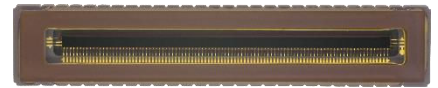


# GL1402 Product Flyer



## 2K High Sensitivity Linear CMOS Image Sensor

Introducing **GL1402**: A Cost-Effective Solution for Color Sorting and Food Applications. **GL1402** is a high-sensitivity, 2K linear CMOS image sensor perfect for color sorting and food applications. It features a large 14  $\mu\text{m}$  pixel size, ensuring exceptional sensitivity, high line frequency, and superior color resolution. The sensor offers a monochrome as well as color versions, with the monochrome variant supporting single-line and three-line modes, while the color version supports three-line modes. **GL1402** employs a 12-bit ADC and utilizes 4 pairs of Sub-LVDS interfaces for efficient data transmission at a maximum rate of 1.92 Gbps. In single-row read out mode, it achieves a maximum line frequency of 81 kHz, and in three-row read out mode, it reaches up to 27 kHz. The sensor allows independent control of exposure time for each row of pixels, resulting in enhanced imaging effects. **GL1402** consumes less than 420 mW at the highest line frequency and is packaged in a compact 54-pin CLCC measuring 38 x 7.4 mm. Compared to similar products, **GL1402** stands out with its significant cost advantage. It offers excellent detection efficiency and quality while providing a more cost-effective option for users in color sorting and food applications.



### Key Features

- Black and white: 2048(H) x 1(V)
- Color: 2048(H) x 3(V)
- Individual exposure control for each row of pixels
- External trigger
- Cost efficient

### Applications

- Industrial inspection
- Color and Food Sorting
- PV Industry
- OCT

## Sensor Specifications

Resolution	2048(H) x 4(V)	Photo-sensitive area	28.896 mm/ 1.806 inches
Pixel size	14 $\mu\text{m}$ $\times$ 14 $\mu\text{m}$	Peak QE	69.3% @560nm
Shutter type	Global	Input clock frequency	30 MHz–40 MHz
Full well capacity	28.7 ke <sup>-</sup>	Maximum frame rate	81 kHz @ single line
Temporal noise	9.1 e <sup>-</sup>	Output channel	4xSub-LVDS
Dark noise	702.7 e <sup>-</sup> /pixel/s @ 30°C	Angle response	20 deg (85% QE)
Dynamic Range	70 dB	Channel multiplexing	4/2/1
ADC bit depth	12 bit	Data rate	2.08 Gbps
Chroma	Mono & Color	Power consumption	<0.42 W
Supply voltages	3.6V (analog) 1.5V (digital) 1.8V–3.3V (IO)	Package	54-pins CLCC

## Ordering Information

### Sensor Part No.

#### GL1402-BVC-TCN-AUD

Color, without microlens, ceramic 54-pin CLCC, sealed D 263<sup>®</sup> T eco glass without AR coating

#### GL1402-BVM-TCN-AUD

Monochrome, without microlens, ceramic 54-pin CLCC, sealed D 263<sup>®</sup> T eco glass without AR coating

#### GL1402-BVM-SCN-AUD

Monochrome, without microlens, ceramic 54-pin CLCC, sealed D 263<sup>®</sup> T eco glass without AR coating

## Contact Gpixel HQ

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