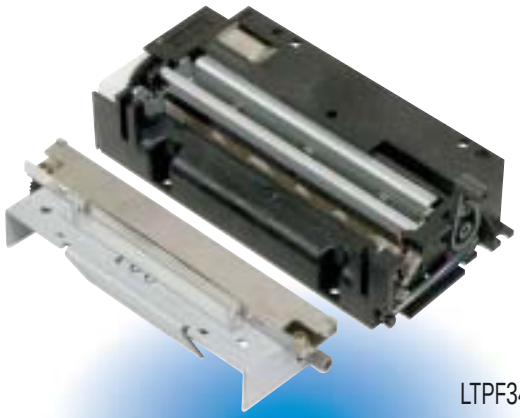
# LTP Series

## LTPF247/LTPF347 PRINTERS

LTPF247 and LTPF347 are new 2" and 3" thermal line dot printer mechanisms which add up to the "Easy-Paper-Operation" product-line. A printing speed of 220mm/s and a very robust construction are outstanding features of this series. The mechanisms are especially designed for various POS - applications as well as for applications where a quick print-out is needed such as ticketing or ATMs. As to peripherals, a serial and parallel interface, an autocutter with full-cut and half-cut function as well as a winderunit are available.



LTPF347

LTPF247

- Super high speed printing of max. 220mm/s
- "Easy-Paper-Operation" with latch function
- High resolution printing of 8dots/mm
- Long life of 100km print length/100 million pulses
- Low noise printing
- Easy thermal head cleaning by removable platen

| Model | | LTPF247 | LTPF347 |
|---|---|---|---|
| Printing | Method | Thermal line dot printing | |
| | No. of dots/line | 448 | 640 |
| | Printable dots per line | 432 | 576 |
| | Common activatable dots/line | 248 | 352 |
| | Resolution (mm) | 8 dots | |
| | Width (mm) | 54 | 72 |
| | Speed (mm/s)[1] | 220 | |
| | Paper feed pitch (mm) | 0.125 | |
| Detection | Head temperature | By thermistor | |
| | Platen position detection | By mechanical switch | |
| | Out-of-paper detection | By photo interrupter | |
| Dimensions (WXDXH) mm[1] | | 86.2 x 54 x 25.8 | 110.2 x 54 x 25.8 |
| Weight (g) | | apprx. 150 | apprx. 175 |
| Power supply | Operating voltage | Vp line: 24V +/- 10%; Vdd line: 5V +/- 5% | |
| | Current consumption[2] | max.10.4A @ 26.4V; max. 9.2A @ 24V | max.14.8A @ 26.4V; max.13.0A @ 24V |
| Service life | Pulse activation | 100 million pulses or more | |
| | Abrasion resistance | 100km or more | |
| Operating temperature (°C) | | 0 to +50 | |
| Storage temperature (°C) | | -20 to +60 | |
| Paper | Width (mm) | 58 | 80 |
| | Paper feed force | 0.98N (100gf) or more | |
| | Paper hold force | 0.98N (100gf) or more | |
| | Thickness | 80 µm | |

[1] Print speed changes according to the processing of the controller and print pulse width

[2] When heat resistance is 630.5 Ω and the fixed two-division printing is used

## CUTTER, INTERFACE BOARD & CPU

### ACUF224 AND ACUF324 AUTOCUTTER

The ACUF series is a compact and lightweight sliding type automatic cutter developed for the LTPF series printer mechanisms. ACUF224A, ACUF224B, ACUF324A and ACUF324B are freely adjustable and garantee free paper setting by separating fixing and movable blade.

### IFF001-01B INTERFACE BOARD FOR LTPF247 AND LTPF347

The interface IFF001-01B is an interface used with LTPF series printers. It processes and converts data input sent from a host device. The IFF001-01B is compatible with both parallel and serial data input. It prints extended character sets as well as bit images. Furthermore, the interface provides an output of internal test patterns and informs about the status of the printer.

### PTF00P01 CPU FOR LTPF247 AND LTPF347

- For individual design-in into various applications
- Drives LTPF247 and LTPF347 printer mechanisms
- Supports both parallel and serial input
- Provides high quality printing by automatically adjusting print density according to temperature and voltage
- Reduces current consumption using the power saving function
- Registers and prints any font using the downloaded character function and the user-defined character function
- Downloaded characters, user-defined characters, option fonts, character strings, stamps etc. can be stored in external ROM
- Prints barcodes using the barcode print function

| Model | ACUF224A/B | ACUF324A/B |
|---|---|---|
| Cutting Method | sliding type | |
| Applicable paper width (mm) | 60 | 82 |
| Cutting Condition | Partial/full cut | Partial/full cut |
| Applicable paper thickness (µm) | 60 to 80 | |
| Paper curling direction tendency | Fixing blade side | |
| Drive voltage:<br>Motor<br>Detector | <br>24V+/-10%<br>5V+/-5% | |
| Startup current | max. 1.2A | |
| Minimum paper cutting length (mm) | 10 | |
| Operating time | 600 msec max./cycle | |
| Cutting frequency | max. 30 cuts/minute | |
| Operational life | 500.000 cuts | |
| Operating temperature (°C) / | 0 to 50 | |
| humidity | 35% to 90% | |
| Storage temperature (°C) / | -20 to 60 | |
| humidity | 35% to 90% | |
| External dimensions (mm) (WxDxH) | 80 x 64 x 19 | 102 x 64 x 19 |
| Mass (g) | 130 | 150 |

| Model | IFF001-01B | |
|---|---|---|
| Application | LTPF series printer mechanism | |
| Character type | Extended graphics character set<br>Downloaded characters<br>User-defined characters | |
| | Optional font | |
| Character configuration<br>Standard size character<br>Kanji size character | 16-dot<br>16x8<br>16x16 | 24-dot<br>24x12<br>24x24 |
| Input control method | Parallel<br>Serial | |
| No. of characters/line[1] | 27 (LTF247), 36 (LTPF347) | |
| Line spacing | 16 dots[2] | |
| Character spacing | 4 dots[2] | |
| Maximum print speed[3] | 220 mm/s | |
| Operating voltage range<br>Vcc<br>Vp | <br>5V+/-10%<br>24V+/-10% | |
| Current consumption (Icc)[4]<br>Printing<br>Stand by | <br>0.30A max.<br>0.15A max. | |
| Operating temperature (°C) | 0 to +50 | |
| Storage temperature (°C) | -20 to +60 | |
| Dimensions (WxDxH) mm | 80 x 100 x 19.6 | |
| Weight (g) | appr. 50 | |

1 24-dot standard size character, character spacing 4 dots
2 The default value is changeable through commands
3 25°C, fixed 2-block division, 24-dot font and 27 characters or less, 16-dot line spacing, and 4-dot character spacing
4 Vcc = 5V, 25°C, no error, when no input/output terminal is connected

| Model | PTF00P01 | |
|---|---|---|
| Applicable printer | LTPF247 | LTPF347 |
| Package type | 144 pin flat package | |
| Dimension (WxDxH) mm | 22.0 x 22.0 x 3.05 | |
| Configuration | C-MOS LSI | |
| Character type | Extended graphics character set<br>Katakana character set[1]<br>JIS 1st and 2nd level Kanji, Chinese, Korean[1]<br>Downloaded characters[2]<br>User-defined characters<br>Option font[2] | |
| Input control method | Parallel<br>Serial | |
| Operating voltage<br>Vcc<br>Vp | <br>5V+/-10%<br>24V+/-10% | |
| Operating frequency | 27 MHz+/-0.5% | |
| Current consumption[3]<br>Printing<br>Standby | <br>230mA<br>20µA | |
| Operating temperature (°C) | 0 to +50 | |
| Storage temperature (°C) | -20 to +60 | |

1 To print Kanji / Katakana characters, the Japanese CG (PTJCG2) is necessary. To print Chinese / Korean characters, the respective CGs for Chinese and Korean are necessary
2 External RAM or ROM must be needed
3 Vcc = 5V, 25°C, no error, when input/output terminal is not connected

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