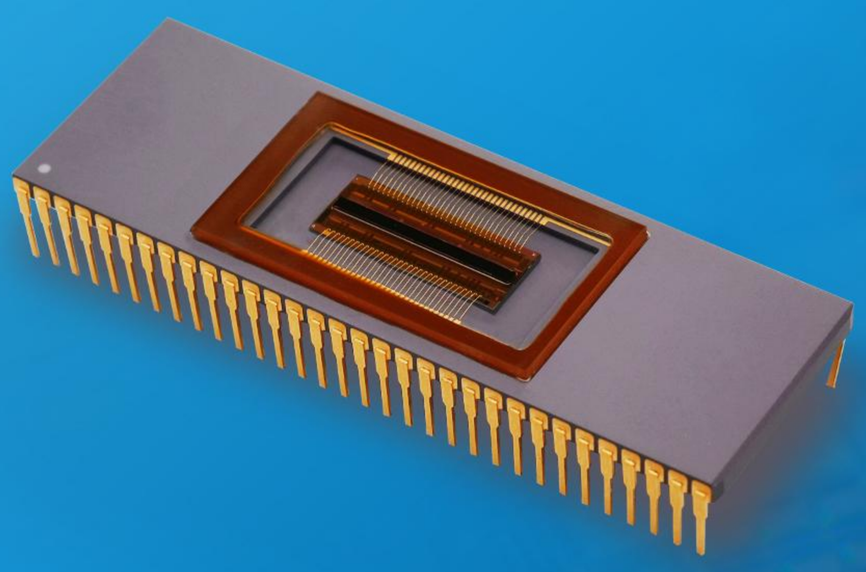
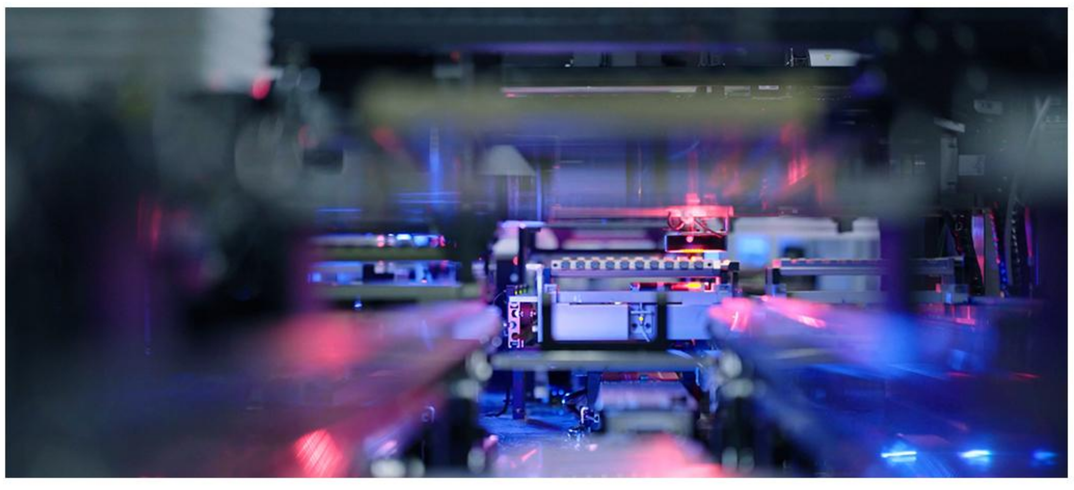
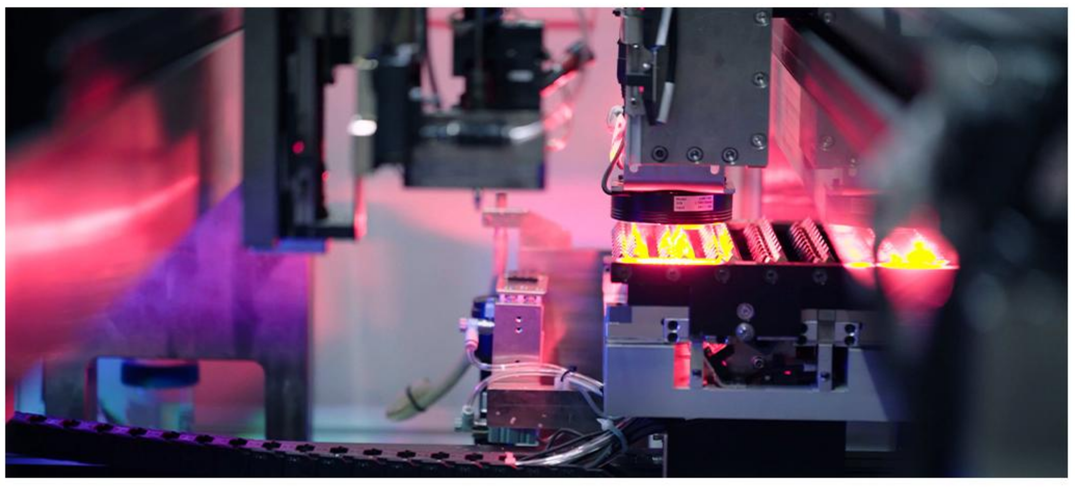


GIR2505

512 x 2 InGaAs LINE SCAN SENSOR

GIR2505 is a 512 (H) x 2 (V) InGaAs line scan image sensor with 25 µm square global shutter pixel. The sensor integrates a 12 bit ADC and provides 70 dB of dynamic range. Both high-gain (HG) and low-gain (LG) modes are supported. In LG mode, GIR2505 has a maximum full well capacity of 1.6 Me$^-$ with readout noise of 450 e$^-$. In HG mode, the maximum full well capacity is 85 ke$^-$ with readout noise of 116 e$^-$. It utilizes 2 pairs of Sub-LVDS interfaces with a maximum data rate of 1.68 Gbps, for a maximum line frequency of 40.4 kHz. GIR2505 also 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 70 dB
- Line Rate up to 40.4 kHz

Application

- Automation & Inspection
- Tomography (OCT)

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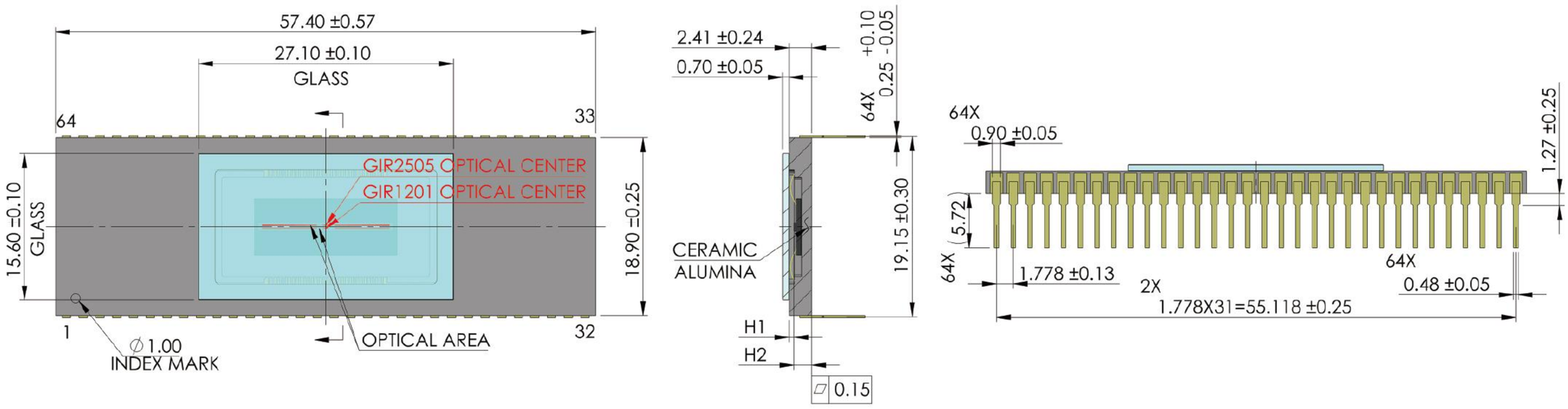
Specifications

Resolution	512(H) x 2(V)	Optical Format	12.8 mm
Pixel Size	25 μm × 25 μm	Shutter Type	Global Shutter
Peak QE	75%(1550 nm)	Temporal Noise	116 e^- (12 bit,HG) 450 e^- (12,bit,LG)
Full Well Capacity	85 ke^- (12 bit,HG) 1.6 Me^- (12 bit,LG)	PRNU	< 2%
Dynamic Range	58 dB (12 bit,HG) 70 dB (12 bit,LG)	Max Line Rate	40.4 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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