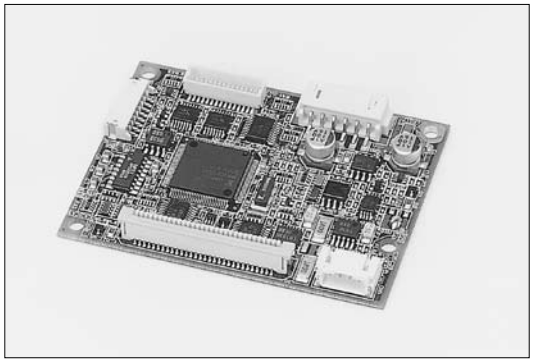
FUJITSU THE POSSIBILITIES ARE INFINITE

INTERFACE BOARD
FTP-608 SERIES
FTP-628DCL300/301, DSL305/306 SERIES

■ HIGHLIGHTS



- I/F board for low profile mechanism
- Supports parallel or serial I/F
- Supports bar code and graphics
- Windows®2000/XP, Linux drivers
- UL File No. E171434
- RoHS compliant

■ PART NUMBERS

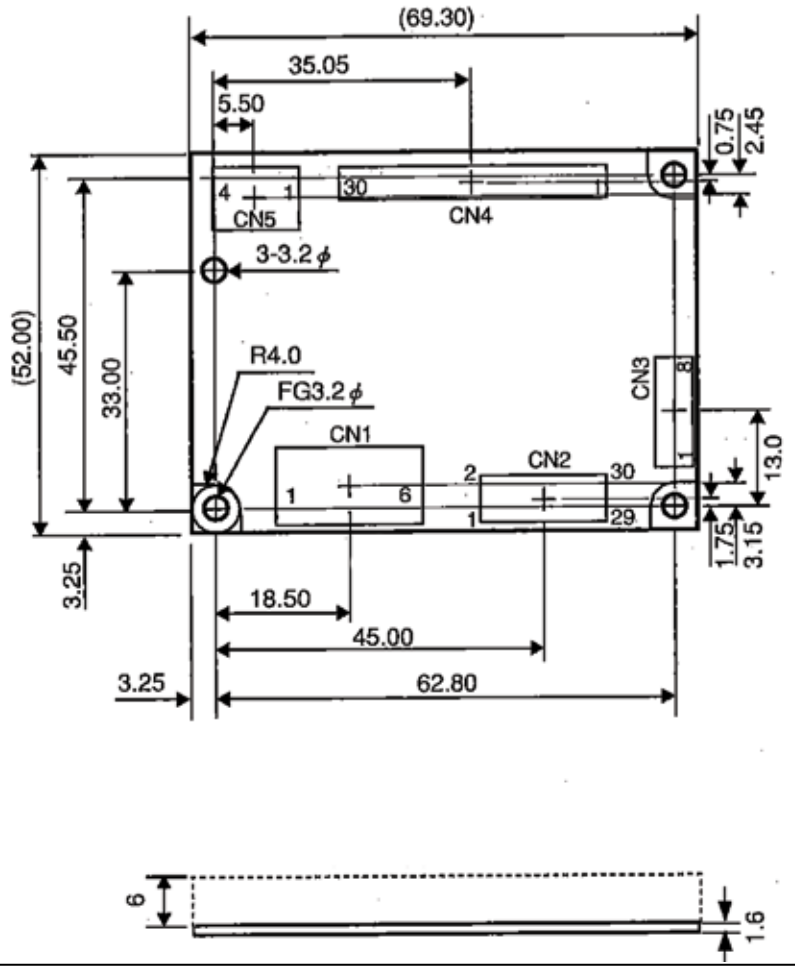
Part Number	Interface Type	Cutter	Mechanism Part Number
FTP-628DCL300R	Parallel (Centronics)	No	FTP-628MCL053 FTP-628MCL054 FTP-628MCL101/103 FTP-628MCL113 FTP-638MCL101/103
FTP-628DCL301R		Yes	FTP-628MCL353#01, #02 FTP-628MCL354#01, #02
FTP-628DSL305R	Serial (RS-232C)	No	FTP-628MCL053 FTP-628MCL054 FTP-628MCL101/103 FTP-628MCL113 FTP-638MCL101/103
FTP-628DSL306R		Yes	FTP-628MCL353#01, #02 FTP-628MCL354#01, #02

FTP-628MCL101 / FTP-638MCL101: Platen detection function must be disabled to use mechanism without platen switch.

■ INTERFACE SPECIFICATION AT HOST SIDE

Item	Specifications	
Centronics	Data speed: Synchronous method: Handshake: Input/output level:	28,000 bytes/sec. Extended strobe pulse BUSY/ACKNLG signal CMOS
RS-232C	Data speed: Synchronous method: Handshake: Input/output level:	19,200 bps Full duplex DTR/DSR, control RS-232C

■ DIMENSIONS



Unit: mm

No	Name	FTP-628 DCL300	FTP-628 DCL301	FTP-628 DSL305	FTP-628 MCL306
CN1	Power	O	O	O	O
CN2	Centronics	O	O	X	X
CN3	RS-232C I/F	X	X	O	O
CN4	Head / motor	O	O	O	O
CN5	Auto cutter	X	O	X	O

■ INTERFACE

1. Centronics interface

(1) Connector (CN2)

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

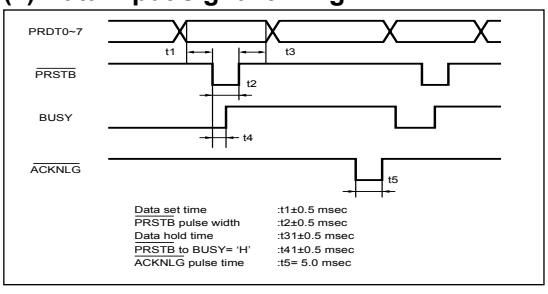
No.	Signal	I/O	Contents	No.	Signal	I/O	Contents
1	$\overline{\text{PRSTB}}$	I	Data strobe	2	$\overline{\text{PRSTB}}$-RET	—	Connected to logic GND
3	PRDT0	I	Data 0	4	PRDT0-RET	—	Connected to logic GND
5	PRDT1	I	Data 1	6	PRDT1-RET	—	Connected to logic GND
7	PRDT2	I	Data 2	8	PRDT2-RET	—	Connected to logic 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

BM30B-SRDS-G-TF (JST)

(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 (CN3)

Connector part number : S8B-ZR-SM4B-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	$\overline{\text{ATF}}$	I	Paper feed request

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

■ CONNECTOR PIN ASSIGNMENT

1. Connector for power supply (CN1)

Part number : S6B-XH-SM4-TB (J.S.T) or equivalent (board side)
Mating connector part number: XHP-6

No.	Signal	I/O	Contents No.	No.	Signal	I/O	Contents No.
1	+V5	-	Power supply for logic	2	GND	-	Ground for power supply
3	GND	-	Ground for head / motor	4	GND	-	Ground for head / motor
5	Vdd	-	Power supply for head motor	6	Vdd	-	Power supply for head motor

2. Connector for printer mechanism connection (CN4) FTP-628MCL053/054/101/ 103/353/354

Part number : 52610-3090 (made by Molex)

No.	Name of Signal	Direction	Note	No.	Name of Signal	Direction	Note
1	PSGND	-	Paper sensor power supply	16	TM1	Input	Thermally sensitive resistor input terminal 1
2	PSVD	-	Paper sensor power supply grand	17	TM2	Input	Thermally sensitive resistor input terminal 2
					(STB2)	(Output)	(Thermal head energizing control signal)
3	*PES	Input	Signal of paper sensor	18	STB3 (STB1)	Output	Thermal head energizing control signal
4	HUP	Input	Signal of head up sensor	19	STB2 $\overline{(AE02)}$	Output	
5	HSVD	-	Head up sensor power 5 supply	20	STB1 $\overline{(AE01)}$	Output	
6	VH	-	Thermal head power supply	21	GND	-	Thermal head power supply grand
7	VH	-		22	GND	-	
8	HD	Input	Input signal of print data	23	$\overline{LAT}$	Output	Thermal head data latch signal
9	HCLK	Output	Synchronous clock for communication	24	HDO	Output	Print data signal
10	GND	-	Thermal head power supply grand	25	VH	-	Thermal head power supply
11	GND	-		26	VH	-	
12	STB6 (STB5)	Output	Thermal head energizing control signal	27	MT/A	-	Stepping motor drive signal
13	STB5 (STB4)	Output		28	MT/$\overline{A}$	-	
14	STB4 (STB3)	Output		29	MT/B	-	
15	5VH	-	Power supply for thermal head control	30	MT/$\overline{B}$	-	

Note: Two-inch mechanism besides ( ) (Three-inch mechanism in).

3. Auto-cutter (CN5)

Part number : S4B-PH-SM3-TB (JST or equivalent)

No	Signal	I/O	Note	No	Signal	I/O	Note
1	CHP	I	Auto cutter home position	2	GND (+5V)	-	Logic ground
3	MT+	O	Motor control signal	4	MT-	O	Auto-cutter motor drive

■ COMMANDS

Command	Contents
HT	Moves print position to the next tab.
LF	Line feed.
FF	Feeds forms (new page).
DC 2	Power down.
ECS RS	Sets reverse printing.
ESC US	Resets reverse printing.
ESC ! + n	Sets print mode.
ESC *+m+n1+n2+[d]k	Sets bit image mode.
ESC 2	Sets 1/6 inch line feed length.
ESC 3+n	Sets the line feed length.
ESC @	Printer initialization.
ESC A+n	Sets the space between the line.
ESC C+n	Sets the page length by character line.
ESC D+[n]k+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 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.
ESC V+n	Right Rotation 90° specification / cancellation.
ESC EM+n	Setting the amount of the feeding at automatic paper feed.
ESC X+m+n	Setting the turning time of the motor excitation.
ESC %+n	External registration character specification / cancellation.
ESC &+y+c+c2+x+d1~dn	External registration character definition.
ESC ?+n	External registration character deletion.

Commands continued

Command	Contents
FS E+n	Correction of impressed energy.
FS 9+n	Sets the detection functions.
FS r+n	Parameter transmission (valid only for DSL).
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 (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+[d]k	Selectes bar code type and prints.
GS w+n	Sets bar code length.
GS a+n	Sets and cancels status transmission (valid only for DSL).

■ OPTIONS

1. Cables

Name		Part Number	Length (mm)
Interface Cable (between board and equipment)	For Centronics (CN2)	FTP-628Y202	500 (19.7 inches)
	For RS232C (CN3)	FTP-628Y302	500 (19.7 inches)
Power supply cable (CN1)		FTP-628Y402	300 (11.8 inches)

2. Driver LSI of Control Board

Name	Part Number	Quantity / Tray	Remarks
MCU	FTP-628CU301R	90	

3. Paper holder

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

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