

For Color Photo Printers (310DPI ; dots / inch)

NE3104-RE10A

The NE3104-RE10 Series are suitable for photo printers which can make direct print out from digital still cameras and mobile phones. ROHM's energy saving technology based on "step-free" structure enables high speed, and high resolution printing quality.

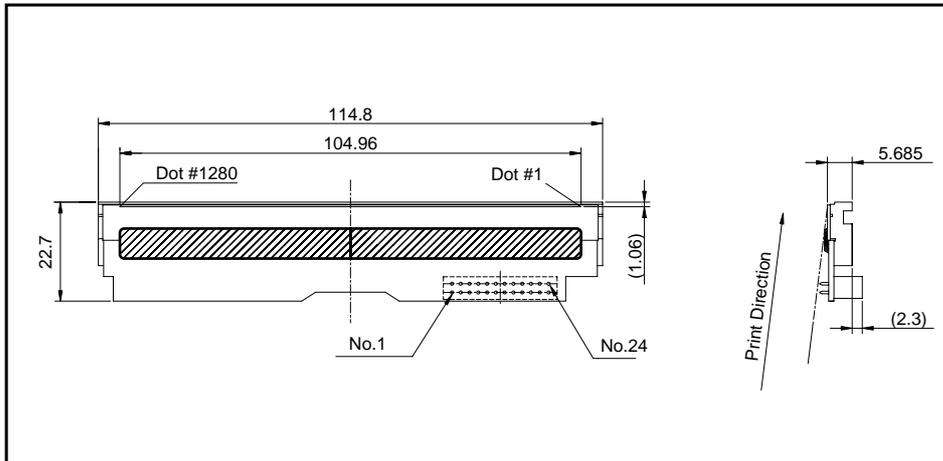
●Applications

Home printers
Mobile Photo printers
Photo kiosk terminals
"Print club" (color photo printer) terminals

●Features

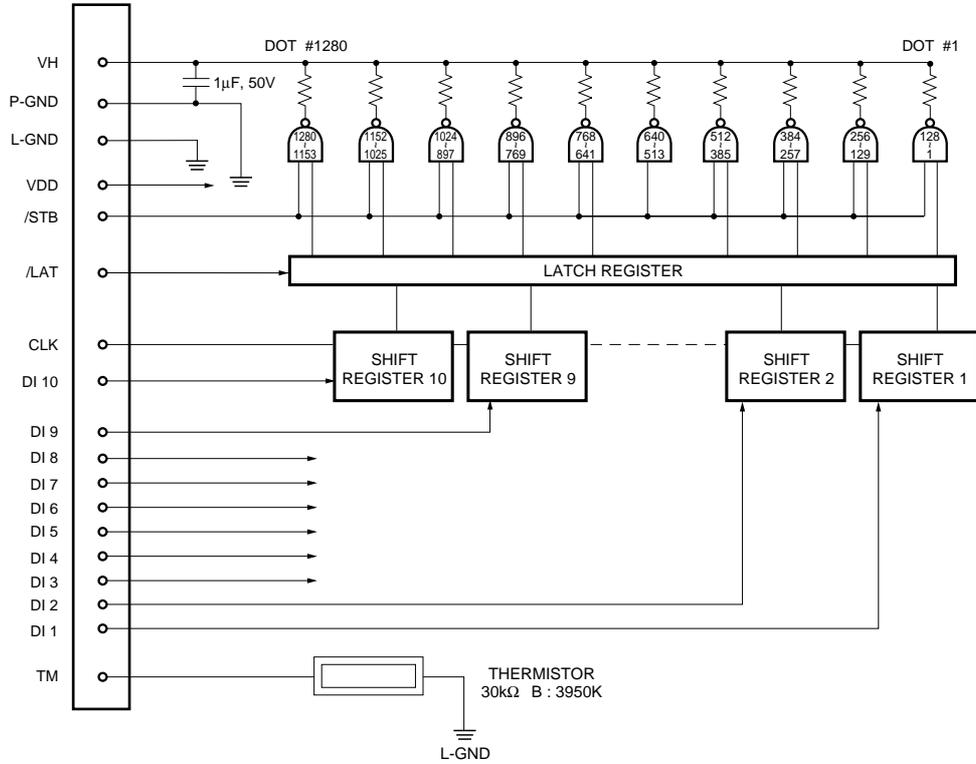
- 1) Approximately 8° tilt-angle with near-edge structure to work with large platen.
- 2) NF3104-RE10 enables full color printing by keeping the adjacent resistance variation less than $\pm 1.5\%$.
- 3) Employing of the driver IC capable of high-speed data transfer at 3.3 circuit supply voltage makes the gradation printing control easier.
- 4) High dot reproducibility with step-free structure.

●External dimensions (Unit : mm)



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

●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.1

Printheads

●Pin assignments

No.	Circuit	No.	Circuit	No.	Circuit
1	V _H	2	V _H	3	V _H
4	P-GND	5	P-GND	6	P-GND
7	P-GND	8	DI 10	9	DI 9
10	DI 8	11	DI 7	12	DI 6
13	/LAT	14	L-GND	15	CLK
16	V _{DD}	17	/STB	18	TM
19	DI 5	20	DI 4	21	DI 3
22	DI 2	23	DI 1	24	P-GND
25	P-GND	26	P-GND	27	V _H
28	V _H	29	V _H	30	V _H

●Timing chart

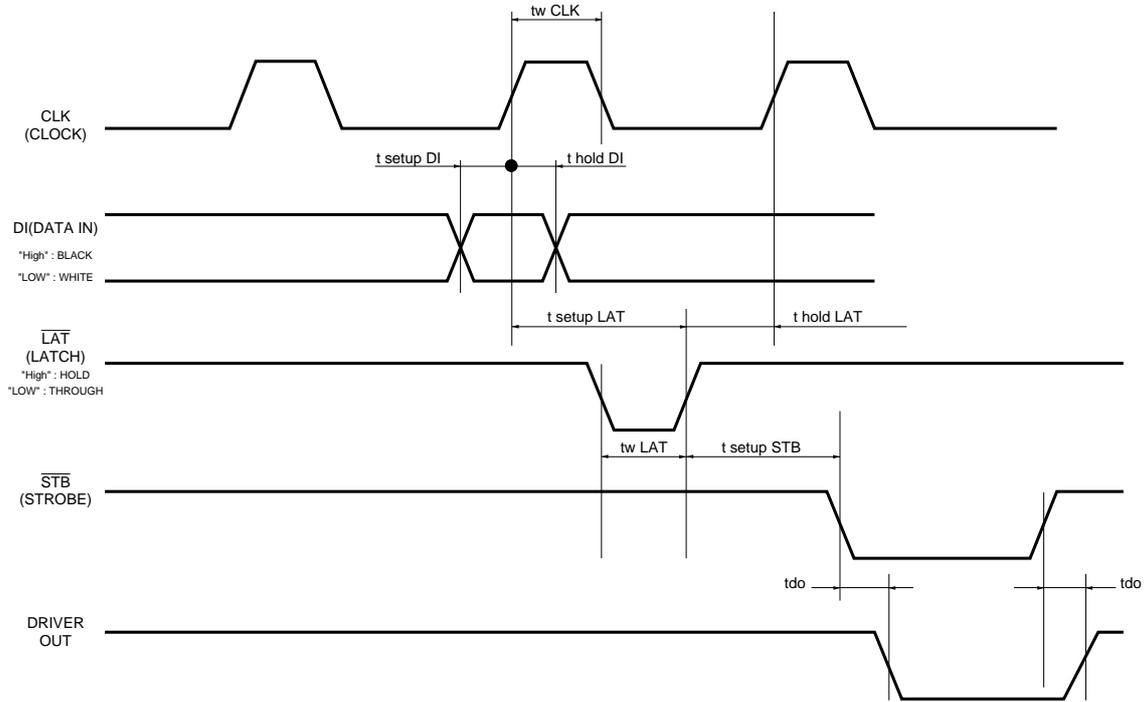


Fig.2

Printheads

●Characteristics

Parameter	Symbol	Typical	Unit
Effective printing width	–	104.96	mm
Dot pitch	–	0.0847	mm
Total dot number	–	1280	dots
Average resistance value	Rave	5400	Ω
Applied voltage	V _H	24	V
Applied power	P _o	0.102	W/dot
Print cycle	SLT	3.0	ms/line
Pulse width	T _{ON}	2.46	ms
Maximum number of dots energized simultaneously	–	1280	dots
Maximum clock frequency	–	16	MHz
Maximum rolls diameter	–	50	mm
Running life / pulse life	–	2/5×10 ⁷	km/pulses
Operating temperature	–	5 to 45	°C

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