

32768 × 8 Linear CMOS Image Sensor



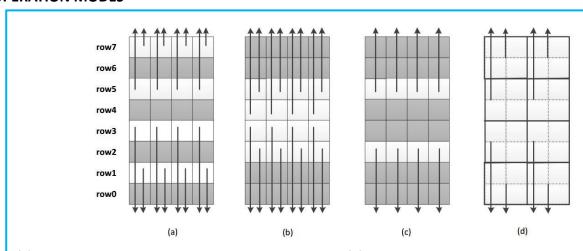
SENSOR DESCRIPTIONS

The GL3208 sensor is a line-scan CMOS image sensor which contains 8 lines of 32768 pixels, the pixel pitch is 5µm. Users can choose either dual-line mode or four-line mode based on application. 39kHz and 17.8kHz line frequency can be achieved respectively. The sensor achieves a read noise of less than 3e⁻. The full well is around 24 ke⁻. On-chip 2x2 binning is also supported to increase the sensitivity and SNR. All these features make GL3208 sensor an ideal line-scan image sensor for various applications.

SENSOR SPECIFICATIONS

Photo-sensitive area	163.84mm × 0.04mm	Resolution	32768 × 8
Pixel size	5μm × 5μm	Shutter type	Global shutter
Dark noise	<3e ⁻	Dark current	<200e ⁻ /p/s@46°C
Full well charge	24ke ⁻	SNR Max	48dB
Line rate	39kHz @ dual line 39kHz @four-line binning 17.8kHz @four-line	Quantum efficiency	46.4% @ 630nm R line 45.2% @ 540nm G line 43.6% @450nm B line 65% @550nm Mono
Dynamic range	>64dB	Maximum Data rate	30.72Gbps
Output interface	64 LVDS pairs	Supply voltage	3.3V/1.8V
Power consumption	<7W	Package	222pin PGA

OPERATION MODES



- (a) Four-line 5µm pixel with one-line space in between
- (b) Four-line 5µm pixel without space in between
- (c) Two-line 5µm pixel with 10µm space in between
- (d) Four-line 10µm pixel without space in between