

# GLR1205BSI-S

512 pixels in 1 line, 12.5  $\mu\text{m}$  x 250  $\mu\text{m}$  RESOLUTION GLOBAL SHUTTER LINE SCAN CMOS IMAGE SENSOR

**GLR1205BSI-S** is a single-line linear image sensor with rectangular pixels and analog output designed for use in displacement sensors.

The sensor's 512 pixels are each 12.5  $\mu\text{m}$  (H) x 250  $\mu\text{m}$  (V) and provide a saturation output voltage of 2.45 V. The large pixel also increases the photosensitive area and facilitates easy alignment of the laser spot. Backside thinning technology enables a peak quantum efficiency of 95%, and almost 50% (650 nm). A charge transfer time of only 2.5  $\mu\text{s}$  ensures excellent lag performance. The single analog output allows image processing using an MCU module, and the small CSP package enables the design of a compact displacement sensor.

The **GLR1205BSI-S** image sensor is designed for the accurate detection of surfaces and precise distance measurement under a variety of lighting conditions.



## Key Features and Benefits

- ▶ BSI Linear Sensor
- ▶ High Sensitivity
- ▶ Large FWC
- ▶ Rectangular Pixel
- ▶ CSP Package

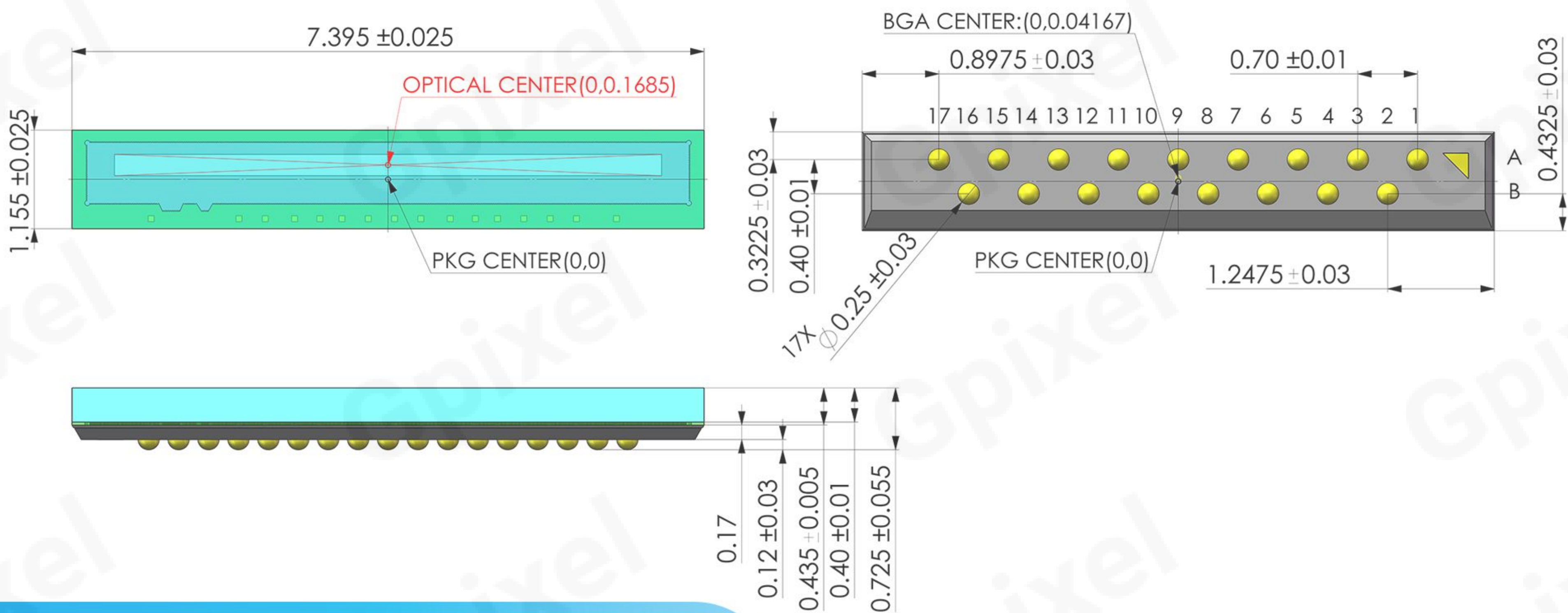
## Applications

- ▶ Automation & Inspection
- ▶ Logistic & Positioning

## Specifications

|                           |                  |                   |                                    |
|---------------------------|------------------|-------------------|------------------------------------|
| Nr of Active Pixels       | 512 (H) x 1 (V)  | Optical Format    | 6.4 mm                             |
| Pixel Size                | 12.5 μm x 250 μm | Shutter Type      | Global Shutter                     |
| Peak QE                   | 95%              | Temporal Noise    | 0.58 mV rms                        |
| Saturation output voltage | 2.45 V           | Dynamic Range     | 4224: 1                            |
| Max Line Rate             | 9.43 kHz         | Dark Current      | T.B.D                              |
| Output Format             | Analog Output    | Max. Data Rate    | 5 MHz                              |
| Chroma                    | Mono             | Power Consumption | 90 mW                              |
| Supply Voltage            | 3.3 V            | Package           | 17 pins CSP<br>(7.39 mm x 1.15 mm) |

## Package Drawing



**Contact Gpixel**

**GPIXEL CHINA CHANGCHUN (HQ)**

Building 5, Optoelectronic Information  
Industrial Park, 7691 Ziyou Road,  
130033 Changchun, Jilin, China  
Phone: +86-431-85077785

**GPIXEL EUROPE**

Gpixel NV  
Copernicuslaan 60, 2018  
Antwerpen, Belgium  
Phone: +32-33034442

**GPIXEL JAPAN**

Gpixel Japan Co., Ltd.  
TOC Osaki Building 18th Floor, 1-6-1 Osaki,  
Shinagawa-ku, Tokyo, 141-0032 Japan  
Phone: +81-03-5962-1600



Disclaimer: The product information and pictures in this flyer are for reference only. For the latest information please visit [www.gpixel.com](http://www.gpixel.com).  
GP-PR250801 V1.1

✉ [info@gpixel.com](mailto:info@gpixel.com)

 [www.gpixel.com](http://www.gpixel.com)