

# GXS1508/GXSM1508

1.5  $\mu\text{m}$  0.16 MP ROLLING SHUTTER CMOS IMAGE SENSOR

**GXS1508** is an ultra-small sensor designed in a 4 pins CSP configuration, with a resolution of 400 x 400 and a 1.5  $\mu\text{m}$  BSI rolling shutter pixel. It delivers an analog signal output at a frame rate of 30 fps and is compatible with industry standard image signal processors (ISPs). The sensor's outer dimensions are 0.961 x 0.961 x 0.55 mm. The **GXSM1508** module combines the **GXS1508** with a wafer-level optical lens, with dimensions of 1.04 x 1.04 x 2.082 mm. The Wafer-Level Optical Lenses (WLOs) employ a three-element lens design with an F# aperture of 5.0, which effectively optimizes light transmission, image clarity and field and depth of view offering a diagonal field of view of 120°, ensuring adequate visibility in confined areas. Both the **GXS1508** and **GXSM1508** are ideal for various applications, such as reusable and single-use endoscopes for medical imaging, position sensing, smart devices, and toys.



## Key Features and Benefits

- ▶ WLO
- ▶ High Sensitivity
- ▶ Compact CSP Packaging

## Applications

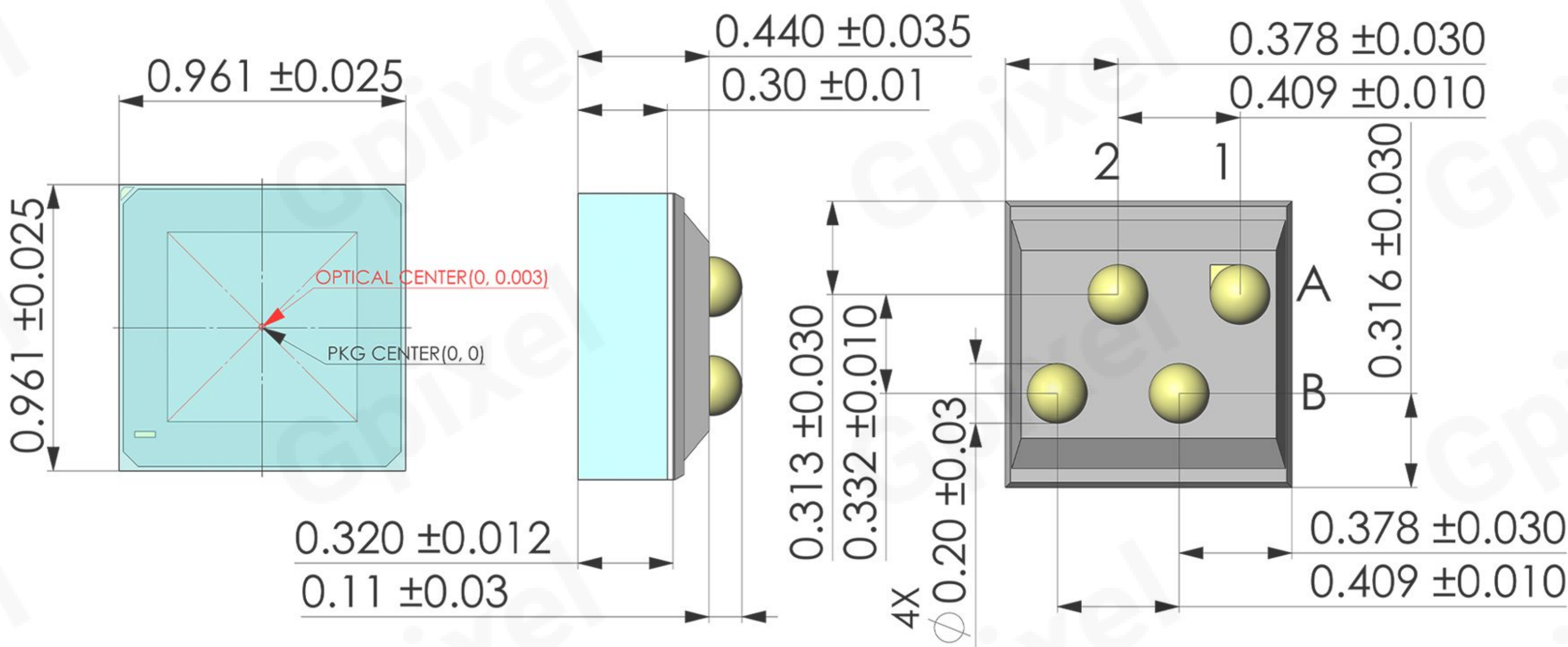
- ▶ Microscopy



## Specifications

Nr of Active Pixels	400 (H) x 400 (V)	Optical Format	1/19"
Pixel Size	1.5 $\mu\text{m}$ x 1.5 $\mu\text{m}$	Photosensitive Area	0.6 mm x 0.6 mm
Shutter Type	Rolling Shutter	Peak QE	T.B.C
Full Well Capacity	5 ke <sup>-</sup>	Temporal Noise	7.19 e <sup>-</sup>
Dynamic Range	57 dB	Max Frame Rate	30 fps
Output Format	Analog	CRA	28°±3°
Chroma	RGB Color	Power Consumption	17.3 mW
Supply Voltage	3.3 V	Package	4 pins CSP (0.961 mm x 0.961 mm x 0.55 mm)
WLO Specification			
Field of View (FOV)	Horizontal 83° Diagonal 120°	F Number	5.0
Focal Length	0.417 mm	Optical Layout	3-surface lens
TV Distortion	< 16% (90% field)	Focus	Fixed Focus 4-50 mm
IR Filter	665 nm ± 10 nm		

## 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

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

### 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

