

# Multi Line Sensor Head for Monochrome Scanners

## LSH3008-AA10A

These units utilize a high reflectivity white frame for high efficiency and uniform light intensity distribution.

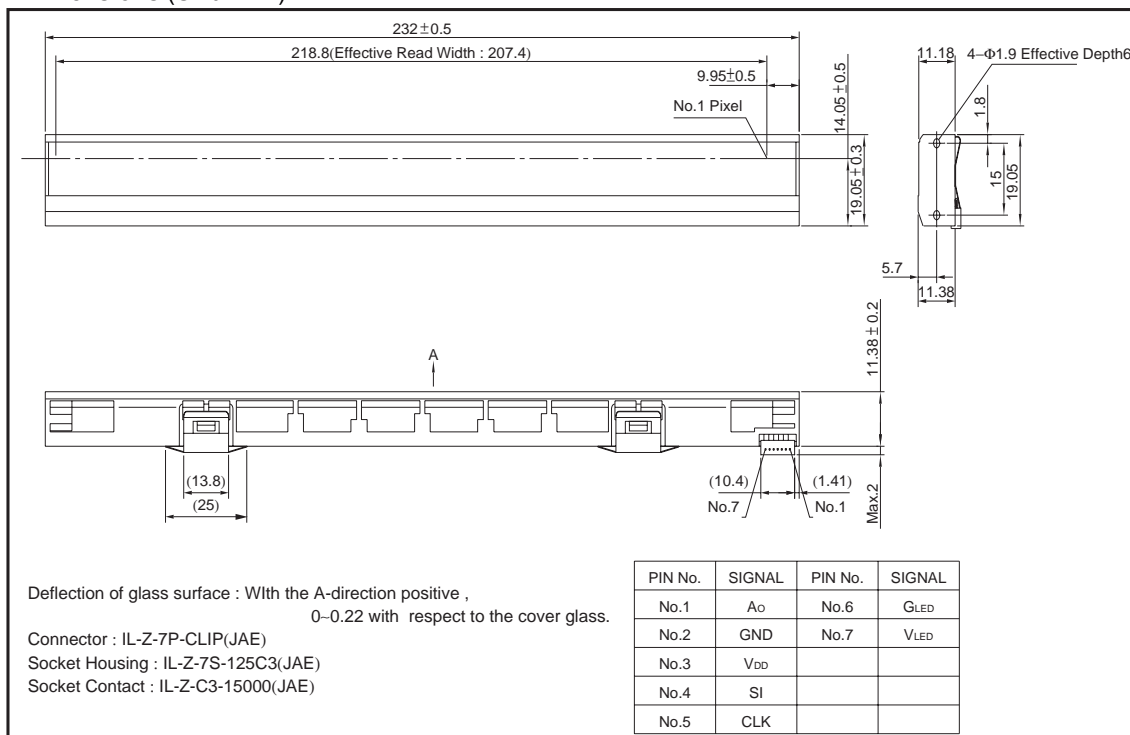
### ●Applications

Image input device for account book scanner such as monochrome scanners and positioning sensor.

### ●Features

- 1) Signal amplifier integrated into each sensor IC in order to eliminate external noise.
- 2) The LED light source is mounted on the same substrate as the sensor chip which makes it possible to package the device with lighter weight and an extremely small size.
- 3) Only one 5V power supply required, simplifying design.
- 4) Ceramic substrate with uniform thermal distribution characteristics used for improved resistance against temperature fluctuations.
- 5) Original highly reflective white frame utilized, resulting in high-speed scanning capability.

### ●Dimensions (Unit : mm)



### ●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 <sub>DD</sub>	5	V
Scanning speed	SLT	1.25	ms / line
Clock frequency	CLK	2.5	MHz
Maximum dynamic range	VRMax.	1.0	V
Minimum dynamic range	VRMin.	0.5	V
Dark output	V <sub>od</sub>	1.0±0.3	V
Operating temperature	–	5 to 45	°C

### ●Pin assignments

No.	Circuit	I / O	Function
1	A <sub>o</sub>	O	Analog output
2	GND	I	Ground
3	V <sub>DD</sub>	I	Power supply
4	SI	I	Serial-in
5	CLK	I	Clock
6	G-LED	I	LED ground
7	V-LED	I	LED power supply

●Timing chart

(a) CLK Timing Chart

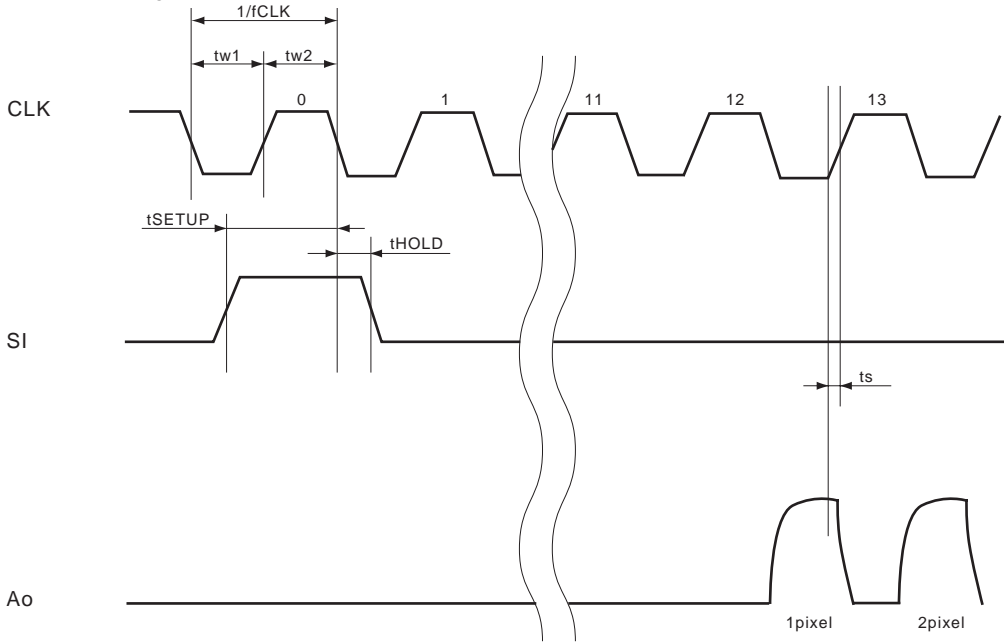
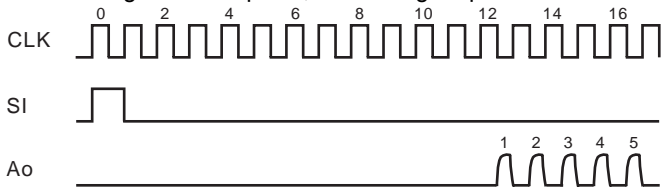


Fig.1

(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.

●Inner circuit

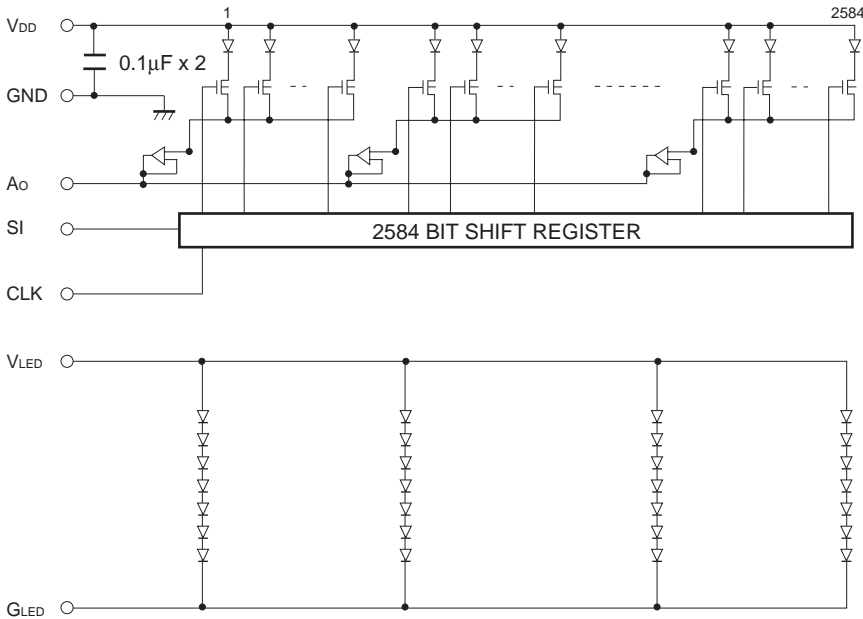


Fig.2

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