

Thick film thermal printhead (8 dots / mm) KD2008-CF10A

The KD2008-CF10A is a A4-size thick-film thermal printhead, developed mainly for handy printers for personal computers.

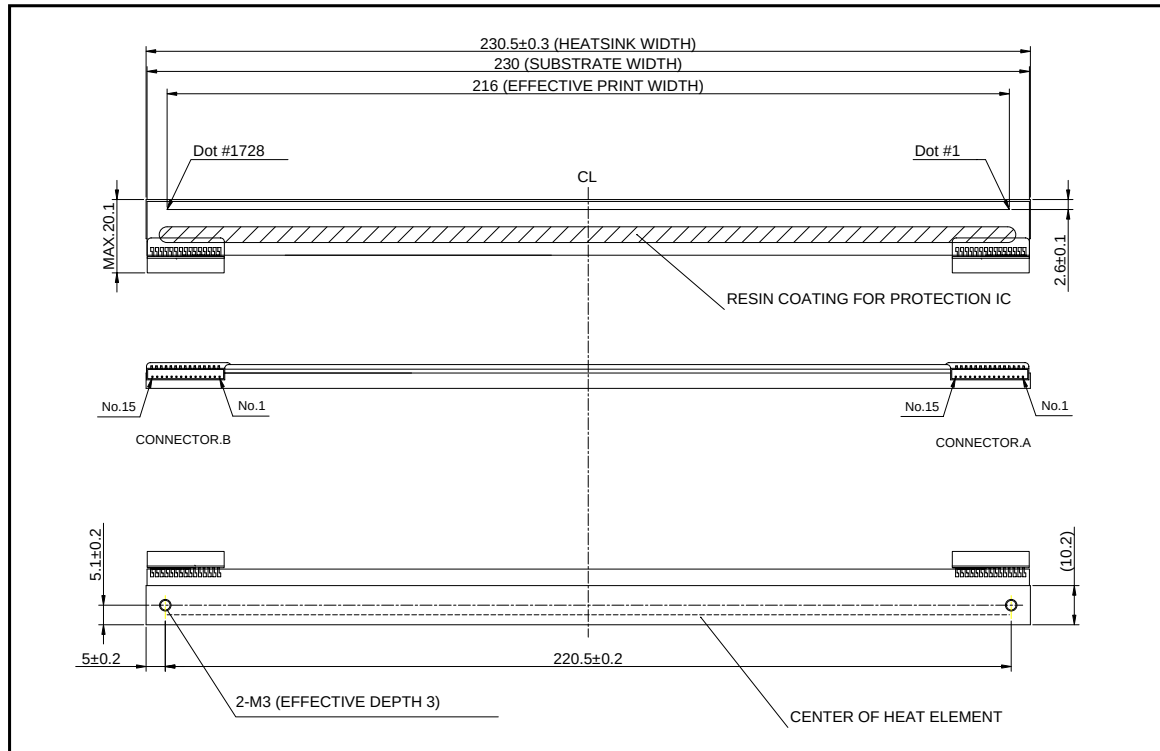
●Applications

Plain-paper printers
Low speed ticket vendors
Measuring terminal printers

●Features

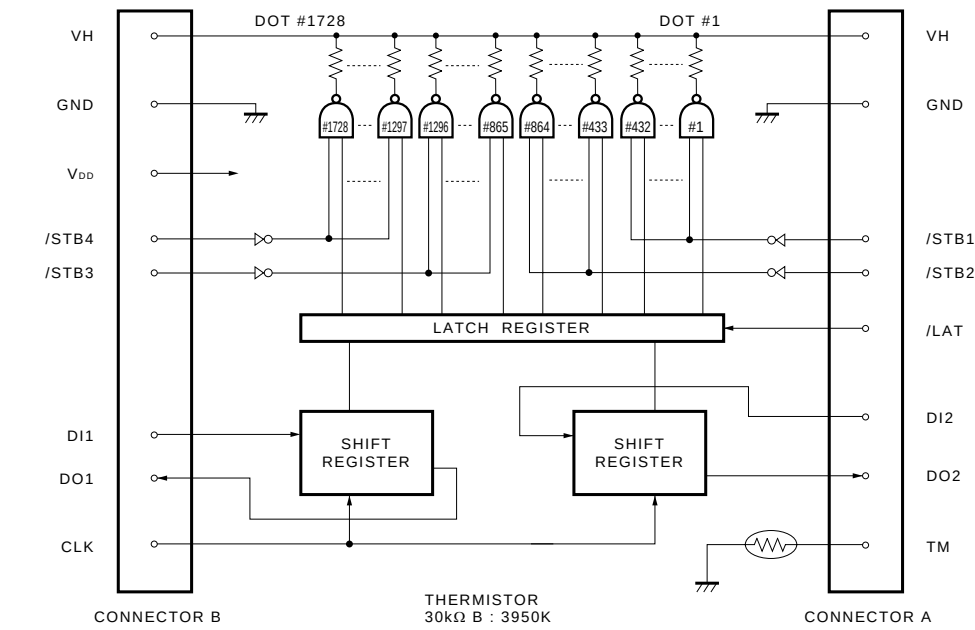
- 1) A new pin connector structure greatly reduces the size and weight.
- 2) A newly developed 144-bit IC levels the strobe partition and reduces the noise level.
- 3) One rank resistance value of $1000\Omega \pm 3\%$ eliminates provides good printing quality on rough paper.

●Dimensions (Unit : mm)



Printheads

●Equivalent circuit



STB No.	Dot No.	Dots / STB.
1	1 to 432	432
2	433 to 864	432
3	865 to 1296	432
4	1297 to 1728	432

DI No.	Dot No.	Dots / DI
1	865 to 1728	864
2	1 to 864	864

Fig.1

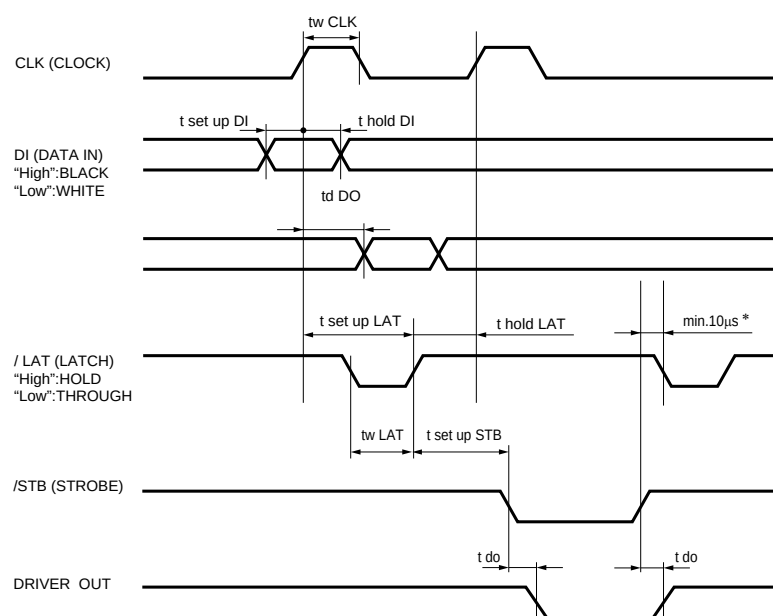
Printheads

●Pin assignments

CONNECTOR B	
No.	Circuit
1	GND
2	GND
3	GND
4	GND
5	V _{DD}
6	/STB3
7	/STB4
8	CLK
9	DI1
10	DO1
11	VH
12	VH
13	VH
14	VH
15	VH

CONNECTOR A	
No.	Circuit
1	VH
2	VH
3	VH
4	VH
5	DI2
6	DO2
7	/LAT
8	/STB1
9	/STB2
10	TM
11	GND
12	GND
13	GND
14	GND
15	GND

●Timing chart



* If delay time for Driver Out can not be secured enough, there is a possibility that V_H would fluctuate greatly. Please design the circuit so that V_H does not exceed peak voltage (V_p).

Fig.2

Printheads

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	—	216	mm
Dot pitch	—	0.125	mm
Total dot number	—	1728	dots
Average resistance value	Rave	1000	Ω
Applied voltage	V _H	24.0	V
Applied power	P _O	0.39	W / dot
Print cycle	SLT	1.25	ms
Pulse width	T _{ON}	0.47	ms
Maximum number of dots energized simultaneously	—	864	dots
Maximum clock frequency	—	16	MHz
Maximum roller diameter	—	φ20.0	mm
Running life / pulse life	—	50 / 1×10 ⁸	km / pulses
Operating temperature	—	5 to 45	°C

●Electrical characteristic curves

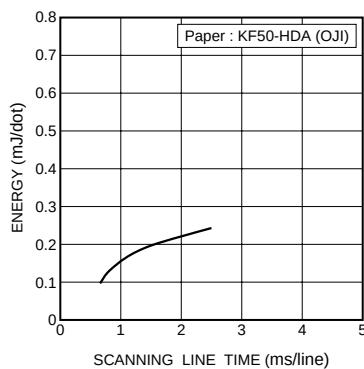


Fig.3 Adaptive speed chart

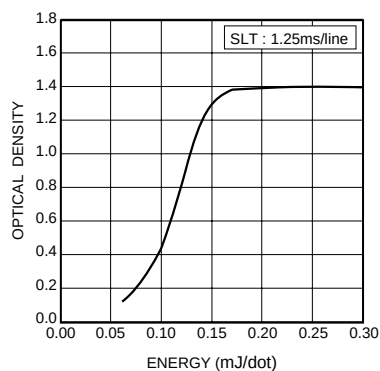


Fig.4 Representative density curve

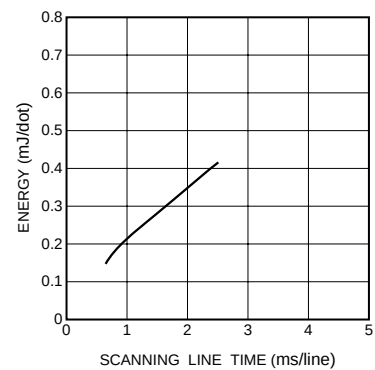


Fig.5 Maximum energy curve

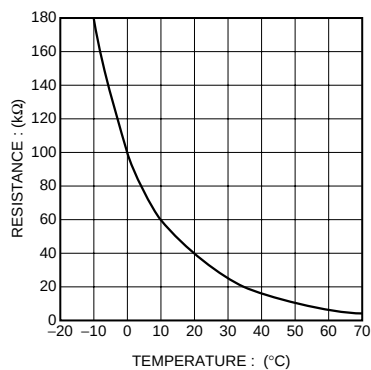


Fig.6 Thermistor curve

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