Seiko Instruments

Thermal Printer Division

LTPD/CAPD Series
24 V **Printer** Mechanisms

In today's market product designers are asked to deliver smaller devices with more robust functionality, greater longevity, and enhanced reliability. To succeed products must be priced competitively and time to market is key. Point-of-sale (POS) systems, medical devices, and other products with embedded thermal printers are no exception. Each new generation must do more, cost less, and last longer.

New 24 V LTPD and CAPD series thermal printer mechanisms help engineers meet these challenges. These mechanisms are smaller and more robust, offering industry leading value, backed by critical advancements in design flexibility and reliability.

Small Form Factor

LTPD and CAPD series mechanisms free up critical design real estate. The new mechanisms offer a smaller overall form factor, innovative angled paper guide that requires less depth, and a smaller pitch flexible print circuit (FPC) cable.

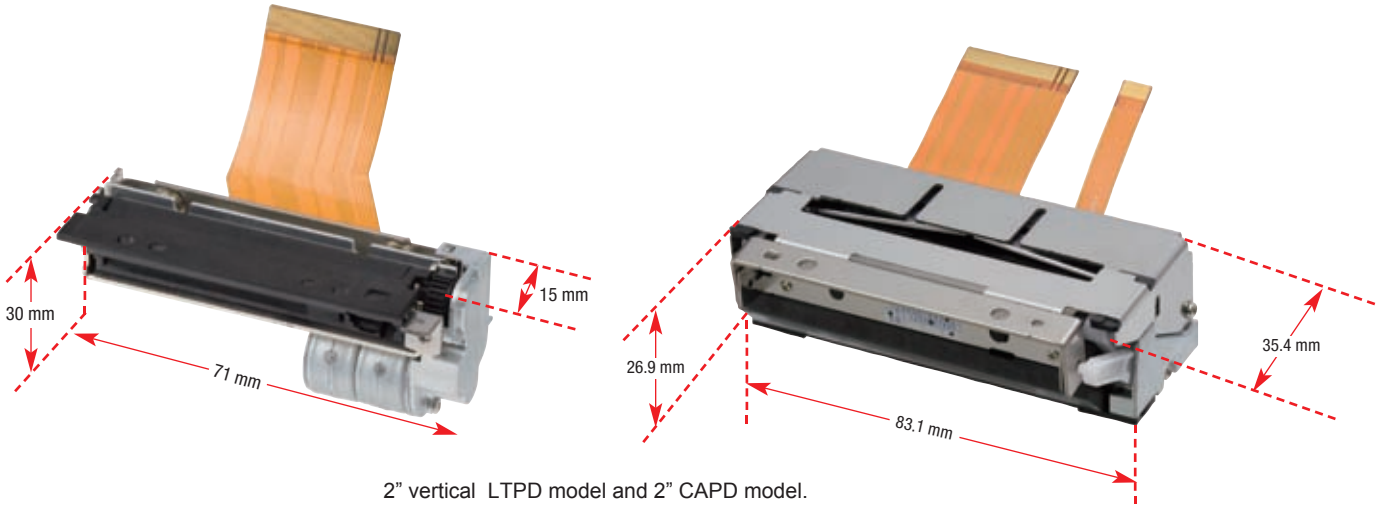
Proven Reliability

LTPD and CAPD models are rated for a minimum of 100 km total printing and 100 million pulses for long life reliability. CAPD models offer a new built-in auto-cutter design, improving cutter reliability. The result: reliable media output, every time.

Design Flexibility

An array of form factor choices provides more flexibility for a smoother integration process. Options include, ASIC and interface board solutions, and both horizontal and vertical mechanical orientation designs.

- **2” and 3” print width models**
- **Choice of horizontal and vertical orientations**
- **EZ-OP clamshell paper replacement**
- **Platen latch for better shock absorption**
- **Available built-in auto-cutter (CAPD models)**



2” vertical LTPD model and 2” CAPD model.

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Product Specifications

Model		LTPD247	LTPD347	CAPD247	CAPD347 UNDER DEVELOPMENT
Printing	Method	Thermal line dot printing			
	Number of dots/line	432	576	432	576
	Resolution(dots/mm)	8			
	Paper width (mm)	58 +0 -1	80 +0 -1	58 +0 -1	80 +0 -1
	Printing width (mm)	54	72	54	72
	Speed (max mm/sec)	200	150	200	TBD
	Paper path	Curved			
Sensors	Head temperature	By thermistor			
	Platen position detection	By mechanical switch			
	Out of paper detection	By photo interrupter			
Power supply (V)	Operating Voltage (Vdd)	2.7 to 3.6 / 4.75 to 5.25			
	Operating Voltage (Vp)	21.6 to 26.4			
Peak current (A)	Head	2.61 (26.4 V/144 dots) 5.23 (26.4 V/288 dots)	2.61 (26.4 V/144 dots) 5.23 (26.4 V/288 dots)	2.61 (26.4V/144dots) 5.23 (26.4V/288dots)	2.61 (26.4V/144dots) 5.23 (26.4V/288dots)
	Motor	0.44	0.4	0.44	TBD
	Cutter motor	-	-	0.55	TBD
Service life	Pulse activation (pulses)	100 million		100 million	
	Abrasion resistance (km)*	100 *		100 *	
Operating temperature (°C)		-10 to 50		-10 to 50	
Dimensions (W x D x H mm)*	Horizontal	71.0 x 30.0 x 15.0 **	91.0 x 30.0 x 15.0 **	83.1 x 35.4 x 26.9 **	TBD
	Vertical	71.0 x 15.0 x 30.0 **	91.0 x 15.0 x 30.0 **		
Mass(g)		Approx. 56	Approx. 64	Approx. 131	TBD
Auto-cutter	Method	-	-	Slide cutting	
	Paper thickness (um)	-	-	54 to 90	
	Cutting type	-	-	Full cut and partial cut (1.5±0.5mm tab left at the center)	
	Operating time (sec/cycle)	-	-	0.5	
	Minimum paper cutting length (mm)	-	-	10	
	Cutting frequency (max cuts/min)	-	-	30	
Life span	Paper cutting (cuts)	-	-	700,000 *	

*Use recommended thermal paper. **Excluding convex section.
Specifications are subject to change without notice.

IF Board Specifications

		IFD001-01UK-E	IFD001-01SK-E
CPU		PTD00P01-E	
Corresponding Model		LTPD247,LTPD347 Series CAPD247,CAPD347 Series	
Operating Voltage (V)		Vp:21.6 to 26.4	
Character matrix (H x W dots)		16 dot characters: 16 x 8, 16 x 16 24 dot characters: 24 x 12, 24 x 24	
Character Type	Optional font	Yes	Yes
	Downloaded character	Yes	Yes
	User-defined character	Yes	Yes
	Extend graphics character set	Yes	Yes
	Katakana character set	Yes	Yes
	Codepage 1252	Yes	Yes
	JIS 1&2 level kanji	Yes	Yes
Communication interface		USB(2.0)	Serial (RS-232C)
Dimensions (W x D x H mm)		69.0 x 50.0 x 14.0	

Optional Cables

Accessory	Product
Power Cable	DC-04100A-E
Switch Cable	OC-D1430A-E
Serial Cable	OC-D0730A-E
USB Cable	IFC-U01-1-E

ASIC Specifications:

	PTD00P01-E
Corresponding model	LTPD247, LTPD347 series CAPD247, CAPD347 series
Package form	120 pin QFP
Operating voltage (V)	Vp:21.6 to 26.4,Vcc:3.0 to 3.6
Operating frequency (MHz)	12MHz±0.01%
Configuration	C-MOS LSI
Communication interface	Parallel, Serial, USB
Character type	Extended graphics character set Other characters available with CGs or external memory
Character matrix (H x W dots)	16 dot characters: 16 x 8, 16 x 16 24 dot characters: 24 x 12, 24 x 24
Dimensions (W x D x H mm)	16.0 x 16.0 x 1.7

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