-	NYB27- □1□□□ NYB27- □2□□□	NYB35- 1 NYB35- 2	NYB2C- □1□□□	NYB27- □0□□□	NYB35- □0□□□	NYB2C- □0□□□	NYB2A- □0□□□		
CPU type		Intel® Xeon® E3-1515M v5	Intel® Core™ i7-7820EQ CPU	Intel® Core™ i5-7300U	Intel® Celeron® 3965U	Intel® Core™ i7-7820EQ	Intel®Core™ i5-7300U	Intel® Celeron® 3965U	Intel® Atom x5-E3940		
ated po	wer supply voltage	24 VDC, non-i	24 VDC, non-isolated								
lowable oltage r	e power supply ange	20.4 to 28.8 V	DC								
roundir	ng method	Ground to less	than 100 Ω								
rush cւ	urrent	At 24 VDC: 12	A / 6 ms max. for	cold start at roo	om temperature						
vervolta	age category	Meets IEC 610)10-2-201: Catego	ry II							
MC imm	nunity level	IEC 61131-2: 2	Zone B								
ГС ассі	uracy	At ambient ten	nperature of 55°C: nperature of 25°C: nperature of 0°C: -	-1.5 to +1.5 mi	n error per montl						
ower bu	utton life	100,000 opera	tions	T		1	1				
attery li	ife	5 years at 25°(CJ1W-BAT01)		10 years at 40)°C	5 years at 25°C (for battery CJ1W-BAT01)	10 years at 40	o°C			
an life		8 years of cont at 40°C	iinuous operation	-	-	8 years of continuous operation at 40°C	-	_	-		
ower co	onsumption *				_						
cor	ximum power nsumption including ves and expansions	121 W	121 W	69 W	50 W	101 W	61 W	42 W	41 W		
roo	ximum power nsumption excluding ves and expansions	86 W	86 W	46 W	27 W	86 W	46 W	27 W	26 W		
Dri	ves				-						
	HDD 320 GB	2 W					-	-			
	HDD 500 GB	2 W				-					
	HDD 1 TB	2 W				-					
	SSD SLC 32 GB	2 W						-			
	SSD SLC 64 GB	2 W					-	-			
	SSD MLC 128 GB	2 W					-	-			
	SSD MLC 500 GB	3 W					-				
	SSD 3DTLC 128 GB	1 W					-	-			
	SSD 3DTLC 256 GB	1 W					-	-			
	SSD 3DTLC 512 GB	2 W					-	-			
	SSD 3DTLC 1 TB	2 W					-	-			
	CFast MLC 64 GB					1 W					
	CFast MLC 128 GB		_			1 W					
	CFast MLC 256 GB		_			1 W					
CFast 3DTLC 128 GB CFast 3DTLC 256 GB			_			1 W					
						1 W					
	CFast 3DTLC 512 GB					2 W					
Ex	pansions					-					
	USB	14 W max. ((2	x 500 mA at 5 V)	+ (2 x 900 mA a	at 5 V))	т.					
	PCIe	15 W max.	15 W max.	5 W max.	5 W max.		-	-			

To guarantee S8BA UPS operation in combination with our IPC, the specified combination of UPS and power-supply must be used.

li	tem	NYB1E / NYB27	NYB35 / NYB2C / NYB27-□0 / NYB2A		
Minimum power	Power supply	240 W	120 W		
requirements	UPS	240 W	120 W		

Note: Refer to the *Industrial Box PC User's Manual* (W553) for detail.

★The total power consumption is the sum of the power consumption of all items that are installed in your Industrial Box PC.

Components and functions

The intent behind our IPC platform is to empower engineers to become unstoppable in developing machines and factories that are better, faster and safer by giving them the freedom and flexibility to explore the opportunities provided by modern IT. In line with Omron's traditional quality standards, the Industrial Box PC is designed to meet the demands of industrial users for maximum robustness and reliability.

All maintenance sensitive products (HDD/SDD, fan, battery, and PCIe Card) can be easily reached from the outside of the system. No need to open the electronics compartment, less risk on failure.

Optional connection

RS-232C, DVI-D or DisplayPort++ *1, NY Monitor Link or GigE LAN. NY Monitor Link allows high speed video and data communication over 100 m via Ethernet cable.

DVI-D video

Digital, up to 1,920 x 1,200 pixels at 60 Hz (Intel[®] Core[™] i7: DVI-I (Digital or analog))

DisplayPort++ *1

Digital, Up to 4,096 x 2,304 pixels at 60 Hz

3x High speed Ethernet

10BASE-T, 100BASE-TX or 1000BASE-T

2x USB2.0

500 mA maximum current Maximum cable length: 5 m

2x USB3.0

900 mA maximum current Maximum cable length: 3 m

Indication LEDs

Robust Mechanics

Full metal housing with black industrial coating

Industrial Design

Winner of the 2016 Red Dot design award *2 for excellent industrial design



1x PCle slot

Half Length Cards 6.6 inches Standard Height Cards 4.2 inches Easy PCIe mounting drawer

Intel[®] Xeon[®], Intel[®] Core[™] i7: X4 (4 lanes) Other CPUs: X1 (1 lane)

1x SD Memory Card slot *1

SDHC type (SD 2.0 specification) Up to 32 GB capacity

1x CFast Card slot

Storage

2.5 inch Solid State Drive (SSD) or Hard Disk Drive (HDD), 7 mm height

I/O (UPS connection)

Input:

Power sequence signal

Output:

SPST-NO contact configuration

24 VDC at 2 A switching capacity (resistive load)

Power switch

24 VDC Power

24 VDC non isolated Lockable power connector

Note: Not all combinations are possible or standard available. Please contact your Omron representative to discuss the possibilities.

*1.11th generation CPU: Equipped with DisplayPort++ instead of DVI, but no SD Memory Card slot.

*2. The Red Dot design award has been presented by the Design Zentrum Nordrhein Westfalen since 1955. It is one of the best-respected design competitions in the world, along with the iF award (Germany) and IDEA (the United States).

Environmental Specifications

	Item	Specifications
	Ambient operating temperature *1	0 to 55°C
	Ambient storage temperature *1	-20 to 70°C
	Ambient operating humidity *1	10% to 90% with no condensation
	Ambient storage humidity *1	10% to 90% with no condensation
	Operating atmosphere	No corrosive gases
	Altitude	2,000 m max.
Operation environment	Noise resistance (during operation)	Conforms to IEC61000-4-4, 2kV (power lines)
chivinominent	Vibration resistance (during operation)	Conforms to IEC 60068-2-6. For a product with an SSD: 5 to 8.4 Hz with 3.5 mm single amplitude and 8.4 to 150 Hz with 9.8 m/s² for 10 times each in X, Y and Z directions. For a product with a HDD the vibration resistance depends on the mounting orientation *2.
	Shock resistance (during operation)	Conforms to IEC 60068-2-27. 147 m/s², 3 times in each X, Y and Z directions
	Installation method	Book mount, Wall mount
	Pollution degree	2 or less: Meets IEC 61010-2-201.
Applicable sta	andards *3	EU Directives: EMC Directive 2014/30/EU (EN 61131-2) and RoHS Directive KC Registration, RCM, cULus

^{*1.} The allowed ambient operating temperature and ambient humidity depend on product type, CPU type, mounting orientation, and storage device type. *2. Vibration resistance depends on the Industrial Box PC's mounting orientation and storage device type:

Mounting orientation	SSD or CFast Card	HDD
Book	9.8 m/s ²	2.5 m/s ²
Wall		4.9 m/s ²

^{*3.} Refer to the OMRON website (www.ia.omron.com) or contact your OMRON representative for the most recent applicable standards for each model.

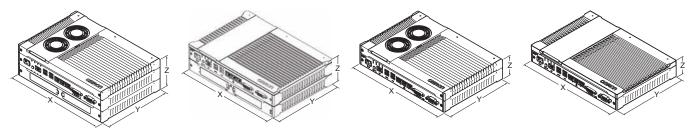
Storage Device Specifications

Item						Specif	ications					
Model	NY000- AS00	NY000- AS01	NY000- AS03	NY000- AS04	NY000- AS05	NY000- AS07	NY000- AS08	NY000- AS09	NY000- AS10	NY000- AS11	NY000- AS12	NY000- AS13
Capacity	32 GB	64 GB	64 GB	128 GB	500 GB	1 TB	256 GB	128 GB	256 GB	512 GB	1 TB	2 TB
Туре	SSD (SLC)		SSD (SLC)	SSD (MLC)	SSD (MLC)	SSD (3DTLC)	SSD (MLC)	SSD (3DTLC)	SSD (3DTLC)	SSD (3DTLC)	SSD (3DTLC)	SSD (3DTLC)
S.M.A.R.T. support	Yes					•				•		
Rotation speed	-	_	_	-	-	_	-	-	-	_	_	-
Interface	Serial ATA	3.1				1				1	1	
Sustained standard read speed	Up to 160 MB/s	Up to 160 MB/s	Up to 500 MB/s	Up to 530 MB/s	Up to 415 MB/s	Up to 550 MB/s	Up to 530 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s
Sustained standard write speed	Up to 145 MB/s	Up to 150 MB/s	Up to 370 MB/s	Up to 190 MB/s	Up to 200 MB/s	Up to 340 MB/s	Up to 210 MB/s	Up to 450 MB/s	Up to 485 MB/s	Up to 500 MB/s	Up to 510 MB/s	Up to 510 MB/s
Operating temperature	0 to 70°C	1	1		1	•				•		1
Operating humidity	10% to 95% (with no co	% ndensation)	10% to 85% (with no condensat ion)		10% to 95% (with no condensation)			5% to 90%	(with no cor	ndensation)		
Storage temperature	-40 to 100°	С	-45 to 90°C	-55 to 95°C	-55 to 95°C				-40 to 85°C			
Storage humidity	10% to 95% (with no condensation)						5% to 93% (with no condensation)					
Life	1,500 TB written	3,000 TB written	1900 TB written	208 TB written	154 TB written	1000 TB written	416 TB written	90 TB written	230 TB written	550 TB written	1200 TB written	3000 TB written

Item					Specifications					
Model	NY000-AH00	NY000-AH01	NY000-AH02	NY000-AT00	NY000-AT01	NY000-AT02	NY000-AT05	NY000-AT06	NY000-AT07	
Capacity	320 GB	500 GB	1 TB	64 GB	128 GB	256 GB	128 GB	256 GB	512 GB	
Туре	HDD	HDD	HDD	CFast (MLC)	CFast (MLC)	CFast (MLC)	CFast (3DTLC)	CFast (3DTLC)	CFast (3DTLC)	
S.M.A.R.T. support	Yes									
Rotation speed	5,400 r/min			-	-	-	_	_	-	
Interface	Serial ATA 3.0			Serial ATA 3.1						
Sustained standard read speed	_	-	_	Up to 530 MB/s	Up to 530 MB/s	Up to 530 MB/s	Up to 550 MB/s	Up to 550 MB/s	Up to 550 MB/s	
Sustained standard write speed	_	-	-	Up to 100 MB/s	Up to 190 MB/s	Up to 210 MB/s	Up to 450 MB/s	Up to 485 MB/s	Up to 500 MB/s	
Operating temperature	5 to 55°C	5 to 55°C	0 to 60°C	-40 to 85°C			-40 to 85°C			
Operating humidity	8% to 90% (with no conde	nsation)		10% to 95% (with no conder	10% to 95% (with no condensation)			5% to 90% (with no condensation)		
Storage temperature	-40 to 65°C			-55 to 95°C			-40 to 85°C			
Storage humidity	8% to 90% (with no conde	nsation)	5% to 95% (with no condensation)	10% to 95% (with no condensation)			5% to 90% (with no condensation)			
Life	Approximately 20,000 powers (whichever con the following control of the	d-ÓN hours nes first) under onditions: 3 kPa d-ON hours/ 0% operation ed-ON *2	Average Annualized Failure Rate (AFR): 0.50% Under the following conditions: • Case Temperatur e 40°C • Power on Hours (POH) ≤ 3120	125 TB written	208 TB written	417 TB written	90 TB written	230 TB written	550 TB written	

Note: Orders for NY000-AS02 are no longer accepted, as of November 30, 2018. *1. Powered-ON hours include sleep and standby modes. *2. Operation includes seeking, writing, and reading functions.

Dimensions

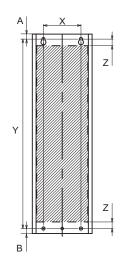


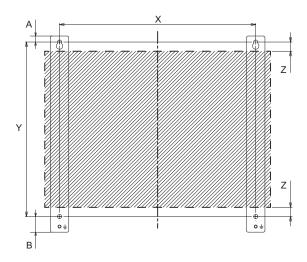
	Specifications								
	Вох								
Item	NYB1E-00000 NYB27-01000 NYB27-02000 NYB2E-01000 NYB2E-02000 NYB37-01000 NYB37-02000 NYB55-01000 NYB55-02000	NYB351	NYB27-□0□□□ NYB2E-□0□□□ NYB37-□0□□□ NYB55-□0□□□	NYB35-00000 NYB2C-00000 NYB2A-00000 NYB65-00000 NYB13-00000					
Dimensions	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 88.75 mm	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 73 mm	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 56 mm	Width X = 282 mm Depth Y = 195 mm. Y = 200 mm including the DVI connectors. Height Z = 41 mm					
Weight	3.8 kg	3.0 kg	2.6 kg	2.1 kg					

Bracket Specifications

The metal mounting brackets mount your Industrial Box PC and they are the connection for the functional ground. Use metal screws with a diameter of 4 mm or 5 mm to mount the brackets.

Mounting screw locations for book mount and wall mount orientation:





(Unit: mm)

			Dri	II Specification	ons	Product Dimensions			
Model	Bracket type	Bracket ID	Hole Distance X	Hole Distance Y	Distance Z	Bracket Width	Bracket Height	Top to hole A	Top to hole B
All	Wall mount	NY000-AB01	245 mm	218 mm	12 mm	23 mm	245 mm	7.5 mm	19.5 mm
NYB1E NYB27-□1□□□ NYB27-□2□□□ NYB2E-□1□□□ NYB2E-□2□□□ NYB37-□1□□□ NYB37-□2□□□ NYB55-□1□□□ NYB55-□2□□□	Book mount	NY000-AB00	60 mm	303 mm	11 mm	96 mm	319 mm	8 mm	8 mm
NYB35	Book mount	NY000-AB02	50 mm	303 mm	11 mm	80 mm	319 mm	8 mm	8 mm
NYB35-00-0 NYB2C-00-0 NYB65-00-0 NYB13-00-0 NYB2A-00-0	Book mount	NY000-AB04	N/A	298 mm	11 mm	47 mm	339 mm	8 mm	28 mm
NYB27-□0□□□ NYB2E-□0□□□ NYB37-□0□□□ NYB55-□0□□□	Book mount	NY000-AB05	25 mm	303 mm	11 mm	63 mm	339 mm	8 mm	28 mm

Recommended Related Products



Industrial Monitor NY-series

The Industrial Monitor is of key importance at the interface between operator and system. The Industrial Monitor is efficient, effective and highly visible with an attractive design.



Industrial Panel PC NY-series

The Industrial Panel PC intelligently combines the functionality of the Industrial Box PC and Industrial Monitor. No cables are used between the two components, which ensures optimal signal distribution and reliable operation in industrial environments.



UPS S8BA-series

The OMRON S8BA UPS protects the Industrial Box PC from power failures, voltage variations and instantaneous voltage drops.

Related Manuals

The following manuals are related. Use these manuals for reference.

Manual name	Cat. No.	Model numbers	Application	Description
Industrial Box PC User's Manual	W553	NYB1E1	Learning all basic information about the Industrial Box PC. This includes introductory information with features, hardware overview, software overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Box PC.	An introduction to the Industrial Box PC is provided along with the following information: • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance
Industrial Monitor User's Manual	W554	NYM19W-C1	Learning all basic information about the Industrial Monitor. This includes introductory information with features, hardware overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Monitor.	An introduction to the Industrial Monitor is provided along with the following information: • Overview • Hardware • Software • Specifications • Installation • Operating Procedures • Maintenance
Industrial Panel PC User's Manual	W555	NYP27	Learning all basic information about the Industrial Panel PC. This includes introductory information with features, hardware overview, software overview, specifications, mounting, wiring, connecting, operating and maintaining the Industrial Panel PC.	An introduction to the Industrial Panel PC is provided along with the following information: Overview Hardware Software Specifications Installation Operating Procedures Maintenance
UPS S8BA User's Manual	U702	S8BA	Learning the information that is necessary to use the Uninterruptible Power Supply (UPS) Unit.	An introduction to the UPS is provided along with the following information: Overview Preparation Installation and Connection Check and Start Operation Maintenance and Inspection Shutdown Processing I/O Signal Functions
NY-series Operating Systems and Software Utilities Manual	W616	NYB 0 NYB 1 NYB 2 NYB 3 NYB 4 NYB 5 NYP 0 NYP 1 NYP 2 NYP 3 NYP 3 NYP 5	Learning all software related information about the Industrial Box PC. This includes introductory information, installation, operating procedures and maintenance. Mainly software information is provided.	An introduction to the Box PC is provided along with the following information: Overview Software Specifications Installation Operating Procedures Maintenance