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# 24 V DRIVE, FTP-607 SERIES

## HIGH SPEED THERMAL PRINTER

### 2-INCH TYPE EASY LOAD MECHANISM

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## FTP-627MCL101/103/113

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#### ■ OVERVIEW

The FTP-607MCL Series thermal printer (driven by 24VDC) provides ultra-high speed printing (100mm/s) for 2-inch and 3-inch wide paper. Our original platen removal mechanism allows easy paper loading and maintenance.

The FTP-607 MCL series can be used for a variety of applications, such as POS/ECR, Kiosk terminals, banking terminals, and measurement and medical equipment.



#### ■ HIGHLIGHTS

- **Compact size**  
Height 15.5 mm, width 70.4 mm, depth 33.0 mm for the 2 inch model. The 3-inch product has a width of 92.4mm.
- **High speed printing**  
It can print at 100 mm/s (800 dotlines/s) maximum by using Fujitsu's head drive control.
- **Easy loading mechanism (ELM) type**  
Our detachable platen removal mechanism improved paper loading and maintenance.
- **Multi-featuring diecast fame**  
By application of multi-featuring diecast frame, continuous print by function of heat-sink, high ESD stand by function of earth frame and shock/vibration stand by function of solid frame are valid.
- **High resolution printing**  
8 dots/mm of resolution printing is possible.
- **RoHS compliant**

# FTP-627MCL101/103/113

## ■ PART NUMBERS

Name		Part Number
Printer Mechanism		FTP-627MCL101 (without platen detect switch) FTP-627MCL103 (with platen detect switch) FTP-627MCL113 (with platen bracket and detect switch)
LSI		FTP-627CU201
Interface Board	parallel	FTP-627DCL218
	serial	FTP-627DSL238
Interface Cable (board to mechanism)	Centronics	FTP-628Y202
	RS-232C	FTP-628Y302
Power supply cable	logic	FTP-629Y401
	head, motor	FTP-629Y601

## ■ SPECIFICATIONS

Item	Specifications	
Part number	FTP-627MCL101/103	FTP-627MCL113
Printing method	Thermal-sensitive line dot method	
Dot structure	384 dots/line	
Dot pitch (Horizontal)	0.125 mm (8 dots/mm)—Dot density	
Dot pitch (Vertical)	0.125 mm (8 dots/mm)—Line feed pitch	
Effective printing area	48 mm	
Number of columns	ANK 32 columns/line (max.12x 24 dot font)	
Paper width	58 mm <sup>+0</sup> <sub>-1</sub>	
Paper thickness	60 to 100 μm (some paper in this range may not be used because of paper characteristics)	
Printing Speed	Maximum 100mm/sec. (800 dot line/sec.)	
Character types	Alphanumeric, katakana: International and special characters: JIS Kanji (supported when Kanji CG is mounted):	159 types 195 types about 6800 types
Character, dimensions (H×W), number of columns	(1.5 × 3.0mm) (3.0 × 3.0mm) (1.0 × 2.0 mm) (2.0 × 2.0 mm)	12 × 24 dots, 32 columns: ANK 24 × 24 dots, 16 columns: ANK, Kanji 8 × 16 dots, 48 columns: ANK 16 × 16 dots, 24 columns: ANK, Kanji

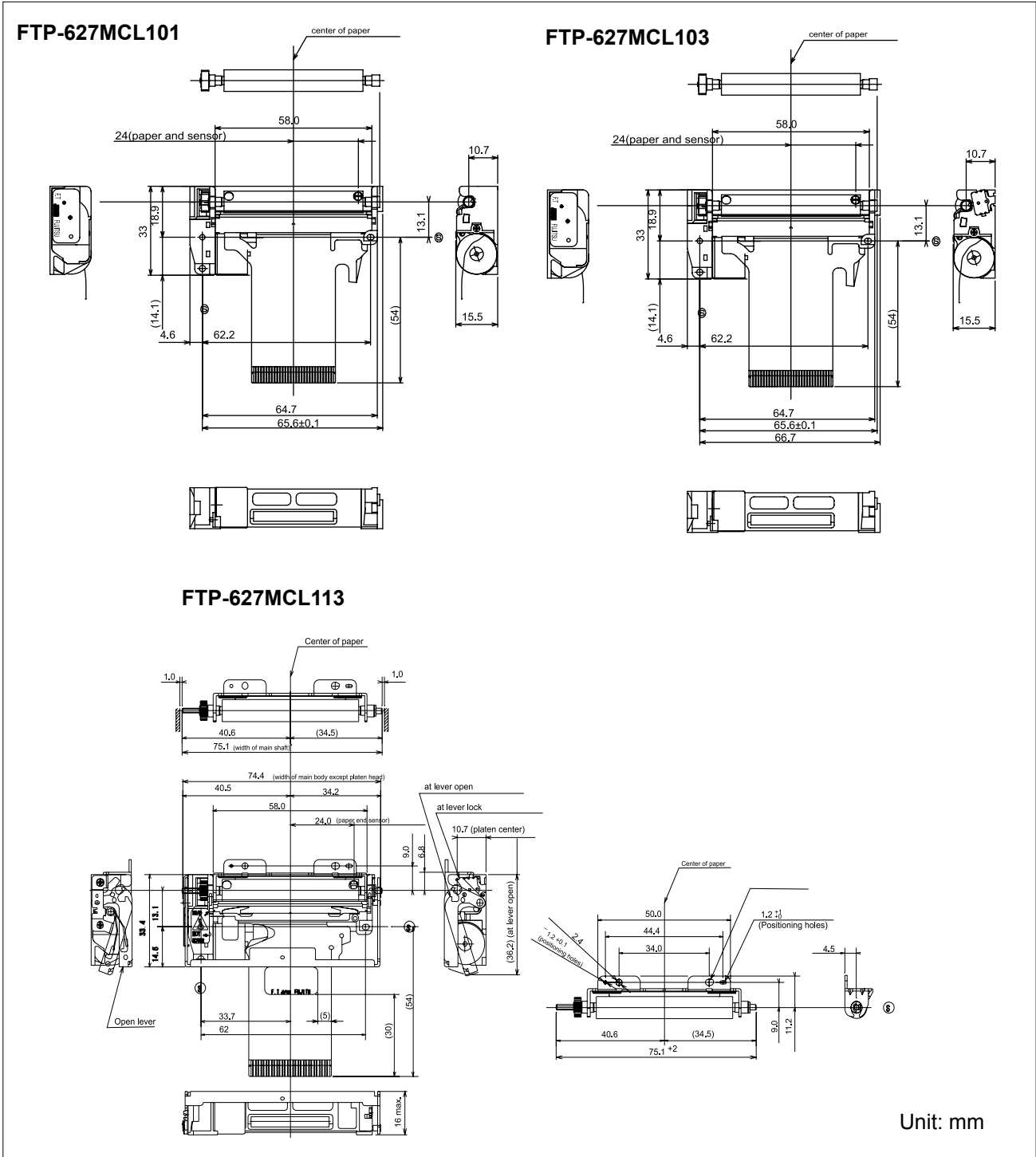
## ■ SPECIFICATIONS

Item		Specification	
		FTP-627MCL101/103	FTP-627MCL113
Interface		Conforms to RS232C / Centronics	
Operating Voltage	For print head	24 VDC $\pm$ 5%, 1.0 A average (1.5A peak) 24V, 25% printing ratio	
	For motor	24 VDC, 1 A maximum	
	For logic	3.3 to 5.25 VDC $\pm$ 5%, 0.1 A maximum	
Dimensions	Printer mechanism	72.4 x 33.0 x 15.5 mm (WxDxH)	75.0 x 33.4 x 15.5 mm (WxDxH)
	Interface board	70 x 60 x 11.6 mm (WxDxH)	
Weight	Mechanism	Approximately 42g	Approximately 54g
	Interface board	Approximately 55g	
Life	Head	Pulse resistance: 50 million pulses/dot (under our standard conditions). Abrasion resistance: paper traveling distance 50km (print ratio: 25% or less)	
	Platen open	5,000 times	
Operating environment	Operating temperature	0° C to +50° C*1	
	Operating humidity	20 to 85% RH (no condensation)	
	Storage temperature	-20° C to +60° C (paper not included)	
	Storage humidity	5 to 95% RH (no condensation)	
Detection function	Head temperature detection	Detected by thermistor	
	Paper out/mark detection	Detected by photo-interrupter	
	Platen release detection	Detected by slide switch (103/383 only)	
Recommended thermal sensitive paper		High Sensitive Paper	TF50KS-E4 (Nippon Paper)
		Standard paper:	TF60KS-E(Nippon Paper), FTP-020PU001 (58mm), PD105R (Oji Paper), FTP-020P0701 (58mm)
		Medium Life Paper	TF60KS-F1, FTP-020P0102 (58mm), PD170R (Oji Paper), P220VBB-1 Mitsubishi Paper)
		Long Life Paper	PD160R-N (Oji Paper), AFB-235 (Mitsubishi Paper), TP50KJ-R (Nippon Paper), HA220AA (Nippon Paper)

\*1: printing density assurance range, operation is possible at -25°C to +70°C

## ■ DIMENSIONS

### 1. Printer mechanism



## ■ CONNECTOR PIN ASSIGNMENT OF MECHANISM (FPC)

### 1. Thermal Head

Part number : 52610-3071 Molex or equivalent

#### FTP-627MCL101/103 PIN ASSIGNMENT

No	Signal	I/O	Contents
1	PHK	—	Photointerrupter (Cathode)
2	VSEN	—	Ground power supply for paper sensor
3	PHE	O	Photointerrupter (Emittor)
4	SW	—	Platen open switch
5	SW	O	Platen open switch
6	VH	I	Power supply for thermal head
7	VH	I	
8	VH	I	
9	DI	I	Print data in
10	$\overline{\text{STB3}}$	I	Strobe 3
11	VDD	I	Power for logic
12	TH	O	Thermistor
13	GND	—	Ground power supply for thermal head
14	GND	—	
15	GND	—	
16	GND	—	
17	GND	—	
18	GND	—	
19	$\overline{\text{STB1}}$	I	Strobe 1
20	$\overline{\text{STB2}}$	I	Strobe 2
21	$\overline{\text{LAT}}$	I	Print data latch
22	CLK	I	Clock
23	NC	—	Not connected
24	VH	I	Power supply for thermal head
25	VH	I	
26	VH	I	
27	MT A	I	Stepping motor excitation signal
28	$\overline{\text{MT A}}$	I	
29	MT B	I	
30	$\overline{\text{MT B}}$	I	

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