

# 24V DRIVEN, FTP-607 Series

# 2" HIGH SPEED THERMAL PRINTER

## FTP-627MCL353/354 #01 / #02

### ■ OVERVIEW

The FTP-627 MCL Series are 24V driven high-speed printers with a 2-inch paper width equivalent.

The FTP-627 MCL Series can be used for a variety of applications, such as portable terminals, POS, banking terminals, and measurement and medical equipment.

### ■ HIGHLIGHTS

- **Ultra compact**  
Height 26.4 mm, width 83.5 mm, depth 43.0 mm
- **High speed printing**  
It can print at 100 mm/s (800 dotlines/s) maximum by using Fujitsu's unique head drive control.
- **Auto Cutter**  
Full cut type (#01) and partial cut type (#02) printers are available.
- **Easy paper setting**  
Our unique platen release mechanism allows a wide paper route even if the printer is ultra-compact, so paper can be easily inserted. Conventional auto loading is also available.
- **RoHS Compliant**



FTP-627MCL353

## ■ PART NUMBERS

	Part Number
Printer mechanism with Cutter	FTP-627MCL353#01 (front paper insertion, full cut type) FTP-627MCL353#02 (front paper insertion, partial cut type) FTP-627MCL354#01 (bottom paper insertion, full cut type without knob) FTP-627MCL354#02 (bottom paper insertion, partial cut type without knob)
LSI for driving	FTP-627CU201 (ANK only)

Note: #01 is for full cut, #02 is for partial cut

## ■ SPECIFICATIONS

Item	Specifications
Part number	FTP-627MCL353 #01/#02 / FTP-627MCL354#01/#02
Printing method	Thermal-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 (maximum 12 x 24 dot font)
Paper width	58 mm
Paper thickness	60 to 80 $\mu$ m (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, kana: 159 types International characters: 195 types JIS Kanji (Kanji CG loaded board): about 6800 types
Character, dimensions (W×H), number of columns	12 × 24 dots, (1.5 × 3.0 mm), 32 columns: ANK 24 × 24 dots, (3.0 × 3.0 mm), 16 columns: ANK 8 × 16 dots, (1.0 × 2.0 mm), 48 columns: ANK 16 × 16 dots, (2.0 × 2.0 mm), 24 columns: ANK

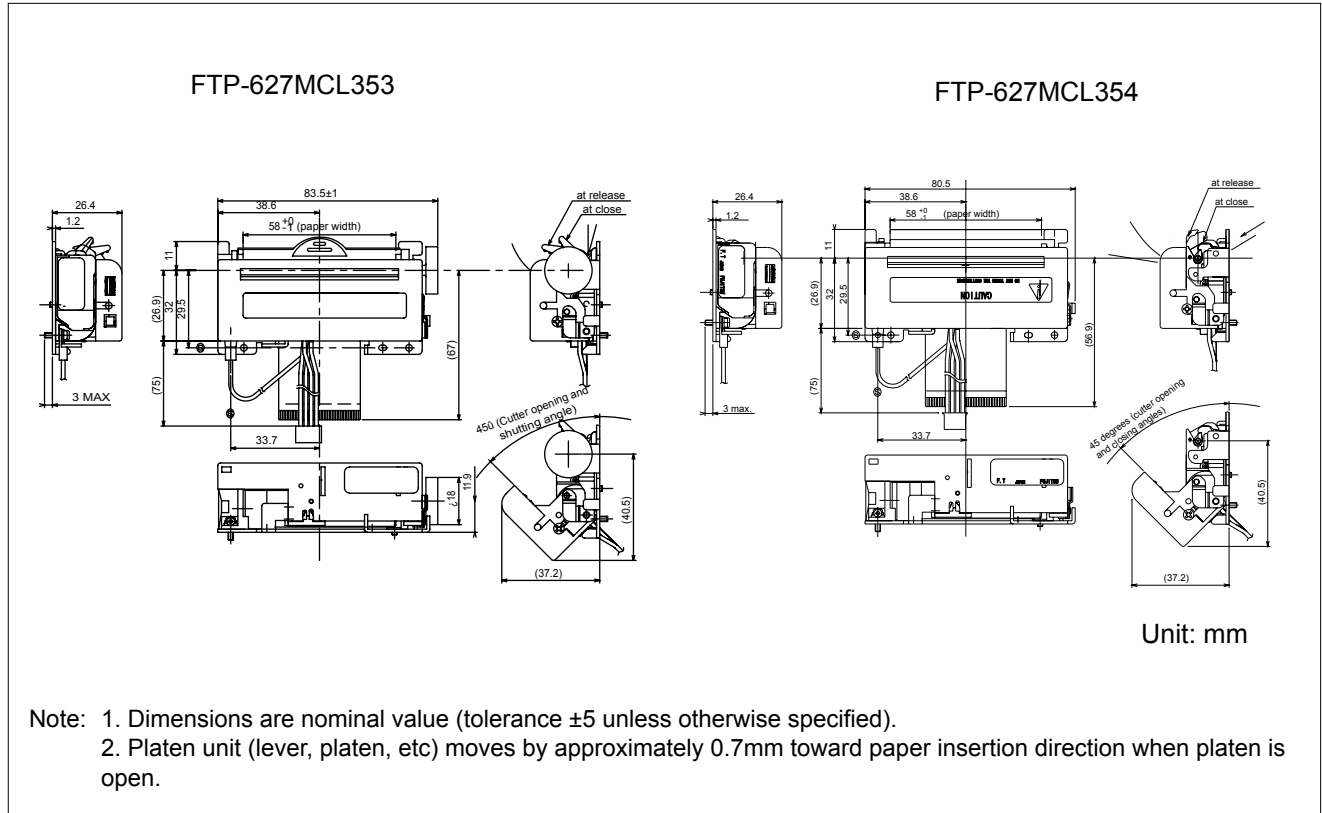
## ■ SPECIFICATIONS

Item		Specification	
		FTP-628MCL353	FTP-628MCL354
Interface		Conforms to RS232C / Centronics	
Power supply	For print head	24 VDC average current, 1.5A (2.2A peak) (print ratio: 25%, print speed: 100mm/sec. )	
	For motor	24 VDC ± 5%, 1A maximum	
	For cutter	5 VDC ± 5%, 1A maximum	
	For logic	3.3 to 5.25 VDC ± 5%, 0.1 A maximum	
Dimensions	Mechanism with cutter	83.5 x 43.0 x 26.4 mm (WxDxH)	80.5 x 43.0 x 26.4 mm (WxDxH)
Weight	Mechanism with cutter	Approximately 120g	
Life	Head	Pulse resistance: 50 million pulses/dot (under our standard conditions); Abrasion resistance: paper traveling distance 50km (print ratio: 12.5% or less)	
	Cutter	300,000 cuts	
Operating environment	Operating temperature*	0° C to 50° C	
	Operating humidity	20 to 85% RH (no condensation)	
	Storage temperature	-20° C to +60° C (paper not included)	
	Storage humidity	5 to 90% RH (no condensation)	
Detection function	Head temperature detection	Detected by thermistor	
	Paper out/mark detection	Detected by photo-interrupter	
	Platen release	Detected by sliding switch	
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)

\*+5°C to +40°C printing density assurance range.

## ■ DIMENSIONS

### 1. Printer mechanism



## 1. Connector (FPC) specification (CN4)

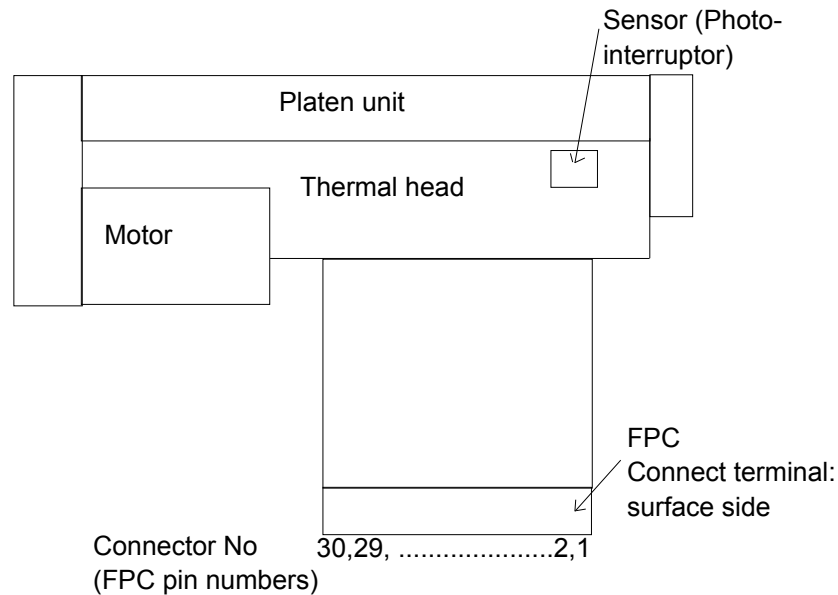
### (1) Connector

Mechanical unit side: FPC connector

Remote side (housing site): 52610-3071 (made by Molex)

### (2) Pin assignment on the mechanical side

No	Signal	I/O	Contents
1	PHK	—	Photointerrupter (Cathode)
2	VSEN	I	Ground power supply for paper sensor
3	PHE	O	Photointerrupter (Emitter)
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	NC	—	Not connected
10	CLK	I	Clock
11	$\overline{\text{LAT}}$	I	Print data latch
12	$\overline{\text{STB2}}$	I	Strobe 2
13	$\overline{\text{STB1}}$	I	Strobe 1
14	GND	—	Ground power supply for thermal head
15	GND	—	
16	GND	—	
17	GND	—	
18	GND	—	
19	GND	—	
20	TH	O	Thermistor
21	VDD	—	Power for logic
22	$\overline{\text{STB3}}$	I	Strobe 3
23	DI	I	Print data in
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	



## 2. Cutter (CN5)

Connector on control circuit side: B4B-PH-K-S (J.S.T. or equivalent)

No.	Signal	I/O	Contents	No.	Signal	I/O	Contents
1	SW1	-	Cutter position detect switch	2	SW2	-	Home position detect switch
3	M+	O	Stepping motor coil excitation	4	M-	I/O	Stepping motor coil excitation

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 Rev. February 26, 2009.