# FUJITSU Component Thermal Printer
## FTP-62DDSL001 series
## Interface Board

Fujitsu interface board for low voltage printer mechanisms

### Features

- Interface board for FTP-60D thermal printer mechanisms
- RS232C (max. 230,400bps) and USB (full speed) interface
- Various detection functions: paper, mark, thermal head temperature, power supply voltage, etc.
- Alphanumeric barcode printing available
- UL File No. E171434
- RoHS compliant



FTP-62DDSL

### ■ Part numbers

| Part number | Interface type | Length | Max. printing speed | Mechanism part numbers |
|---|---|---|---|---|
| FTP-62DDSL001 | USB/RS232C | 2-inch | 100mm/sec. | FTP-62DMCL101#02<br>FTP-62DMCL111#02 |

### ■ Font

| | |
|---|---|
| Font | Alphanumeric, Kana: 159, International: 195 |
| Dot structure | 8 x 16 dots, 12 x 24 dots |

### ■ Barcode and image

| | | |
|---|---|---|
| Barcode | 1D | UPC-A, UPC-E, JAN(EAN)13, JAN(EAN)8, CODE39, ITF, CODABAR, CODE128 |
| Bit image | | Horizontal: 8 to 384 dots, vertical 1 to 1023 dots |

■   Specifications

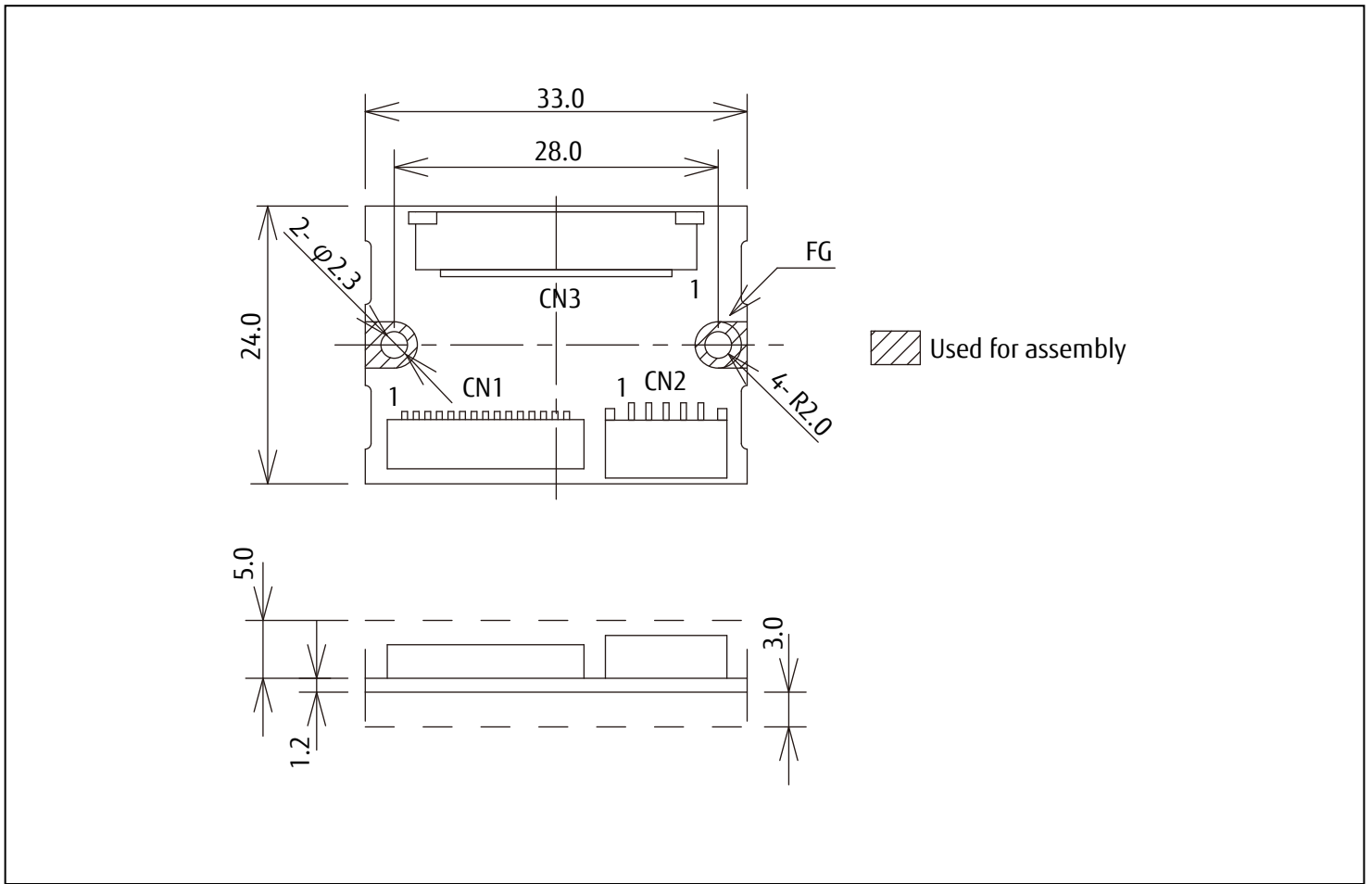| Item | Specifications |
|------|----------------|
| Dimension | 33 x 24mm |
| Weight | Approx. 5g |
| Communication interface | RS-232C (max. 230,400bps)<br>USB full speed (max. 12Mbps) |

■   Print/paper feed specifications

| Item | Specifications | Notes |
|------|----------------|-------|
| Dot pitch | 0.125mm (H) x 0.125mm (W) | |
| Number of dots | 384 dots | |
| Max. print width | 48mm | |
| Line space | Approx. 1/8 inch (26 dots/line) | Changeable by command |
| Print speed | Max. 100mm/s | White line may appear depending on printing pattern or division control when printing. Please evaluate in advance |
| Paper feed (/ATF) | Approx. 30mm/s | |

■   Interface specifications at host side

| Item | Specifications |
|------|----------------|
| USB Ver. 2.0 | Data speed: Full speed (max. 12Mbps.)<br>Differntial input/output |
| RS-232C | Dataspeed: 9,600 /  19,200 / 38,400 / 115,200 / 230, 400 bps*<br>Synchronous method: Asynchronous communication, full duplex<br>Flow control: RTS (DTR)• CTS (DSR) signal or X ON / X OFF*<br>Input/output level: RS-232C level |

**\*:** Settings changed by command

■   Dimensions



■   Connectors

| Symbol | Name |
| --- | --- |
| CN1 | Power supply and serial interface connector |
| CN2 | USB connector |
| CN3 | Printer mechanism connector |

■  Connector for motor power supply, serial transmission

•  Connector (CN1)

Recommended housing:  SHR-15V-S (J.S.T.) or equivalent

| No. | Signal | I/O | Content | No | Signal | I/O | Content |
|---|---|---|---|---|---|---|---|
| 1 | $V_p$ | I | Power input | 2 | $V_p$ | I | Power input |
| 3 | $V_p$ | I | Power input | 4 | $V_p$ | I | Power input |
| 5 | GND | - | Head ground | 6 | GND | - | Head ground |
| 7 | GND | - | Head ground | 8 | GND | - | Head ground |
| 9 | RXD | I | Receive data | 10 | TXD | O | Transmit data |
| 11 | RTS (DTR) | O | Request to send | 12 | CTS (DSR) | I | Clear to send |
| 13 | /SLCTIN | I | Detection function disabled signal | 14 | /INPRM | I | Initialization signal |
| 15 | /ATF | I | Paper feed | | | | |

■  USB  connector

•  Connector (CN2)

Recommended housing:  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 - |
| 3 | D+ | I/O | Differential data + | 4 | FG | - | Frame ground |
| 5 | GND | - | Signal ground | | | | |

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

■  Connector for printer mechanism

•  Connector (CN3)

Please refer to the printer mechanism specifications.

■ Commands

| Command | Content |
| --- | --- |
| HT | Moves print position |
| LF | Line feed |
| FF | Feeds forms (new page)*1 |
| DC2 | Power down |
| ESC RS | Sets reverse printing |
| ESC US | Resets reverse printing |
| ESC SP+n | Character spacing setting |
| ESC !+n | Sets print mode |
| ESC *+m+nL+nH+d1~dk | Prints bit image |
| ESC -n | Undeline setting |
| ESC 2 | Sets default line spacing |
| ESC 3+n | Sets the line feed length |
| ESC @ | Printer initialization |
| ESC A+n | Set the space between the line |
| ESC C+n | Sets the page length by character line |
| ESC D+n1~nk+NUL | Set the tab position |
| ESC J+n | Feeds paper in forward direction and prints |
| ESC R+n | Selects internationl character |
| ESC V+n | Right rotation 90° specification/cancellation |
| ESC X+m+n | Setting the turning time of the motor excitation*2 |
| ESC a+n | Position alignment |
| ESC c+1+n | Sets internal processing |
| ESC c+5+n | External input signal valid/invalid setting*3 |
| ESC d+n | Printing and n-line feeding |
| ESC s+n | Sets printing speed*4 |
| ESC t+n | Character code table selection |
| ESC {+n | Sets/resets updside down printing |
| FS 9+n | Sets the detection functions |
| FS E+n | Correction of impressed energy |
| FS r+n | Parameter transmission (serial mode) |
| GS !+n | Character size setting |
| GS (EL1+L2+fn+d1~d9(fn=67) | RS-232C communication setting*5 |
| GS (K+pL+pH+fn | Print control setting |
| GS (K+pL+pH+fn+n (fn=49) | Print density setting |
| GS (K+pL+pH+fn+n (fn=50) | Print speed setting*6 |
| GS (K+pL+pH+fn+n (fn=97) | Macro definition start/end*7 |
| 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+nL+nH | Sets left margin |

## ■ Commands

| Command | Content |
|---|---|
| GS W+nL+nH | Sets print area width |
| GS a+n | Sets automatic status transmission |
| GS e+m+n | Sets bar code width |
| GS h+n | Sets bar code height |
| GS k+m+n+d1~dn | Bar code print |
| GS w+n | Barcode horizontal size setting |

*[1]: This product does not support labels and cut sheets as described in the command specification.

*[2]: This product will be "1-phase excitation" instead of "Small current excitation"

*[3]: This product does not support labels and cut sheets. Automatic paper feed function is described in the command specification. Please use the default value (continuous forms).

*[4]: This product does not support speed mode 6 to 15 as described in the command specification. Please use in the range of speed mode 1 to 5.

*[5]: This product does not support 460.8kbps as described in the command specification. Please use in the range of 9.6kbps to 230.4kbps.
This command writes to the flash memory by parameters. Please see command specification.

*[6]: The relationship between Speed level and Print speed is shown in the table below.

| Speed level | Print speed | Speed level | Print speed | Speed level | Print speed | Speed level | Print speed |
|---|---|---|---|---|---|---|---|
| Level 1 | Not used | Level 4 | 12.5mm/s | Level 7 | 40mm/s | Level 10 | 80mm/s |
| Level 2 | Not used | Level 5 | 15mm/s | Level 8 | 50mm/s | Level 11 | 100mm/s |
| Level 3 | Not used | Level 6 | 25mm/s | Level 9 | 60mm/s | Level 12 | Not used |

*[7]: The relationship between head division and simultaneous energizing dots is shown below.
Simultaneous energizing dots = Number of line dots / number of head division
(E.g. Number of line dots: 384 dots  Number of head division: 4   Simultaneous energizing dots: 384 dots / 4= 94 dots)

## ■ Options

| Item | Part number | Connector | Length |
|---|---|---|---|
| USB interface cable | FTP-62GY301 | USB-A plug and ZHR-5 (J.S.T.) | 1m |

---

---

---