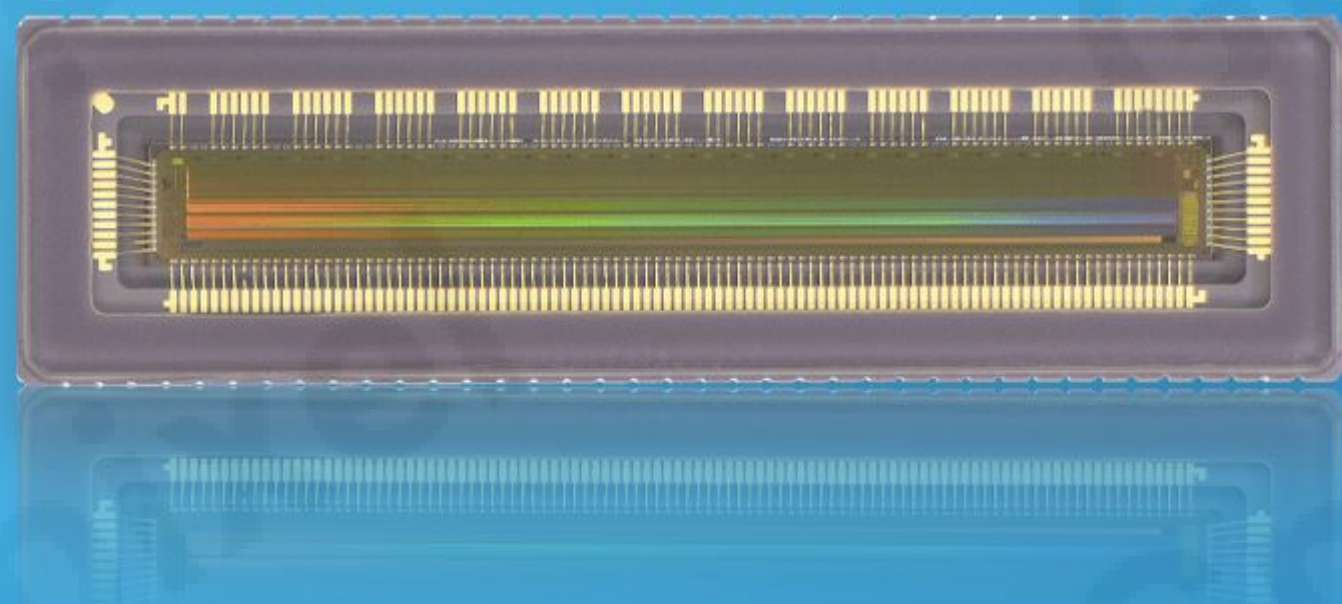




GL0402

4K 7 μm GLOBAL SHUTTER LINE SCAN CMOS IMAGE SENSOR

GL0402 is a 4096 x 2 resolution, 7 μm square pixel, global shutter linear image sensor that supports a maximum line rate of 200kHz in single line mode and 100kHz in dual line mode. **GL0402** offers a read noise of less than 5.2 e^- and 10 ke^- FWC, providing a 65.6 dB intra-scene dynamic range. In pixel low gain setting, FWC increases to 27.5 ke^- . The monochromatic version of **GL0402** supports 1x2 and 2x2 binning to further increase sensitivity, which is described in a separate application note.

GL0402 uses an external clock and all required timing is generated by the on-chip sequencer, reducing the amount of external components needed. Output channel multiplexing enables flexibility in FPGA selection. **GL0402** enables a cost-effective camera solution for demanding inspection applications.



Key Features and Benefits

- ▶ High Speed
- ▶ Low Noise
- ▶ High Dynamic Range

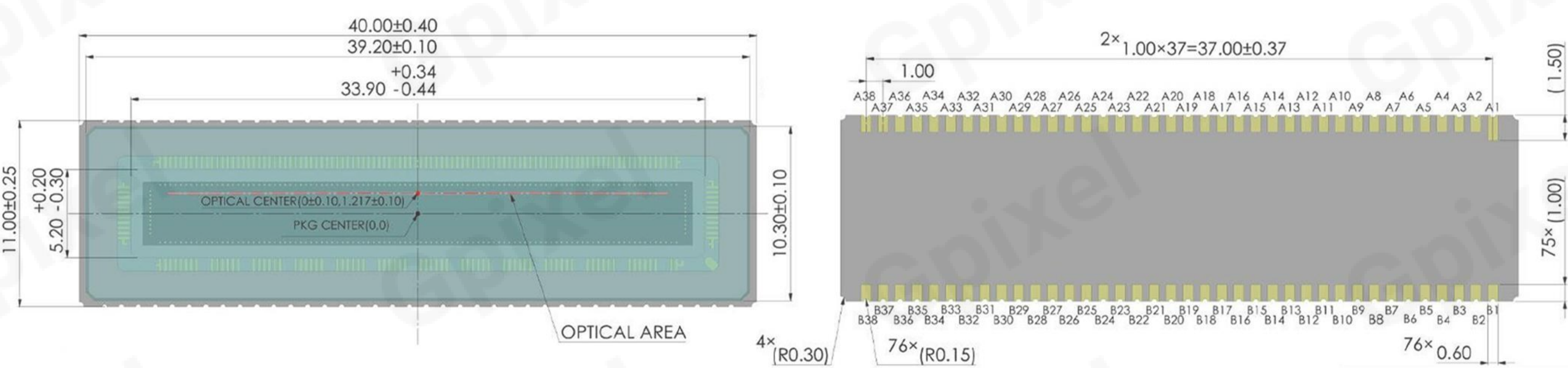
Applications

- ▶ Automation & Inspection

Specifications

Nr of Active Pixels	4096 (H) x 2 (V)	Optical Format	28.67 mm
Pixel Size	7 μm x 7 μm	Shutter Type	Global Shutter
Peak QE	75.57% (570 nm)	Temporal Noise	5.2 e ⁻
Full Well Capacity	25 ke ⁻ (LG) 10 ke ⁻ (HG)	Angular Response	20°(85% Response)
Dynamic Range	65.6 dB (HG)	Max Line Rate	200k fps (single line) 100k fps (dual line)
Output Format	12 ch Sub-LVDS	Channel Multiplexing	12/6
ADC	12 bit	Max. Data Rate	10.944 Gbps
Chroma	Mono, RGB Color	Power Consumption	< 2.25 W
Supply Voltage	3.3 V (analog) 2 V (digital) 1.8 V - 3.3 V (I/O)	Package	CLCC 76 pins (40.0 mm x 11.0 mm)

Package Drawing



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