FCL Components Thermal Printer
FTP-63GMCL473 series

FCL Components 3” high speed thermal printer mechanism with cutter

Overview

The compact, ultra low profile design FTP-63GMCL series thermal printer (driven by 12VDC or 24VDC) provides high speed printing (100mm/s at 12VDC or 200mm/s at 24VDC) for 3-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-63GMCL473

Features

- High-speed printing
  It can print 100mm/s (800 dotlines/s) at 12VDC or 200mm/s (1,600 dotlines/s)at 24VDC maximum by using FCL Components’ unique head drive control
- Rear paper insertion mechanism with lock type
  FCL Components’ unique platen release mechanism allows for a straight paper path and easy head maintenance
- Auto Cutter
  Ultra-low profile auto cutter (full/partial cut) mounted at the factory
- Multi-featuring diecast frame
  The rugged die-cast frame provides excellent ESD performance, is shock/vibration resistant and the heat-sink allows for continuous printing
- Compact size
  Depth: 32.6mm, width: 100.5mm, height: 45.6mm
- High resolution
  8 dots/mm head provides clear print
- Paper width
  80mm
- UL recognized. File number E171434
- RoHS compliant

■ Part numbers

Item			Part Numbers
Printer mechanism		Back insertion	FTP-63GMCL473
LSI for driving			Under development
Interface board	12VDC	Serial (RS232C/USB)	FTP-62GDSL121#01 (Japanese font)
		Serial (RS232C/USB)	FTP-62GDSL121#02 (Traditional Chinese font)
	24VDC		Under development
Interface cable		Serial	FTP-62GY302
		USB	FTP-62GY311#01
Power supply cable		Logic, head, motor	FTP-629Y603

■ Specifications

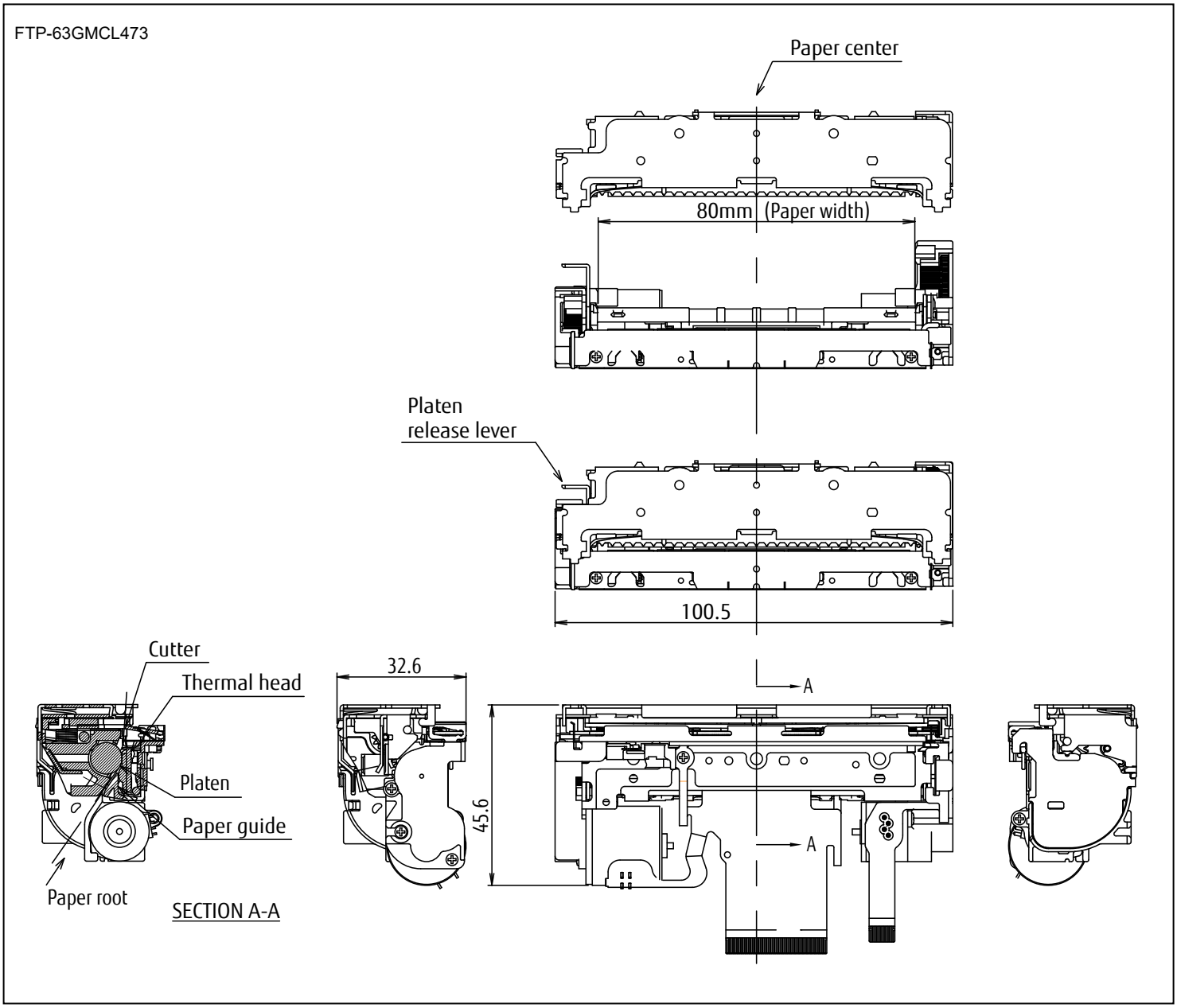
Item		Specifications	
Part number		FTP-63GMCL473	
Printing method		Thermal sensitive line dot method	
Dot structure		576 dots/lines	
Dot pitch (horizontal)		0.125mm (8 dots/mm) - Dot density	
Dot pitch (vertical)		0.125mm (8 dots/mm) - Line feed pitch	
Effective printing area		72mm	
Number of columns		ANK 48 columns/line (12 x 24 dot font), OCD 24 columns (24 x 40)	
Paper width		80mm +0/-1	
Paper thickness		60-100µm*1	
Cutting type		Full or partial	
Printing speed	12VDC	100mm/s (800 dot lines/s)	
	24VDC	200mm/s (1,600 dot lines/s)	
Character types	Alphanumeric KANA International and special OCRI OCRIII OCRIV Extended numeric JIS KANJI level 1, 2, non-Kanji Traditional Chinese	159 types 195 types 103 types 23 types 103 types 12 types JIS KANJI: approx. 6800 (FTP-62GDSL101#01) 13, 503 (FTP-62GDSL101#02)	
Character dimensions (W x H), number of characters		8 x 16 dots, 72 columns, ANK 12 x 24 dots, 48 columns, ANK 16 x 16 dots, 36 columns, ANK 24 x 24 dots, 24 columns, ANK	24 x 40 dots, 24 columns, OCRI 24 x 48 dots, 24 columns, OCRII 36 x 60 dots, 16 columns, OCRIV 24 x 48 dots, 24 columns, extended numeric

*1: There may be exceptions

Item		Specifications
Part number		FTP-63GMCL473
Power	For head	10.8VDC to 26.4VDC, 2.6A at 12VDC, 5.3A at 24VDC (concurrent applied dot number: 128 dots)
	For printer motor	10.8VDC to 26.4VDC, 1.5A maximum
	For logic	3.3 or 5 VDC±5% 75mA maximum
Dimensions (WxDxH)	Printer mechanism	100.5 x 32.6 x 45.6mm
	Interface board	70 x 37mm
Weight	Printer mechanism	155g
	Interface board	15g
Expected life	Head	Pulse durability: 100 million pulse/dot (using FCL Components' standard driving method) Wear resistance: 100km (at 12.5% print ratio)
	Cutter	1,000,000 cuts min.*2
Environmental conditions	Operating temperature	+5°C to +40°C (guarantee)
	Operating humidity	20 to 85% RH (no condensation)
	Storage temperature	-40°C to +70°C (excluding paper)
	Storage humidity	5 to 95% RH (no condensation)
Detection functions	Head temperature	By thermistor
	Paper out/Mark detect	By photointerrupter
	Head release	By slide switch
Recommended thermal sensitive paper	High sensitive paper	TF50KS-E45 (Nippon paper)
	Standard paper	TF-60KS-E (Nippon paper) PD150R (Oji paper)
	Medium term paper	TF-60KS-F1 (Nippon paper) P220VBB-1 (Mitsubishi paper)
	Long term paper	PD160R (Oji paper) TP50KJ-R (Nippon paper) HA220AA (Mitsubishi paper)

*2: Under conditions of 25±5°C, 40 to 60% RH, cut cycle: min.3 sec., max 20 cuts per min.

- Printer mechanism: 3-inch, with cutter



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

■ Connector pin assignments of printer mechanism (FPC)
Recommended connector of head FPC: 54104-5031 (Molex) or equivalent

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

No	Signal	Content	I/O
41	MTM	Motor thermistor	OUT
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

■ Connector pin assignments of cutter (FPC)
Recommended connector of cutter motor FPC: 52745-1297 (Molex) or equivalent

No	Signal	Content	I/O
1	MT_B	Excitation signal B	SINK/SOURCE
2	MT_B	Excitation signal B	SINK/SOURCE
3	MT_/B	Excitation signal /B	SINK/SOURCE
4	MT_/B	Excitation signal /B	SINK/SOURCE
5	MT_A	Excitation signal A	SINK/SOURCE
6	MT_A	Excitation signal A	SINK/SOURCE
7	MT_/A	Excitation signal /A	SINK/SOURCE
8	MT_/A	Excitation signal /A	SINK/SOURCE
9	N.C.	Not connected	-
10	VSEN	Paper sensor power	IN
11	PHE	Emitter for photo interrupter	OUT
12	PHK	Cathode for photo interrupter	OUT

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