

## GL Series

### HIGH SPEED LINEAR AND TDI IMAGE SENSORS

## GL & GLT

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. **GLT5009BSI** is a 256-stage true TDI image sensor with blazing fast 600 kHz line rate and backside illumination, for applications that require the ultimate in both sensitivity and speed including fluorescence imaging and digital pathology. **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.



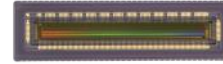
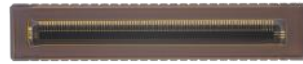
### Product Family Features

- ✓ High line rates
- ✓ High dynamic range
- ✓ High QE
- ✓ GL3504: C-Mount Compatible
- ✓ GLT5009BSI: TDI read out with 24% QE @ 940 nm

### Applications

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

# Gpixel Sensor Specifications



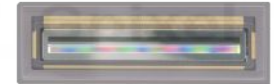
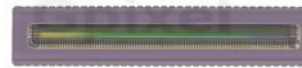
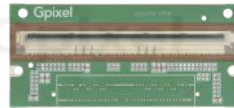
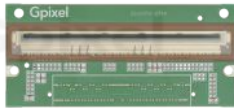
GL3504

GL1402

GL0402

GL0816

	GL3504	GL1402	GL0402	GL0816
<b>Pixel</b>	3.5, 7 $\mu\text{m}$ GS	14 $\mu\text{m}$ GS	7 $\mu\text{m}$ GS	5 $\mu\text{m}$ GS
<b>Resolution</b>	3.5: 4096 x 2 7: 2048 x 4	M: 2048 x 1 RGB: 2048 x 3	4096 x 2	8322 x 16
<b>Chroma</b>	Mono RGB	Mono RGB	Mono RGB	Mono RGB
<b>FWC<sub>max</sub></b>	9.3 ke <sup>-</sup>	28.7 ke <sup>-</sup>	25.0 ke <sup>-</sup>	17.0 ke <sup>-</sup>
<b>Noise<sub>min</sub></b>	4.9 e <sup>-</sup>	9.1 e <sup>-</sup>	5.2 e <sup>-</sup>	13.0 e <sup>-</sup>
<b>DR<sub>max</sub></b>	65.5 dB	70.0 dB	65.6 dB	62.0 dB
<b>QE<sub>max</sub></b>	3.5: 62% 7: 72%	69%	76%	71%
<b>Line Rate @ ADC</b>	3.5: 1 In: 84k 12b 3.5: 2 In: 42k 12b 7: 1 In: 172k 12b 7: 2 In: 88k 12b 7: 4 In: 62k 8b	1 In: 81k 12b 3 In: 27k 12b	1 In: 200k 12b 2 In: 100k 12b	2 In: 200k 11b 4 In: 100k 10b
<b>Power</b>	<1000 mW	<420 mW	<2250 mW	<4000 mW
<b>SLVDS lanes</b>	6 @ 912 MHz	4 @ 520 MHz	12 @ 912 MHz	66 @ 800 MHz
<b>Package</b>	22.3x10.6 mm 58p CLCC	38.0x7.4 mm 54p CLCC	40.0x11.0 mm 76p CLCC	55.8x18.1 mm 258p $\mu$ PGA
<b>Availability</b>	ES & EVK	ES & EVK	ES & EVK & MP	ES & EVK & MP



GL7008

GL3516

GL7004

GLT5009BSI

	GL7008	GL3516	GL7004	GLT5009BSI
<b>Pixel</b>	7 $\mu\text{m}$ GS	3.5 $\mu\text{m}$ GS	7 $\mu\text{m}$ GS	5 $\mu\text{m}$ GS
<b>Resolution</b>	M: 8192 x 4 RGB: 8192 x 4	16384 x 2	4096 x 4	9072 x (256+32) TDI
<b>Chroma</b>	Mono RGB	Mono RGB	Mono RGB	Mono
<b>FWC<sub>max</sub></b>	10.0 ke <sup>-</sup>	5.6 ke <sup>-</sup>	10.9 ke <sup>-</sup>	19.2 ke <sup>-</sup> (12b)
<b>Noise<sub>min</sub></b>	6.8 e <sup>-</sup>	8.2 e <sup>-</sup>	3.7 e <sup>-</sup>	7.2 e <sup>-</sup> (12b)
<b>DR<sub>max</sub></b>	63.0 dB	56.6 dB	69.3 dB	68.7 dB (12b)
<b>QE<sub>max</sub></b>	73%	57%	76%	83%
<b>Line Rate @ ADC</b>	1 In: 200k 12b 2 In: 100k 12b 3 In: 66k 12b 4 In: 50k 12b	1 In: 120k 10b 2 In: 60k 10b	1 In: 200k 12b 2 In: 116k 12b 3 In: 100k 10b, 81k 12b 4 In: 75k 10b, 63k 12b	608k 10b 300k 12b
<b>Power</b>	<4400 mW	<3200 mW	<1200 mW	<5500 mW
<b>SLVDS lanes</b>	25 @ 960 MHz	25 @ 960 MHz	12 @ 1200 MHz	84 @ 872 MHz
<b>Package</b>	71.8x32.0 mm Chip on Board	71.8x32.0 mm Chip on Board	38.0x7.4 mm 72p CLCC	61.5x20.0 mm 269p $\mu$ PGA
<b>Availability</b>	ES & EVK	ES & EVK	ES & EVK	ES & EVK

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