FCL Components Thermal Printer
FTP-62GMCL163#10/463#10/ 463#11 series

FCL Components 2” high speed (250mm/s)thermal printer mechanism with printer option

Overview

The compact, ultra low profile design FTP-62GMCL series thermal printer (driven by 24VDC) provides high speed printing (250mm/s) for 2-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-62GMCL163#1x

FTP-62GMCL463#1x

Features

- High-speed printing
  It can print at 250mm/s (2,000 dotlines/s) maximum by using FCL Components’ unique head drive control
- Rear paper insertion mechanism with locking type platen
  FCL Components’ unique platen release mechanism allows for a straight paper path and easy head maintenance
- Auto cutter
  Optional ultra-low profile auto cutter (full/partial cut) mounted at the factory (FTP-62GMCL463#10/FTP-62GMCL463#11)
- 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: 20.4mm, width: 76.2mm, height: 36.3mm (FTP-62GMCL163#10)
  Depth: 34.8mm, width: 80.5mm, height: 45.6mm (FTP-62GMCL463#10/#11)
- High resolution
  8 dots/mm head provides clear print
- UL recognized, file # E171434
- RoHS compliant

■ Part numbers

Item		Part Number
Printer mechanism	Back insertion	FTP-62GMCL163#10 (58mm paper width)
Printer mechanism with cutter	Back insertion	FTP-62GMCL463#10 (58mm paper width, with cutter)
		FTP-62GMCL463#11 (60mm paper width, with cutter)
LSI for driving		Under development
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-62GMCL163#10	FTP-62GMCL463#10	FTP-62GMCL463#11
Printing method		Thermal sensitive line dot method		
Dot Structure		432 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		54mm		
Number of columns		ANK 36 columns/line		
Paper width		58mm +0/-1	58mm +0/-1	60mm +0/-1
Paper thickness		60-150μm*1	60-100μm*1	60-100μm*1
Cutting type		---	Full or partial	Full or partial
Printing speed		250mm/s (2,000 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-628GDSL111#01) 13, 503 (FTP-62GDSL111#02)		
Character dimensions (W x H) number of characters		8 x 16 dots, 54 columns, ANK 12 x 24 dots, 36 columns, ANK 16 x 16 dots, 27 columns, ANK 24 x 24 dots, 18 columns, ANK	24 x 40 dots, 18 columns, OCRI 24 x 48 dots, 18 columns, OCRII 36 x 60 dots, 12 columns, OCRIV 24 x 48 dots, 18 columns, extended numeric	

*1: there may be exceptions

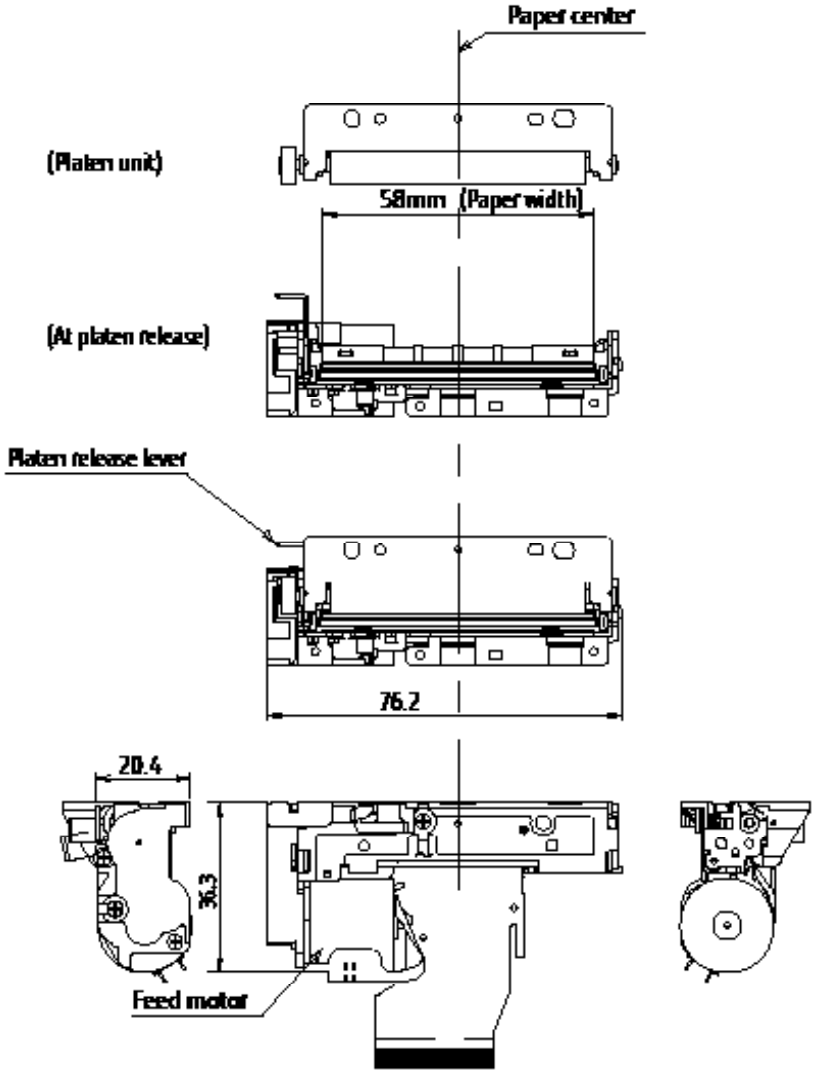
Item		Specifications		
Part number		FTP-62GMCL163#10	FTP-62GMCL463#10	FTP-62GMCL463#11
Power	For head	24VDC ±10% 4.1A (24V, 800Ω, +25°C, concurrent applied dot number: 144 dots)		
	For printer motor	24VDC ±10% 1.5A maximum		
	For logic	3.3 or 5VDC ±5% 75mA maximum		
Dimensions (WxDxH)	Printer mechanism	76.2 x 36.3 x 20.4mm	80.5 x 45.6 x 34.8mm	80.5 x 45.6 x 34.8mm
	Interface board (DSL)	70 x 37mm		
Weight	Printer mechanism	70g	135g	135g
	Interface board (DSL)	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	TF-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+/-5°C, 40 to 60% RH, cut cycle min.3 sec. max.20 cuts per min.

■ Dimensions

- Printer mechanism: 2-inch

FTP-62GMCL [illegible]

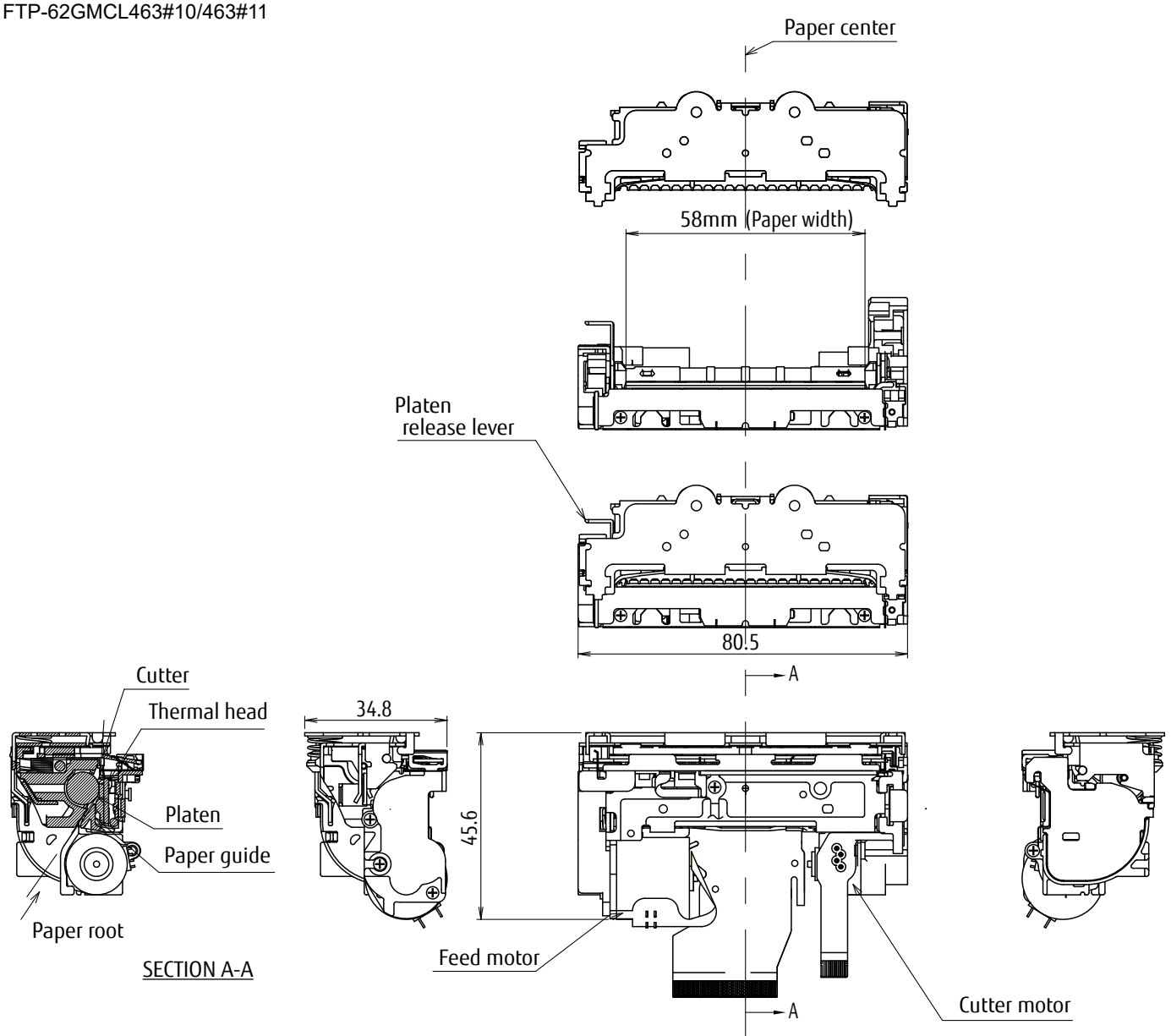


Note: 1. Dimensions are nominal value)tolerance ±0.5mm unless otherwise specified.
2. Dimensions in ( ) is reference value.

■ Dimensions

- Printer mechanism: 2-inch, with cutter

FTP-62GMCL463#10/463#11



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 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	/STB2	/Strobe2	IN
13	/STB3	/Strobe3	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	N.C.	Not connected	-
29	/STB1	/Strobe1	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 printer mechanism (FPC)

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

■ Connector pin assignments of cutter (FPC)
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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