

Printheads

For Photo Color Printers

(310DPI;dots/inch)

NE3104-VC11A

NE3104-VC11 series is newly developed for photo color printers as (color print) thermal printheads, high speed, high quality printing is achieved with several new technologies. Printing method is available for sublimation type of thermal transterence.

● **Application**

Home printer

Photo KIOSK

● **Features**

- 1) 9° tit-angle with near-edge structure to work with larger platen.
- 2) High quality printing with less uneven imaging by employing the glaze of very little undulation.
- 3) Resistance variance less than $\pm 1\%$ in the head using special pulse trimming technologies.

● **External Dimension (Unit:mm)**

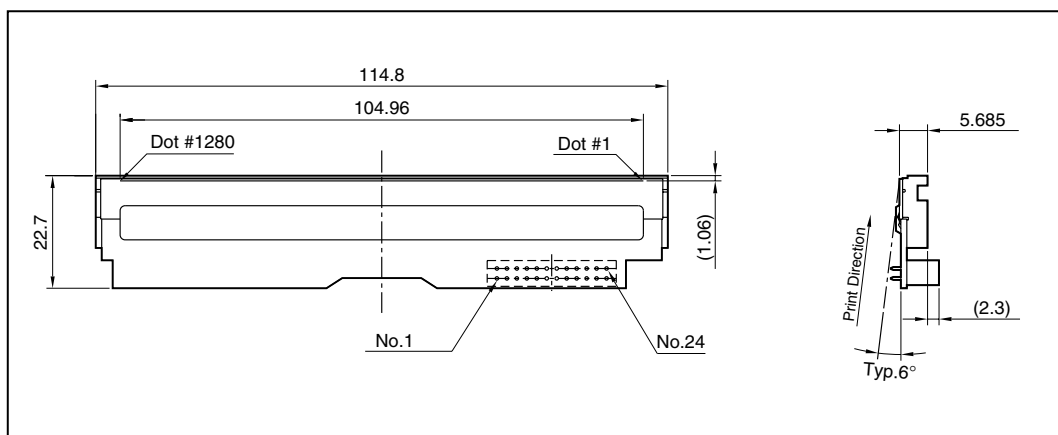
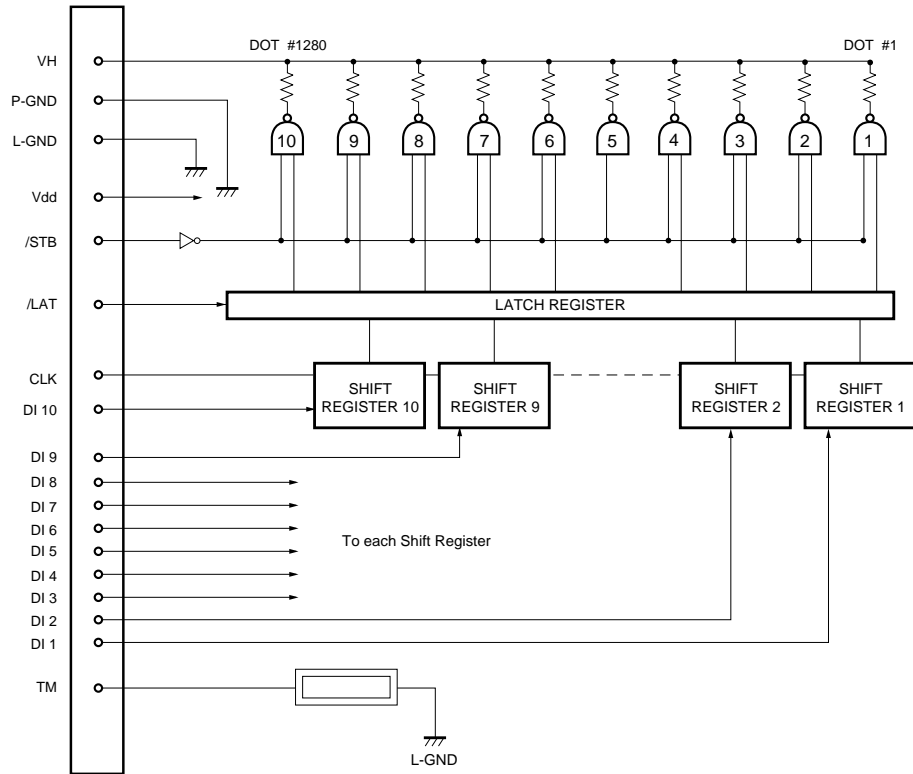


Fig. 1 External Dimension

Note : No heat control function inside the thermal printhead. External heat history control is required for high speed printing.

Printheads

● Equivalent circuit



DI No.	Dot No.	DI No.	Dot No.
10	1280 to 1153	5	640 to 513
9	1152 to 1025	4	512 to 385
8	1024 to 897	3	384 to 257
7	896 to 769	2	256 to 129
6	768 to 641	1	128 to 1

Fig. 2 Equivalent circuit

Printheads

● Pin assignments

No.	Circuit	No.	Circuit	No.	Circuit
1	V _H	2	V _H	3	V _H
4	V _H	5	P-GND	6	P-GND
7	P-GND	8	P-GND	9	TM
10	L-GND	11	VDD	12	DI10
13	DI9	14	DI8	15	DI7
16	DI6	17	DI5	18	DI4
19	DI3	20	DI2	21	DI1
22	CLK	23	/STB	24	/LAT

● Timing chart

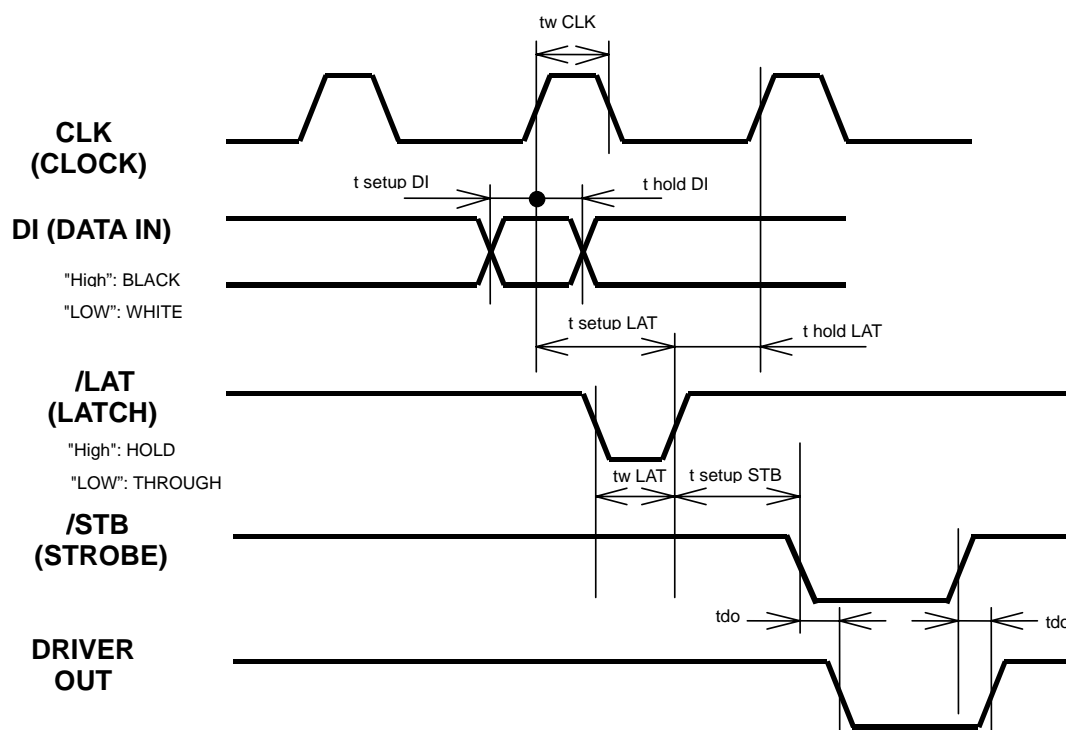


Fig. 3 Timing chart

Printheads

● Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width		104.96	mm
Dot pitch		0.0820	mm
Total dot number		1280	dots
Average resistance value	R_{ave}	5400	Ω
Applied voltage	V_H	24	V
Applied power	P_0	0.102	W/dot
Print cycle	SLT	4.0	ms/line
Pulse width	T_{ON}	2.8	ms
Maximum number of dots energized simultaneously		1280	dots
Maximum clock frequency		10	MHz
Maximum rolls diameter		52	mm
Running life/pulse life		$2/5 \times 10^7$	km/pulses
Operating temperature		5 to 45	$^{\circ}\text{C}$

● Electrical characteristic

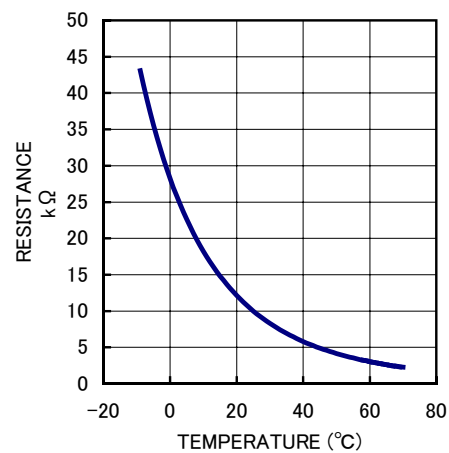


Fig. 4 Thermistor curve

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