

# FUJITSU Component Thermal Printer FTP-62GMCL163/163#01/463 series

Fujitsu 2" high speed (200mm/s) thermal printer mechanism with cutter option

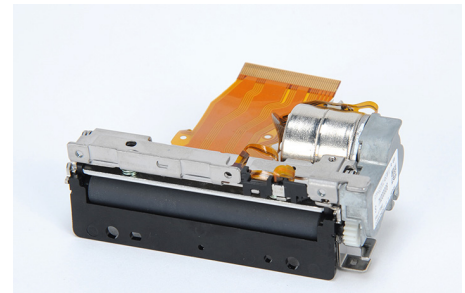
## Overview

The compact, ultra low profile design FTP-62GMCL series thermal printer (driven by 24VDC) provides high speed printing (200mm/s) for 2-inch wide paper.

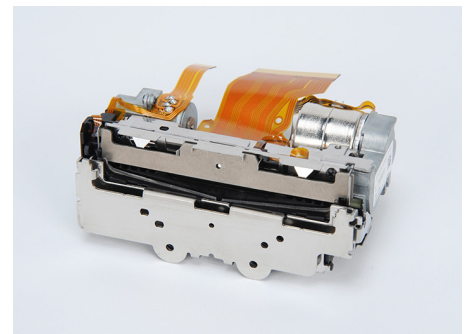
The series is suitable for a variety of applications, such as POS/ECR, kiosk terminals, ticket machines, label printers, banking machines, measuring devices, medical equipment, etc.

## Features

- **High-speed printing**  
It can print at 200mm/s (1,600 dotlines/s) maximum by using Fujitsu Components' unique head drive control
- **Rear paper insertion mechanism with lock type**  
Fujitsu 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)
- **Multi-featuring metal frame**  
The rugged metal frame provides excellent ESD performance, is shock/vibration resistant and the heat-sink allows for continuous printing
- **Compact size**  
Without cutter: Width: 76.2mm, depth: 20.4mm, height: 36.3mm (FTP-62GMCL163 / FTP-62GMCL163#01)  
With cutter: Width: 80.5mm, depth: 34.8mm, height: 45.6mm (FTP-62GMCL463)
- **High resolution**  
8 dots/mm head provides clear print
- UL recognized, file # E171434
- RoHS compliant



FTP-62GMCL163#01



FTP-62GMCL463

## ■ Part numbers

Item		Part Number
Printer mechanism	Back insertion	FTP-62GMCL163 (58mm paper width)
		FTP-62GMCL163#01 (60mm paper width)
Printer mechanism with cutter	Back insertion	FTP-62GMCL463 (58mm paper width, with cutter)
LSI for driving		FTP-62GCU101-R
Interface board	Serial (RS232C, USB)	FTP-62GDSL101#01 (Japanese font)
	Serial (RS232C, USB)	FTP-62GDSL101#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	FTP-62GMCL163#01	FTP-62GMCL463
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	60mm +0/-1	58mm +0/-1
Paper thickness	60-150 $\mu$ m*1	60-150 $\mu$ m*1	60-100 $\mu$ m*1
Cutting type	---	---	Full or partial
Printing speed	200mm/s (1600 dot lines/s)		
Character types	Alphanumeric KANA	159 types	
	International and special	195 types	
	OCR I	103 types	
	OCR III	23 types	
	OCR IV	103 types	
	Extended numeric	12 types	
JIS KANJI level 1, 2, non-Kanji	JIS KANJI: approx. 6800 (FTP-628GDSL101#01)		
Traditional Chinese	13, 503 (FTP-62GDSL101#02)		
Character dimensions (W x H), number of characters	8 x 16 dots, 54 columns, ANK	24 x 40 dots, 18 columns, OCR I	
	12 x 24 dots, 36 columns, ANK	24 x 48 dots, 18 columns, OCR II	
	16 x 16 dots, 27 columns, ANK	36 x 60 dots, 12 columns, OCR IV	
	24 x 24 dots, 18 columns, ANK	24 x 48 dots, 18 columns, extended numeric	

\*1: there may be exceptions

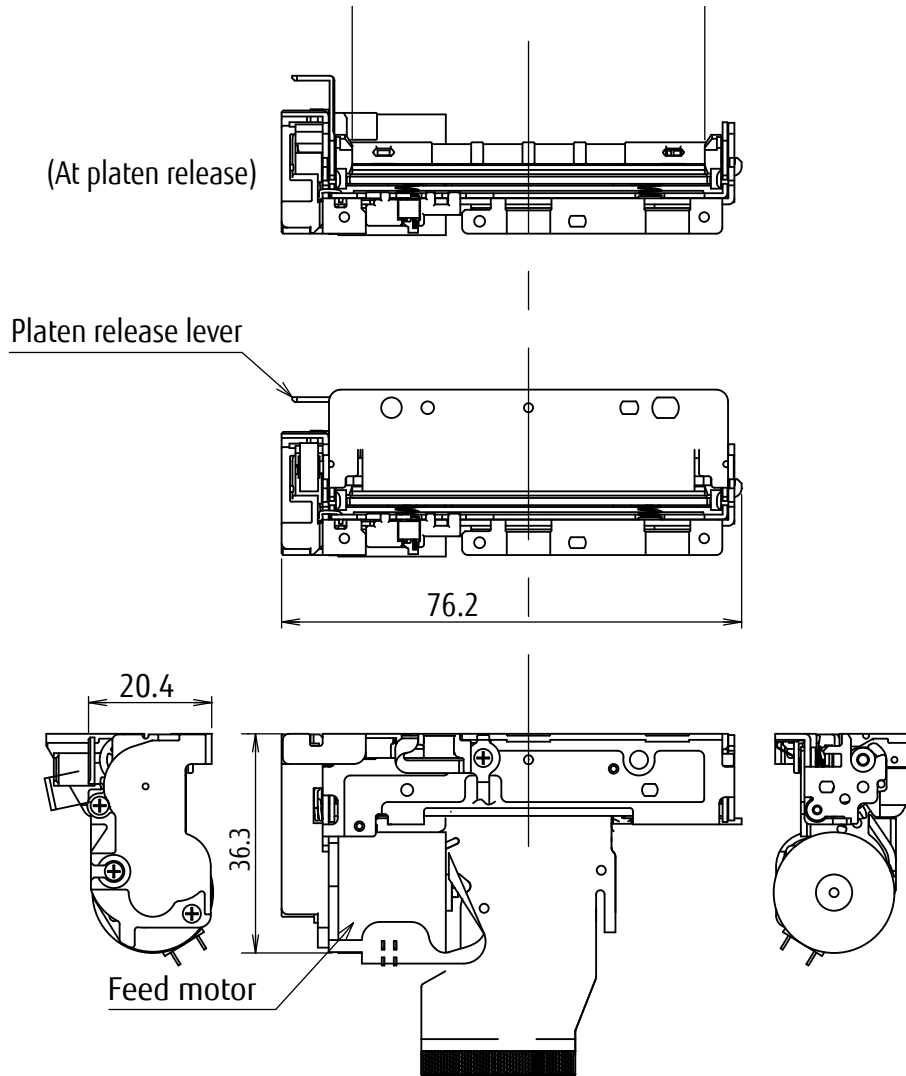
Item	Specifications		
Part number	FTP-62GMCL163	FTP-62GMCL163#01	FTP-62GMCL463
Power	For head	24VDC $\pm$ 10% 2.0A (1,500 $\Omega$ , +25°C, concurrent applied dot number: 128 dots)	
	For printer motor	24VDC $\pm$ 10% 1.5A maximum	
	For logic	3.3 or 5VDC $\pm$ 5% 45mA maximum	
Dimensions (WxDxH)	Printer mechanism	76.2 x 36.3 x 20.4mm	80.5 x 45.6 x 34.8mm
	Interface board (DSL)	70 x 37mm	
Weight	Printer mechanism	70g	135g
	Interface board (DSL)	15g	
Expected life	Head	Pulse durability: 100 million pulse/dot (using Fujitsu Components' standard driving method) Wear resistance: 100km (at 12.5% print ratio)	
Cutter	---	---	1,000,000 cuts min.* <sup>2</sup>
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	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) AFP235 (Mitsubishi paper)	

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

■ Dimensions

- Printer mechanism: 2-inch

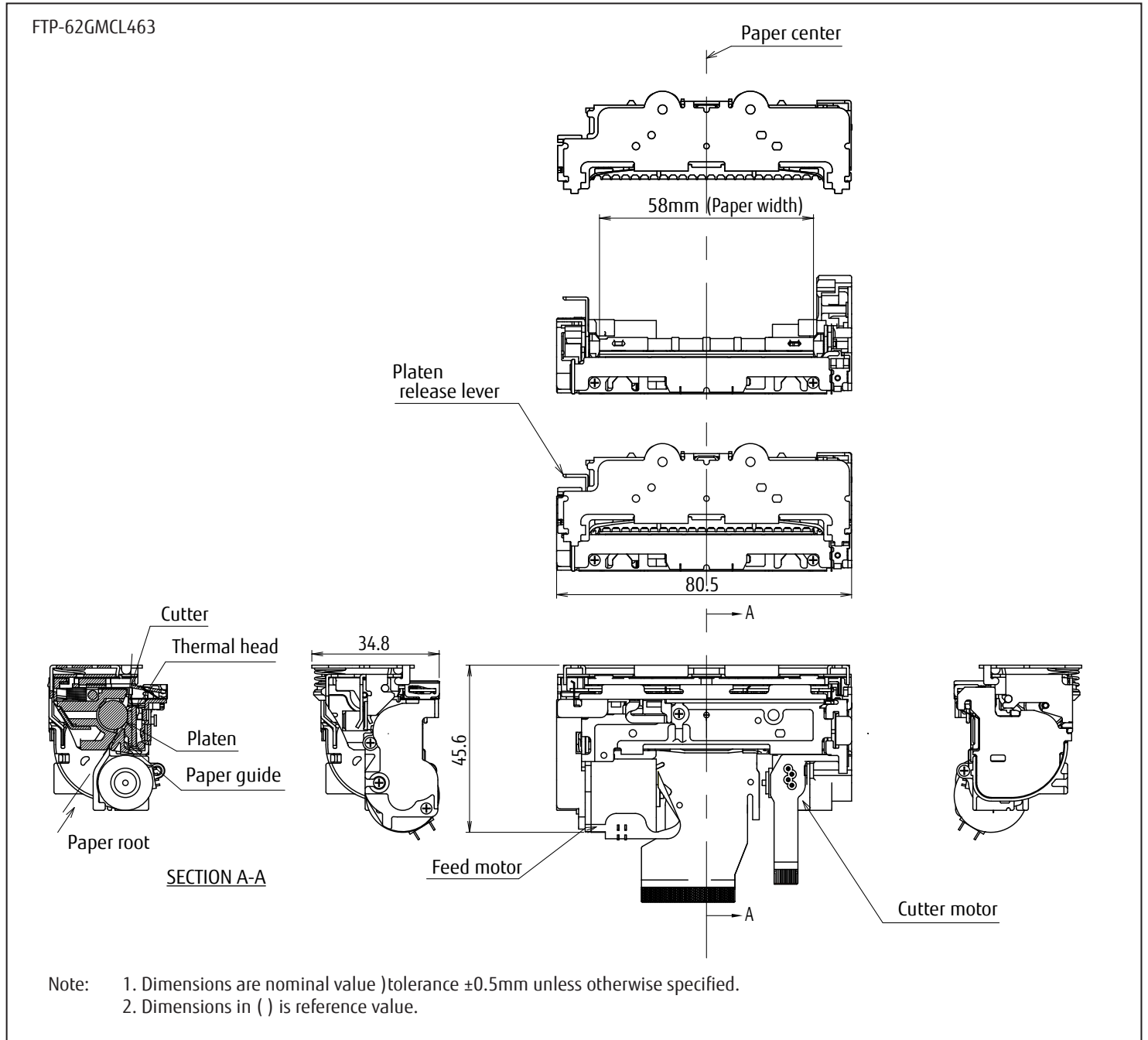
FTP-62GMCL163/163#01



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

■ Dimensions

- Printer mechanism: 2-inch, with cutter



■ 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	/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

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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