FCL Components Thermal Printer
FTP-64GMCL153 series

FCL Components 4” high speed (200mm/s) thermal printer mechanism

Overview

The FTP-64GMCL series thermal printer driven by 24VDC provides high speed printing (200mm/s) for 4-inch wide paper.

The series is suitable for a variety of applications, such as POS/ECR, kiosk terminals, ticket machines, label printers, banking machines, measuring devices, medical equipment, etc.

FTP-64GMCL153

Features

- High-speed printing
  It can print at 200mm/s (1600 dotlines/s) maximum by using FCL Components’ unique head drive control
- Rear paper insertion mechanism with locking platen
  FCL Components’ unique platen release mechanism allows for a straight paper path and easy head maintenance
- Multi-feature metal frame: The rugged metal frame provides excellent ESD performance, is shock/vibration resistant and the heat-sink allows for continuous printing
- Compact size
  Width: 144.6mm, depth: 29.1mm, height: 42.5mm
- High resolution
  8 dots/mm head provides clear print out
- RoHS compliant
- UL recognized. File number E171434

■ Part numbers

Item		Part Number
Printer mechanism	Back insertion	FTP-64GMCL153
LSI for driving		FTP-64GCU131-R
Interface board	Serial (RS232C/USB)	FTP-64GDSL131#01-R (Japanese font)
	Serial (RS232C/USB)	FTP-64GDSL131#02-R (Traditional Chinese font)
Interface cable	Serial	FTP-62GY302
	USB	FFTP-62GY311#01-R
Power supply cable	Logic, head, motor	FTP-629Y603

■ Specifications

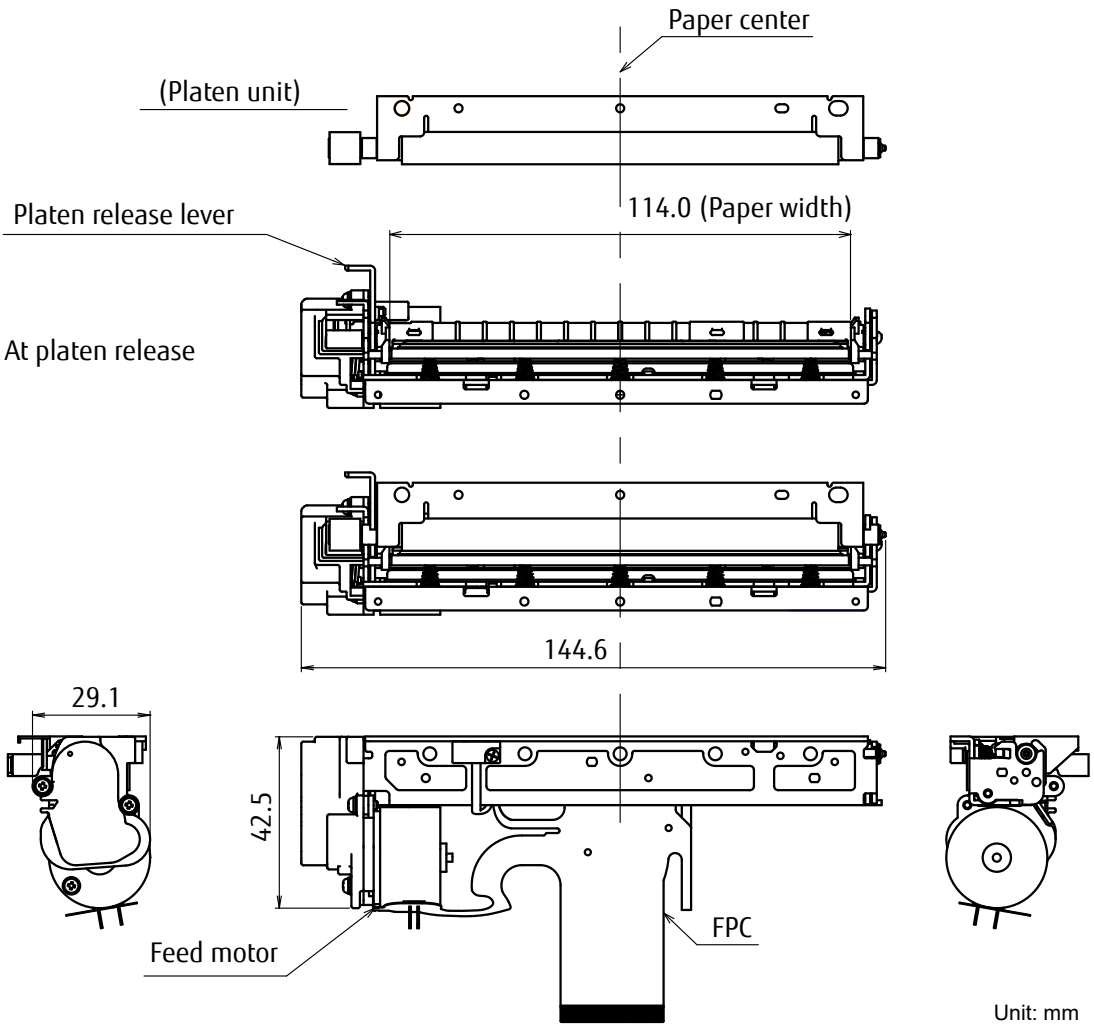
Item		Specifications
Part number		FTP-64GMCL153
Printing method		Thermal sensitive line dot method
Dot structure		832 dots/lines
Dot pitch (horizontal)		0.125mm (8 dots/mm) - Dot density
Dot pitch (vertical)		0.125mm (8 dots/mm) - Line feed pitch
Effective printing area		104mm
Number of columns		ANK 48 columns/line (12 x 24 x dot font), OCD 24 columns (24 x 40)
Paper width		114mm +0/-1
Paper thickness		60-150µm*[1]
Cutting type		---
Printing speed		200mm/s (1600 dot lines/s)
Character types		Alphanumeric KANA : 159 types International and special : 195 types OCRI : 103 types CCRIII : 23 types OCRIV : 103 types Extended numeric : 12 types JIS KANJI level 1,2, non-Kanji : JIS KANJI: approx. 6,800 Traditional Chinese : 13,503
Character dimensions (W x H), number of characters		8 x 16 dots, 104 columns, ANK, 12 x 24 dots, 69 columns, ANK 16 x 16 dots, 52 columns, ANK 24 x 24 dots, 34 columns, ANK 24 x 40 dots, 34 columns, OCRI 24 x 48 dots, 34 columns, OCRII 36 x 60 dots, 23 columns, OCRIV 24 x 48 dots, 34 columns, extended numeric
Power	For head	24VDC ±10% 4A (24V, 1500 Ω, +25°C, concurrent applied dot number: 256 dots)
	For printer motor	24VDC ±10%, 1.5A maximum
	For logic	3.3 or 5 VDC ±10%. 0.125A maximum
Dimensions (WxDxH)	Printer mechanism	144.6 x 29.1 x 42.5mm
	Interface board (DCL/ DSL)	TBD
Weight	Printer mechanism	170g
	Interface board (DCL/ DSL)	TBD
Expected life	Head	Pulse durability: 100 million pulse/dot (using FCL Components' standard driving method) Wear resistance: 100km (at 12.5% print ratio)
Environmental conditions	Operating temperature	+5°C to +40°C (guarantee)
	Operating humidity	20 to 85% RH (no condensation)
	Storage temperature	-20°C to +60°C (excluding paper)
	Storage humidity	5 to 95% RH (no condensation)
Detection functions	Head temperature	By thermistor
	Paper out/Mark detect	By photointerrupter
	Platen open	By slide switch
Recommended thermal sensitive paper		PD150R (Oji paper)

*[1]: there may be exceptions

■ Dimensions

- Printer mechanism 4-inch

FTP-64GMCL153-R



Unit: mm

Note: 1. Dimensions are nominal value)tolerance ±0.5mm unless otherwise specified.
2. Dimensions in ( ) is reference value.

■ Connector pin assignments of cutter (FPC) 52559-4052 (Molex)

No	Signal	Content	I/O
1	VSEN	Paper sensor power	IN
2	PHK	Cathode for photo interrupter	OUT
3	PHE	Emitter for photo interrupter	OUT
4	N.C.	Not connected	-
5	VH	Head drive power	IN
6	VH	Head drive power	IN
7	VH	Head drive power	IN
8	VH	Head drive power	IN
9	VH	Head drive power	IN
10	VH	Head drive power	IN
11	DI	Data in	IN
12	/STB3	/Strobe3	IN
13	/STB4	/Strobe4	IN
14	VDD	Logic power	IN
15	GND	Head ground	-
16	GND	Head ground	-
17	GND	Head ground	-
18	GND	Head ground	-
19	GND	Head ground	-
20	GND	Head ground	-
21	GND	Head ground	-
22	GND	Head ground	-
23	GND	Head ground	-
24	GND	Head ground	-
25	GND	Head ground	-
26	GND	Head ground	-
27	TM	Thermistor	OUT
28	/STB1	/Strobe1	IN
29	/STB2	/Strobe2	IN
30	/LAT	/Data latch	IN
31	CLK	Clock	IN
32	VH	Head drive power	IN
33	VH	Head drive power	IN
34	VH	Head drive power	IN
35	VH	Head drive power	IN
36	VH	Head drive power	IN
37	VH	Head drive power	IN
38	N.C.	Not connected	-
39	SW	Platen switch release	OUT
40	SW	Platen switch release	OUT
41	MTM	Motor thermistor	OUT

■ Connector pin assignments of cutter (FPC) 52559-4052 (Molex)

No	Signal	Content	I/O
42	MTM	Motor thermistor	OUT
43	MT_/A	Excitation signal /A	SINK/SOURCE
44	MT_/A	Excitation signal /A	SINK/SOURCE
45	MT_A	Excitation signal A	SINK/SOURCE
46	MT_A	Excitation signal A	SINK/SOURCE
47	MT_/B	Excitation signal /B	SINK/SOURCE
48	MT_/B	Excitation signal /B	SINK/SOURCE
49	MT_B	Excitation signal B	SINK/SOURCE
50	MT_B	Excitation signal B	SINK/SOURCE

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