## **GL7004 Product Flyer**





#### 4K 7µm Resolution Global Shutter Line Scan CMOS Image Sensor

The GL7004 is a 4096 (H) x 2/4 (V) resolution global shutter linear array CMOS image sensor, featuring 7 µm high-sensitivity pixels. Offered in two basic flavors: a multi color 4 row R+G+B+Mono and 2 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 1.05W,

making it easier for customers to design and integrate their



#### **Key Feature**

- RGB/RGBW true color
- External Trigger
- Low power consumption
- Individual exposure control for each line of pixel
- High cost performance

### **Applications**

- Industrial Inspection
- Printing Inspection
- Rail & Train Inspection
- High Speed Web Inspection
- Sorting & Logistics



systems.



# **Sensor Specifications**

| Resolution         | 4096 (H) x 4 (V)                                   | Optical format       | 1.8 "                              |  |
|--------------------|----------------------------------------------------|----------------------|------------------------------------|--|
| Pixel size         | 7.0 μm × 7.0 μm                                    | Photo-sensitive area | 28.67 mm x 0.06 mm                 |  |
| Shutter type       | Global Shutter                                     | Quantum efficiency   | 76.8% @ 580 nm                     |  |
| Full well capacity | 10.5 ke⁻                                           | Temporal noise       | 4.3 e⁻@High Gain                   |  |
| Dark Current       | 1.1 ke <sup>-</sup> /s @ 44.7 °C                   | Dynamic range        | 61.5 dB                            |  |
| Max. Line rate     | 250 kHz @ Single line mode                         | Output format        | 12 ch Sub-LVDS                     |  |
| Data rate          | 14.4 Gbps                                          | Channel multiplexing | - (0)                              |  |
| Chroma             | Mono & RBG-W                                       | Power consumption    | 1.05W                              |  |
| I/O voltage        | 3.6V (analog)<br>1.5V (digital)<br>1.8V-3.3V (I/O) | Package              | 72 pins CLCC<br>(38.0 mm x 7.4 mm) |  |

## **Ordering Information**

| Sensor Part        | Description                                                                                         | Grade      |
|--------------------|-----------------------------------------------------------------------------------------------------|------------|
| GL7004-BVM-NCN-AUD | Monochrome, no microlens, ceramic 72 pins CLCC, Sealed D 263® T eco glass without AR coating.       | Demo grade |
| GL7004-BVC-NCN-AUD | Multi Line Color, no microlens, ceramic 72 pins CLCC, Sealed D 263® T eco glass without AR coating. | Demo grade |

### **Contact Gpixel HQ**

Building #5, Optoelectronic Information Industrial Park, #7691 Ziyou Road, Changchun, Jilin, China.

Tel: +86-0431-85077785 Email: info@gpixel.com Website: www.gpixel.com



All rights reserved. Subject to change without notice