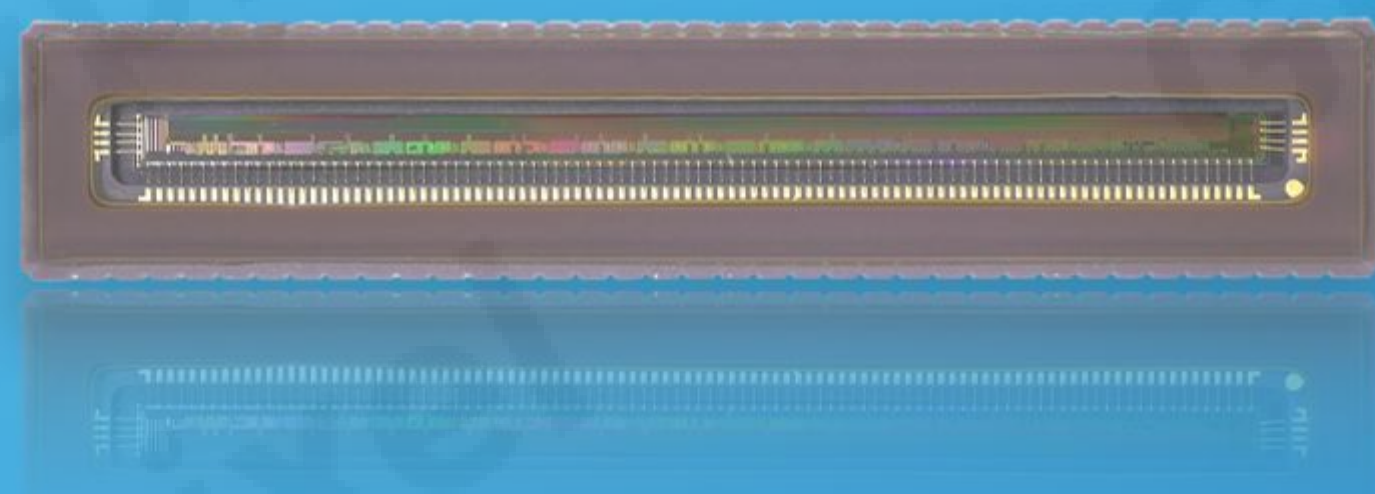




# GL7004

4K 7  $\mu$ m RESOLUTION GLOBAL SHUTTER LINE SCAN CMOS IMAGE SENSOR

**GL7004** is a 4096 (H) x 4 (V) resolution global shutter linear array CMOS image sensor, featuring 7  $\mu$ m high-sensitivity pixels. Offered in two basic flavors: a multi color 4 row R+G+B+Mono and 4 row mono variants, the sensor allows each row to have a unique exposure time, with line rates up to 250 kHz in single line mode and 76.9 kHz in quad line mode. The sensor's high line rate is a perfect fit for high-throughput various industrial inspection applications including sorting various inspection applications like solar panel, printing and railway monitoring at a cost-effective price offering.

The **GL7004** is available in a compact LCC ceramic package, requiring only 3 external power supplies and consuming only 1.05 W, making it easier for customers to design and integrate their systems.



## Key Features and Benefits

- ▶ Individual Exposure Control for Each Color Line
- ▶ External Trigger
- ▶ High Frame Rate
- ▶ Low Power Consumption
- ▶ Cost Efficient

## Applications

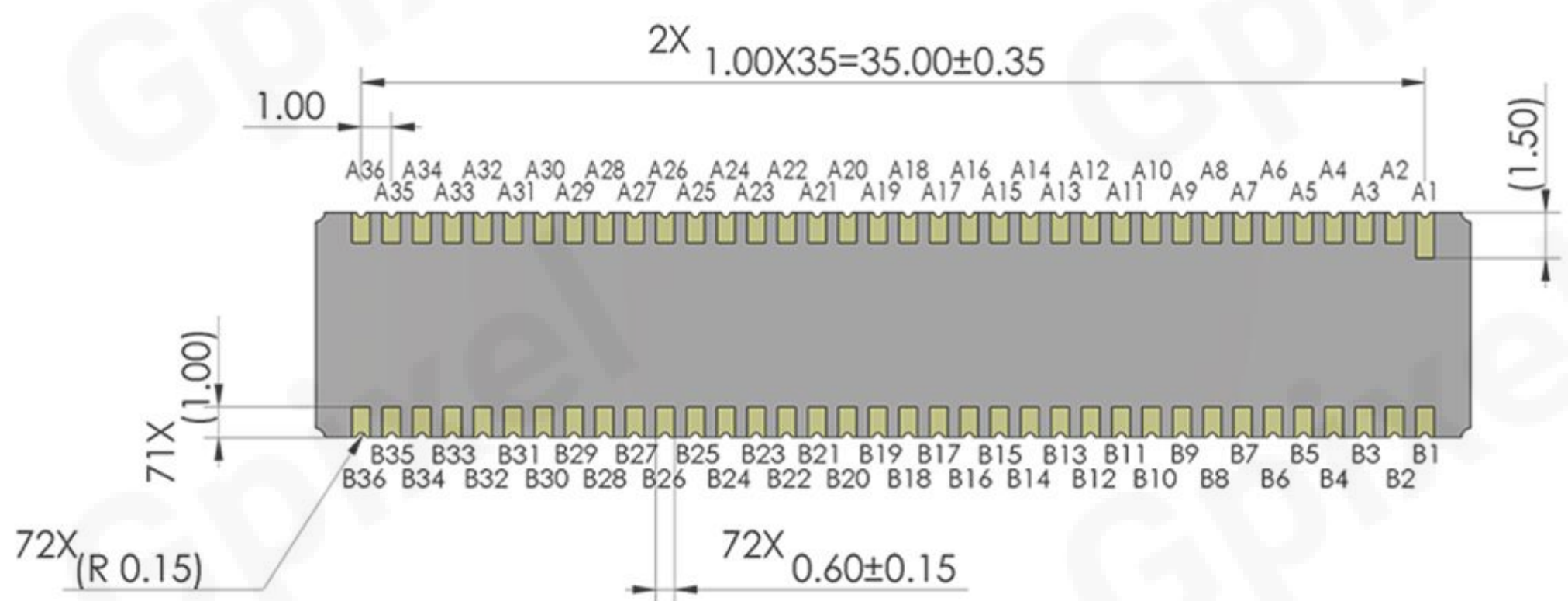
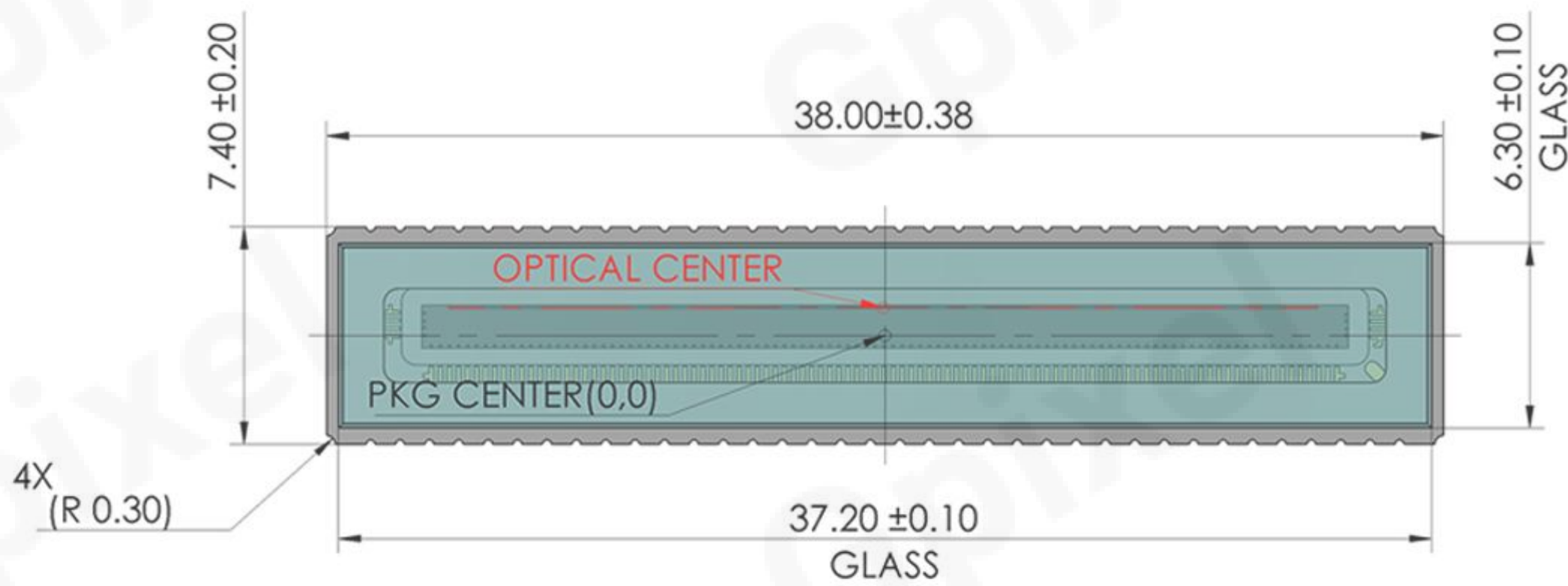
- ▶ Automation & Inspection
- ▶ Logistic & Positioning



# Specifications

|                     |                                                         |                   |                                                |
|---------------------|---------------------------------------------------------|-------------------|------------------------------------------------|
| Nr of Active Pixels | 4096 (H) x 4 (V)                                        | Optical Format    | 1.8"                                           |
| Pixel Size          | 7 μm x 7 μm                                             | Shutter Type      | Global Shutter                                 |
| Peak QE             | 74.5% (560 nm)                                          | Temporal Noise    | 4.3 e <sup>-</sup><br>(10 bit, analog gain 4x) |
| Full Well Capacity  | 10.5 ke <sup>-</sup><br>(10 bit, analog gain 1x)        | Dynamic Range     | 61.5 dB                                        |
| Max Line Rate       | 250 kHz (single-line)                                   | Output Format     | 12 ch Sub-LVDS                                 |
| ADC                 | 10 bit                                                  | Max. Data Rate    | 14.4 Gbps                                      |
| Chroma              | Mono, RGB color                                         | Power Consumption | 1.05 W                                         |
| Supply Voltage      | 3.6 V (analog)<br>1.5 V (digital)<br>1.8 V - 3.3 V (IO) | Package           | 72 pins CLCC<br>(38.0 mmx7.4 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  
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

