

GLR1402BSI-M

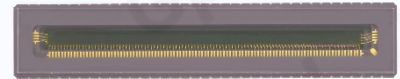


2K BSI LINE SCAN CMOS IMAGE SENSOR

GLR1402BSI-M is a single-line linear sensor image sensor with rectangular pixels designed for spectroscopy, OCT, encoder and various other image reading applications.

GLR1402BSI-M has 2048 pixels in 1 row, with a pixel size of $14\ \mu\text{m} \times 350\ \mu\text{m}$, yielding an impressive max. $180\ \text{ke}^-$ full well capacity and boasting a mere $1.4\ \text{e}^-$ of noise.

Data is read out at 14 bits per pixel with 80 dB of dynamic range, or by combining two 12-bit pixel reads, high and low gain, to achieve a maximum dynamic range of 94 dB. **GLR1402BSI-M** supports both LVDS and CMOS data outputs, customer can switch different data channels with 12-bit / 14-bit based on demand.



Feature

- Max Line rate: 29 kHz
- Low Noise: $1.4\ \text{e}^-$
- Dual-gain HDR
- QE 70.4% @ 280 nm
- 12/14 bit ADC
- Sub-LVDS/CMOS Data Channel

Application

- Spectroscopy
- OCT
- Displacement Sensor

Sensor Specifications

Active Resolution	2048(H) × 1(V)	Image Length	28.672 mm
Pixel Size	14 μm x 350 μm	Shutter Type	Global shutter
Peak QE	85% @ 420 nm	Min. Readout Noise	1.4 e ⁻ @ 14 bit HG
Max. FWC	180 ke ⁻ @ 12 bit HDR LG	Dynamic Range	94 dB @ 12bit HDR
Max. Line rate	29 kHz	Dark current	T.B.D.
Data Channel	4x Sub-LVDS @ 600 MHz Parallel CMOS @ 50 MHz	ADC bit	12 bit / 14 bit
Chroma	Mono	Power Consumption	350mW
Supply	3.6 V (Analog), 1.5 V Digital) 1.8~3.3 V (IO)	Assembly	72 pins CLCC + Quartz Window (38 mm x 7.4 mm)

Ordering Information

Sensor PN

GLR1402BSI-AUM-NCN-PUE

72 pins CLCC, Sealed Quartz Glass lid, ES Grade

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