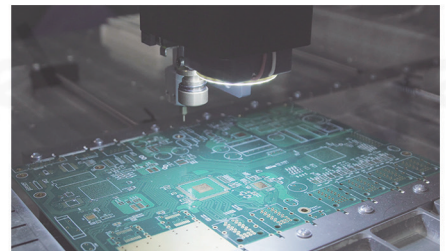
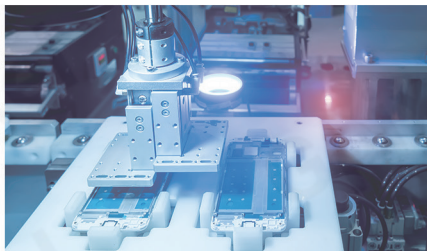


## GL Series

### HIGH SPEED LINEAR AND TDI IMAGE SENSORS

## GL

Each sensor in the GL family has unique characteristics for the applications it serves. [GL3504](#) provides either 2k or 4k scanning in a C-mount compatible format. [GL0402](#) provides 4k scanning with a large 7  $\mu\text{m}$  pixel and speeds up to 200 kHz in 12-bit mode. [GL0816](#) provides 8k scanning with 16 lines and can alternatively be operated in a 2-stage TDI mode for increased sensitivity. [GL7008](#) provides 8k scanning with a large 7  $\mu\text{m}$  pixel, 200 kHz line rate, and supports 3-line true color and 4-line RGBW multispectral output. [GL3516](#) provides 16k scanning with a 3.5  $\mu\text{m}$  pixel, 120 kHz line rate, and mono + RGB options. Gpixel's expanding portfolio of high speed linear and TDI image sensors enable our customers to provide optimized solutions for a wide variety of inspection, biosciences, and pathology applications.



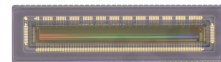
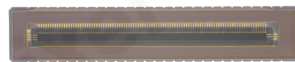
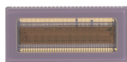
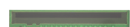
### Product Family Features

- ✓ High line rates
- ✓ High dynamic range
- ✓ High QE
- ✓ GL3504: C-Mount Compatible

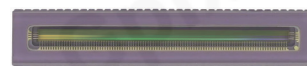
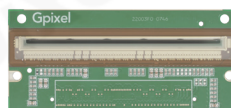
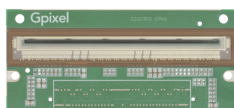
### Applications

- ✓ Industrial Inspection
- ✓ OCT
- ✓ Film Inspection
- ✓ Panel Inspection
- ✓ Digital Pathology (TDI)
- ✓ Fluorescence Imaging (TDI)
- ✓ Logistics
- ✓ Printing Inspection
- ✓ Railway Inspection

# Gpixel Sensor Specifications



CMOS Image Sensors	GLR1205BSI-S	GL3504	GL1402	GL0402
<b>Pixel</b>	12.5 $\mu\text{m}$ x 250 $\mu\text{m}$ GS	3.5 $\mu\text{m}$ x 7 $\mu\text{m}$ GS	14 $\mu\text{m}$ GS	7 $\mu\text{m}$ GS
<b>Resolution</b>	512 x 1	3.5 $\mu\text{m}$ : 4096 x 2 7 $\mu\text{m}$ : 2048 x 4	M: 2048 x 1 RGB: 2048 x 3	4096 x 2
<b>Chroma</b>	Mono	Mono RGB	Mono RGB	Mono RGB
<b>FWC<sub>max</sub></b>	2.8 M e <sup>-</sup>	9.3 ke <sup>-</sup>	28.7 ke <sup>-</sup>	25 ke <sup>-</sup>
<b>Noise<sub>min</sub></b>	600 e <sup>-</sup>	4.9 e <sup>-</sup>	9.1 e <sup>-</sup>	5.2 e <sup>-</sup>
<b>DR<sub>max</sub></b>	71 dB (3620:1)	65.5 dB	70 dB	65.6 dB
<b>QE<sub>max</sub></b>	95% @500 nm	3.5 $\mu\text{m}$ : 62% @ 620 nm 7 $\mu\text{m}$ : 71.9% @ 570 nm	69% @ 560 nm	76% @ 570 nm
<b>Line Rate @ ADC</b>	9.43 kHz	3.5: 1 ln: 84 kHz 3.5: 2 ln: 42 kHz 7: 1 ln: 172 kHz 7: 2 ln: 88 kHz 7: 4 ln: 62 kHz	1 ln: 81 kHz 3 ln: 27 kHz	1 ln: 200 kHz 2 ln: 100 kHz
<b>Power</b>	<0.9 W	<1.0 W	<0.42 W	<2.25 W
<b>Output</b>	Analog	6 @ 912 MHz LVDS	4 @ 520 MHz LVDS	12 @ 912 MHz LVDS
<b>Package</b>	7.4 x 1.2 mm <sup>2</sup> 17p CSP	22.3 x 10.6 mm <sup>2</sup> 58p CLCC	38.0 x 7.4 mm <sup>2</sup> 54p CLCC	40.0 x 11.0 mm <sup>2</sup> 76p CLCC
<b>Availability</b>	ES	ES & EVK	ES & EVK	EVK & MP



CMOS Image Sensors	GL0816	GL7008	GL3516	GL7004
<b>Pixel</b>	5 $\mu\text{m}$ GS	7 $\mu\text{m}$ GS	3.5 $\mu\text{m}$ GS	7 $\mu\text{m}$ GS
<b>Resolution</b>	8322 x 16	M: 8192 x 1 RGB: 8192 x 3	16384 x 2	4096 x 4
<b>Chroma</b>	Mono RGB	Mono RGB	Mono RGB	Mono RGB
<b>FWC<sub>max</sub></b>	17 ke <sup>-</sup>	10 ke <sup>-</sup>	5.6 ke <sup>-</sup>	10.5 ke <sup>-</sup>
<b>Noise<sub>min</sub></b>	13 e <sup>-</sup>	6.8 e <sup>-</sup>	8.2 e <sup>-</sup>	8.8 e <sup>-</sup>
<b>DR<sub>max</sub></b>	62 dB	63 dB	56.6 dB	61.5 dB
<b>QE<sub>max</sub></b>	71% @ 600 nm	73% @ 530 nm	57% @ 530 nm	76.8% @ 580 nm
<b>Line Rate @ ADC</b>	2 ln: 200 kHz 4 ln: 100 kHz	1 ln: 200 kHz 2 ln: 100 kHz 3 ln: 66 kHz 4 ln: 50 kHz	1 ln: 120 kHz 2 ln: 60 kHz	1 ln: 200 kHz @ 12b 2 ln: 116 kHz @ 12b 3 ln: 100 kHz @ 10b 4 ln: 75 kHz @ 10b
<b>Power</b>	<4.0 W	<4.4 W	<3.2 W	<1.05 W
<b>Output</b>	66 @ 800 MHz LVDS	25 @ 960 MHz LVDS	25 @ 960 MHz LVDS	12 @ 1200 MHz LVDS
<b>Package</b>	55.8 x 18.1 mm <sup>2</sup> 258p $\mu$ PGA	71.8 x 32.0 mm <sup>2</sup> 168p COB	71.8 x 32.0 mm <sup>2</sup> 168p COB	38.0 x 7.4 mm <sup>2</sup> 72p CLCC
<b>Availability</b>	EVK & MP	ES & EVK	ES & EVK	ES & EVK

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