

# FUJITSU Component Thermal Printer FTP-62GUSL001/101-R series (High Speed)

Fujitsu 2" high speed (170mm/s) thermal printer unit with cutter option

## Overview

The FTP-62GUSL series thermal printer (driven by 24VDC provides high speed printing (170mm/s) for 2-inch wide paper.

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

## Features

- **High-speed printing**  
It can print at 170mm/s (1,360 dotlines/s) maximum by using Fujitsu Components' unique head drive control
- **Rear paper insertion mechanism with platen lock type**  
Fujitsu Components' unique platen release mechanism allows straight paper path and easy head maintenance. Accepts coreless paper roll.
- **Auto Cutter**  
Printer with auto cutter (full cut/partial cut) is available.
- **Compact size**  
FTP-62GUSL001: Depth: 95.9mm, width: 92mm, height: 115.4mm  
FTP-62GUSL101: Depth: 97.2mm, width: 96.3mm, height: 119mm
- **High resolution**  
8 dots/mm head provides clear print out
- **RoHS compliant**



FTP-62GUSL001



FTP-62GUSL101

## ■ Part numbers

Item	Part Number	
Printer unit	Panel mount	FTP-62GUSL001#01/#02 (Japanese/ Traditional Chinese font types)
	Metal frame	FTP-62GUSL101#01/#02 (Japanese/Traditional Chinese font types)
Interface cable	USB	FTP-62GY311#01
	RS-232C	FTP-62GY302
Power supply cable	Logic, head, motor	FTP-629Y603

## ■ Specifications

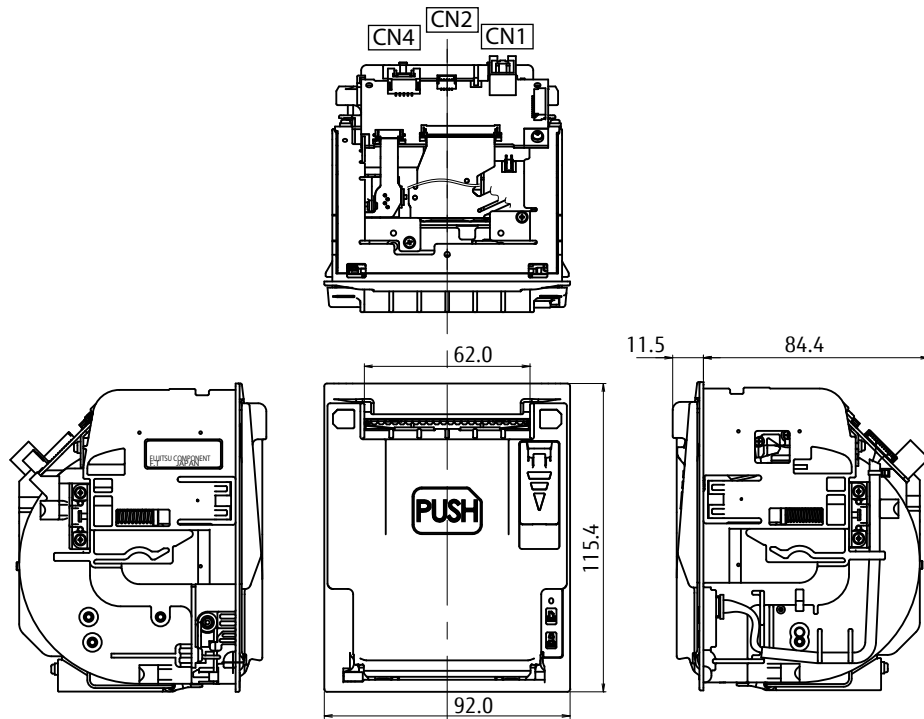
Item	Specifications	
Part number	FTP-62GUSL001#01/#02	FTP-62GUSL101#01/#02
Printing method	Thermal sensitive line dot method	
Dot structure	432 dots/lines	
Dot pitch (horizontal)	0.125mm (8 dots/mm) - Dot density	
Dot pitch (vertical)	0.125mm (8 dots/mm) - Line feed pitch	
Effective printing area	54mm	
Number of columns	ANK 36 columns/line (12 x 24 x dot font)	
Paper width	58mm +0/-1	
Paper thickness	60-100 $\mu$ m*1	
Cutting type	Full or partial	
Printing speed	170mm/s (1,360 dot lines/s) page mode	
Character types	Alphanumeric KANA International and special OCR I OCR III OCR IV Extended numeric Thai code 18 JIS KANJI level 1, 2, non-Kanji Traditional Chinese (big 5) Download External character	159 types 195 types 103 types 23 types 103 types 12 types 128 types 6,879 (#01) 13, 503 (#02) 224 types 94 types
Bar codes	1D	UPC-A, UPC-E, JAN(EAN)13, JAN(EAN)8, CODE 39, ITF, CODABAR, CODE128, GS1 DataBar-14, GS1 DataBar-14 Truncated, GS1 DataBar Limited
	2D	QR Code, GS1 DataBar-14 stacked, GS1 DataBar-14 Omnidirectional, GS1 DataBar-14 Expanded
Bit images	Size	Horizontal: 8 to 432 dots, vertical: 1 to 1, 023 dots
	Modification	Black/white reversible
Download images	Size	Horizontal: 8 to 432 dots, vertical: 1 to 255 dots (memory: 192KB)
	Modification	Black/white reversible, horizontal x 2, vertical x 2, x4, upside down
Detection functions	Marks, no paper, thermal head temperature irregularity, power voltage irregularity, platen open, cutter irregularity, transmission data irregularity, blowout of fuse, hardware irregularity, MCU operation irregularity, thermal head's thermal runaway, thermal head cable drop, non-volatile memory registration error, RAM irregularity	
Interface standard	RS-232C, USB Ver.2.0 (Full Speed)	

\*1: there may be exceptions

Item	Specifications	
Part number	FTP-62GUSL001#01/#02	FTP-62GUSL101#01/#02
Character dimensions (W x H), number of characters (applicable for FTP-62GUSL001#01 & #02)	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, large numeric
Power voltage	24VDC ±10%	
Power current	Logic	0.1A max.
	Thermal head	1.5A max. (at 24V, print ratio 12.5%)
	Paper feed motor	1.5A max.
	Cutter motor	1.5A max.
Dimensions (WxDxH)	Printer mechanism w/ cutter	92 x 95.9 x 115.4mm 97.2 x 96.3 x 119mm
Weight	Printer unit	336g 700g
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.
Environmental conditions	Operating temperature	0°C to +50°C (guaranteed, print quality assurance: +5°C to +40°C)
	Operating humidity	20 to 80% RH (no condensation)
	Storage temperature	-20°C to +60°C (excluding paper)
	Storage humidity	5 to 90% 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) TF50KJ-R (Nippon paper) HA220AA (Nippon paper)
MTFB	Mechanism	3,000 hours
	Control board	500,000 hours

■ Dimensions (FTP-62GUSL001#01/#02)

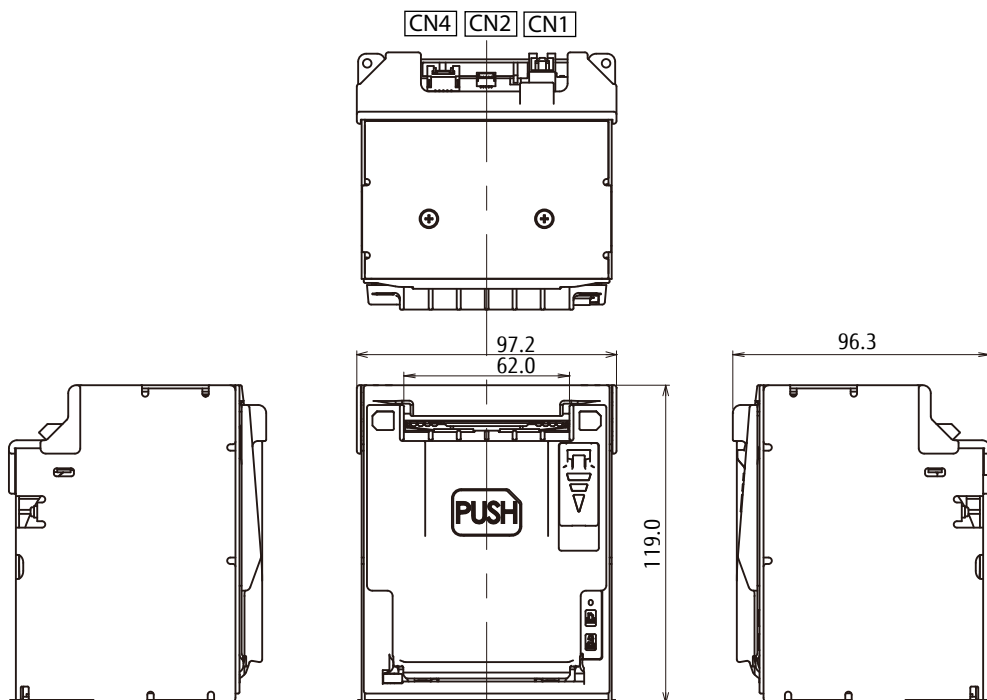
- 2-inch panel mount printer



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

■ Dimensions (FTP-62GUSL101#01/#02)

- 2-inch metal frame printer



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

■ Connector for power supply

- Connector for Logic, Head, Motor Power supply (CN1)  
Mating connector part number: VHR-2N (J.S.T). or equivalent

No.	Signal	I/O	Content	No.	Signal	I/O	Content
1	Vp	I	+24V power	2	GND	-	Ground

■ RS-232C standard

- Connector (CN2)  
Mating connector part number: SHR-05V-S (J.S.T.) or equivalent

No.	Signal	I/O	Content	No.	Signal	I/O	Content
1	RXD	I	Receive data	2	TXD	O	Transmission data
3	RTS (DTR)	O	Request to send	4	GND	-	Signal ground
5	CTS (DSR)	I	Clear to send				

Note: Symbol "-" means a negative logic signal.  
"I" or "O" means a signal direction from the interface board side (I: Input, O: Output).

■ USB standard

- (1) Connector (CN4)  
Mating connector part number: GHR-05V-S (J.S.T.) or equivalent

No.	Signal	I/O	Content	No.	Signal	I/O	Content
1	Vbus	I	Bus power supply	2	D-	O	D- terminal
3	D+	O	D+ terminal	4	GND	-	Signal ground
5	FG	-	Frame ground				

Note: Symbol "-" means a negative logic signal.  
"I" or "O" means a signal direction from the interface board side (I: Input, O: Output).

■ Host Interface

Item	Specifications
Interface standard	RS-232C 9,600bps (460,880bps, 230,400bps, 115,200bps, 38,400bps, 19,200bps - Selectable by command) Synchronization: Asynchronous, full-duplex transmission Flow control: RTS(DTR)/CTS(DSR) or XON/XOFF -Selectable by command I/O level: RS-232C level
	USB Ver. 2.0 (full speed) Transmission speed: Full speed (max. 12Mbps) Data input/output format: Differential

## ■ Commands

Command	Content
HT	Moves print position horizontal tab
LF	Line feed
FF	Feeds forms (new page)
ESC EM	Setting the amount of feeding at automatic paper feed
ESC RS	Sets reverse printing
ESC US	Resets reverse printing
ESC SP+n	Right side character spacing
ESC !+n	Sets print mode
ESC %+n	External registration character specification/cancellation
ESC &+y+c1+c2+x+d1 to dn	External registration character definition *1
ESC *+m+n1+n2+d1+dk	Set bit image mode
ESC -+n	Undeline setting
ESC 2	Sets 1/6 inch line feed length
ESC 3+n	Sets the line feed length
ESC ?+n	External registration character deletion *1
ESC @	Printer initialization
ESC A+n	Set the space between the line
ESC G+n	Sets length in line mode
ESC D+n1 to nk+NUL	Set the tab position
ESC J+n	Feeds paper in forward direction and prints
ESC K+n	Print and reverse paper feed
ESC R+n	Selects international character
ESC V+n	Right rotation 90° specification/cancellation
ESC X+m+n	Setting the turning time of the motor excitation
ESC c+1+n	Sets internal processing
ESC c+5+n	Panel switch valid/invalid setting
ESC d+n	Printing and n-line feeding
ESC e+n	Prints and reverses feeds n-line
ESC j	Full cut
ESC m	Partial cut
ESC s+n	Sets printing speed
ESC t+n	Character code table selection
ESC {+n	Sets/resets upside down printing
ESC DEL +n	Flash memory erase *1
FS !+n	Kanji printing mode collective specification *2
FS &	Kanji printing mode specification *2
FS *+m+n1+n2+d1 to dn	High speed collective image printing specified
FS -+n	Kanji underline specification/cancellation
FS .	Kanji printing mode cancellation
FS 2+c1+c2+d1 to dn	External character definition *1
FS 9+n	Sets/resets the detection functions

## ■ Commands

Command	Content
FS C+n	Standard energy setting
FS E+n	Correction of impressed energy
FS S+n1+n2	Kanji spacing setting
FS W+n	Kanji double height and width printing specification/cancellation
FS r+n	Parameter transmission (serial mode)
GS !+n	Character size setting
GS &+m+x+y1+y2+d1 to dn	Registered bit image definiton *1
GS '+m+n	Registered bit image printing
GS (+E+L1+L2+fn+d1 to d9 (fn=67)	RS-232C communication setting *1
GS <	Line feeds to the next mark
GS A+m+n	Sets the line feed length after mark detection
GS E+n	Sets print quality
GS L+n1+n2	Left margin setting
GS V+m+n	Paper cutting
GS W+n1+n2	Sets print area width
GS a+n	Sets automatic status transmission
GS e+m+n	Sets bar code width
GS h+n	Sets barcode height
GS k+m+n+d1~dn	Bar code print
GS k+m+k1+k2+k3+k4+{{p1}[d(1, 1)] to [d(1, j)]} to {{pi}[d(i, 1)] to [d(i, j)]}[00] 16	2D code (QR code) print
GS k+m+n+k+pL+pH+d1 to dn	Bar code (GS1 DataBar) print
GS k+m+n+k1+k2+k3+k4	Bar code (GS1 DataBar) setting
GS w+n	Sets bar code width magnification

Note: 1. It makes write/earase to the non-volatile memory  
2. Only the model is equipped with Kanji character

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