

AVNET EMBEDDED SPECIFICATION.

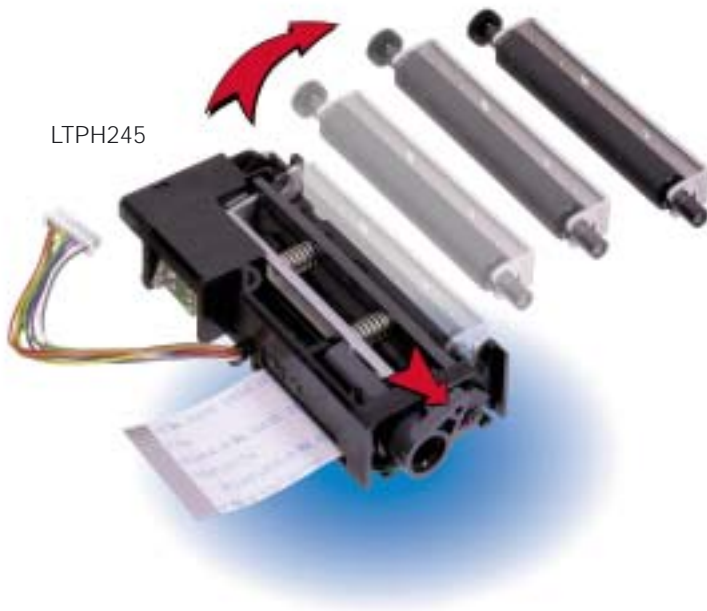
Datasheet Seiko Instruments LTPH245

LTP Series

LTPH245 PRINTER

The LTPH245 presents the first "Easy-Paper-Operation" thermal line dot printer. It combines compact design, high-speed and high resolution thermal line dot printing with paper installation easier than ever before due to its mobile platen roller. By only pushing the release lever, the platen can be completely released and then firmly re-adjusted to evenly press the paper to the thermal head. The LTPH245 can be used with measuring instruments and analysers, various POS applications as well as communication and data terminal devices. Furthermore, it is a maintenance-free mechanism which also features low-current consumption to support portable devices such as hand-held terminals.

- High resolution printing (8 dots/mm)
- High speed, low voltage printing (25 mm/s @ 5V, 56,25mm/s @ 7.2V, 60 mm/s @ 8.0V)
- Battery operation of 4 to 6 cells Ni-MH / Ni-Cd batteries or 2 cells of lithium-ion batteries for hand-held applications
- Low 4.2V to 8.5V power supply operation
- Improved operability of paper installation and head cleaning by release lever operation
- Compact and lightweight (approx. 46g)
- Low noise thermal line dot printing
- Design to fit easily into the outer case (reduced number of outer case parts)



Model		LTPH245
Printing	Method	Thermal line dot system
	No. of dots/line	384
	Resolution	8 dots/mm
	Width (mm)	48
	Paper feed pitch (mm)	0.125
	Speed (mm/s)	25.0 @ 5.0V, 56.25 @ 7.2V, 60 @ 8.0V
Detection	Head temperature	By thermistor
	Platen position detection	By mechanical switch
	Out-of-paper detection	By photo interrupter
Dimensions (WxDxH) mm ¹		76.8x38.0x16.0
Weight (g) ²		46
Power Supply	Operating voltage ³	Vdd line: 4.5V to 5.5V; Vp line: 4.2V to 8.5V
	Current consumption (average) ⁴	2.1 Max.@5V, 3.0 Max.@7.2V, 3.3 Max.@8.0V
Service life	Pulse activation	min. 100 million pulses (12.5% print ratio)
	Abrasion resistance	50 km or more
Operating temperature (°C)		-5 to 50
Storage temperature (°C)		-25 to 60
Paper	Width (mm)	58 +0/-1
	Path	Curve
	Paper feed force	0.49N (50gf) or more
	Paper hold force	0.78N (80gf) or more
	Thickness	75µm

¹ Dimensions exclude those of the lever and platen frame

² Weight includes all parts

³ Equivalent to four through six Ni-Cd or Ni-MH batteries, or two Lithium-ion batteries

⁴ When the number of simultaneously activated dots is specified as 64

CUTTER, INTERFACE BOARD & CPU

ACUH205A AUTO CUTTER

The ACUH205A series is a compact and light-weight circular cut type automatic cutter developed for the LTPH245 printer mechanism. ACUH205A has partial cut.

IFH002-01B INTERFACE BOARD FOR LTPH245

The IFH001-01B is an interface board designed for the LTPH245 and ACU. It processes data obtained from a host device, converts it and transfers it to the LTPH245. The interface is compatible with both parallel and serial data input. It prints characters and bit images as well as extended graphic character sets. IFH002-01B also outputs internal test patterns and gives information about the status of the printer.

PTH01P02 CPU FOR LTPH245

- Individual design-in for various applications
- Firmware to control the printer
- Supports serial and parallel input
- Less current printing by division control according to the number of dots to be activated
- Reduction of current consumption and motor heating by PWM control
- Ensures high quality printing by automatically adjusting the print density according to temperature and voltage
- Superimposing of character data and bit image data

Model	ACUH205A
Cut method	Circular cutter type
Cut width (mm)	58 +0/-1
Paper thickness (µm) ¹	60 to 80
Paper roll direction tendency	Optional
Cut condition	Partial cut
Drive voltage	Motor 4.2 to 8.5 V
	Detector 5.0 V +/-10%
Operating time (ms/cycle)	0.8 sec. at 5.0V, 25 °C
Cut frequency (cuts/minute)	3.0 sec./cycle minimum
Operational life (cuts)	500
Operating temperature (°C)	-5 to +50
humidity	40°C 85%RH or 50°C 35%RH (no condensation)
Storage temperature (°C)	-25 to +70
humidity	50°C 90%RH (no condensation)
External dimension (WxDxH) ²	91.0 x 47.6 x 12.7
Weight (g)	46

¹ External diameter of paper core or internal diameter of paper roll must be 20mm or more.
Paper with a strongly rolled edge may not feed the paper outlet.

² Excluding projection

Model	IFH002-01B	
Character type	Extended graphics character set	
	Downloaded character	
	Optional font	
	User-defined character	
Character configuration	16-dot	24-dot
	Standard size character 16x8	24x12 ¹
	Kanji size character 16x16	24x24 ¹
Input control method	Parallel (modified Centronics)	
	Serial (TT Level)	
Operating voltage range	Vcc 5V +/- 10%	
	Vp 4.2V to 8.5V	
Current consumption (Icc) ²	Stand by 30mA max.	
	Printing 100mA max.	
Operating temperature (°C)	0 to +50	
Storage temperature (°C)	-20 to +60	
Dimensions (WxDxH) mm	70.0x70.0x11.3	
Weight (g)	29	

¹ The default value is changeable through commands

² Vcc = 5V, 25°C, no error, and when input/output terminal is not connected

Model	PTH01P02	
Applicable printer	LTPH245	
Character configuration	16 dot	24dot
	Extended graphics character set 16x8	24x12 ¹
Downloaded character	16x8	24x12 ¹
User-defined character	16x16	24x24 ¹
Input control method	Parallel (Centronics)	
	Serial (TTL Level)	
Operating voltage	Vcc 5V +/- 10%	
	Vp 4.2V to 8.5V	
Operating frequency	5MHz +/- 0.5%	
Current consumption ²	Standby 30mA max.	
	Printing 100mA max.	
Operating temperature (°C)	-5 to +50	
Storage temperature (°C)	-20 to +60	

¹ The default value is changeable through commands

² Vcc = 5V, 25°C, no error, and when input/output terminal is not connected

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