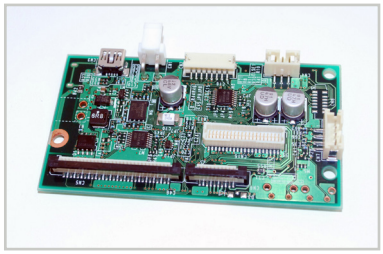
Thermal Printer
FTP-629DSL311-R
Interface Board

Interface board for 24V FTP-6xGMCL series

Features

- USB Ver. 2.0 (full speed) and RS-232C (max. 230.4kbps) serial interface
- Supports alphanumeric, Kanji, Kana, Thai, Traditional Chinese, registration of image patterns, various barcode printing
- Drivers Windows Vista® Windows® 7, 8, 10
- RoHS compliant



Part numbers

Part number	Supply voltage	Interface type	Mechanism part number
FTP-629DSL311-R	24V	USB Ver. 2.0 RS-232C	FTP-629MCL series FTP-639 MCL series

Interface specification at host side

Item	Specifications	
USB V2.0	Transmission rate: Data Input/Output method:	Full speed 12Mbps max. Differential
RS-232C	Data speed: Synchronous method: Handshake: Output level:	9,600, 19,200, 38,400, 115,200, 230,400 bps* Asynchronous, full-duplex communication RTS (DTR) / CTS (DSR) control, XON/XOFF control* RS-232C level

Notes: *Changeable settings by command
Underline indicates default setting

Accessories (optional)

Item		Part number	Connector	Length
Interface cable*	USB	FTP-629Y301#01-R	USB A - USB mini B	1m
	RS-232C	FTP-628Y302-R	ZHR-8 (J.S.T.) Connector equipped at one side	0.5m
Power supply cable*		FTP-629Y603-R	VHR-2 (J.S.T.) Connector equipped at one side	0.5m

Note: *Cables are RoHS compliant

■ Specifications

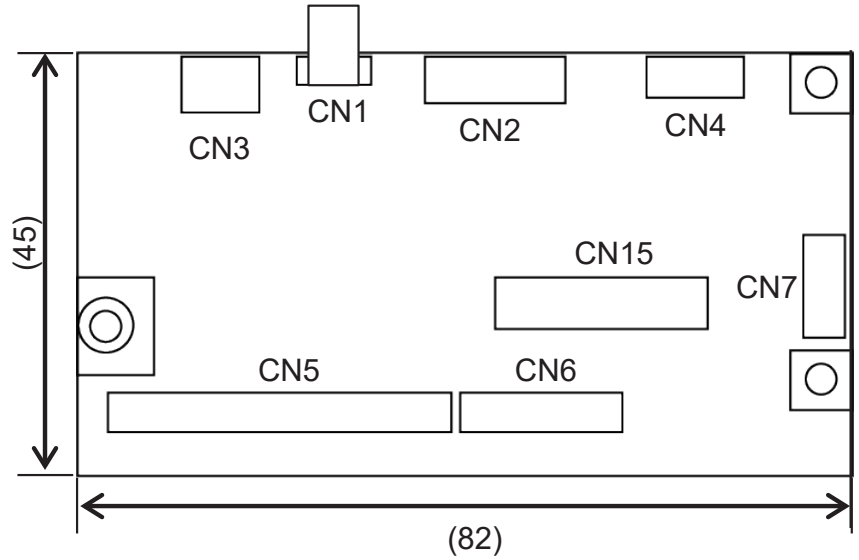
1.1 Base specifications

Item	Specifications
Dimensions	82×45×17.2 mm
Weight	Approx. 20g
Communication interface *1	RS-232C USB full speed (max. 12Mbps)

1.2 Print/paper feed specifications

Item			Specifications
Part number			FTP-629DSL311-R
Power supply			24VDC ±10%
Printing speed			Max. 200mm/sec.
Printing specifications	Printing mode		Line mode, page mode
	Character types		Kanji, non-kanji:6,879 Traditional Chinese: 13,503 Alphanumeric and katakana: 159 International and special characters: 195, OCR: 229 Enlarged characters: 12 External characters: 94 Download; 224
	Character structure *1		8×16 dots, 12×24 dots, 16×16 dots, 24×24 dots, 24×40 dots, 24×48 dots, 36×60 dots
	Barcode	1D	UPC-A, UPC-E, JAN(EAN)13, JAN(EAN)8, CODE39 ITF, CODABAR, CODE128, GS1 DataBar-14, GS1 DataBar-14 Truncated, GS1 DataBar Limited
		2D	QR code, PDF417, GS1DataBar-14 stacked, GS1 DataBar-14 Omnidirectional, GS1 DataBar-14 Expanded
	Bit image	Size	Horizontal: 8 to 432 dots (2-inch), 8 to 576 dots (3-inch), 8 to 640 dots (640 dots type), vertical: 1 to 1023 dots
		Modification	Black-white reversed
	Download image	Size	Horizontal: 8 to 432 dots (2-inch), 8 to 576 dots (3-inch), 8 to 640 dots (640 dots type) Vertical: 1 to 512 dots
		Modification	Black-white reversed, double width size, double height size, quadruple size, upside down
Detection function			Mark, paper, near end, power supply irregularity, platen open, cutter irregularity, transmission data irregularity, hardware irregularity, MCU operation irregularity, fuse blow, thermal head's thermal runaway, thermal head's cable disconnection, non-volatile memory irregularity, RAM irregularity, motor temperature irregularity
Environment	Operating temperature/ humidity		0 to 50°C (guarantee: +5 to +40°C, with FCL Components' recommended thermal paper) 20 to 85%RH (No condensation)
	Storage temperature/ humidity		-20 to +60°C (excluding paper), 5 to 90%RH (No condensation)

■ Dimensions



Unit: mm
( ): Reference

■ Control circuit board and connector types

Symbol	Name	Function
CN1	Power supply connector	To connect +24V power supply
CN2	RS-232C I/F connector	To connect RS-232C interface
CN3	USB I/F connector	To connect USB interface
CN4	Near end connector	To connect near end sensor
CN5	Printer mechnism connector	To connect mechanism
CN6	Printer mechnism connector	To connect mechanism (Head/paper sensor)
CN7	Cutter connector	To connect cutter
CN15	Printer mechanism wire harness connector	To connect printer mechanism and harness

■ Connector Pin Assignment of interface board

Note: Symbol “-” means a negative logic signal.
“I” or “O” means a signal direction from the interface board side.(|: input, O: output)
Equipped connectors may be changed. Please check carefully when using equivalent connectors.

- Power supply connector (CN1)
  Mating connector part number: VHR-2N (J.S.T.) or equivalent

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	Vp	I	Power input	2	GND	I	Ground

- RS-232C connector (CN2)
  Mating connector part number: ZHR-8 (J.S.T.) or equivalent

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	RXD	I	Receive data signal	2	TXD	O	Transmission data signal
3	RTS	O	Request to send signal	4	GND	-	Signal ground
5	CTS	I	Clear to send signal	6	/SIN	I	Detection function setting signal
7	/RST	I	Initialization request signal	8	/ATF	I	Feed input signal

- USB connector (CN3)
  Mating connector part number: USB mini-B type

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	NC	-	Not connected
5	GND	-	Ground	Shell	FG	-	Frame ground

- Near end connector (CN4)
  Mating connector part number: PHR-3 (J.S.T.) or equivalent

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	NVCC	O	Near end sensor power	2	/NES	I	Near end signal input
3	NSEK	-	Near end sensor cathode				

- Printer mechanism connector (CN5/CN6)
  Pin array: See the printer mechanism specifications.
- Printer mechanism connector (CN7)
  Pin array: See the printer mechanism specifications.

- Printer mechanism wire harness connector (CN15)
  Mating connector part number: SHDR-40V-S-B (J.S.T.) or equivalent

No.	Signal	I/O	Content	No	Signal	I/O	Content
1	SW	I	Platen open switch terminal	2	SW	I	Platen open switch terminal
3	VH	-	Head drive power	4	VH	-	Head drive power
5	VH	-	Head drive power	6	VH	-	Head drive power
7	DO	O	Head data output terminal	8	629: /STB2 639: /STB3 639 (640): STB2	O	Head strobe terminal
9	629: /STB2 639: /STB3 639 (640): N.C.	O	Head strobe terminal	10	VDD	-	Logic power
11	HTM (GND)	-	Head thermistor terminal	12	GND	-	Ground
13	GND	-	Ground	14	GND	-	Ground
15	GND	-	Ground	16	GND	-	Ground
17	GND	-	Ground	18	GND	-	Ground
19	GND	-	Ground	20	GND	-	Ground
21	HTM	1	Head thermistor terminal	22	/STB1	O	Head strobe terminal
23	629: N.C. 639: /STB2 639 (640): N.C.	O	Head strobe terminal	24	/LAT	O	Head data terminal latch
25	CLK	O	Head data clock terminal	26	DI	I	Head data input terminal
27	VH	-	Head drive power	28	VH	-	Head drive power
29	VH	-	Head drive power	30	VH	-	Head drive power
31	NC	-	No connected	32	MTM	I	Motor thermistor terminal
33	MTM (GND)	-	Motor thermistor terminal	34	MT A	I/O	Excitation signal A
35	MT/A	I/O	Excitation signal /A	36	MT B	I/O	Excitation signal B
37	MT/B	I/O	Excitation signal /B	38	PHK	I	Paper sensor cathode terminal
39	VSEN	-	Paper sensor power	40	PHE	I	Paper sensor emitter terminal

Contact

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