FCL Components Thermal Printer
FTP-63GUSL001 series
(High Speed)

FCL Components 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 FCL Components' unique head drive control
- **FCL Components' unique platen release mechanism**
- **Auto Cutter**
  Auto cutter that performs either a full cut or partial cut is a standard feature. FCL Components' 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 (Japanese/Traditional Chinese font types)
Interface cable	USB	FTP-62GY301
	RS-232C	FTP-62GY302
Power supply cable	Logic, head, motor	FTP-62GY601

■ Driver software

Item	Operating system
Driver	Windows® 10 64bit, Windows 11 64bit, Linux*1
SDK	OPOS, Android

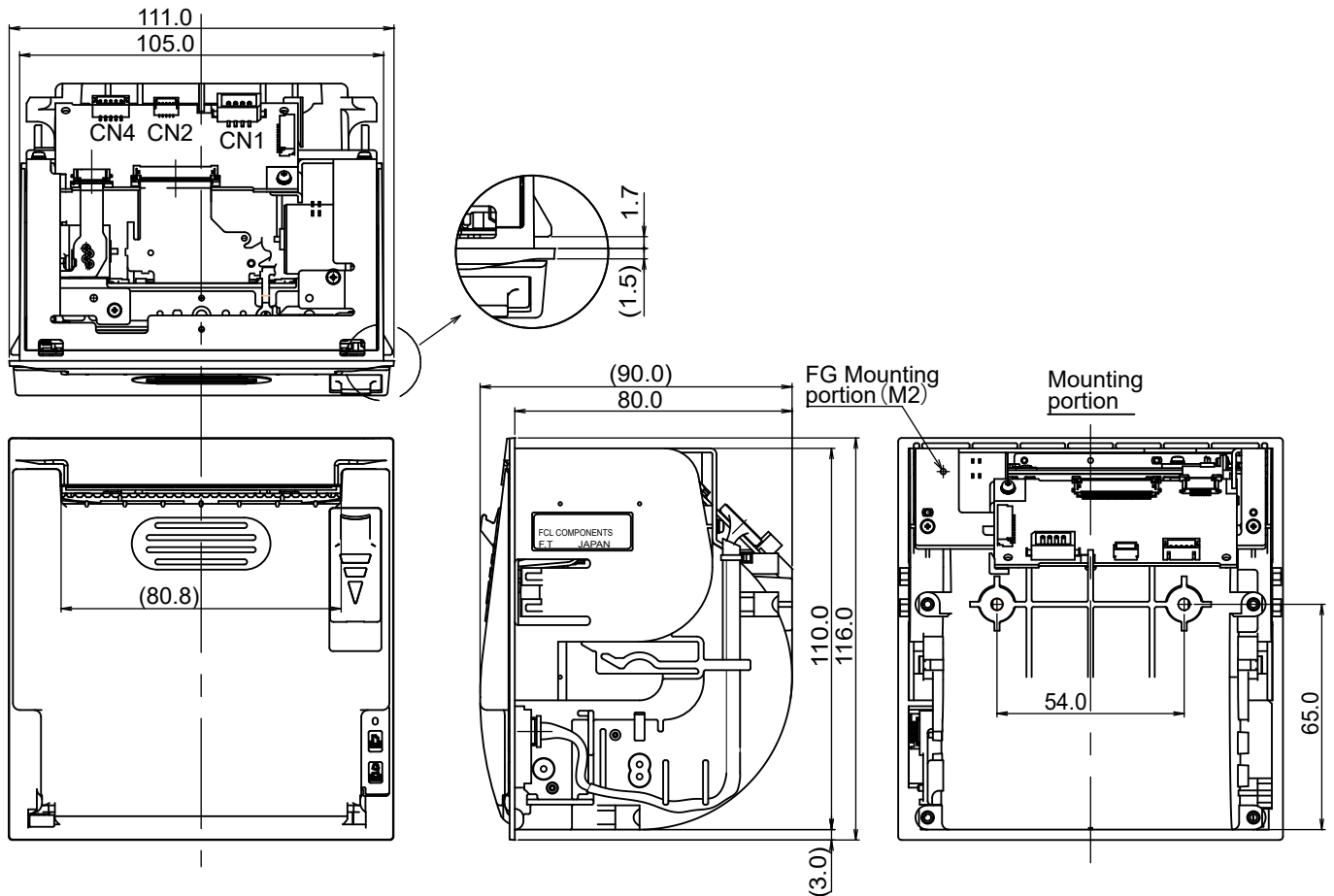*1: Linux drivers are are available to our customers by request; please contact us for details.

■ Specifications

Item		Specifications
Part number		FTP-63GUSL001
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)
Print mode		Line / page
Character types	Alphanumeric KANA	159 types
	International and special	195 types
	OCRI	103 types
	OCRIII	23 types
	OCRIV	103 types
	Extended numeric	12 types
	Thai code 18	128 types
	Download	224 types
	External characters	94 types
	JIS KANJI	6,879 types
	Traditional Chinese (big 5)	13,503 types
Font		ANK, Thai, JIS KANJI, Taditional 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 Da-taBar-14 Expanded, PDF417

*1: There may be exceptions

Item		Specifications	
Part number		FTP-63GUSL001	
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 512 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 FCL 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) 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

• 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	VBUS signal	2	D-	I/O	D- Signal
3	D+	I/O	D+ signal	4	GND	-	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

• 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) Communication method: Full duplex communication Synchronous method: Asynchronous 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

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