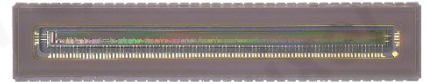


# GL7004 Product Flyer



## 4K 7 $\mu\text{m}$ 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  $\mu\text{m}$  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 1.05W, making it easier for customers to design and integrate their systems.

### Key Features

- Individual exposure control for each color line
- External Trigger
- High Frame Rate
- Low Power Consumption
- Cost Efficient

### Applications

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

# Sensor Specifications



|                    |   |                     |                                    |
|--------------------|---|---------------------|------------------------------------|
| Resolution         | 4096 (H) x 4 (V)  | Optical format      | 2/3"                               |
| Pixel size         | 7.0 μm × 7.0 μm   | Photosensitive area | 8.3 mm x 7.0 mm                    |
| Shutter type       | Global shutter  | Peak QE             | 75% @ 540 nm                       |
| Full well capacity | 10.5 ke- (10 bit, analog gain x1)                       | Temporal noise      | 4.3 e- (10 bit, analog gain x4)    |
| Max. SNR           | 40.2 dB   | Dynamic Range       | 61.5 dB                            |
| Dark Current       | 2.1k e-/pixel/s (50 °C)                                 | Angular response    | > 20° (91% response)               |
| Maximum frame rate | 250 kHz (single line mode)                              | ADC                 | 10 bit                             |
| Power consumption  | < 1.1 W   | Output format       | 12 pairs of Sub-LVDS               |
| Supply voltage     | 3.6 V (analog)<br>1.8 V – 3.3 V (IO)<br>1.5 V (digital) | Max. Data rate      | 14.4 Gbps                          |
| Chroma             | RGB, Mono   | Package             | 72 pins CLCC<br>(38.0 mm x 7.4 mm) |

# Ordering Information

| Sensor Part No.    | Description   |
|--------------------|---|
| GL7004-EVM-NCN-AUD | Monochrome, No microlens, 250k @ Single line mode, Demo grade     |
| GL7004-EVC-NCN-AUD | R/G/B color, No microlens, 250k @ Single line mode, Demo grade    |
| GL7004-EVN-NCN-IUD | R/G/B/IR color, No microlens, 250k @ Single line mode, Demo grade |

