

INTERFACE BOARDS FOR FTP-627/637DCL/ DSL25X SERIES

■ INTERFACE

1. Centronics interface

(1) Connector (CN1)

Connector part number : BM30B-SRDS-G-TFC (JST) or equivalent

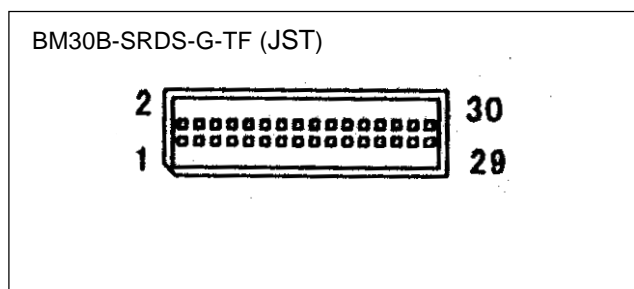
Mating connector part number : SHDR-30V-S-B (JST) or equivalent

(2) Connector pin assignment

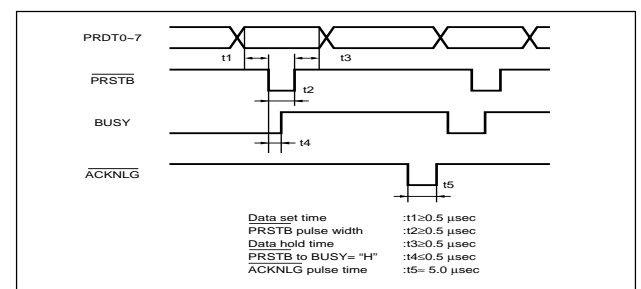
| No. | Signal | I/O | Contents | No. | Signal | I/O | Contents |
|-----|----------------------------|-----|------------------------|-----|--------------------------------|-----|------------------------|
| 1 | $\overline{\text{PRSTB}}$ | I | Data strobe | 2 | $\overline{\text{PRSTB-RET}}$ | — | Connected to logic GND |
| 3 | PRDT0 | I | Data 0 | 4 | PRDT0-RET | — | Connected to logic GND |
| 5 | PRDT1 | I | Data 1 | 6 | PRDT1-RET | — | Connected to logic GND |
| 7 | PRDT2 | I | Data 2 | 8 | PRDT2-RET | — | Connected to logic GND |
| 9 | PRDT3 | I | Data 3 | 10 | PRDT3-RET | — | Connected to logic GND |
| 11 | PRDT4 | I | Data 4 | 12 | PRDT4-RET | — | Connected to logic GND |
| 13 | PRDT5 | I | Data 5 | 14 | PRDT5-RET | — | Connected to logic GND |
| 15 | PRDT6 | I | Data 6 | 16 | PRDT6-RET | — | Connected to logic GND |
| 17 | PRDT7 | I | Data 7 | 18 | PRDT7-RET | — | Connected to logic GND |
| 19 | $\overline{\text{ACKNLG}}$ | O | Data input acknowledge | 20 | $\overline{\text{ACKNLG-RET}}$ | — | Connected to logic GND |
| 21 | BUSY | O | Busy | 22 | BUSY-RET | — | Connected to logic GND |
| 23 | RINF2 | O | Printer status 2 | 24 | $\overline{\text{INPRM-RET}}$ | — | Connected to logic GND |
| 25 | $\overline{\text{SLCTIN}}$ | I | Printer select | 26 | $\overline{\text{INPRM}}$ | I | Reset |
| 27 | RINF1 | O | Printer status 1 | 28 | RINF3 | O | Printer status 3 |
| 29 | $\overline{\text{ATF}}$ | I | Paper feed request | 30 | GND | — | Logic GND |

- Notes:
- Symbol “—” means a negative logic signal.
 - “-RET” signal is a return signal of the twisted pair cable.
 - “I” or “O” means a signal direction from the interface board side.

(3) Connector pin number



(4) Data input signal timing



(5) Printer status signals

| | Error status | RINF1 | RINF2 | RINF3 |
|----|------------------------------|-------|-------|-------|
| 1. | Paper out | Low | High | Low |
| 2. | Paper near end | High | High | Low |
| 3. | Head up | High | Low | Low |
| 4. | Head temperature abnormality | High | Low | High |
| 5. | Head voltage abnormality | Low | High | High |
| 6. | Hardware abnormality | High | High | High |
| 7. | Mark detection abnormality | Low | Low | Low |
| 8. | Normal | Low | Low | High |

2. RS-232C

(1) Connector (CN2)

Connector part number : B8B-ZR-SM3A-TF (J.S.T.) or equivalent

Mating connector part number : ZHR-8 (J.S.T.) or equivalent

(2) Connector pin assignment

| No. | Signal | I/O | Contents No. | No. | Signal | I/O | Contents No. |
|-----|---------------------------|-----|---------------------|-----|----------------------------|-----|--------------------|
| 1 | RD | I | Receive data | 2 | TD | O | Transmission data |
| 3 | DTR | O | Data terminal ready | 4 | GND | - | Signal ground |
| 5 | DSR | I | Data set ready | 6 | $\overline{\text{SLCTIN}}$ | I | Printer select |
| 7 | $\overline{\text{INPRM}}$ | I | Reset | 8 | $\overline{\text{AFT}}$ | I | Paper feed request |

Notes:

- Symbol “ $\overline{\quad}$ ” means a negative logic signal.
- “I” or “O” means a signal direction from the interface board side.

■ CONNECTOR PIN ASSIGNMENT OF MECHANISM (FPC)

1. Thermal Head (CN 3)

Part number : 52610-2490 Molex or equivalent

FTP-627MCL401 PIN ASSIGNMENT

| No | Signal | I/O | Contents |
|----|--------|-----|--------------------------------|
| 1 | PHK | — | Cathode |
| 2 | VSEN | O | Logic power supply |
| 3 | PHE | | Paper out detection signal |
| 4 | +24 V | — | Power supply for thermal head |
| 5 | DO | O | Print data out signal |
| 6 | STB2 | O | Head energizing control signal |
| 7 | STB3 | O | |
| 8 | +5V | O | Logic power supply |
| 9 | GND | — | Gound of power supply |
| 10 | GND | — | |
| 11 | GND | — | |
| 12 | TM | I | Thermistor |
| 13 | STB1 | O | Head energizing signal |
| 14 | LAT | O | Print data latch signal |
| 15 | CLK | O | Datacomm clock signal |
| 16 | +24V | — | Power supply for thermal head |
| 17 | +24V | — | |
| 18 | SW | O | Platen open detection signal |
| 19 | SW | — | |
| 20 | MT-A | — | Phase signal for motor |
| 21 | MT-/A | — | |
| 22 | MT-B | — | |
| 23 | MT-/B | — | |
| 24 | NC | — | Not connected |

2. Cutter unit (CN 4)

Part number : 52610-0890 Molex or equivalent

FTP-627MCL401PIN ASSIGNMENT

| No | Signal | I/O | Contents |
|----|--------|-----|------------------------|
| 1 | VSEN | O | Logic power supply |
| 2 | PHE | | Home Position Signal |
| 3 | PHK | - | Cathode side of sensor |
| 4 | MTA | - | Cutter drive signal |
| 5 | MT/A | - | Cutter drive signal |
| 6 | MTB | - | Cutter drive signal |
| 7 | MT/B | - | Cutter drive signal |
| 8 | N.C. | - | Not connected |

■ CONNECTOR PIN ASSIGNMENT OF MECHANISM (FPC)

1. Thermal Head (CN 9)

Part number : 52610-3090 Molex or equivalent

FTP-637MCL401 PIN ASSIGNMENT

| No | Signal | I/O | Contents |
|----|--------|-----|-------------------------------|
| 1 | PHK | — | Cathode |
| 2 | VSEN | O | Logic power supply |
| 3 | PHE | | Paper out detection signal |
| 4 | +24 V | — | Power supply for thermal head |
| 5 | +24V | — | |
| 6 | +24V | — | |
| 7 | DO | O | Print data out signal |
| 8 | STB3 | O | Head energizing signal |
| 9 | STB4 | O | |
| 10 | +5V | O | Logic power supply |
| 11 | GND | — | Ground for thermal head |
| 12 | GND | — | |
| 13 | GND | — | |
| 14 | GND | — | |
| 15 | GND | — | |
| 16 | GND | — | |
| 17 | TM | | Thermistor |
| 18 | STB1 | O | Head energizing signal |
| 19 | STB2 | O | |
| 20 | LAT | O | Print data latch signal |
| 21 | CLK | O | Datacomm clock signal |
| 22 | +24V | — | Power supply for thermal head |
| 23 | +24V | — | |
| 24 | +24V | — | |
| 25 | SW | | Platen open detection signal |
| 26 | SW | O | |
| 27 | MT-A | — | Phase signal for motor |
| 28 | MT-/A | — | |
| 29 | MT-B | — | |
| 30 | MT-/B | — | |

2. Cutter unit (CN10)

Part number : 52610-0890 Molex or equivalent

FTP-637MCL401 PIN ASSIGNMENT

| No | Signal | I/O | Contents |
|----|--------|-----|------------------------|
| 1 | VSEN | O | Logic power supply |
| 2 | PHE | | Home Position Signal |
| 3 | PHK | - | Cathode side of sensor |
| 4 | MTA | - | Cutter drive signal |
| 5 | MT/A | - | Cutter drive signal |
| 6 | MTB | - | Cutter drive signal |
| 7 | MT/B | - | Cutter drive signal |
| 8 | N.C. | - | Not connected |

■ INTERFACE BOARD CONNECTOR PIN ASSIGNMENT

1. Connector for logic power supply (CN6)

Part number : S3B-PH-SM3-TB (J.S.T) or equivalent (board side)

| No. | Signal | I/O | Contents No. | No. | Signal | I/O | Contents No. |
|-----|--------|-----|------------------------|-----|--------|-----|---------------|
| 1 | +5V | - | Power supply for logic | 2 | NC | - | No connection |
| 3 | GND | - | Ground | | | | |

2. Connector for power supply for head/motor (CN7)

Part number : S6B-XH-SM3-TB (J.S.T) or equivalent (board side)

| No. | Signal | I/O | Contents No. | No. | Signal | I/O | Contents No. |
|-----|--------|-----|-----------------------|-----|--------|-----|-----------------------|
| 1 | +24V | | Power supply for head | 2 | +24V | | Power supply for head |
| 3 | +24V | | Power supply for head | 4 | GND | - | Ground |
| 5 | GND | - | Ground | 6 | GND | - | Ground |

3. Connector for paper near-end sensor detection (CN8)

Part number : B2B-PH-SM3-TB (J.S.T) or equivalent (board side)

| No. | Signal | I/O | Contents No. | No. | Signal | I/O | Contents No. |
|-----|--------|-----|------------------------|-----|--------|-----|---------------------------------|
| 1 | +5V | - | Power supply for logic | 2 | NES | I | Paper near-end detection signal |

■ COMMANDS

| Command | Contents |
|--|---|
| HT | Moves print position to the next tab. |
| LF | Line feed. |
| FF | Feeds forms (new page). |
| ESC EM+n | Setting the amount of the feeding at automatic paper feed. |
| ECS RS | Sets reverse printing. |
| ESC US | Resets reverse printing. |
| ESC ! + n | Sets print mode. |
| ESC % + n | External registration character specification/cancellation. |
| ESC &+y+c ₁ +c ₂ +x+d ₁ ~d _N | Download character definition. |
| ESC *+m+n ₁ +n ₂ +d ₁ ~d _N | Sets bit image mode. |
| ESC 2 | Sets 1/6 inch line feed length. |
| ESC 3+n | Sets the line feed length. |
| ESC ? + n | External registration character deletion. |
| ESC @ | Printer initialization. |
| ESC A+n | Sets the space between the line. |
| ESC C+n | Sets the page length by character line. |
| ESC D+d ₁ ~d _N +NUL | Sets the tab position. |
| ESC J+n | Feeds paper in forward direction and prints. |
| ESC K+n | Reverse paper feed. |
| ESC R +n | International character specification. |
| ESC V+n | Right rotation 90°. |
| ESC X+m+n | Setting the turning time of the motor excitation. |
| ESC c+1+n | Sets internal processing (including auto paper loading). |
| ESC d+n | Printing and n-line feeding. |
| ESC e +n | Prints and reverse feeds n-lines. |
| ECS s+n | Sets printing speed. |
| ECS t+n | Character code table selection. |
| ESC {+n | Sets/resets upside down printing. |

Commands continued

| Command | Contents |
|---|--|
| FS !+n | Kanji printing mode collective specification. |
| FS & | Kanji printing mode specification. |
| FS *+m+n ₁ +n ₂ +d ₁ ~d _N | High speed collective image printing specified. |
| FS . | Kanji printing mode cancellation. |
| FS 9+n | Detection function enable/disable setting. |
| FS C+n | Kanji code system selection. |
| FS E+n | Correction of impressed energy. |
| FS W+n | Kanji double height and width mode specification/cancellation. |
| GS &+m+x+y ₁ +y ₂ +d ₁ ~d _N | Registration of image data. |
| GS '+m+n | Prints registered image data. |
| 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 V+n+m | Paper cutting (for pending cutter models only). |
| GS e+n+m | Sets bar code width. |
| GS h+n | Sets bar code height. |
| GS k+m+n+d ₁ ~d _N +NUL | Selects bar code type and prints. |
| GS w+n | Sets bar code width magnification. |
| GS a+n | Setting and cancellation of auto status transmission (serial mode only). |
| FS r+n | Parameter transmission. (Serial Mode only). |

■ OPTIONS

1. Cables

| Name | | Part Number | Length (mm) |
|---|----------------------|-------------|-------------------|
| Interface Cable (between board and equipment) | For Centronics (CN1) | FTP-628Y202 | 500 (19.7 inches) |
| | For RS232C (CN2) | FTP-628Y302 | 500 (19.7 inches) |
| Power supply cable | Logic (CN6) | FTP-629Y401 | 300 (11.8 inches) |
| | Head / motor (CN7) | FTP-629Y601 | |

2. Paper holder

| Name | Part number |
|--------------|-------------|
| Paper Flange | FTP-040HF |
| Paper Stand | FTP-040HS |

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