

INTERFACE BOARDS FOR FTP-622DCL4xx / DSL4xx

■ INTERFACE

1. Centronics standard

(1) Connector (CN2)

Connector part number : FCN-605Q030-G/M (Fujitsu Components) or equivalent

Mating connector part number : FCN-607B030-G/B (Fujitsu Components) 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	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	28	RINF3	O	Printer status
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

FCN-605Q030-G/M (Fujitsu Components)

(4) Data input signal timing



(5) Printer Status Signal

2. RS-232C standard

(1) Connector (CN3)

Connector part number : B9B-PH-K-S (J.S.T.) or equivalent

Mating connector part number : PHR-9 (J.S.T.) or equivalent

(2) Connector pin assignment

No.	Signal	I/O	Contents No.	No.	Signal	I/O	Contents No.
1	FG	-	Frame ground	6	DSR	I	Data set ready
2	RD	I	Receive data	7	$\overline{\text{SLTIN}}$	I	Detection setting, invalid
3	TD	O	Transmission data	8	$\overline{\text{INPRM}}$	I	Initialize request
4	DTR	O	Data terminal ready	9	$\overline{\text{ATF}}$	I	Paper feed request
5	GND	-	Signal ground				

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 INTERFACE BOARD

1. Power Connector (CN1)

B6P-VH J.S.T. or equivalent (P.C.B. side)

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	+V5	-	Power for logic	2	GND	-	Ground (+5V)
3	GND	-	Ground (+VH)	4	GND	-	Ground (+VH)
5	+VH	-	Power for head / motor	6	+VH	-	Power for head / motor

Notes: Symbol “-” means a negative logic signal, “I” or “O” means a signal direction from the interface board side.

2. Sensor (CN4)

Mechanism side : PHR-5 (J.S.T) or equivalent

Control circuit side : B5B-PH-K-S (J.S.T) or equivalent

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	+5 V	-	Logic power	2	PES	I	Paper out detection
3	GND	-	Logic ground	4	+5 V	-	Logic power
5	HUP	I	Head up detect switch				

3. Paper Near End Detection (CN5) B2B-PH-K-S (J.S.T.) or equivalent

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	+V5	-	Power for logic	2	NES	I	Paper near end detection

■ CONNECTOR PIN ASSIGNMENT OF PRINTER MECHANISM (FPC)

4. Thermal head control circuit side (CN6)

Part number : 52045-2810 (Molex) or equivalent
FTP-622 MCL101/102/353/354

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	VDH	O	Power for thermal head	2	VDH	O	Power for thermal head
3	VDH	O	Power for thermal head	4	VDH	O	Power for thermal head
5	HO	O	Data out	6	STB3	O	Clock
7	STB4	O	Print data latch	8	5VH	O	Not connected
9	GND	-	Print enable 1	10	GND	-	Thermistor
11	GND	-	Head GND	12	GND	-	Head GND
13	GND	-	Head GND	14	GND	-	Head GND
15	GND	-	Head GND	16	GND	-	Head GND
17	GND	-	Head GND	18	GND	-	Head GND
19	TMP	I	Thermistor	20	STB1	O	Head energizing control
21	STB2	O	Head	22	LAT	O	Print data latch
23	HLCK	O	head	24	HDR	I	Data input
25	VDH	O	Power for thermal head	26	VDH	O	Power for thermal head
27	VDH	O	Power for thermal head	28	VDH	O	Power for thermal head

FTP-632 MCL101/102/353/354

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	VDH	O	Power for thermal head	2	VH	O	Power for thermal head
3	DH	O	Power for thermal head	4	VH	O	Power for thermal head
5	HO	O	Data out	6	STB2	O	Clock
7	STB3	O	Print data latch	8	5VH	O	Print enable 2
9	GND	-	Print enable 1	10	GND	-	Thermistor
11	GND	-	Head GND	12	GND	-	Head GND
13	GND	-	Head GND	14	GND	-	Head GND
15	GND	-	Head GND	16	GND	-	Head GND
17	GND	-	Head GND	18	GND	-	Head GND
19	TMP	I	Thermistor	20	STB1	O	Head energizing control
21	N.C.	-	Head	22	LAT	O	Print data latch
23	HLCK	O	Data	24	HDR	I	Data input printing
25	VDH	O	Power for thermal head	26	VDH	O	Power for thermal head
27	VDH	O	Power for thermal head	28	VDH	O	Power for thermal head

5. Motor (CN7)

Mechanism side : PHR-4 (J.S.T) or equivalent
 Control circuit side : B4B-PH-K-S (J.S.T) or equivalent

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	MT/A	O	Stepping coil motor excitation A	2	MT/A	O	Stepping coil motor excitation A
3	MT/B	O	Stepping coil motor excitation B	4	MT/B	O	Stepping coil motor excitation B

6. Auto Cutter (CN8)

B4B-EH (J.S.T.) or equivalent

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	CHP	I	Cutter home position detect	2	GND	-	Ground (+5V)
3	M+	O	Cutter motor driving	4	M-	O	Cutter motor driving

7. Paper Out (CN9)

No	Signal	I/O	Contents	No	Signal	I/O	Contents
1	ATF	I	Paper feed	2	GND (+5V)	-	Ground of logic power

■ 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	Download character set specification/cancellation (valid only when optional memory is installed).
ESC &y+c1+c2+x+d1 todn	External registraion character definition.
ESC *+m+n1+n2+d1+dN	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 (valid only when optional memory is installed).
ESC @	Printer initialization.
ESC A+n	Sets the space between the line.
ESC C+n	Sets the page length by character line.
ESC D+d1+dN +NUL	Sets the tab position.
ESC J+n	Feeds paper in forward direction and prints.
ESC K+n	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 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.
FS !+n	Kanji printing mode collective specification (valid only for FTP-624DSL438).
FS &	Kanji printing mode specification (valid only for FTP-622DSL438).

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Commands continued

Command	Contents
FS *+m+n1+n2+d1+dN	High speed collective image printing specified.
FS .	Kanji printing mode cancellation (valid only for FTP-622DSL438).
FS 9+n	Sets the detection functions.
FS C+N	Kanji code system selection.
FS E+n	Correction of impressed energy.
FS W+n	Kanji double height and width printing specification / cancellation
GS &+m+x+y1+y2+d1+dN	Registration of image data.
GS '+m+n	Prints registered image data.
GS < X	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 (this command is only available for chip).
GS e+n+m	Sets bar code width.
GS h+n	Sets bar code height.
GS k+m+n+d1+dN	Selectes bar code type and prints.
GS w+n	Sets bar code length.
GS a+n	Sets and cancels auto status transmission (valid only for DSL).
FS r+n	Parameter transmission (valid only for DSL).

■ OPTIONS

1.

Name	Part number	Cable length
Interface cable (CN2) (Centronics, DCL)	FTP-441Y201	500mm (19.7 inch)
Interface cable (CN7) (Serial, DSL)	FTP-622Y301	500mm (11.8 inch)
Power supply cable (CN1) head, motor, logic	FTP-622Y401	500 mm (11.8 inch)
Thermal head (CN6) (FFC)	FTP-622Y801	270mm (10.6 inch)

2. Paper holder (2-, 3-, 4-inch)

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

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