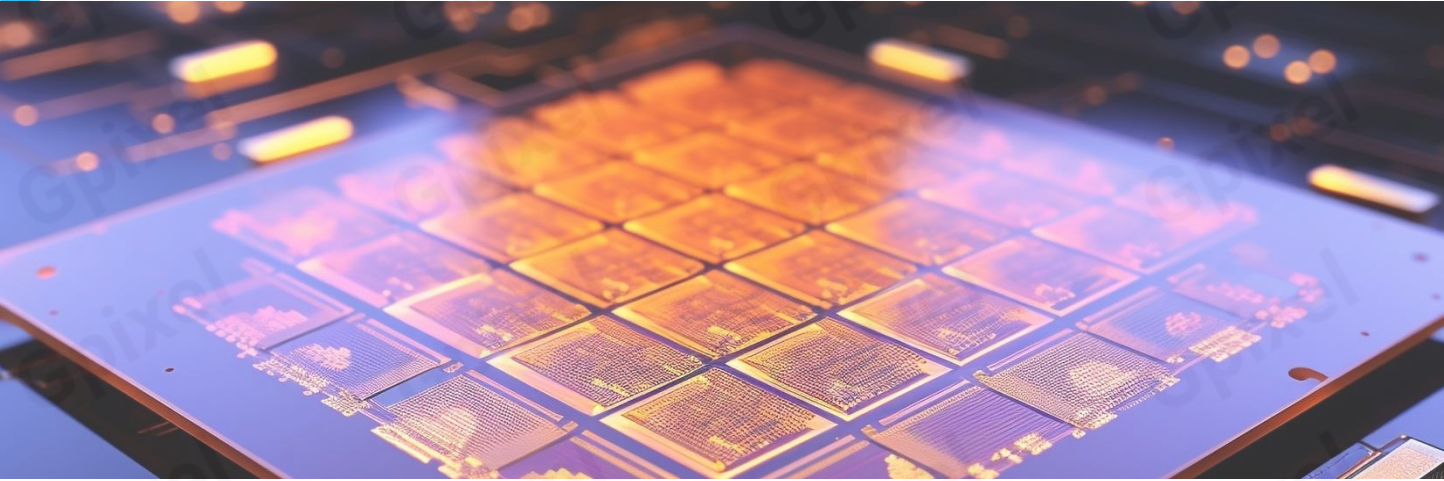


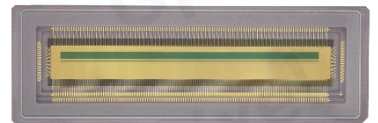
GLT5008BSI Product Flyer



8208 × 256 STAGES BSI TDI CMOS IMAGE SENSOR

GLT5008BSI is a Backside illuminated (BSI), Time delay integration (TDI), charge domain CMOS image sensor with 5µm 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-pin µPGA ceramic package for reliability and good heat dissipation.



Key Features

- True Charge Domain Time Delay Integration
- Back Side Illuminated (BSI) pixels
- High Sensitivity with QE of 63.9% @ 266 nm and 93.4% @ 440 nm
- High Speed up to 1 MHz
- HDR read out
- On-Chip Binning

Applications

- FPD Inspection
- PCB Inspection
- Semiconductor Inspection
- High End Electronic Packaging Inspection
- Life Science Imaging
- Genomics

Sensor Specifications

Pixel size	5 μm x 5 μm	Chroma	Mono
Resolution	P1: 8208 pixels x 256 stages P2: 8208 pixels x 32 stages	Photo-sensitive area	P1: 41.04 mm x 1.28 mm P2: 41.04 mm x 0.16 mm
Full well capacity	17ke ⁻ @ 10 bit	Temporal noise	14.3 e ⁻ @ 10 bit
Dynamic range	61.5 dB @ 10 bit	Dark Current	4.6 ke ⁻ /pixel/s @ 11.9 °C
Quantum efficiency	63.9% @ 266 nm 93.4% @ 440 nm	ADC depth	10/12 bit
Charge transfer efficiency (CTE)	≥ 0.99993	TDI stage	P1: 256/252/224/192/128/64/32/4 P2: 32/30/28/24/16/8/4/2
Anti-blooming	x50	Max. Line rate	1M Hz @ 10bit 500k Hz @ 12 bit
Output format	72 ch Sub-LVDS	Power consumption	4.2 W
Data rate	86.4 Gbps @ 10 bit	Channel multiplexing	72/54/48/36/24/18/12/6 @ 10 bit
I/O voltage	3.3 V (analog), 1.65 V (ADC), 1.6 V (digital)	Package	μPGA 231 pins (56.90 mm x 19.00 mm)

Quantum Efficiency

