TECHNICAL INFORMATION

PRINTING SPECIFICATION		CL4NX			CL6NX	
Printing Method		Direct Thermal / Thermal Transfer				
Print Mode		Continuous, Tear-off, Cutter, Dispenser, Linerless				
Print Resolution		8 dots/mm 203 dpi	12 dots/mm 305 dpi	24 dots/mm 609 dpi	8 dots/mm 203 dpi	12 dots/mm 305 dpi
Max. Print Speed		10 ips 254 mm/sec	8 ips 203 mm/sec	6ips 152 mm/sec	10 ips 254 mm/sec	8 ips 203 mm/sec
Max. Print Area	Width, mm (inch)	104mm (4.1")			167.5mm (6.5''')	
	Length, mm (inch)	2500mm (98.43")	1500mm (59.1")	400mm (15.7")	2500mm (98.43")	1500mm (59.1")
Processor		Dual CPU & Dual OS: CPU 1: 2GB ROM, 256MB RAM for Linux OS, CPU 2: 4MB ROM, 64 MB RAM for ITRON OS				
Printer Memory		2GB ROM, 256MB RAM				

CONSUMABLES SPECIFICATION (Recommended to use printer supplies manufactured or certified by SATO)							
Sensor Type			I-Mark Sensor (Reflective), Label Gap Sensor (Transmissive)				
Media Type			Roll or fan-fold die cut labels, Plain paper face stock, Synthetics and Continuous stock				
Media Thickness			0.06- 0.26mm (0.002" - 0.01")			0.08 - 0.268mm (0.003" - 0.01")	
Label Shape	Diameter		Maximum 220mm (8.6") on 76mm (3") internal core diameter | Core diameter: Ø 76mm (3.0"), Ø 101mm (4.0")				
	Wind Direction		Face In / Face Out. No Setting Change Required				
Label Size (Without Liner)	Continuous	Width	22 - 128mm .87"- 5.0"	22 -128mm 0.87"- 5.0"	22 -128mm 0.87"- 5.0"	47-177mm 1.27"-6.96"	47-177mm 1.27"-6.96"
		Length	6-2497mm 0.24"- 98.3"	6-1497mm 0.24"- 58.9"	6-397mm 0.24"- 15.6"	16-2500mm 0.63"-98.4"	16-1500mm 0.63"-59.1"
	Tear-Off / Cutter	Width	22-128mm 0.87"- 5.0"	22-128mm 0.87"- 5.0"	22-128mm 0.87"- 5.0"	47-177mm 1.27"-6.96"	47-177mm 1.27"-6.96"
		Length	17-2497mm .67"-98.3"	17-1497mm .67"- 58.9"	17-397mm .67"- 15.6"	17-2500mm 0.67"- 98.4"	17-1500mm 0.67"- 59.1"
	Dispenser	Width	22-128mm .87"to 5.0"	22-128mm .87"to 5.0"	22-128mm .87"to 5.0"	47-177mm 1.27"-6.96"	47-177mm 1.27"-6.96"
		Length	27-397mm 1.06"-15.6"	27-397mm 1.06"-15.6"	27-397mm 1.06"-15.6"	27-397mm 1.06"-15.6"	27-397mm 1.06"-15.6"
	Linerless	Width	60 -118mm 2.36"- 4.6"	60 -118mm 2.36"- 4.6"	60 -118mm 2.36"- 4.6"	Not available	Not available
		Length	30-120mm 1.2"- 4.9"	30-120mm 1.2"- 4.9"	30-120mm 1.2"- 4.9"	Not available	Not available
Ribbon	Size		Max. Length: 600m (1969'). 450m (1476') when ribbon width is 39.5mm. Max. Roll Diameter: 90mm (3.5"), Ribbon width : 39.5mm (1.55") to 128mm (5.04")			As CL4NX 39.5mm (1.55") to 177mm (7.0")	
	Other		Core diameter: Ø 25.4mm (1"), Wind direction : Face In/ Face Out, No Setting Change Required				

FONTS / SYMBOLOGIES		
Internal Fonts	Standard Bitmap	U, S, M, WB, WL, XS, XU, XM, XB, XL, OCR-A, OCR-B
	Scalable Fonts	15 SATO Fonts
	Encoding	Major Latin and Pan-European Code Pages (WGL4), GB18030 (simplified), KSX1001 (Korean), BIG5 (traditional), JIS, SHIFT-JIS, UTF-8 and UTF-16BE also supported
Barcode	Linear	Code 39, Code 93, Code 128, CODABAR (NW7), EAN8/13, GS1-DatabarTM, GS1-128(UCC/EAN128), Interleaved 2/5, Industrial 2/5, JAN8/13, Matrix 2/5, MS1, Bookland, PostnetTM, UPC-A/E
	2D Symbologies	PDF417, Micro PDF, Maxi Code, GS1 Data Matrix, QR Code, Micro QR Code and Composite Symbologies
Print Direction		Character data rotation: 0º, 90º, 180º, 270º
User Downloadable Fonts, Graphics or Formats		Maximum 100MB

INTERFACE CHARACTERISTICS AND INTEGRATION	
Standard Interfaces	USB 2.0 (Type A & B), Ethernet (IPv4/v6), RS232C, IEEE1284, EXT, Bluetooth Ver. 3.0*, NFC
Optional Interface	Wireless LAN (WiFi and CCX Certified), Wifi Direct, IEEE 802.11a/b/g/n, Dual band (2.4GHz, 5GHz)
Remote Maintenance	SNMP Ver. 3, HTTPs
Supported printer protocols	Standard: SBPL (SATO Barcode Printer Language) Emulation Language: Auto detect - SZPL, SDPL,SIPL or STCL

OPERATING CHARACTERISTICS		
Power Requirements		AC100V~AC240V±10%, 50/60 Hz, Auto-ranging Power Supply, Energy Star – Compliant
Environment	Operating	0 – 40 ºC / 30 –80 % RH (without condensation)
	Operating Linerless	5 -35℃ / 30 - 75 % RH (without condensation)
	Storage	-20 – 60 ºC / 30 –90 % RH (without condensation)
Dimensions		CL4NX: 271mm (10.6") x 457mm (17.9") x 321mm (12.6")CL6NX: 338mm (13.3") x 457mm (17") x 321mm (12.6")
Weight		CL4NX: 15Kg (33 lbs) CL6NX: 20Kg (42 lbs)
Display Panel		TFT Full Color LCD, 3.5"(320 (RGB) *240)

MISCELLANEOUS	
Standards & Agency Approvals	IEC 60950, CE Marking, EN 60950-1, EN 55022 Class A, EN 55024, R&TTE, NEMssO-GS, cMETus, UL60950-1/CSA C22.2 No. 60950-1, FCC 15 (SUB B, C), ICES-003, NMB-003, BIS, C-Tick, RCM, CCC, SRRC, KC, S-Mark(Arg), SIRIM, IDA, PTQC, NBTC
Functions – Useful features	18 User Guidance Videos on LCD with space for customized videos, Multi Language support LCD message (30 Languages), Energy Saving, Large Status LED, Multiple Interfaces-Auto-switching, USB Memory for data copy, Status return, Alarm Sound
Functions – Self Diagnosis Checking	Thermal head check, Paper end detection, Ribbon end detection, Test print, Head Lift detection

OPTIONS		
Accessories	CL4NX	Cutter, Linerless Cutter Kit, Dispenser with Internal Backing Paper Rewinder, Real-Time Clock, UHF RFID, Wireless LAN kit
	CL6NX	Cutter, Simple Dispenser, Dispenser with Internal Backing Paper Rewinder, Real-Time Clock, Wireless LAN kit.

RFID SPECIFICATION (Optional Only for CL4NX)		
UHF	Standard	ISO/IEC18000-6 Type C Gen2
	Protocols	EPC Gen 2 Class 1, NXP, Impinj, Alien
HF	Standard	ISO/IEC 15693, ISO/IEC 14443 Type A, ISO/IEC 18092
	Protocols	ICODE SLI / SLIX/ SLIX-S, Tag-it HF-1, my-d, NTAG203, NTAG210, NTAG213/215/216, MIFARE UltraLight, MIFARE UltraLight C, my-d move NFC, FeliCa Lite-S
PJM	Standard	ISO/IEC18000-3 Mode 2
	Protocols	PJM RFID

*Please contact your local SATO office for availability.

Bluetooth · **WiFi CERTIFIED** · N · Energy Star · RoHS COMPLIANT · EPC · Cisco Compatible · **SAP® Certified** Integration with SAP Applications

SATO

CL4NX   CL6NX
NX Series Beyond Expectations

NEXT GENERATION 4" & 6" INDUSTRIAL THERMAL PRINTERS

Flexible & Cost Effective	*Simple-to-Operate*	*All-in-One*	*Plug-and-Play*

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The NX Series represents SATO's next generation of thermal printers with advanced support for barcode symbologies, character sets and RFID encoding. A product of SATO's global R&D network, the NX Series incorporates value-added features in a world-class design to deliver a printing solution that goes beyond expectations.
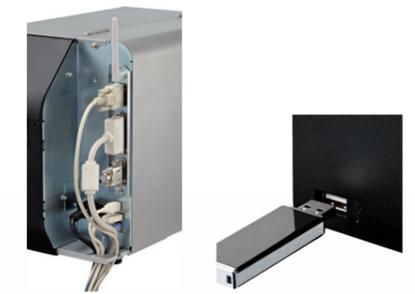
Intuitive Operation

- LED indicator and color display alert operator to printer status. Guidance videos assist in error resolution and printer maintenance.
- Advanced user interface for full operational control of print, application, I/F, and system settings via front panel display.
- Customizable GUI content and security enabled menu access let administrators personalize the operator experience.
- Best in class 60° print head opening, tension damper, and coreless ribbon system facilitate easy media setup.
- Colored operator touch points ensure safe operation and interactions with movable parts.

Graphic 100 Item Print Times(s)

	CL4NX	CL4e
609dpi	185.0	
305dpi	90.0	226.9
203dpi	72.0	159.0

Accurate and Efficient Performance

- Head check function performs print head status analysis before each print to assure printing accuracy.
- High speed data processing with 10 ips print speed equals faster first label out and print job throughput.
- 10 preset darkness levels with finite adjustment between presets for optimal print performance setting
- UHF and HF RFID* options support a wide variety of tags and include adjustable antenna system for optimal inlay encoding

Dynamic Integration

- Serial, parallel, LAN and USB combo interface covers all legacy and modern systems requirements. Optional WLAN available.
- SZPL, SIPL, SDPL, STCL command emulations enable direct replacement of printers in legacy applications.
- Auto-switching interface setting and media auto-calibration to adjust sensor levels for faster setup time between print jobs.
- 30+ display languages, 40+ print character sets, and 15 SATO resident fonts, additional user downloadable space provide universal format coverage.
- All major agency approvals permit global deployment for large enterprises or future expansion potential for growing startups.

Sustainable Innovation

- Coreless ribbon uptake simplifies the loading process. Thermal ribbon is now directly attached to ribbon spindle and removed via one-touch release button.
- Superior energy efficiency certified by Energy Star the leader in product accreditation. Decrease energy costs without any sacrifice to functionality
- Optional linerless kit eliminates waste associated with traditional label production. No liner equals either more labels per roll for increased productivity or smaller rolls sizes for decreased logistic and storage expenses.

Industrial Durability

- Metal casing including front panel and side covers protects against any industrial environment.
- Die-cast Aluminium frame, print and ribbon mechanism provide solid stability to ensure print quality and printer durability.
- 1 year global warranty for printer including installed options. Long lasting 30 kilometer guaranteed print head and platen roller.

Functional Form

- Bi-fold cover allows compact design and reduces workspace requirement.
- Supports internal, external, clockwise and counter-clockwise rotational media types. Adjustable label holder for increased internal roll capacity.
- Field installable options, snap in print head, and tool-less platen replacement minimize downtime.
- External media inlets, mounting fixtures, and cable hook.

SATO Online Services

Cloud-based IoT solution to keep your operations running & visible

SOS
SATO Online Services

SATO monitors all your printers via cloud (for registered customers)

By keeping constant watch on printer status, SOS notifies operator when an expendable part needs replacement, and offers prompt and effective resolution to problems, reducing downtime significantly
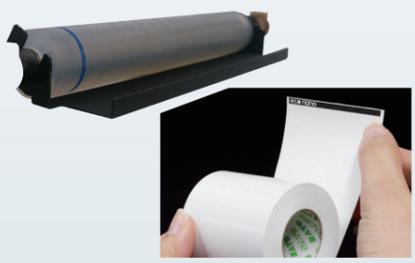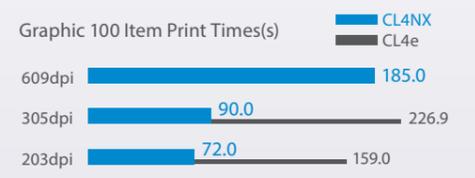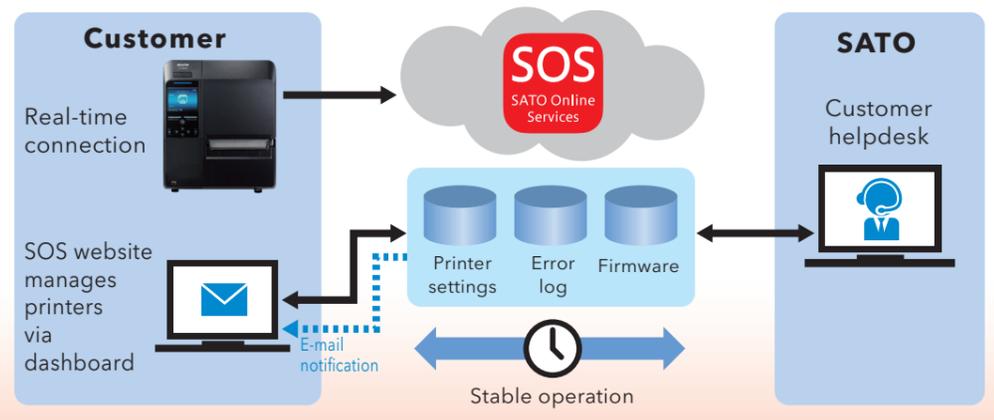
Cut 86% industrial printer downtime and **83%** print & apply machine **downtime!** *   *Based on survey conducted by SATO in Japan

1. Minimise downtime through proactive preventative maintenance

2. Keep all printers visible to achieve efficiency with dashboard

3. Use SOS to manage all your IT assets on-site

Customer

Real-time connection

SOS website manages printers via dashboard

E-mail notification

Printer settings | Error log | Firmware

Stable operation

SATO

Customer helpdesk

NEW FEATURES

Standalone Printing

- AEP resides within printer, eliminates need for costly PC
- Takes up less space due to PC-less printing
- Less downtime expected and parts to be maintained
- Able to connect with peripheral devices such as a barcode scanner, numeric keypad and full-sized keyboard

Easy Barcode Check

- Compatible with 1D & 2D codes
- Standard function comes with 'Readable' and 'Comparison' modes
- Easy installation of stand kit and certified scanner (sold separately)
- Able to print void mark on defective labels

Model Lineup

Cutter
- Front mount guillotine cutter unit
- Single item or batch print job cut settings
- Long lasting blade life

Standard
- Tear-off bar for manual media separation
- Label holder adjustable to support up to 10" OD media rolls
- External media slots for rear or bottom feed applications

Dispenser
- Dispenser unit including peel bar for liner separation
- Additional internal liner take-up for active peel applications