

Monochrome image sensor head (300dpi)

IA3008-MB30A

The IA3008-MB30A is a state-of-the-art compact, lightweight image sensor head that resulted from the combination of ROHM's LSI circuit technology and thermal printhead mounting technology. The IA3008-MB30A is perfect for multi-function printers (MFP) or facsimiles that print on normal paper using laser units.

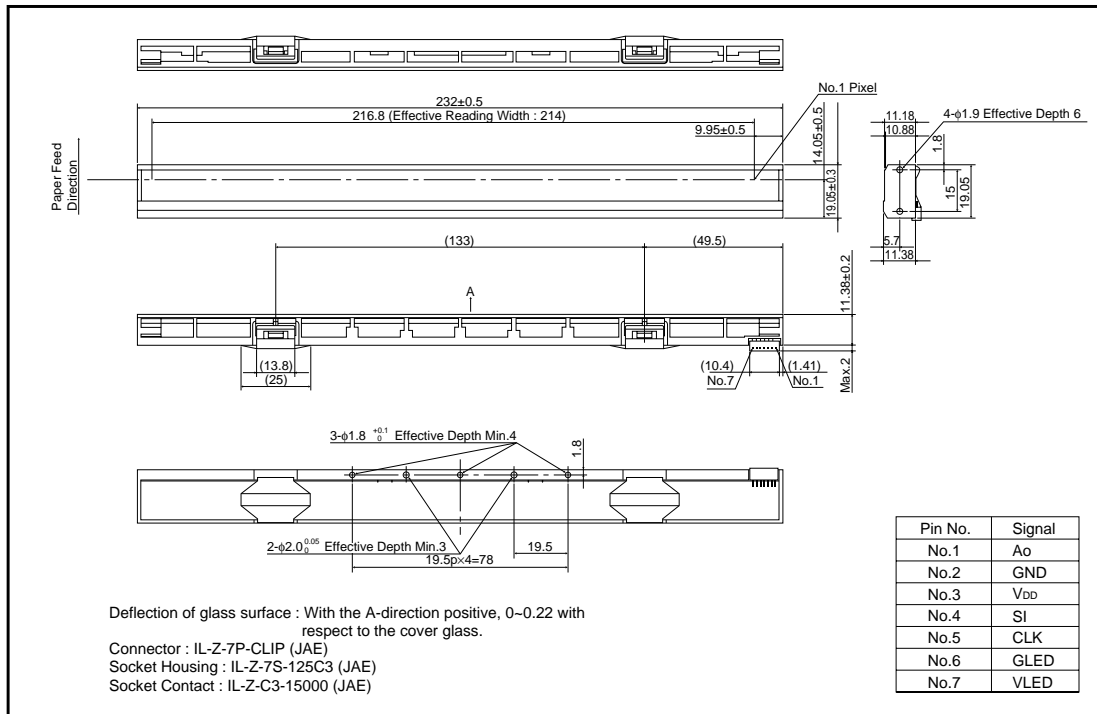
●Applications

Facsimiles
Image scanning devices

●Features

- 1) The amplifiers, resistors, capacitors, and other discrete components that were normally externally attached, are built into the sensor IC.
- 2) Compact body and lightweight achieved by the placement of the LED light source and sensor IC on the same board.
- 3) Uses a special flame that provides superior light gathering characteristics and uniform light dispersion.
- 4) Uses a ceramic board as the base board for minimal temperature fluctuation and uniform thermal dispersion.

●External dimensions (Units : mm)



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●Characteristics

Parameter	Symbol	Typ.	Unit
Effective scanning width	–	214	mm
Primary scan dot density	–	300	dpi
Total dot number	–	2584	dots
Power supply voltage	V _{DD}	5	V
Scanning speed	SLT	1.25	ms / line
Clock frequency	CLK	2.5	MHz
Maximum dynamic range	VR _{max}	1.0	V
Dark output	V _{odmax}	1.3	V
Operating temperature	–	5~45	°C

●Pin assignments

No.	Circuit	I / O	Function
1	A _O	O	Analog output
2	GND	I	Ground
3	V _{DD}	I	Power supply
4	SI	I	Serial-in
5	CLK	I	Clock
6	GLED	I	LED ground
7	VLED	I	LED power supply

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●Timing chart

(a) CLK Timing Chart

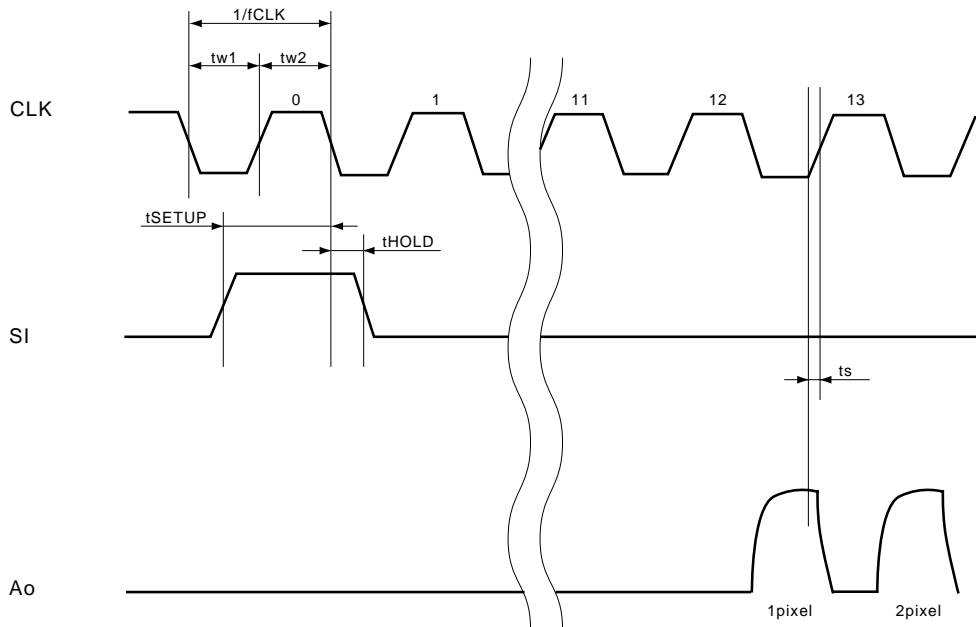
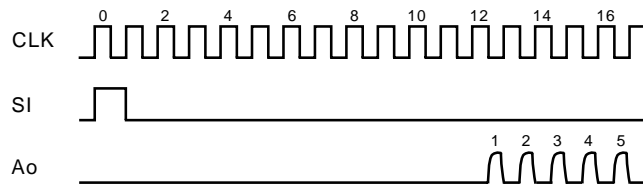


Fig.1

(b) Data Output Timing Chart

After turning on the SI pulse, the analog output starts from the setting up point of 12CLK pulse.



Note) The CLK section area which is over the effective pixel numbers (Output blank part) cannot be used as the analog Output standard level.

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●Equivalent circuit

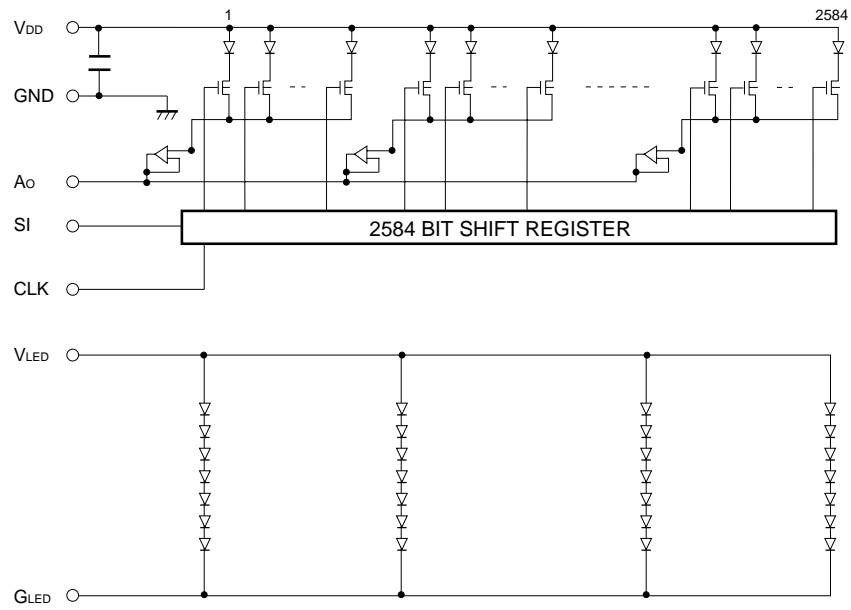


Fig.2