FUJITSU   THE POSSIBILITIES ARE INFINITE

24V DRIVEN, FTP-607 Series
2" HIGH SPEED THERMAL PRINTER

FTP-627MCL053/054

■ OVERVIEW

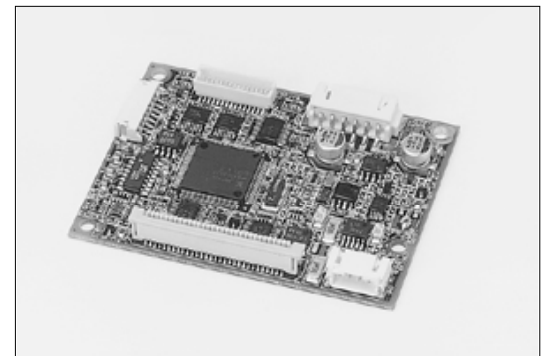The FTP-627 MCL Series are 24V driven high-speed printers with a 2-inch paper width equivalent.

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

■ HIGHLIGHTS

- **Ultra compact**
  Height 15.5 mm, width 83.5 mm, depth 35.7 mm

- **High speed printing**
  It can print at 100 mm/s (800 dotlines/s) maximum by using Fujitsu's unique head drive control.

- **Two types of paper routes**
  Front or bottom feed.

- **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.

FTP-627MCL053/054

FTP-627DSL238

■ **PART NUMBERS**

Item		Part Numbers
Printer mechanism with Cutter		FTP-627MCL053 (front paper insertion) FTP-627MCL354 (bottom paper insertion)
LSI for driving		FTP-627CU201 (ANK only)
Interface Board	Parallel	FTP-627DCL218 (Centronics)
	Serial	FTP-627DSL238 (RS 232C)
Interface cables	Parallel	FTP-628Y202
	Serial	FTP-628Y302
Power cable	Logic	FTP-629Y401
	Head, motor	FTP-629Y601

■ **SPECIFICATIONS**

Item	Specifications
Part number	FTP-627MCL053/054
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 100 μ 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

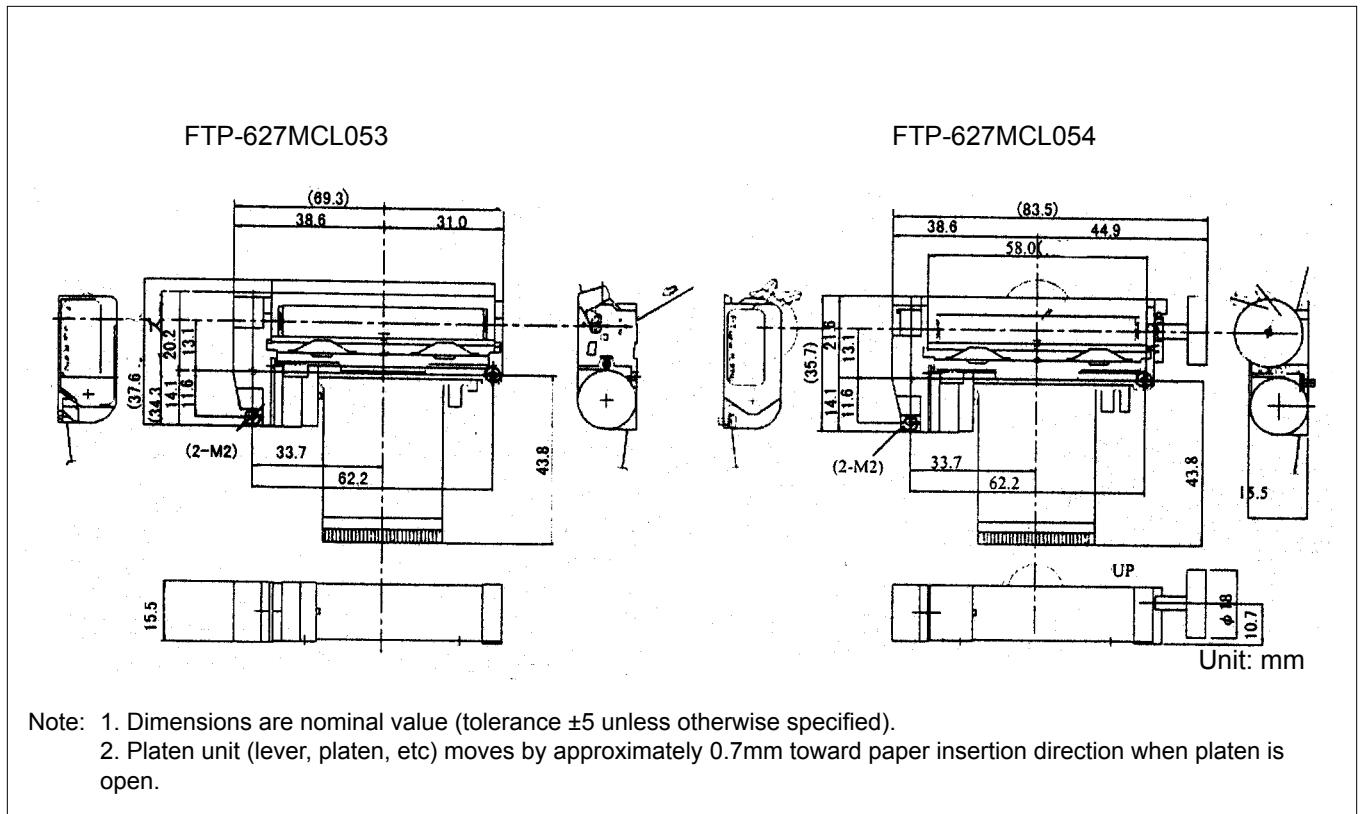| Item		Specification	
		FTP-628MCL053	FTP-628MCL054
Interface		Conforms to RS232C / Centronics	
Power supply	For print head	24 VDC average current, 1.5A (2.2A peak) (print ratio: 25%, print speed: 100mm/sec.)	
	For motor	24 VDC ± 5%, 1A maximum	
	For logic	5 VDC ± 5%, 0.1 A maximum	
Dimensions (WxDxH)	Mechanism	83.5 x 35.7 x 15.5 mm	72.3 x 34.3 x 15.5 mm
	Interface board	70 x 60 x 24mm	
Weight	Mechanism	Approximately 49g	Approximately 47g
	Interface board	Approximately 25g	
Life	Head	Pulse resistance: 50 million pulses/dot (under our standard conditions); Abrasion resistance: paper traveling distance 50km (print ratio: 25% or less)	
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 95% 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 rance.

■ FUNCTION OF INTERFACE BOARD

	Item		Item
1.	Test print function	8.	Motor power saving function
2.	Paper out detection	9.	Mark detection function
3.	Paper near end detection	10.	MCU operation abnormality detection
4.	Platen open detection	11.	Power ON/OFF sequence protection
5.	Thermal head temperature abnormality detection	12.	Motor over-current protection
6.	Blow-out fuse detection	13.	Hardware timer
7.	Head voltage abnormality detection		

■ DIMENSIONS

1. Printer mechanism

FTP-627MCL053

FTP-627MCL054

Unit: mm

Note: 1. Dimensions are nominal value (tolerance ±5 unless otherwise specified).
2. Platen unit (lever, platen, etc) moves by approximately 0.7mm toward paper insertion direction when platen is open.

2. Interface board

Unit: mm

1. Connector (FPC) specification (CN3)
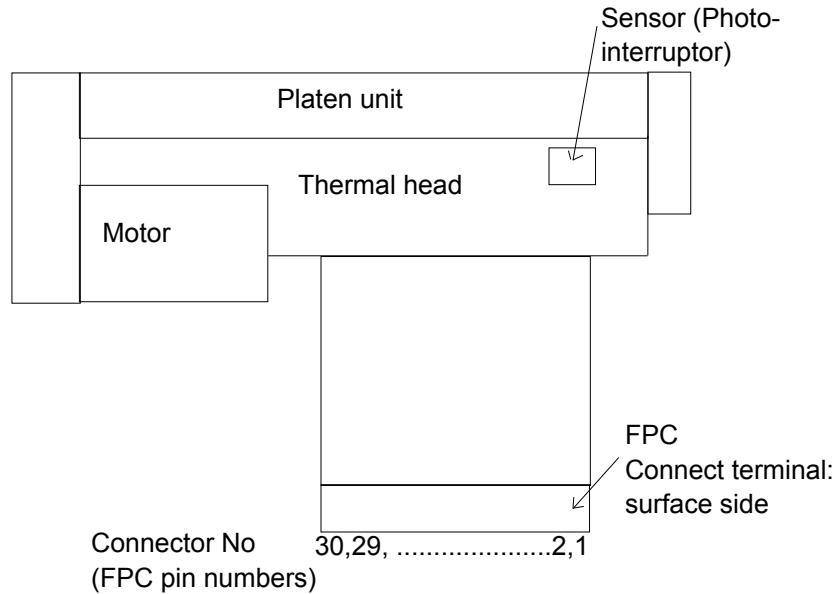
(1) Connector

    Mechanical unit side: FPC connector

    Remote side (housing site):   52610-3090 (made by Molex)

(2) Pin assignment on the mechanical side

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	—	Power supply for thermal head
7	VH	—	
8	VH	—	
9	DI	I	Print data in
10	$\overline{\text{STB3}}$	I	Strobe 3
11	VDD	—	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	—	Power supply for thermal head
25	VH	—	
26	VH	—	
27	MT/A	I	Stepping motor excitation signal
28	MT/$\overline{\text{A}}$	I	
29	MT/B	I	
30	MT/$\overline{\text{B}}$	I	

Sensor (Photo-interruptor)

Platen unit

Thermal head

Motor

FPC
Connect terminal:
surface side

Connector No   30,29, ...2,1
(FPC pin numbers)

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