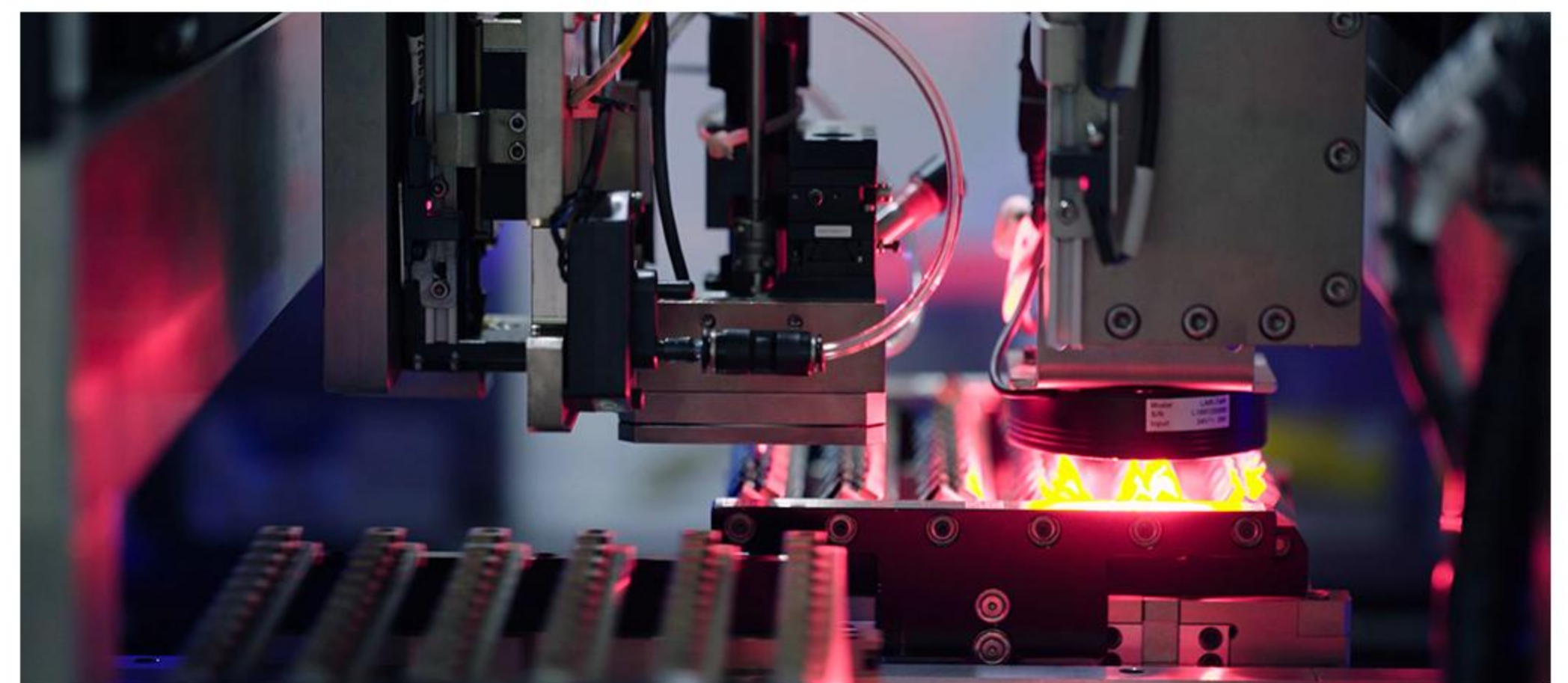


GIR1201

1024 x 1 InGaAs LINE SCAN SENSOR

GIR1201 is a 1024 (H) x 1 (V) InGaAs line scan image sensor with 12.5 μm square global shutter pixel. The sensor integrates a 12 bit ADC and delivers a dynamic range of 72 dB. Both high-gain (HG) and low-gain (LG) modes are supported. In LG mode, GIR1201 has a maximum full well capacity of 1.6 Me^- with readout noise of 400 e^- . In HG mode, the maximum full well capacity is 120 ke^- with readout noise of 88 e^- . It utilizes 4 pairs of Sub-LVDS interfaces with a maximum data rate of 1.68 Gbps for a maximum line frequency of 71.9 kHz. GIR1201 consumes less than 450 mW at the highest line frequency and is packaged in a 64 pins DIP with a package size of 57.4 x 18.9 mm.



Key Features and Benefits

- ▶ Sub-LVDS Output Format
- ▶ On-chip 12 bit ADC with Dynamic Range of 72 dB
- ▶ Line Rate up to 71.9 kHz

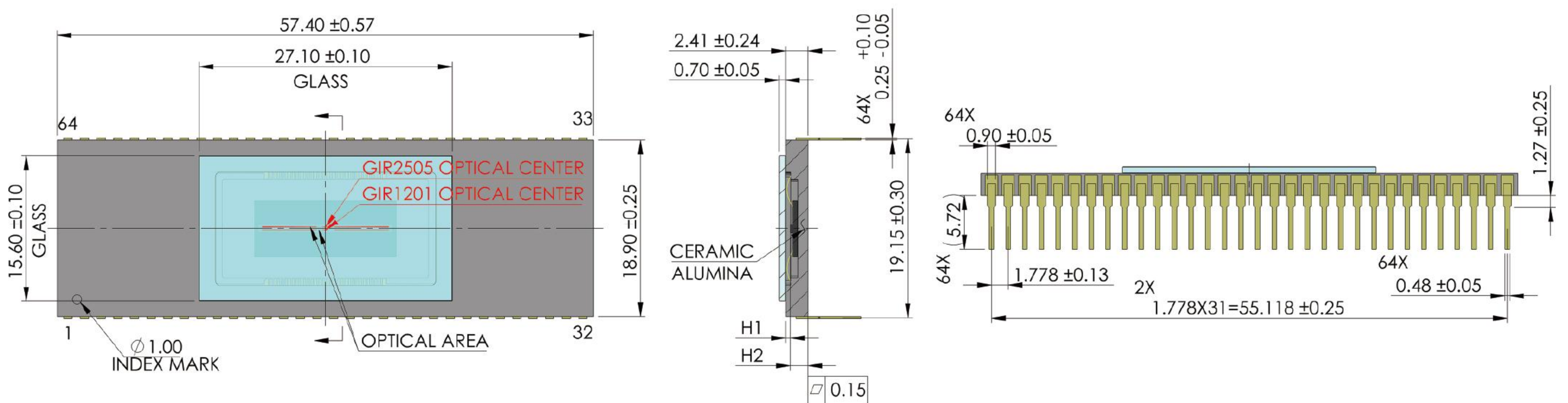
Application

- ▶ Automation & Inspection
- ▶ Tomography (OCT)

Specifications

Resolution	1024(H) x 1(V)	Optical Format	12.8 mm
Pixel Size	12.5 μm × 12.5 μm	Shutter Type	Global Shutter
Peak QE	75% (1550 nm)	Temporal Noise	88 e ⁻ (12 bit,HG) 400 e ⁻ (12 bit,LG)
Full Well Capacity	120 ke ⁻ (12 bit,HG) 1.6 Me ⁻ (12 bit,LG)	PRNU	< 2%
Dynamic Range	62 dB (12 bit,HG) 72 dB (12 bit,LG)	Max Line Rate	71.9 kHz
Output Format	2 x Sub-LVDS	Channel Multiplexing	2 to 1
ADC	12 bit	Max. Data Rate	1.68 Gbps
Chroma	-	Power Consumption	0.45 W
Supply Voltage	3.3 V (analog) 1.5 V (digital) 1.8 V (IO)	Package	64 pins DIP (57.4mm x 18.9 mm)

Package Drawing



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