

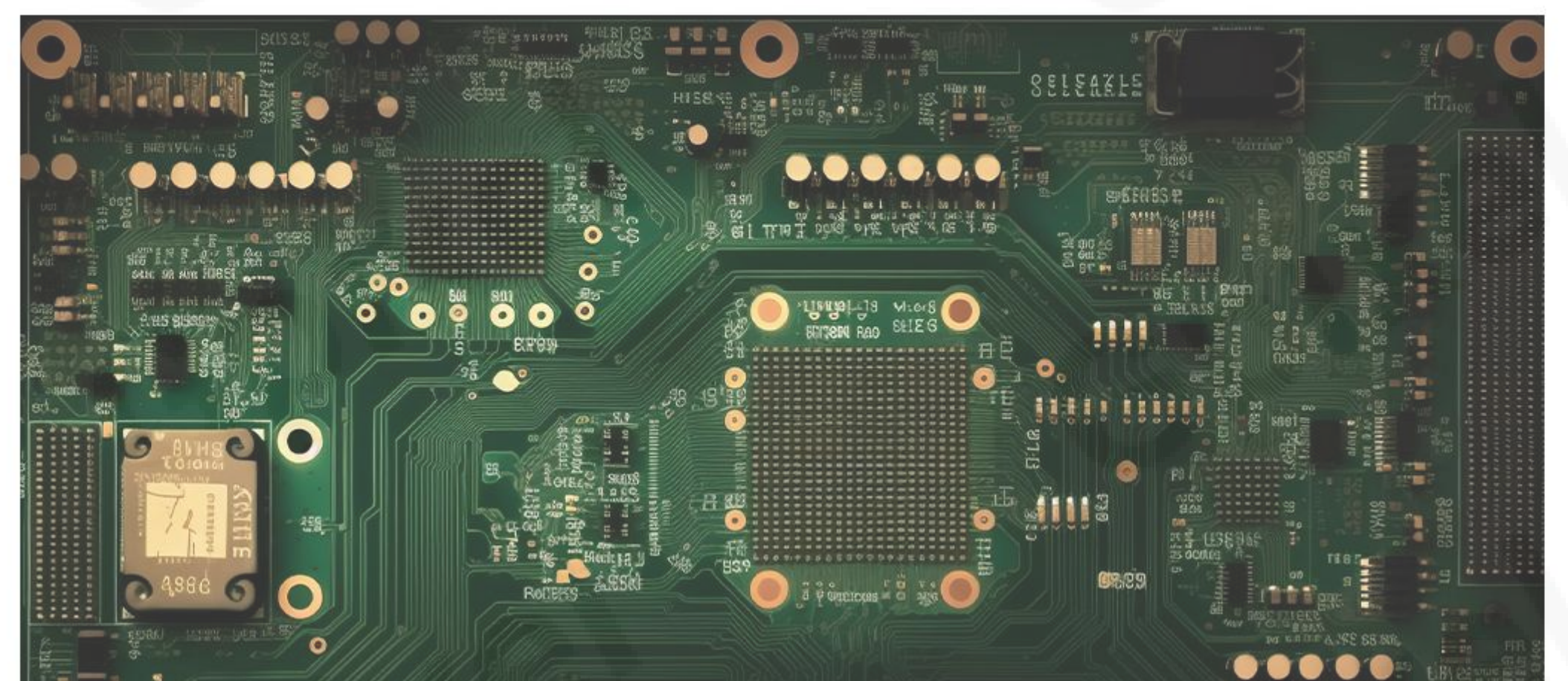
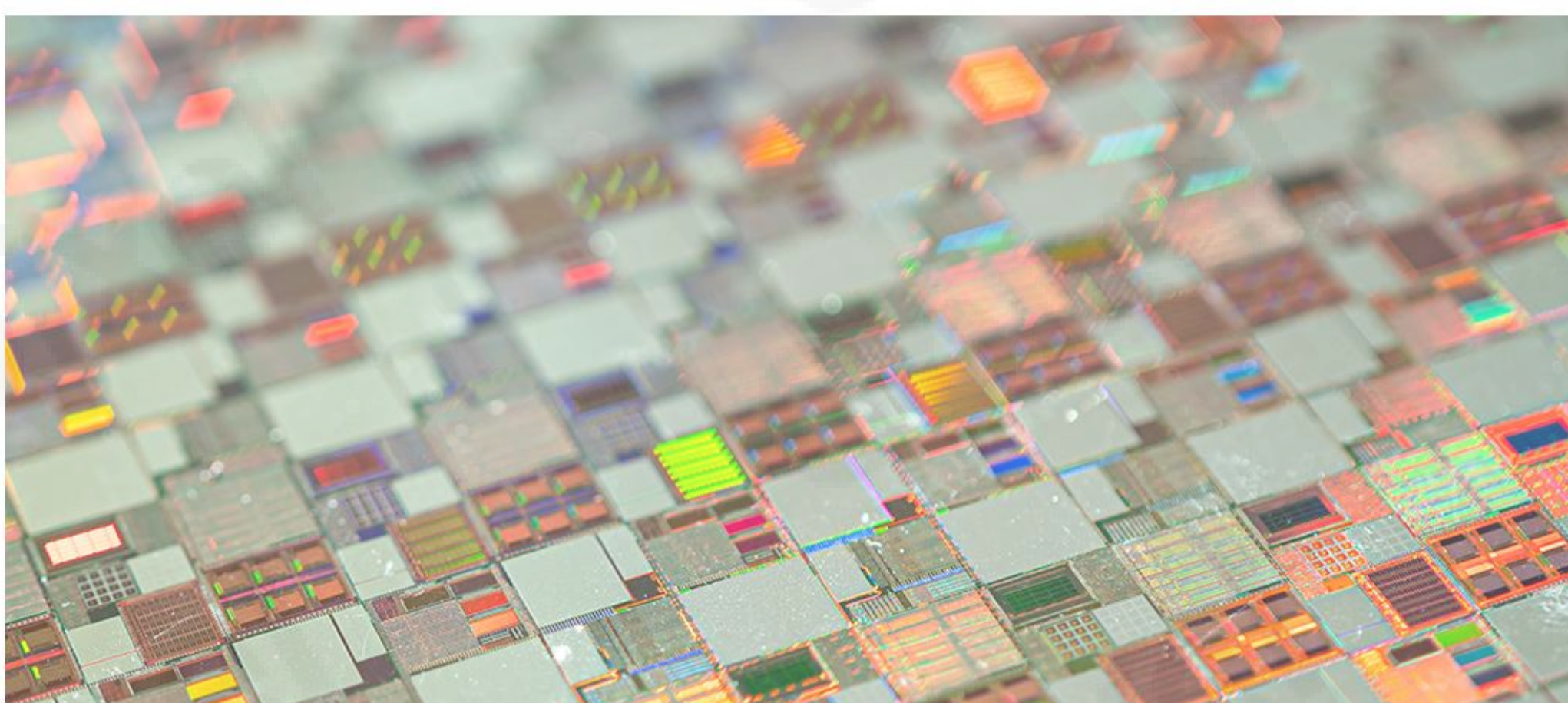


GLT5009BSI

9K BSI TDI (TIME DELAY INTEGRATION) LINE SCAN IMAGE SENSOR

GLT5009BSI is a Backside illuminated (BSI), Time delay integration (TDI), charge domain CMOS image sensor with 5 μm pixels and 9072 effective resolutions. The sensor has two photosensitive bands, 256 stages and 32 stages respectively, which is designed to meet the needs of high speed and low light applications by maximizing sensitivity from the ultraviolet to the near infrared with state-of-art BSI scientific CMOS technology.

GLT5009BSI Sensor integrates an on-chip sequencer, supports 10 bit dual band HDR mode. It also supports channel multiplexing and selectable 2 scan directions (Forward and Reverse). It is assembled in a 269 pins μPGA package for reliability and good heat dissipation.



Key Features and Benefits

- ▶ True Charge Domain Time Delay Integration
- ▶ Back Side Illuminated (BSI) Pixels
- ▶ High Sensitivity
- ▶ High Speed: up to 608 kHz
- ▶ HDR Read Out
- ▶ QE (266 nm) \geq 50%

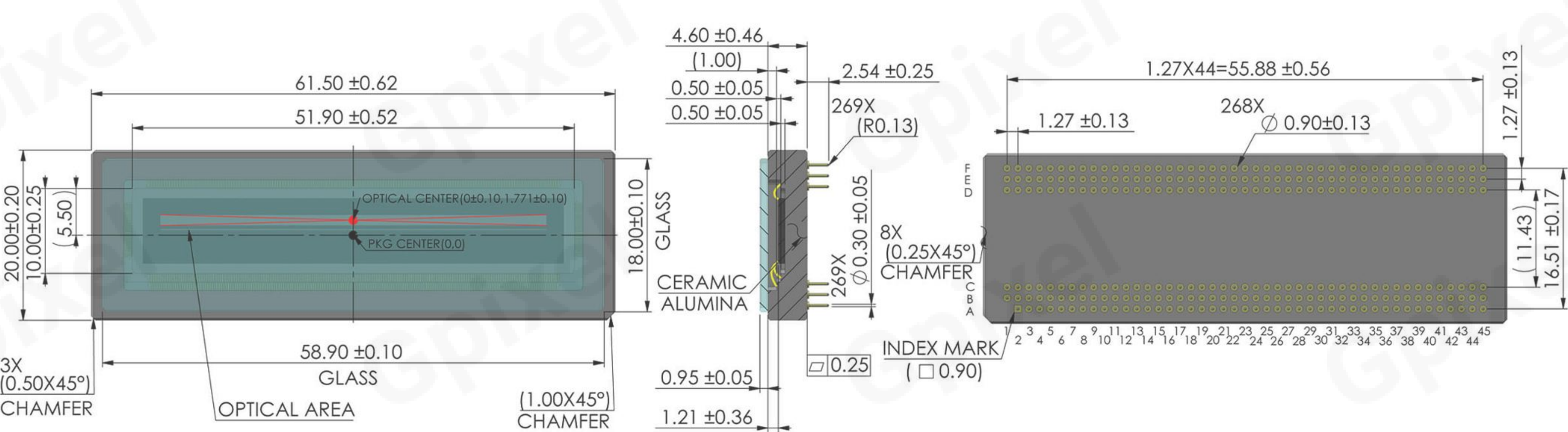
Applications

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

Specifications

Nr of Active Pixels	9072 (H) x (256 + 32) (V)	Optical Format	45.36 mm
Pixel Size	5 μm x 5 μm	Full Well Capacity	16.3 ke ⁻ (10 bit,single band) 19.2 ke ⁻ (12 bit,single band)
Temporal Noise	10.6 e ⁻ (10 bit,single band) 7.0 e ⁻ (12 bit,single band)	Dynamic Range	63.7 dB (10 bit,single band) 68.7 dB (12 bit,single band)
Dark Current	~ 4 ke ⁻ /s/pixel (30°C)	Peak QE	82.4% (550 nm)
ADC	10/12 bit	Max Line Rate	608 kHz (10 bit,single band) 300 kHz (12 bit,single band)
CTE	≥ 0.99993	Output Format	84 ch Sub-LVDS
Channel Multiplexing	84/42/21/12/6/3	Max. Data Rate	74.304 Gbps
Chroma	Mono	Power Consumption	< 5.8 W (300 kHz line rate)
Supply Voltage	5 V (analog) 1.8 V (ADC) 1.8 V (digital)	Package	μPGA 269 pins (61.5 mm x 20.0 mm)

Package Drawing



Contact Gpixel

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