

# 24V DRIVE, ULTRA HIGH SPEED LINE THERMAL PRINTER 3" MECHANISM, WITH CUTTER

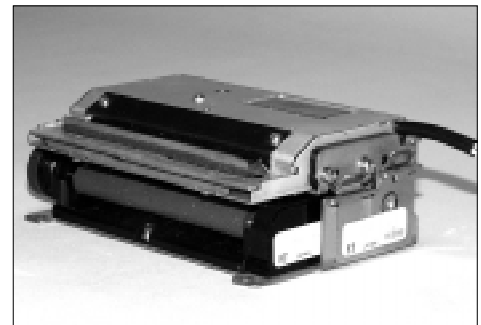
## FTP-632MCL301/302

### ■ OVERVIEW

FTP-632MCL/FTP-622DCL/DSL Series is an ultra high speed line thermal printer driven by 24 VDC, printing on 3-inch wide paper (80 mm/85 mm).

This printer is compact and light weight, and the design allows easy head maintenance, head cleaning and head replacement.

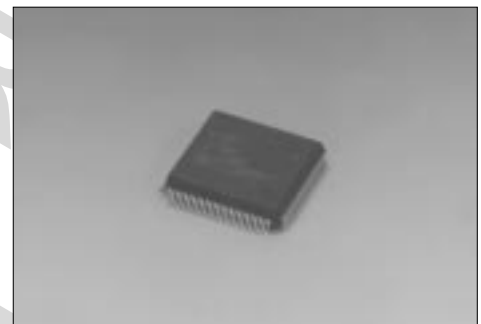
This printer is suitable for a variety of applications, such as POS terminals, ticket machines, coupon machines, label printers, medical instruments, etc. A printer with a specially designed cutter is also available.



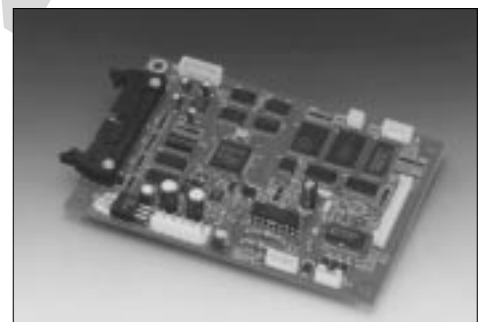
FTP-632MCL301

### ■ HIGHLIGHTS

- **Ultra high speed printing**  
It can print at 80 mm/s (640 dotlines/s) maximum by using Fujitsu Components' unique head drive control.
- **Compact and lightweight**  
This printer has a low profile of only 20 mm, and a light weight of approximately 94 g.
- **Low power consumption**  
The peak current for head driving is approximately 2.9 A (at 80 mm/s printing speed, 50% printing ratio).
- **Easy head access**  
It is designed for easy head cleaning and head replacement.
- **Paper auto loading function**  
Thermal paper can be loaded without head-up lever operation.
- **ESC/POS™<sup>\*1</sup> Commands**  
The commands conform to ESC/POS™.
- **Auto Cutter**  
Printer with auto cutter (full cut/partial cut) is also available.
- **UL Recognized**  
File No.E171434



FTP-622CU101



FTP-622DCL011

\*1 ESC/POS™ is a registered trademark of SEIKO EPSON Corp.

## ■ DESIGNATION

Item		Part number
Printer mechanism	With Auto cutter	FTP-632MCL301/302 <sup>*1</sup>
Interface board	Centronics Standard with Auto cutter	FTP-622DCL011/111 <sup>*2</sup>
	Serial (RS-232C)	FTP-622DSL011/012 <sup>*3</sup>
LSI(MCU)		FTP-622CU101 <sup>*4</sup>

\*1: Constructed with mechanism+cutter+attachment. 301 is for front paper insertion (curl path) and 302 is for rear paper insertion (straight path).

\*2: 011 supports ANK and 101 supports ANK + Kanji.

\*3: 012 supports ANK and 111 supports ANK + Kanji, + FLASH memory.

\*4: CU101 supports Kanji and cutter control.

## ■ GENERAL SPECIFICATIONS

Item		Specifications
Part number		FTP-632MCL301/302
Printing method		Thermal-sensitive line dot method
Dot structure		576 dots/line
Dot pitch (Horizontal)		0.125 mm (8 dots/mm)—Dot density
Dot pitch (Vertical)		0.125 mm (8 dots/mm)—Line feed pitch
Effective printing area		72 mm
Paper width	MCL301	80 mm
	MCL302	85 mm
Paper thickness		60~100 μm <sup>*1</sup>
Cutting type		full or partial
Number of columns		48 columns/line (24×12 dot font)
Maximum printing speed		640 dotlines/s (80 mm/s)
Character types		Alphanumeric KANA: 159 International characters: 195 JIS KANJI (FTP-622DCL101/111): approximately 6800
Character composition, dimensions (H×W), Number of characters		24 × 12 dots, (3.0 × 1.5 mm), 48 columns 24 × 24 dots, (3.0 × 3.0 mm), 24 columns 16 × 8 dots, (2.0 × 1.0 mm), 72 columns 16 × 16 dots, (2.0 × 2.0 mm), 36 columns

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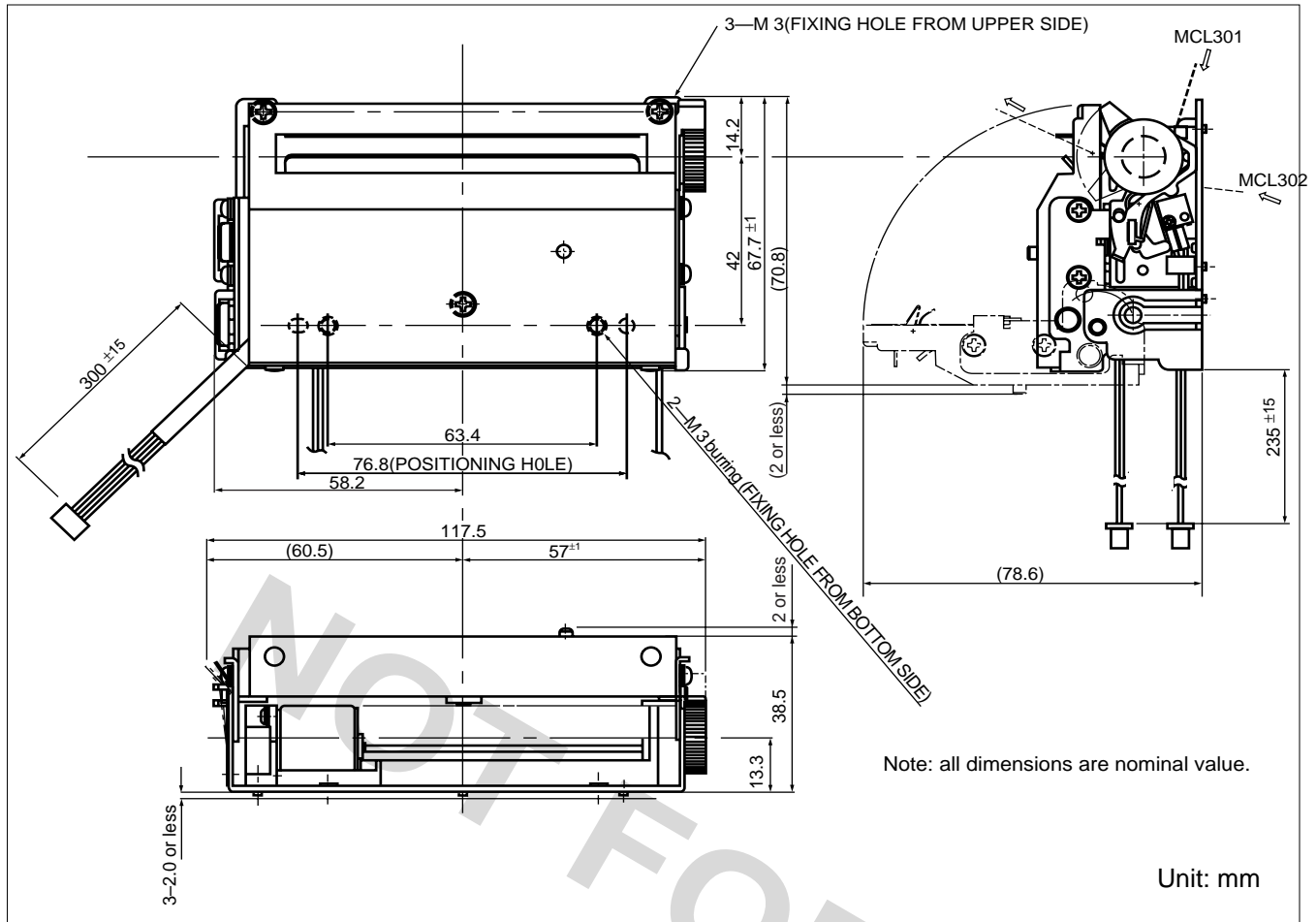
Item		Specifications
Part number		FTP-632MCL301/302
Interface		Centronics (ESC/POS™), RS232C
Power supply	For head	24 VDC ± 5%, Voltage Current : average <sup>2</sup> ( ): Peak 1.11 (1.45) A (at 80 mm/s printing speed, 25% printing ratio) 0.81 (1.45) A (at 50 mm/s printing speed, 25% printing ratio) 0.75 (0.87) A (at 30 mm/s printing speed, 25% printing ratio)
	For motor	24 VDC ± 5%, 1.0 A maximum
	For cutter	24VDC ± 5%, 1.0 A maximum
	For logic	5 VDC ± 5%, 0.5 A maximum
Dimensions	Mechanism (cutter)	123 (W) × 70 (D) × 42 (H) mm (w/cutter)
	Interface board	131 (W) × 89 (D) × 24 (H) mm
Weight (Mechanism+Cutter)		approximately 380 g (w/cutter)
Expected life	Mechanism	Pulse durability : $1 \times 10^8$ pulse/dot (using Fujitsu's standard driving method) Wear resistance : 50 km (at 25% printing ratio)
	Cutter	$3 \times 10^5$ cuts
Environmental conditions	Operating temperature	0 to +50°C <sup>3</sup>
	Operating humidity	20 to 85% RH (no condensation)
	Storage temperature	-20 to +60°C (excluding paper)
	Storage humidity	5 to 95% RH (no condensation)
Detection	Head temperature	By thermistor (applied energy control, abnormal temperature detection)
	Paper out/Mark detect	By photointerrupter
	Head-up	By microswitch
Recommended thermal sensitive paper		For front insertion use (80 mm width) : FTP-030PU001, FTP-030P0701 For rear insertion use (85 mm width) : FTP-030P0020, FTP-030P0702 *Recommended papers · Oji Paper : PD150R, PD160R, PD170R · NIPPON Paper : TF50KS-E, TF60KS-E, TF60KJ-R · MITSUBISHI Paper Mills : P220VBB-1, AFP-235

\*1: There may be exceptions.

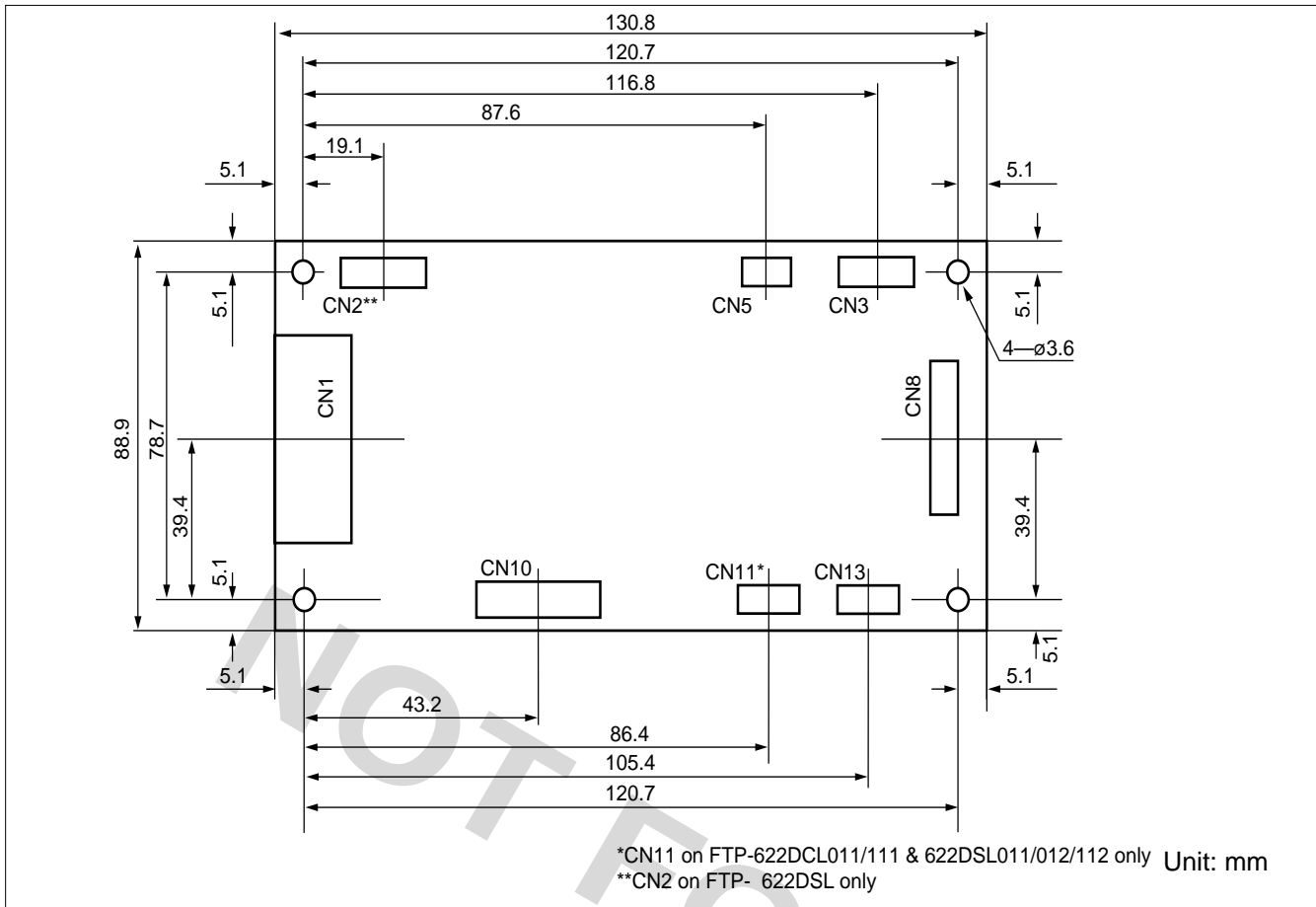
\*2: 24 VDC, minimum head resistance.

\*3: Guarantee: +5°C ~+40°C.

## Mechanism with cutter



## Interface board



## ■ FUNCTION

ITEM		ITEM	
1.	Test printing	8.	Cutter trouble detection
2.	Paper-out detection	9.	Motor power save
3.	Paper near end detection	10.	Mark detection
4.	Head-up detection	11.	MCU trouble detection
5.	Abnormal temperature detection of thermal head	12.	Power on/off sequence protection
6.	Blown fuse detection	13.	Motor protection
7.	Abnormal voltage detection of head	14.	Hardware timer

## ■ INTERFACE, COMMAND, OPTIONS

Please refer to the FTP-622DCL DATA SHEET and the FTP-622DSL DATA SHEET for Interface, Command, and Options.

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