

# CT4-LX Technical Specification

PRINTING SPECIFICATION			
Printing Method		Direct Thermal / Thermal Transfer	
Print Mode		Continuous, Tear-off, Cutter, Dispenser, Linerless	
Print Resolution		8 dots/mm (203dpi)	
Max. Print Speed		8ips (203mm/s) *Linerless mode: 4ips (101mm/s)	
Max. Print Area	Width	104mm (4.1")	
	Length	2500mm (98.4")	
Processor		32-bit Processor 1GHz	
Printer Memory		4GB ROM, 1GB RAM	
CONSUMABLE SPECIFICATION (Recommended to use consumables manufactured or supplied 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, center aligned, face-in and face-out.	
Media Thickness		0.08 - 0.19 mm (80 - 190 µm) (0,031" - 0,075")	
Label Shape	Roll Diameter	Max. ø 128mm (5.0") on 40mm (1.5") core; Max. ø 115mm (4.5") for RFID Label	
	Wind Direction	Face Out / Face In (RFID: Face Out)	
Label Size (Without Liner)	Continuous	Width	22 - 115mm (0.87" - 4.53"), Including Liner 25 - 118mm (0.98" - 4.65")
		Length	7 - 397mm (0.28" - 15.63"), Including Liner 10 - 400mm (0.39" - 15.75")
	Tear-Off	Width	22 - 115mm (0.87" - 4.53"), Including Liner 25 - 118mm (0.98" - 4.65")
		Length	22 - 397mm (0.87" - 15.63"), Including Liner 25 - 400mm (0.98" - 15.75")
	Cutter / Dispenser	Width	22 - 115mm (0.87" - 4.53"), Including Liner 25 - 118mm (0.98" - 4.65")
		Length	20 - 397 mm (0.87" - 15.63"), Including Liner 23 - 400mm (0.91" - 15.75")
	Linerless	Width	25 - 110mm (0.98" - 4.33")
		Length	25 - 100mm (0.98" - 3.94")
Ribbon	Size	Max. Length: 100m (3937"), Max. Roll Diameter: 39mm (1.54"), Ribbon Width: 45 - 111 mm (1.77" - 4.37"), Core Diameter: 12.7mm (0.5"), Wind Direction: Face Out	
FONTS / SYMBOLOGIES			
Internal Fonts	Standard Bitmap	U, S, M, WB, WL, XS, XU, XM, XB, XL, OCR-A, OCR-B, Japanese Kanji, Simplified/Traditional Chinese, Korean	
	Scalable Fonts	40 Scalable Fonts, Multi-National Language Support (47 Languages), Single and Double Byte Fonts (Korean, Chinese, Japanese)	
	Encoding	Major Latin and Pan-European Code Pages (WGL4 Compatible), GB18030 (Simplified), KSX1001 (Korean), BIG5 (Traditional), JIS, SHIFTJIS, UTF-8 / UTF-16BE, Unicode	
Barcode	Linear	UPC-A, UPC-E, Code 39, Code 93, Code 128, GS1-128 (UCC / EAN128), CODABAR (NW-7), ITF, Industrial 2 of 5, NEC Matrix 2 of 5, Matrix 2 of 5, MSI, Customer Barcode, POSTNET, UPC Add-on Code, BOOKLAND, USPS Code, GS1-DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Limited, GS1 DataBar Expanded, GS1 DataBar Expanded Stacked	
	2D Symbolologies	PDF417 Including Micro PDF, Maxi Code, GS1 Data Matrix, Datamatrix (ECC200), QR Code including Micro QR, Aztec code	
	Composite Symbolologies	EAN-8/13 Composite, UPC-A/E Composite, GS1 DataBar (Composite, Truncated Composite, Stacked Composite, Expanded Stacked Composite, Expanded Composite, Stacked Omnidirectional Composite, Limited Composite), GS1-128 Composite, GS1 DataBar Limited Composite (CC-A / CC-B), GS1-128 Composite (CC-A / CC-B / CC-C)	
Print Direction		Character Data and Barcode Rotation: 0°, 90°, 180°, 270°	
User Downloadable Fonts, Graphics or Formats		Max. 1GB	
INTERFACE CHARACTERISTICS AND INTEGRATION			
Interfaces	Standard Interfaces	USB 2.0 High Speed (Type A x 2 / B x 1), LAN (10BASE-T / 100BASE-TX / 1000BASE-T), NFC	
	Optional Interfaces	RS-232C, WLAN (WiFi certified, IEEE802.11a/b/g/n/ac) and Bluetooth Ver 4.1	
Display Panel	4.3 TFT Full Colour (480 x 272), Resistive Touch Display		
Large Status LED	Blue / Red		
Multi-national Language Support	47 Languages and Scalable Print Fonts, 31 Languages for LCD Menu		
Remote Maintenance	SNMP Ver. 3, HTTPs		
Supported Printer Protocols	SBPL (SATO Barcode Printer Language), SZPL, SDPL, SIPL, STCL, SEPL		
OPERATING CHARACTERISTICS			
Power Requirements		Input: AC100V-AC240V±10%, 50/60 Hz, (AC adapter) Output: DC24V ±5.0% 2.7A	
Environment	Operating	0 - 40 °C / 30 - 80 % RH (Non Condensing)	
	Storage	-10 - 60 °C / 15 - 90 % RH (Non Condensing)	
Dimensions	Width 178 mm x Depth 238 mm x Height 214 mm (7.0" x 9.4" x 8.42")		
Weight	3,4kg (7.5 lbs) (TT Model)		
MISCELLANEOUS			
Standards & Agency Approvals		IEC 60950, CE Marking, EN 60950-1, EN55032, EN 55024, RE, Nemko-GS, cMETus, UL60950-1/CSA C22.2 No. 60950-1, FCC 15 (SUB B, C, E), ICES-003, BIS, RCM, CCC, SRRC, KC, SIRIM, IMDA, PTQC, NBTC, DGPT, BSMI, NCC, NTC, EAC, IRAM, ENACOM, ANATEL, NOM, IFT	
Functions - Useful features		Label Wastage Prevention, Media Profile, Auto Clone, SATO RF Analyze (SRA) for UHF RFID, SATO Online Services (SOS), 21 Preset Printer Maintenance Videos, 1GB Available Space for Storage of Customised Videos (Sound Playable with Onboard Speaker)	
Functions - Self Diagnosis Checking		Thermal Head Check, Label End Sensor, Ribbon Near-End and End Sensor, Test Print, Cover Open Detection	
OPTIONS			
Accessories		Cutter, Linerless Cutter, Dispenser Kit, RS-232C Kit, Real-Time Clock, Wireless LAN + Bluetooth Kit, RFID UHF & HF (Coming Soon)	
RFID SPECIFICATION (Optional)			
UHF	Standard	ISO/IEC 18000-63	
HF	Standard	ISO/IEC 15693 & ISO/IEC 14443 Type A/FelCaLite	

Smart printing made simple.



CT4-LX

Next Generation 4" Smart Desktop Printer

For more information, please contact your local SATO office, or visit:

[satoeurope.com](http://satoeurope.com)



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# CT4-LX



## Smart & intuitive mini label printer designed for stress-free usage across diverse worksites

With economic diversification creating skilled labour shortage and increase in job market competitiveness, businesses are facing the common challenge of procuring & retaining human resources. This increases the need to improve productivity using smaller and more diverse teams. Taking our customer needs into consideration, SATO designed CT4-LX to be easy to use for operators of varying skill levels, in a space-saving manner, widely across many sectors and geographic regions.



Simplify label printing and reduce costs with onboard printing intelligence



Enhance accuracy and productivity with easy label management across global operations



Minimise downtime and achieve stable operations with proactive preventative maintenance



Save time and improve efficiency with HF/UHF RFID printing and encoding using SATO RF Analyze

### KEY APPLICATIONS:



Deliver simple and efficient printing on the shop floor where space is at a premium

#### Retail

CT4-LX makes printing on the shop floor simple and efficient in key areas such as ad-hoc price changes & discounts, goods return labelling and stocktaking. With its UHF and HF RFID options, this printer enables retailers to enhance traceability through re-labelling products with RFID labels and tags.

RFID label on tag & Markdown label



Provide peace of mind when traceability, visibility and clear labelling are critical

#### Food Industry

Identification of ingredients, allergens and products, preparation instructions and more are made clear and simple with SATO's printing solutions. CT4-LX helps user save time, money and prevent potential litigation by reducing risk of tainted or spoiled food, alongside significant food waste reduction.

Ingredient label & Food rotation label



Boost efficiency in a complex supply chain

#### Transport & Logistics

Labels required through the supply chain including goods receiving, racks and returned goods labels can be printed efficiently by CT4-LX. It enables user to register media profiles with print settings of commonly printed labels and comes with major competitive emulations for seamless fit into existing workflows.

Shipping label & put-away label



Drive accuracy and efficiency to enhance safety and satisfaction of patients and consumers

#### Healthcare

From patient registration, lab tracking and asset management within healthcare facilities to the manufacturing, dispensing and distribution of pharmaceutical products, this next generation intelligent printer delivers accuracy and efficiency for users and enhances safety of patients and consumers.

Medicine label with GS1 code & Specimen label



# Key Features

## Simple Operation



### Intuitive user experience with 4.3 inch colour touch screen & user-friendly menu

Colour display and simple icons make menu easy to understand and navigate. Menu is available in 31 languages, making it suitable for companies with multi-national users to operate by simply adjusting language settings of printer.



### Onboard guidance videos

Useful for operator training, our onboard guidance videos are also easily accessible when operator encounters error. This helps to speed up troubleshooting to minimise downtime



Guidance video button on red error screen



Guidance video shows step-by-step label loading procedure

## Functional Design

### Hassle-free media & ribbon set up

Wider opening of top cover enables easier loading of labels and ribbons. Rear cover is designed for effortless loading of fanfold media.



Wide opening of top cover for media loading



Fanfold media loading from the rear

### Space-saving & easy to install

CT4-LX occupies smaller installation area compared to other similar models in the market due to its compact size and recessed ports at the back of the printer. Printer installation is more convenient due to easy accessibility of cover open button from the front.

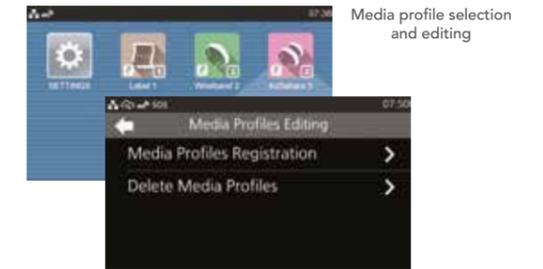


Space-saving recessed ports

## Efficient, Cost-effective

### Easy & efficient print setup with media profile registration

Register settings of commonly printed label types as Media Profiles to appear on home screen for easy selection in future. Enjoy significant time savings and minimise error especially when multiple label types are printed by one printer.



Media profile selection and editing

### Eco-friendly printing with zero label wastage

Label waste prevention function enables user to print from the first label onwards.

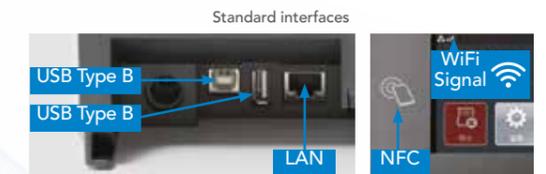


Print from first label onwards

## Flexible, Global-ready

### Enhanced connectivity with multiple interface support

With multiple interfaces, CT4-LX offers enhanced usability as user can easily connect printer to a wide range of external devices.



Standard interfaces

Interface options



Wireless LAN + Bluetooth Kit

RS232-C kit

### Model lineup for various print modes

CT4-LX comes with various optional accessories such as cutter, dispenser, etc. to suit different print modes. The availability of linerless model\* makes this printer an ideal choice for eco-conscious users to use labels with no backing paper.



Cutter model

Dispenser mode

Linerless model

### Suitable for global implementation

CT4-LX is available in most\* countries we serve and comes with 31 display languages and 47 print languages. Ideal for operation across geographic regions, this model is also good for printing labels of a range of languages such as export labels and more.



\* For availability in your market, please contact your local SATO office.

# ✓ SATO Application Enabled Printing



## Expand the scope of your label printing applications with AEP

AEP is a powerful on-board intelligence which enables customisation of printer operations to significantly simplify labelling processes and reduce business costs.

### Leverage CT4-LX large colour touch screen with AEP for intuitive standalone printing



- Minimal equipment needed for printing helps user save installation and maintenance costs.
- Intuitive operation reduces errors and training required for users.



### Easy connectivity to peripheral devices

With easy connectivity of 1D & 2D barcode readers, indicator lights, web cameras and weight scales directly to CT4-LX via Bluetooth or USB, user can perform a wider scope of label printing applications.



### Application Examples:

#### Admission / Entrance ticket printing

Visitor registers for event online and receives a QR code. This QR code is scanned at entrance and organiser issues a ticket printed by CT4-LX.



#### Label printing with weight verification

Weight of item(s) is measured by a scale directly connected to CT4-LX and verified against database. Once weight is verified, printer will issue label for the item(s).



#### Delivery label printing

To self-arrange delivery service for items purchased at retail store, customer scans membership card for CT4-LX to print delivery label.



#### Label printing with operational guidance

Enhance operation speed and accuracy by displaying instructions on CT4-LX colour screen to guide user to apply printed label on the correct area of the product box.

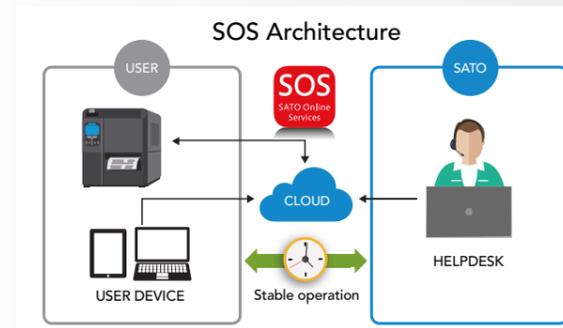


# ✓ IoT Services for Smart Print Management



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

SOS is a service that makes use of IoT to monitor SATO printers at customer sites 24/7 and enable proactive servicing before issues become critical.



- Minimise downtime through proactive preventative maintenance
- Keep all printers visible on dashboard to achieve efficiency
- Use SOS to manage all your IT assets on site

**CUT PRINTER DOWNTIME BY 86%**  
\*Based on survey conducted by SATO in Japan



## Cloud-based data management service

SATO App Storage\* solves customer challenges with managing label printing applications to achieve higher productivity. Enjoy peace of mind and efficiency with up-to-date data anytime, anywhere.



- Keep label data accurate for printing
- Control users with different authority levels
- Track downloads of label printing applications and more!

\* For availability in your market, please contact your local SATO office.



# ✓ RFID



## Bring efficiency and productivity to the next level with CT4-LX RFID model

RFID models are available for users across various sectors to boost the efficiency of their operations and productivity of their workers.

UHF RFID model : Supports ISO/IEC 18000-63  
HF RFID model : Supports ISO/IEC 15693, ISO/IEC 14443 Type A/FeliCa Lite



## Achieve greater stability and time savings in RFID printing and encoding with new SATO RF Analyze function

- CT4-LX RFID model can read and encode RFID labels in UHF and HF bands.
- In order to write labels stably with a printer, individual configuration settings are typically required for each type of RFID label.
- Now with the CT4-LX RFID, SATO RF Analyze enables the printer to read and encode UHF RFID labels automatically for fast, stable encoding.



\* For availability in your market, please contact your local SATO office.