

FCL Components Thermal Printer FTP-63GMCL163#10 / 463#10

FCL Components 3" high speed (up to 250mm/s) thermal printer mechanism with cutter

Overview

The FTP-63GMCL series thermal printer driven by 24VDC provides high speed printing (up to 250mm/s) 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.

Features

- High-speed printing
It can print up to 250mm/s (2,000 dotlines/s) 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 (FTP-63GMCL463#10)
- 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
Width: 96.2mm, depth: 20.4mm, height: 36.3mm (FTP-63GMCL163#10)
Width: 100.5mm, depth: 32.6mm, height: 45.6mm (FTP-63GMCL463#10)
- High resolution
8 dots/mm head provides clear print
- Paper width
80mm
- RoHS compliant
- UL recognized. File number E171434



FTP-63GMCL163#10



FTP-63GMCL463#10

■ Part numbers

Item	Part Numbers	
Mechanism	Without cutter	FTP-63GMCL163 #10
	With cutter, rear insertion	FTP-63GMCL463 #10
LSI for driving	FTP-62GCU111-R	
Interface board	Serial (RS232C/USB)	FTP-62GDSL111#01 (Japanese font)
	Serial (RS232C/USB)	FTP-62GDSL111#02 (Traditional Chinese font)
Interface cable	Serial	FTP-62GY302
	USB	FTP-62GY311#01
Power supply cable	Logic, head, motor	FTP-629Y603

■ Specifications

Item	Specifications	
Part number	FTP-63GMCL163#10	FTP-63GMCL463#10
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 x dot font), OCD 24 columns (24 x 40)	
Paper width	80mm +0/-1	
Paper thickness	60-150µm*1	60-100µm*1
Cutting type	-	Full or partial
Printing speed	250mm/s (2,000 dot lines/s)	
Character types	Alphanumeric KANA	159 types
	International and special	195 types
	OCRI	103 types
	OCRIII	23 types
	OCRIV	103 types
	Extended numeric	12 types
	JIS KANJI level 1, 2, non-Kanji	JIS KANJI: approx. 6800 (FTP-62GDSL111#01) 13, 503 (FTP-62GDSL111#02)
	Traditional Chinese	
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

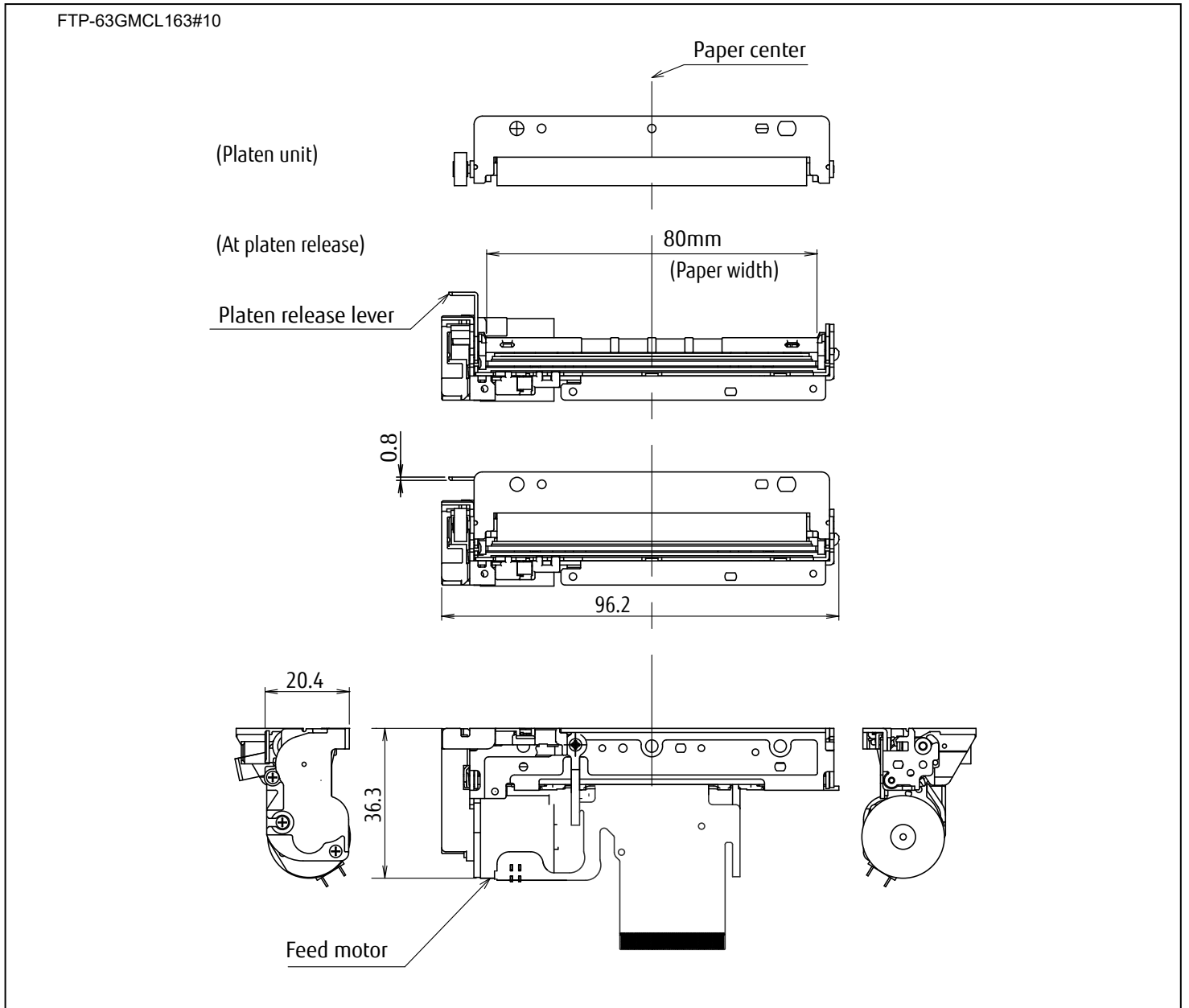
*1: There may be exceptions

Item		Specifications	
Part number		FTP-63GMCL163 #10	FTP-63GMCL463 #10
Power	For head	24VDC \pm 10% 4.1A (24V, 800 Ω , concurrent applied dot number: 144 dots)	
	For printer motor	24VDC \pm 10% 1.5A maximum	
	For logic	3.3 or 5 VDC \pm 5% 75mA maximum	
Dimensions (WxDxH)	Printer mechanism	92.6 x 20.4 x 36.3mm	100.5 x 32.6 x 45.6mm
	Interface board	70 x 37mm	
Weight	Printer mechanism	79g	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	-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	
	Head release	By slide switch	
Recommended thermal sensitive paper	High sensitive paper	TF50KS-E45 (Nippon paper)	
	Standard paper	TP-60KS-E (Nippon paper)	
		PD150R (Oji paper)	
	Medium term paper	TP-60KS-F1 (Nippon paper)	
P220VBB-1 (Mitsubishi paper)			
Long term paper	PD160R (Oji paper)		
	TP50KJ-R (Nippon paper)		

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

■ Dimensions

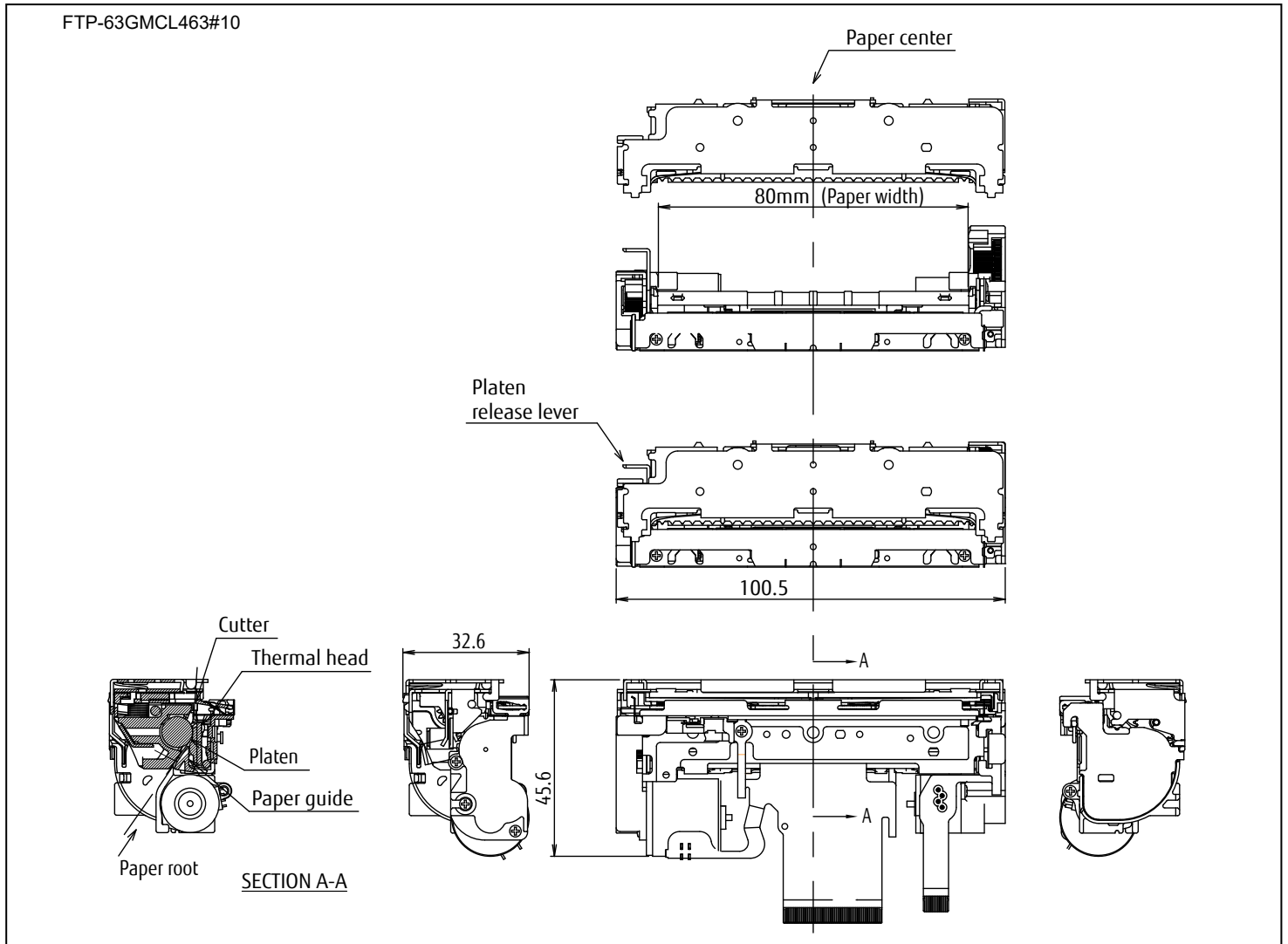
- Printer mechanism without cutter 3-inch



Note: 1. Dimensions are nominal value)tolerance $\pm 0.5\text{mm}$ unless otherwise specified.
2. Dimensions in () is reference value.

■ Dimensions

- Printer mechanism with cutter 3-inch



Note: 1. Dimensions are nominal value)tolerance $\pm 0.5\text{mm}$ unless otherwise specified.
2. Dimensions in () is reference value.

■ Connector pin assignments of cutter (FPC) 54104-5031 (Molex or equivalent)

Recommended connector for 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	N.C.	Not connected	-
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
42	MTM	Motor thermistor	OUT

No	Signal	Content	I/O
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 printer mechanism (FPC) - for FTP-63GMCL463#10 only
Recommended connector for cutter 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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