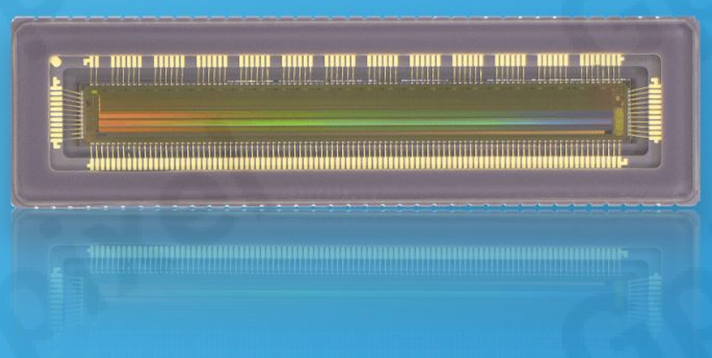


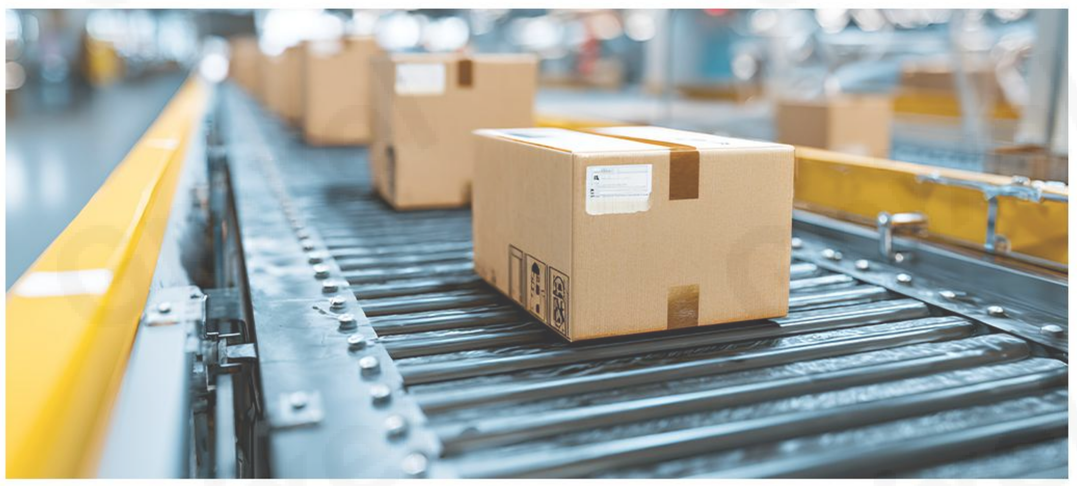
GL0402

4K 7 µm GLOBAL SHUTTER LINE SCAN CMOS IMAGE SENSOR

GL0402 is a 4096 x 2 resolution, 7um 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 and 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

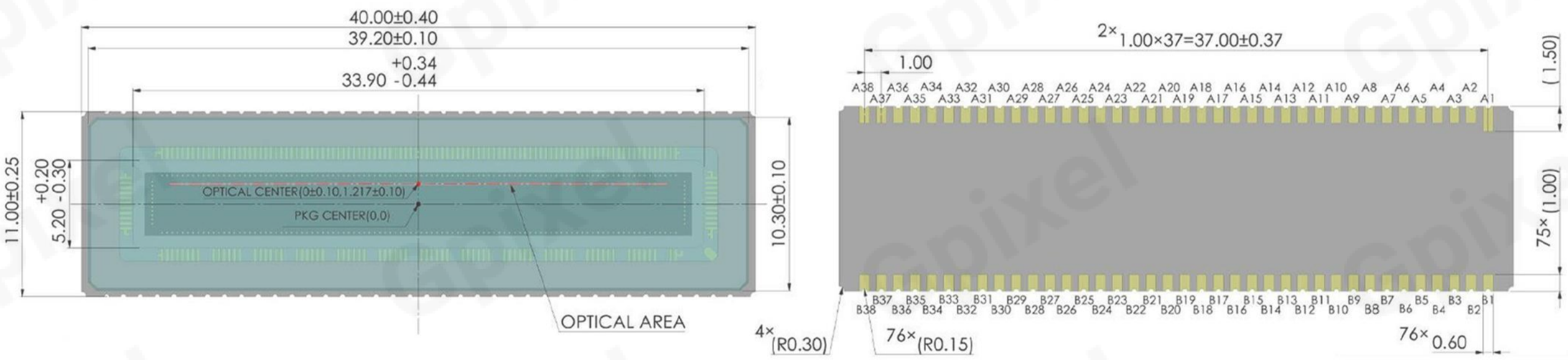
- Automation & Inspection

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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	200 kHz (single line) 100 kHz (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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Disclaimer: The product information and pictures in this flyer are for reference only. For the latest information please visit www.gpixel.com.

GP-PR250801 V1.1