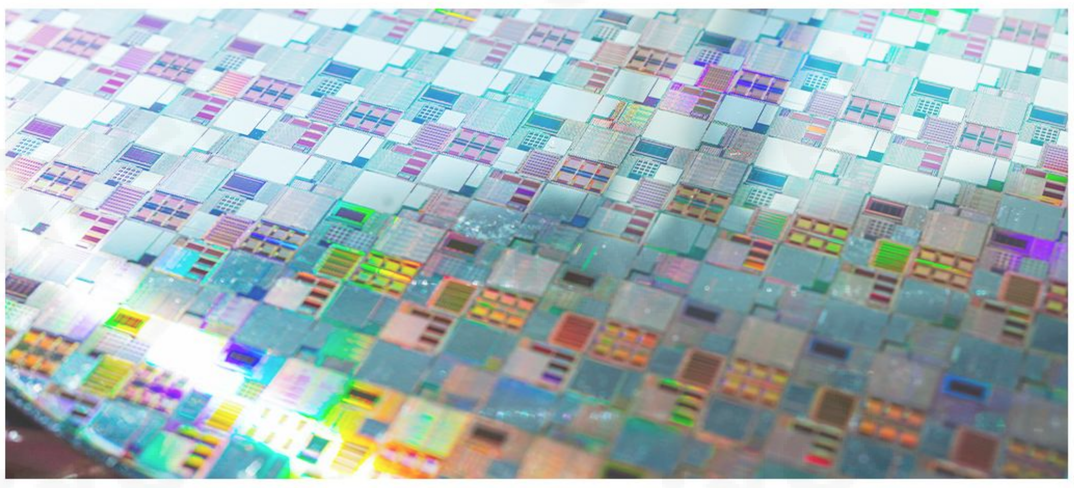


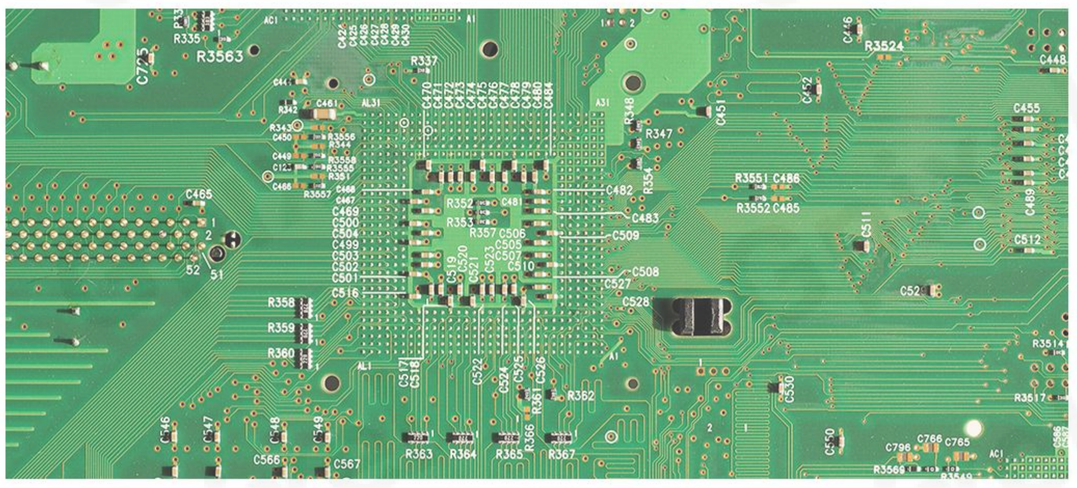
GLT5008BSI

8k BSI TDI (TIME DELAY INTEGRATION) LINE SCAN IMAGE SENSOR

GLT5008BSI is a Backside illuminated (BSI), Time delay integration (TDI), charge domain CMOS image sensor with 5 µm pixels and 8208 effective resolutions. The sensor has two photosensitive bands, 256 stages and 32 stages respectively enabling a high dynamic range (HDR) imaging mode, which is designed to meet the needs of high speed and low light applications by maximizing sensitivity with state-of-art BSI scientific CMOS technology.

GLT5008BSI Sensor integrates an on-chip sequencer, supports channel multiplexing and selectable 2 scan directions (Forward and Reverse). It is assembled in a 231 pins µPGA ceramic package for reliability and good heat dissipation.





Key Features and Benefits

- True Charge Domain Time Delay Integration
- Back Side Illuminated (BSI) pixels
- High Sensitivity with QE of 65.8% (266 nm) and 94.2% (460 nm)
- High Speed: up to 1 MHz
- HDR Read Out
- On-chip Binning

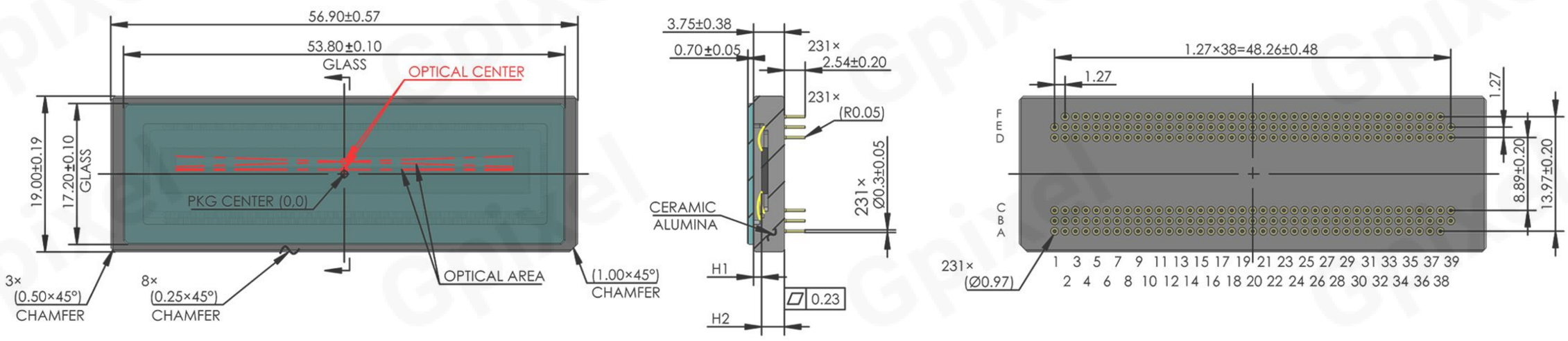
Applications

- Automation & Inspection
- Life Sciences
- Microscopy
- Microluminescence Imaging

Specifications

Nr of Active Pixels	P1: 8208(H) pixels x 256(V) stages P2: 8208(H) pixels x 32(V) stages	Optical Format	41.04 mm
Pixel Size	5 µm x 5 µm	Full Well Capacity	16.8 ke⁻(P1,10 bit,single band) 17.8 ke⁻(P1,12 bit,single band)
Temporal Noise	12.1 e⁻(P1,10 bit,single band) 7.4 e⁻(P1,12 bit,single band)	Dynamic Range	62.8 dB (P1,10 bit,single band) 67.6 dB (P1,12 bit,single band)
Dark Current	1 ke⁻/pixel/s (P1 10/12 bit,single band,15 ℃)	Peak QE	65.8% (266 nm) 94.2% (460 nm)
ADC	10/12 bit	CTE	⩾0.99993
Optional TDI level	P1: 256/252/224/192/128/64/32/4 P2: 32/30/28/24/16/8/4/2	Anti-blooming	x50
Max Line Rate	1 MHz (10 bit) 500 kHz (12 bit)	Output Format	72 ch Sub-LVDS (10 bit)
Chroma	Mono	Power Consumption	⩽ 4.1 W (P1,10 bit,1 MHz line rate) ⩽ 3.2 W (P1,12 bit,500 kHz line rate)
Max. Data Rate	86.4 Gbps (10 bit)	Channel Multiplexing	72/54/48/36/24/18/12/6 (10 bit)
Supply Voltage	3.3 V (analog) 1.65 V (ADC) 1.6 V (digital)	Package	µPGA 231 pins (56.90 mm x 19.00 mm)

Package Drawing



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Disclaimer: The product information and pictures in this flyer are for reference only. For the latest information please visit www.gpixel.com.

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