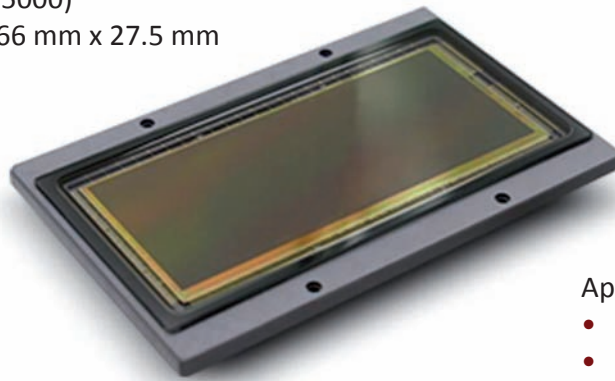


Hires-CMOS 1205

60 Megapixels CMOS Image Sensor

- 60 Megapixels (12000 x 5000)
- Photo-sensitive area of 66 mm x 27.5 mm
- 10 fps at full frame
- Low dark noise 2.9 e⁻



Applications:

- Industrial Inspection
- Security and surveillance
- Biometric identity verification

Sensor Description:

Designed for high-resolution high-speed industrial inspection, Hires-CMOS 1205 offers 60 megapixels and 10 frames per second at full resolution, which makes it ideal for LCD and PCB inspection.

In addition, Hires-CMOS 1205 provides excellent NIR (Near Infrared) sensitivity, suitable for the most demanding high-end security and surveillance applications.

Using the 5.5 μm pinned-photodiode 4T pixel, Hires-CMOS 1205 delivers an astonishing photo-sensitive area of 66 mm x 27.5 mm and excellent imaging quality. Featured with 2.9 e⁻ dark noise, 76.5 dB dynamic range, 64 % quantum efficiency and 10 fps at full resolution, Hires-CMOS 1205 enables high-resolution high-speed inspection with reasonable costs. The frame rate can be further increased in row-windowing mode.

Hires-CMOS 1205 is mounted in a 184-pin PGA ceramic package with excellent heat dissipation and reliability. It consumes less than 1.5 W at full frame rate. Monochrome (with NIR enhancement) and color versions are available for different applications.

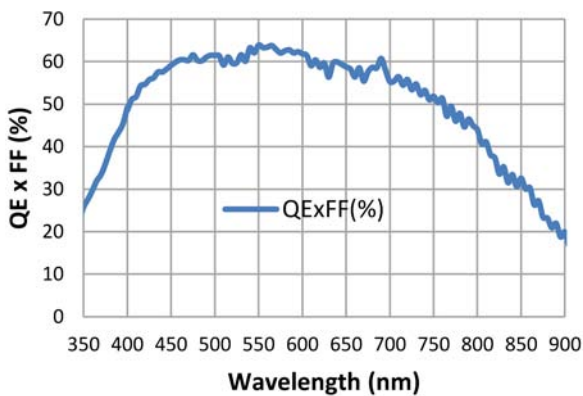
Features:

- Resolution 12,000 (H) x 5,000 (V)
- 5.5 μm square pinned photodiode 4T pixel
- Photo-sensitive area 66 mm x 27.5 mm
- 10 fps at full frame
- ROI windowing capability with enhanced frame rate (row-based only)
- Low dark noise of 2.9e⁻
- QE x FF 64 % @ 550 nm and 40 % @ 800 nm
- Optical and electrical black pixel rows
- Electronic rolling shutter
- 2-to-1 binning
- 16 bit on-chip ADC with 12 bit dynamic range
- 48 LVDS output pairs
- On-chip temperature sensor
- On-chip SPI control and on-chip PLL
- Excellent anti-blooming capability
- Monochrome and RGB with microlens array

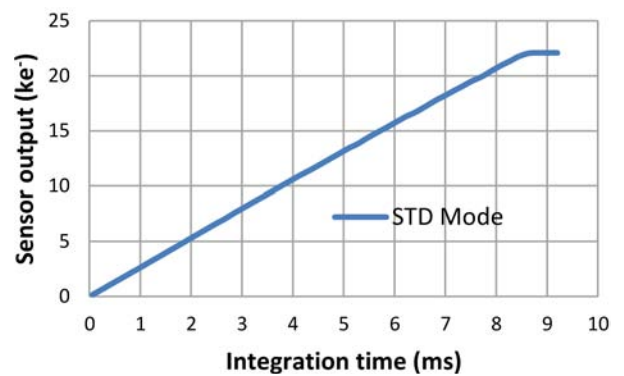
Sensor Specifications:

Photo-sensitive area	66 mm (H) x 27.5 mm (V)	Max SNR	43.8 dB
Pixel size	5.5 μm × 5.5 μm	Dark noise	2.9 e ⁻
Resolution	12,000 × 5,000	Dark current	< 23.9 e ⁻ / s / pix @ 25°C
Shutter type	Rolling shutter	Dynamic range	76.5 dB
ADC	16 bit	Quantum efficiency	64 % @ 550 nm, 40 % @ 800 nm
Main clock rate	25 MHz	Sensitivity	5.58 x 10 ⁷ e ⁻ / ((W/m ²)·s)
Frame rate	10 fps @ full frame	Full well charge	22 ke ⁻
Data rate	9.6 Gbit/s @ 10 fps	Output interface	48 LVDS pairs
Supply voltage	3.3 V / 1.8 V	Operating temperature	-55 °C - 85 °C
Max power	1.5 W	Package	184 pins PGA

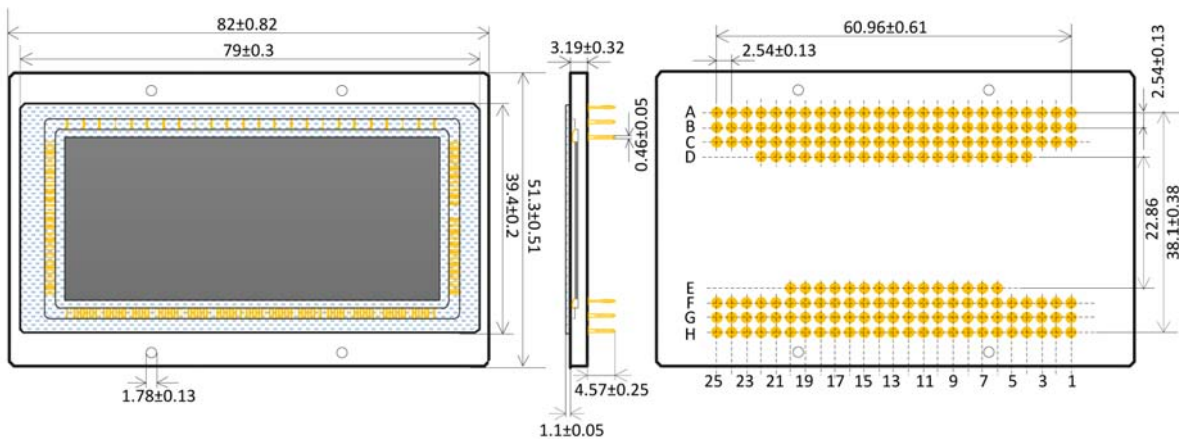
Spectral Quantum Efficiency:



Response Curve:



Package:



Units:
mm