LTP Series

LTPH243 PRINTER

LTPH243 presents the first low power-supply mechanism by Seiko Instruments supplementing the easy paper operation line. Using only 3V (voltage range from 2.7 to 5.6V) and due to its comfortable battery drive of only one lithium-ion or, alternatively, three Ni-MH / Ni-Cd batteries, LTPH243 is an ideal print mechanism for all portable devices such as handheld terminals in the EFT-POS market. The LTPH243 thermal printer combines extraordinary compact design and high-speed, high resolution thermal line dot printing with easiest paper installation. A lock arm either holds the platen or opens it when pushing the release lever. In addition, two springs guarantee an even pressure between thermal head and platen roller. LTPH243 is applicable for electronic cash registers, measuring instruments and analysers, various POS applications as well as communication and data terminal devices.

- High resolution printing (8 dots/mm)
- High speed, low voltage printing (30 mm/s @ 3.6V, 40.5mm/s @ 4.2V, 55.0 mm/s @ 5.6V)
- Battery operation of 3 cells Ni-MH / Ni-Cd batteries or 1 cell of lithium-ion batteries for hand-held applications
- Low 2.7 to 5.6V 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)

LTPH243

Model		LTPH243
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)	30.0 @ 3.6V, 40.5 @ 4.2V, 55.0 @ 5.6V
Detection	Head temperature	By thermistor
	Platen position detection	By mechanical switch
	Out-of-paper detection	By photo interrupter
Dimensions (WxDxH) mm[1]		76,8 x 38.0 x 16.0
Weight (g)[2]		46
Power Supply	Operating voltage[3]	Vdd line: 3.0V to 3.6V; Vp line: 2.7V to 5.6V
	Current consumption (average)[4]	2.2 Max. @ 3.6V, 3.4 Max. @ 5.6V, 2.5 Max. @ 4.2V
Servie 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 +70
Paper	Width (mm)	58 +0/-1
	Path	Curved
	Paper feed force	0.49N (50gf) or more
	Paper hold force	0.78N (80gf) or more

1 Dimensions exclude those of the lever and platen frame
2 Weight includes all parts
3 Equivalent to three Ni-Cd or Ni-MH batteries, or one Lithium-ion battery
4 When the number of simultaneously activated dots is specified as 64

INTERFACE BOARD & CPU

IFH301-01B INTERFACE BOARD FOR LTPH243

The IFH301-01B is an interface board designed for the LTPH243. It processes data obtained from a host device, converts it and transfers it to the LTPH243. The interface is compatible with both parallel and serial data input. It prints characters and bit images as well as extended graphic character sets. IFH301-01B also outputs internal test patterns and gives information about the status of the printer.

PTH30P01 CPU FOR LTPH243

- Operating voltage of 3V to support 3.3V micro-controllers
- Individual design-in for various applications
- 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	IFH301-01B	
Character type	Extended graphics character set	
	Downloaded character	
	Optional font	
	User-defined character	
Character configuration	16-dot	24-dot
Standard size character	16x8	24x12
Kanji size character	16x16	24x24
Input control method	Parallel (modified Centronics)	
	Serial (C-MOS Level)	
Line spacing	16 dots [1]	
Character spacing	4 dots [1]	
Operating voltage range		
Vcc	3.3+/- 0.3V	
Vp	2.7V to 5.6V	
Current consumption (Icc)[2]		
Stand by	15mA max.	
Printing	25mA max.	
Operating temperature (°C)	0 to +50	
Storage temperature (°C)	-20 to +60	
Dimensions (WxDxH) mm	70.0x70.0x12.1	
Weight (g)	29	

[1] The default value is changeable through commands
[2] 2 Vcc=3.3V, 25°C, no error, and when input/output terminal is not connected

Model	PTH30P01	
Applicable printer	LTPH243	
Package type	80 pin flat package	
Dimension (WxDxH) mm	17.2x17.2x1.7	
Configuration	C-MOS LSI	
Character configuration	16 dot	24dot
Extended graphics character set	16x8	24x12[1]
Downloaded character	16x8	24x12[1]
User-defined character	16x16	24x24[1]
Operating voltage		
Vcc	3.3V +/- 0.3V	
Vp	2.7V to 5.6V	
Operating frequency	5MHz +/- 0.5%	
Current consumption[2]		
Standby	15mA max.	
Printing	25mA max.	
Operating temperature (°C)	-5 to +50	
Storage temperature (°C)	-20 to +60	

[1] The default value is changeable through commands
[2] Vcc=3.3V, 25°C, no error, and when input/output terminal is not connected

Specifications subject to change without notice.