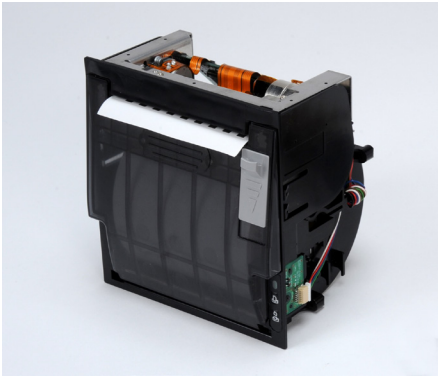
FUJITSU Component Thermal Printer
FTP-63GUSL001#04 series (High Speed)

Fujitsu 3" high speed panel mount printer with auto cutter

Overview

The FTP-63GUSL series thermal printer (driven by 24VDC) provides high speed printing (150mm/s) for 3-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.



FTP-63GUSL001

Features

- **High-speed printing**
  It can print at 150mm/s (1200 dotlines/s) maximum by using Fujitsu Components' unique head drive control
- **Fujitsu Components' unique platen release mechanism**
- **Auto Cutter**
  Auto cutter that performs either a full cut or partial cut is a standard feature. Fujitsu unique jam free mechanism allows easy maintenance when jam occurs
- **Compact size**
  Depth: 90mm, width: 111mm, height: 116mm
- **High resolution**
  8 dots/mm head provides clear print out
- **RoHS compliant**

■ Part numbers

Item		Part Number
Printer unit		FTP-63GUSL001#04 (Traditional Chinese font types)
Interface cable	USB	FTP-62GY311#01
	RS-232C	FTP-62GY302
Power supply cable	Logic, head, motor	FTP-62GY601

■ Driver software

Item	Operating system
Driver	Windows®10, Linux*1
SDK	OPOS

*1: Linux drivers are are available to our customers by request; please contact us for details.

■ Specifications

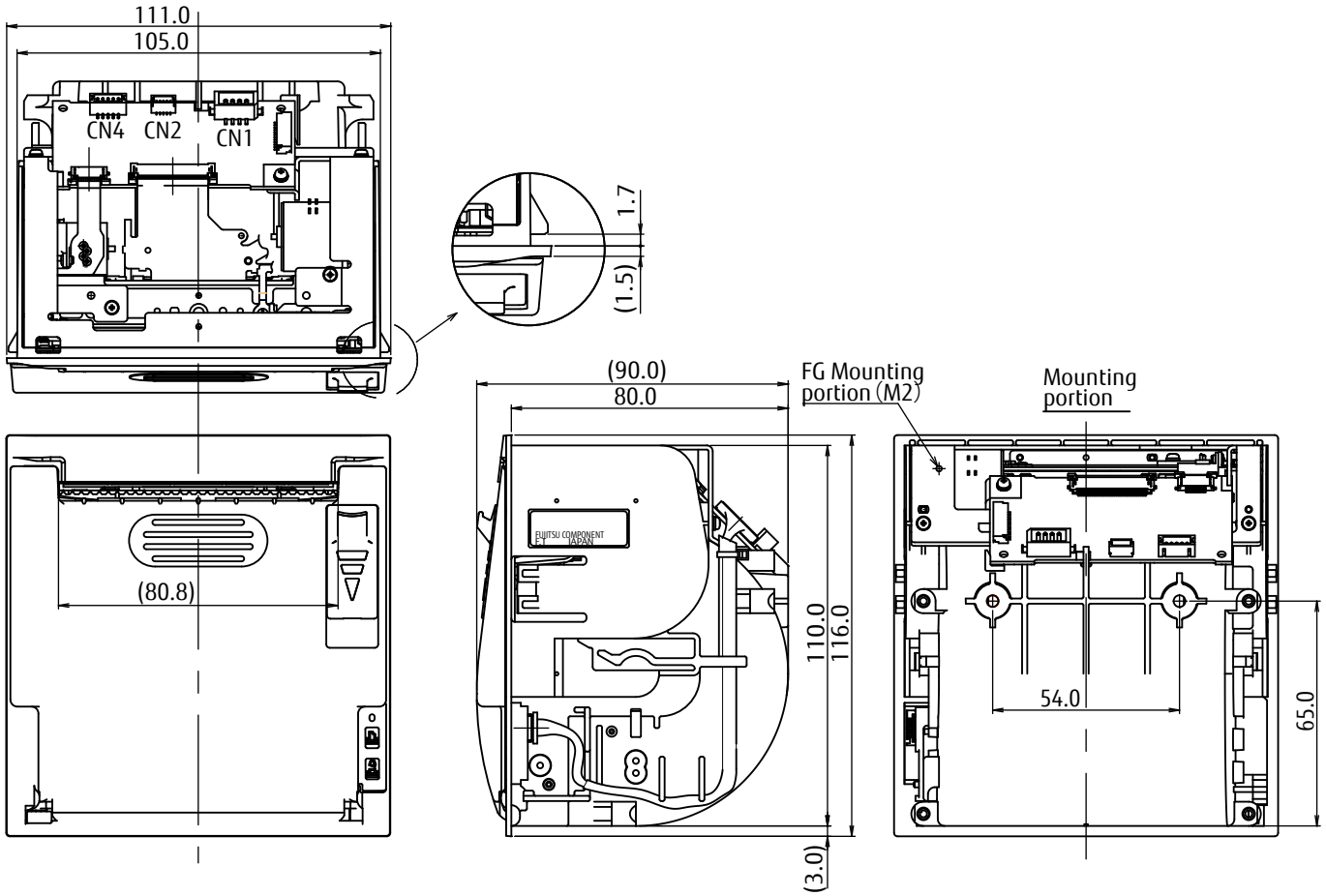
Item		Specifications
Part number		FTP-63GUSL001#04
Printing method		Thermal sensitive line dot method
Dot structure		576 dots/lines
Dot pitch (horizontal)		0.125mm (8 dots/mm) - Dot density
Dot pitch (vertical)		0.125mm (8 dots/mm) - Line feed pitch
Effective printing area		72mm
Number of columns		ANK 48 columns/line (12 x 24 x dot font)
Paper width		80mm +0/-1
Paper thickness		60-100µm*1
Paper roll diameter		Max. Ø83mm
Cutting type		Full or partial
Printing speed		150mm/s (1200 dot lines/s)
Paper feed		Forward / backward
Print mode		Line / page
Character types	Alphanumeric KANA International and special OCRI OCRIII OCRIV Extended numeric Thai code 18 Traditional Chinese	159 types 195 types 103 types 23 types 103 types 12 types 128 types 13, 503
Font		Japanese / Traditional Chinese
Bar codes	1D	UPC-A, UPC-E, Jan(EAN)13, JAN(EAN)8, CODE39, ITF CODEBAR, 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, PDF417

*1: there may be exceptions

Item		Specifications	
Part number		FTP-63GUSL001#04	
Bit images	Size	Horizontal: 8 to 576 dots, vertical: 1 to 1,023 dots	
	Modification	Black/white reversible	
Download images	Size	Horizontal: 8 to 576 dots, vertical: 1 to 255 dots (memory: 192KB)	
	Modification	Black/white reversible, horizontal x2, vertical x2, x4, upside down	
Download character		08x16 ANK, 12x24 ANK, 16x16 ANK, 24x24 ANK, 16x16 KANJI, 24x24 KANJI	
Detection functions		Black mark, 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	
Character modification		Horizontal tab, under line, black-white reversed, positional alignment, line spacing, character spacing, font type, font size, code table, 90° clockwise rotation	
Interface standard		RS-232C, USB Ver. 2.0 (full speed)	
Reset		Reset with software	
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, large numeric
Power		24VDC ±10%	
Power current	Logic	0.5A 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)		111.0 x 90.0 x 116.0mm (external), 105.0 x 80.0 x 110.0mm (internal)	
Weight		315g	
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	0°C to +50°C (guaranteed, print quality assurance: +5°C to +40°C)	
	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	TF-60KS-F1 (Nippon paper) P220VBB-1 (Mitsubishi paper)	
	Long term paper	PD160R (Oji paper) AFP-235 (Mitsubishi paper) TR50KJ-R (Nippon paper) HA220AA (Nippon paper)	
MTBF	Mechanism	3,000 hours	
	Control board	500,000 hours	

■ Dimensions

- 3-inch panel mount printer



Note: 1. Dimensions are nominal value) tolerance ±0.5mm 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: DF3-4S-2C (Hirose)

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	Vp	I	+24V power	2	Vp	I	+24V power
3	GND	-	Ground	4	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				

■ USB standard

• (1) Connector (CN4)
Mating connector part number: ZHR-5 (J.S.T.) or equivalent

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

Note: Symbol "-" in above tables mean a negative logic signal.
"I" or "O" means a signal direction from the interface board side.

■ Host interface

• (1) Connector (CN4)
Mating connector part number: ZHR-5 (J.S.T.) or equivalent

Item		Specifications
Interface standard	RS-232C	9,600bps (460.800bps, 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	Horizontal tab
LF	Line feed
FF	Forms feed
ESC FF	Data print in page mode *4
ESC EM+n	Automatic loading amount setting
ESC RS	Black-white reversed printing specification
ESC US	Black-white reversed printing cancellation
ESC SP+n	Character space setting
ESC !+n	Sets print mode
ESC $+n1+n2	Horizontal absolute position setting *4
ESC %+n	Downloaded character specification/cancellation
ESC &+y+c1+c2+x+d1 to dn	Downloaded character definition *1,3
ESC *+m+n1+n2+d1 to dk	Bit image print
ESC -+n	Underline setting
ESC 2	Set default line spacing
ESC 3+n	Line pitch setting
ESC ?+n	Downloaded character deletion *1,3
ESC @	Printer reset
ESC A+n	Line spacing setting
ESC C+n	Page length setting in line mode
ESC D+n1 to nk+NUL	Horizontal tab position setting
ESC E+n	Emphasis printing specification/cancellation
ESC J+n	Print and forward paper feed
ESC K+n	Print and backward paper feed
ESC L	Page mode selection *4
ESC Q+n+!+j	Frame overlay function setting *1,3
ESC R+n	International character specification
ESC S	Line mode selection *4
ESC T+n	Print direction setting in page mode *4
ESC V+n	90° clockwise rotation specification/cancellation
ESC W+x1+x2+y1+y2+dx1+dx2+dy1+dy2	Print area setting in page mode *4
ESC X+m+n	Motor excitation automatic cut time setting
ESC Y+SOH+ESC+x+a+FF+m+n+d~	Firmware download *1
ESC ¥+n1+n2	Horizontal relative position setting *4
ESC a+n	Position alignment
ESC c+1+n	Sets internal processing
ESC c+5+n	Panel switch valid/invalid setting
ESC d+n	Print and feed paper n-lines
ESC e+n	Prints and reverses feed paper n-lines
ESC ¡	Full cut
ESC m	Partial cut
ESC s+n	Sets printing speed

■ Commands

ESC t+n	Character code table selection
ESC {+n	Upside down printing specification/cancellation
ESC DEL +n	Non-volitile memory deletion *1, 3
FS !+n	Kanji printing mode collective specification *2
FS &	Kanji printing mode specification *2
FS *+m+n1+n2+d1 to dk	High speed batch image print *4
FS -+n	Kanji underline specification/cancellation *2
FS .	Kanji printing mode cancellation *2
FS 2+c1+c2+d1 to dn	User defined character definition *1, 2, 3
FS 9+n	Sets/resets the detection functions
FS C+n	Kanji code system selection *2
FS E+n	Standard energy setting
FS S+n1+n2	Kanji spacing setting *2
FS W+n	Specify/cancel double-tall, double wide Kanji characters *2
FS r+n	Reply parameter setting
GS !+n	Select character size
GS $ +n1+n2	Vertical absolute position setting in page mode *4
GS &+m+x+y1+y2+d1 to dn	Downloaded bit image definiton *1,3
GS ‘+m+n	Downloaded image print *3
GS (+E+L1+L2+fn+d1 to d9 (fn=67)	RS-232C communication setting *1, 3
GS (+E+L1+L2+fn+d1 to d9 (fn=68)	USB communication setting *1, 3
GS <	Mark detection execution
GS A+m+n	After-mark-detection head distance setting
GS B+n	Bar code angle setting *4
GS E+n	Sets print quality
GS H+n	HRI character printing position selection
GS L+n1+n2	Left margin setting
GS V+m+n	Cut paper
GS W+n1+n2	Print area width setting
GS ¥+n1+n2	Vertical relative position setting in page mode *4
GS a+n	Sets automatic status transmission
GS e+m+n	Sets bar code width
GS f+n	HRI character font selection *4
GS h+n	Sets barcode height
GS k+m+n+d1 to 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)]}NUL	QR code print
GS k+m+k1+k2+k3+k4+nL+nH+d1 to dn	PDF417 code print
GS k+m+n+k+pL+pH+d1 to dp	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

Notes: *1: Makes write/erase to the nonvolatile memory.
*2: Only the model is equipped with Kanji character.
3: Only the model equipped with the extended nonvolatile memory.
4. Only the model equipped with the extended volatile memory.

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