

# FUJITSU Component Thermal Printer FTP-63GMCL153/453 series

Fujitsu 3" high speed (200mm/s) thermal printer mechanism with cutter option

## Overview

The FTP-63GMCL series thermal printer driven by 24VDC provides high speed printing (200mm/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 at 200mm/s (1600 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 straight paper path and easy head maintenance
- **Auto Cutter**  
Printer with auto cutter (full cut/partial cut) is available. It can be mounted on top of the mechanism (FTP-63GMCL453)
- **Multi-featuring diecast frame**  
By application of multi-featuring diecast frame, continuous print by function of heat-sink, high ESD with stand by function of earth frame and shock/vibration resistance by function of solid frame are valid
- **Compact size**  
Depth: 20.4mm, width: 96.2mm, height: 36.3mm (FTP-63GMCL153)  
Depth: 32.4mm, width: 100.5mm, height: 45.6mm (FTP-63GMCL453)
- **High resolution**  
8 dots/mm head provides clear print out
- **Supports liner-less label paper (FTP-63GMCL153)**
- **RoHS compliant**
- **UL recognized. File number E171434**



FTP-63GMCL153



FTP-63GMCL453

## ■ Part numbers

Item		Part Number
Printer mechanism	Back insertion	FTP-63GMCL153
Mechanism with cutter	Rear insertion	FTP-63GMCL453
Interface board	Serial (RS232C/USB)	FTP-62GDSL001#01 (Japanese font)
	Serial (RS232C/USB)	FTP-62GDSL001#02 (Traditional Chinese font)
Interface cable	Serial	FTP-62GY302
	USB	FTP-62GY301
Power supply cable	Logic, head, motor	FTP-62GY601

## ■ Specifications

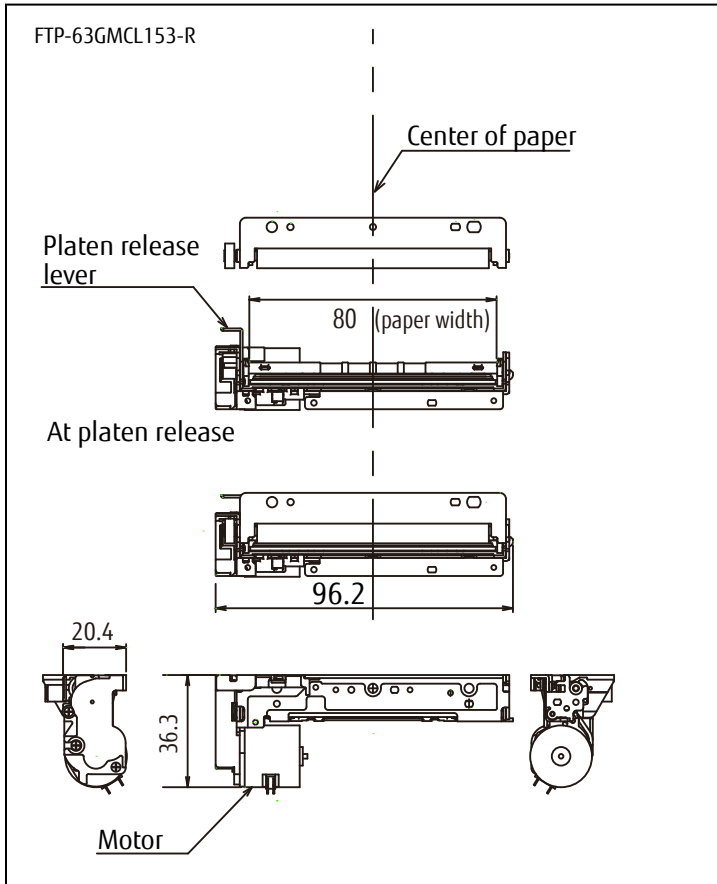
Item	Specifications	
Part number	FTP-63GMCL153	FTP-63GMCL453
Printing method	Thermal sensitive line dot method	
Dot structure	576 dots/lines	
Dot pitch (horizontal)	0.125mm (8 dots/mm) - Dot density	
Dot pitch (vertical)	0.125mm (8 dots/mm) - Line feed pitch	
Effective printing area	72mm	
Number of columns	ANK 48 columns/line (12 x 24 x dot font), OCD 24 columns (24 x 40)	
Paper width	80mm +0/-1	
Paper thickness	60-150 $\mu$ m*1	60-100 $\mu$ m*1
Cutting type	---	Full or partial
Printing speed	200mm/s (1600 dot lines/s)	
Interface types	FTP-62GDSL series	
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 13 types 103 types 12 types JIS KANJI: approx. 6800 13, 503
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
Interface standard	Serial (RS232C/USB)	

\*1: there may be exceptions

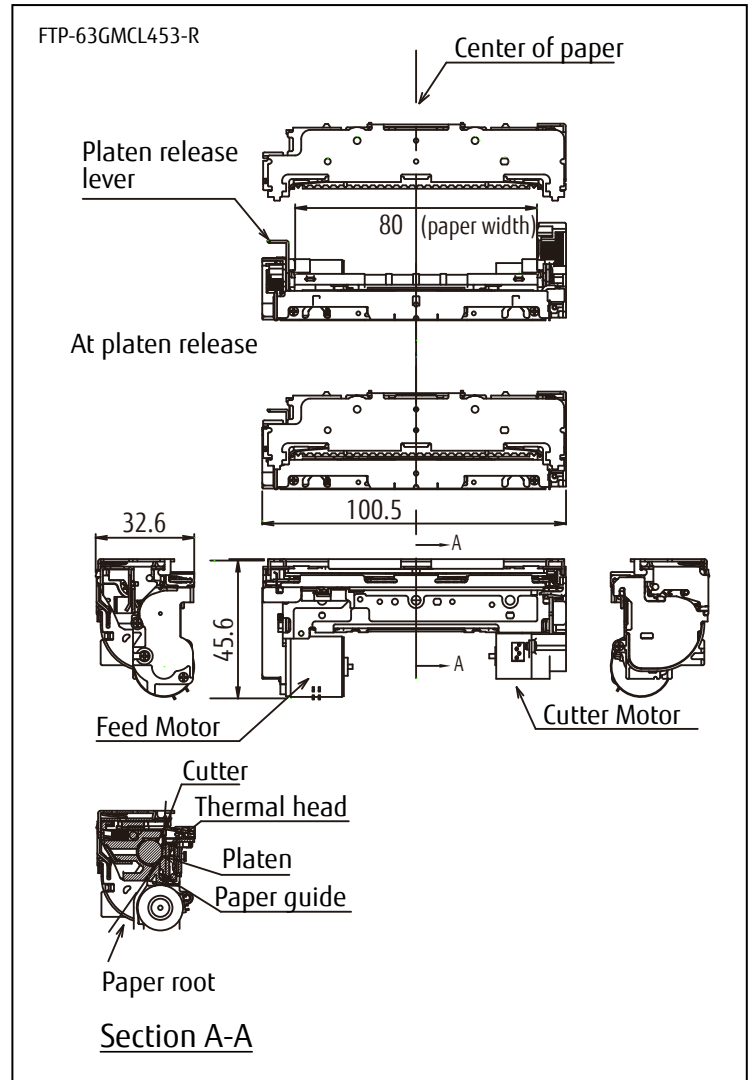
Item	Specifications	
Part number	FTP-63GMCL153	FTP-63GMCL453
Power	For head	24VDC $\pm$ 10% 3A (24V, concurrent applied dot number: 192 dots)
	For printer motor	24VDC $\pm$ 10% 0.6A maximum
	For logic	2.7 to 3.3 / 4.75 to 5.25 VDC 0.1A maximum
Dimensions (WxDxH)	Printer mechanism	96.2 x 20.4 x 36.3mm ---
	Printer mechanism w/ cutter	--- 100.6 x 32.6 x 45.6mm
	Interface board (DCL/DSL)	TBA
Weight	Printer mechanism	110g ---
	Printer mechanism w/ cutter	--- 155g
	Interface board (DCL/DSL)	TBA
Expected life	Head	Pulse durability: 100 million pulse/dot (using Fujitsu Components' standard driving method) Wear resistance: 100km (at 12.5% print ratio)
	Cutter	--- 500,000 cuts min.
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-E4 (Nippon paper)
	Standard paper	TF-60KS-E (Nippon paper), FTP-020P0104 (58mm), PD150R (Oji paper), FTP-020P0701 (58mm)
	Medium term paper	TF-60KS-F1 (Nippon paper), FTP-020P0102 (58mm) PD170R (Oji paper) P220VBB-1 (Mitsubishi paper)
	Long term paper	PD160R-N (Oji paper)

■ Dimensions

- Printer mechanism 3-inch



- Printer mechanism / cutter 3-inch



Note: 1. Dimensions are nominal value )tolerance  $\pm 5\text{mm}$  unless otherwise specified.  
 2. Dimensions in ( ) is reference value.

■ Connector pin assignments of printer mechanism (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	DI	Data in	IN
10	/STB3	/Strobe3	IN
11	/STB4	/Strobe4	IN
12	VDD	Logic power	IN
13	GND	Head ground	-
14	GND	Head ground	-
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	TM	Thermistor	OUT
22	/STB1	/Strobe1	IN
23	/STB2	/Strobe2	IN
24	/LAT	/Data latch	IN
25	CLK	Clock	IN
26	VH	Head drive power	IN
27	VH	Head drive power	IN
28	VH	Head drive power	IN
29	VH	Head drive power	IN
30	N.C.	Not connected	-
31	SW	Platen switch release	OUT
32	SW	Platen switch release	OUT
33	MT_/A	Excitation signal /A	SINK/SOURCE
34	MT_/A	Excitation signal /A	SINK/SOURCE
35	MT_A	Excitation signal A	SINK/SOURCE
36	MT_A	Excitation signal A	SINK/SOURCE
37	MT_/B	Excitation signal /B	SINK/SOURCE
38	MT_/B	Excitation signal /B	SINK/SOURCE
39	MT_B	Excitation signal B	SINK/SOURCE
40	MT_B	Excitation signal B	SINK/SOURCE

## ■ Connector pin assignments of printer mechanism (FPC) 52745-1297 (Molex)

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	PHK	Cathode for photo interrupter	OUT
11	PHE	Emitter for photo interrupter	OUT
12	VSEN	Paper sensor power	IN

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