

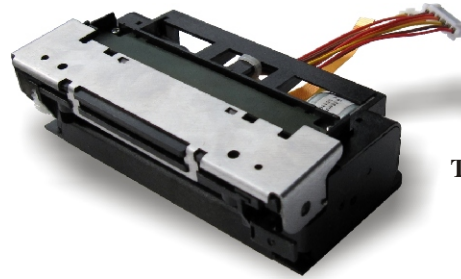
TP33X Series

WinsPu

Thermal Printer Mechanism with Paper-cutter (80mm)

MODEL EXPLICATION

TP33HN5LC	
H: Max 220mm/s	C: with auto-paper-cutter Null: no auto-paper-cutter
M: Max 150mm/s	
P: Positive Strobe	0: no paper end sensor L: left paper end sensor R: right paper end sensor
N: Negative Strobe	
driver voltage of printer head& motor 5: about 650Ω-900Ω\24V	logic voltage 3.3~5V



TP33HN5L8EC

Unique Functions

- ※ The movable cutter is on the upper side. In this case, paper jam problem can be solved by simply opening the printer cover, which is superior to the other manufactures' traditional one of the old design that manually use the wheel to recede the cutter.
- ※ The world original mechanism for replacing paper-cutter quickly (without opening the printer cover. Only need to unscrew the two screws to replace paper-cutter)
- ※ The first to use the photo interrupter as the platen home position sensor in the world. Malfunction never occurs.

Features

- ※ The highest printing speed up to 220mm/s.
- ※ Optional design of double paper end sensors.
- ※ With reflective photo interrupter to detect black mark and paper end.
- ※ With easy loading mechanism, to simplify and speed up paper roll replacing.
- ※ With stepper motor auto-paper-cutter function, avoid cutter block or TPH burn and lower the designer's demand.
- ※ High printing endurance up to 100km(recommend to use high quality thermal paper, such as F230AA Mitsubishi paper, DJ03 thermal paper)

Technical Specification

Model		TP33HX	TP33MX
Printing	Printing method	Thermal dot printing	
	Number of dots	576dots/line	
	Resolution	8dots/mm(203dpi)	
	Paper entry width (mm)	80mm(paper width 79±0.5mm)	
	Valid Printing width (mm)	72mm	
	Paper thickness (μm)	60~80μm	
	Highest printing speed	220mm/s	150mm/s
	Paper loading	Easy loading	
Detection	Paper end/ black mark sensor	by Photo interrupter	
	Platen open detection	by Photo interrupter	
	Head temperature detection	by NTC thermistor 30KΩ(25°C)	
Operating voltage	For printer head	24V±5%	
	For motor	24V±5%	
	For logic	3.3V~5.5V	
	For cutter	24V±5%	
Peak current	For Head	2.19A (at 24V, 64dots)	
		3.29A (at 24V, 96dots)	
	For Motor	0.6A Max	
	For Cutter	0.5A Max	
Life	Abrasion resistance	100km(by using F230AA Mitsubishi paper/ DJ03 paper)	
	Pulse activation	100 million	
	Autocutter	500,000 cuts	
Operating environment	Operating temperature	0~50°C	
	Operating humidity	10~90%RH (No condensation)	
	Storage temperature	-20~60°C	
	Storage humidity	5~95%RH (No condensation)	
Physical characteristics	Dimension	108.2*59*32.5mm	
	Weight	160g	
Cable length		80mm (Customizable)	
Driver board available		AKM1CMB4-RS232/TTL/USB	

Application

- ※ Customer terminals
- ※ POS
- ※ Ticket issuing terminals
- ※ Barcode printers
- ※ Banking terminals
- ※ ECR
- ※ Measurement equipments
- ※ Fiscal ECR



Control Board Specification

Bocard Model	AKM1CB4-RS232	AKM1CB4-TTL	AKM1CB4-USB
Printing method	Thermal dot printing		
printing speed	150mm/s		
Input buffer	4KB		
Character print	Character set: ANK, 12*24		
	Column: 48		
Barcode type	UPC-A, UPC-E, Code 128, EAN128, Jan 13(EAN)		
Command	ESC/POS		
Communication interface	RS232	TTL RS232	USB
Over-temperature protection	YSE		
Paper end detection	YES		
Protection circuit	With protective circuit to cut off the circuit when meeting logic exceptions, which can protect the TPH from electrochemical corrosion, and avoid the stepper motor and TPH burnt when CPU hangs.		
Paper cutter	YES		
Operating voltage	24V±5%		
Driver board dimension	90.5*75mm		

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Dimension

Unit:mm

General tolerance: $\pm 0.5\text{mm}$, $\pm 5^\circ$

