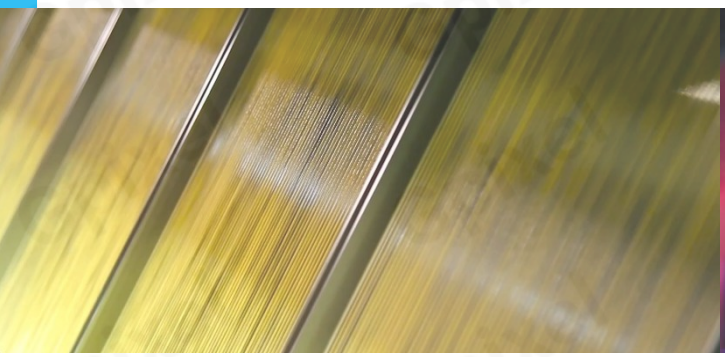
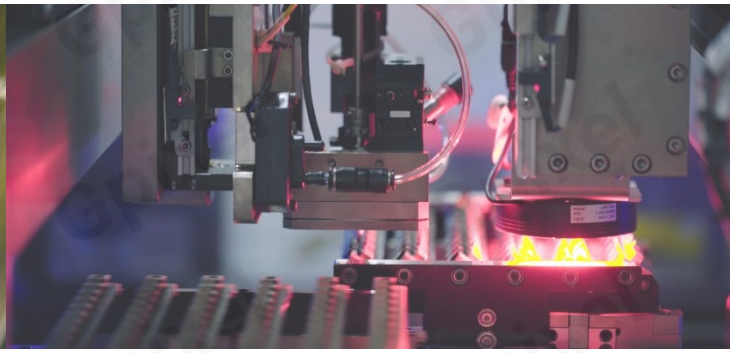
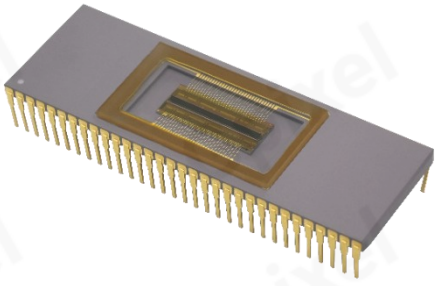
GIR1201 Product Flyer





1024 x 1 InGaAs line scan sensor

GIR1201 is a 1024 x 1 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 72dB. 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 2 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-pin DIP with a package size of 57.4 x 18.9 mm.



Key Features

- Pixel size : 12.5μm x 12.5μm
- Resolution： 1024(H) x 1(V)
- Sub-LVDS output format
- On-chip 12bit ADC with dynamic range of 72 dB
- Line rate up to 71.9kHz

Applications

- Industrial Inspection
- Color and Food Sorting
- OCT

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Sensor Specifications

Resolution	1024(H) x 1(V)	Pixel size	12.5 μm × 12.5 μm
Maximum line rate	71.9 kHz	Peak QE	75% @1550nm
Full well capacity	120 ke-@ HG 1.6 Me-@ LG	Shutter type	Global shutter
Temporal noise	88 e^-@ HG 400 e-@ LG	Output channel	2xSub-LVDS
Dynamic Range	62 dB @ HG 72 dB @ LG	Channel multiplexing	2 to 1
PRNU	<2%	Data rate	840 Mbps per channel
ADC bit depth	12 bit	Power consumption	< 450 mW
Package	64-pin DIP	Supply voltages	3.3V for analog 1.5V for digital 1.8V for IO

Ordering Information

Sensor Part No.

GIR1201-AIM-NDN-AUD	InGaAs Image Sensor, 64-pin DIP ceramic package, sealed D 263® T eco glass without AR coating, Demo Grade
GIR1201-AIM-NDN-AUE	InGaAs Image Sensor, 64-pin DIP ceramic package, sealed D 263® T eco glass without AR coating, Engineering sample

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