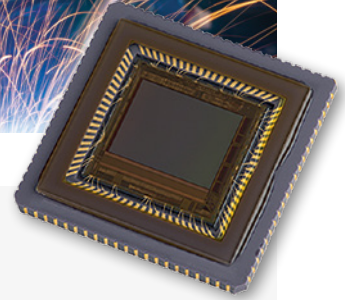


# LINCE1M3, ACHIEVING 980 FPS WITH 1.3MP RESOLUTION



**Lince1M3** is a CMOS digital image sensor optimized for medical, Intelligent Transportation Systems (ITS) and industrial machine vision applications requiring high-speed. The sensor incorporates a sophisticated readout channel with a high-accuracy 12-bit ADC to deliver the best quality images under any illumination conditions. The exposure and read-out timings are generated by a complex control-unit that enables a wide variety of operational modes. Trigger management is specially designed for those industrial applications demanding ultra-low trigger-to-exposure latency.



## SENSOR FEATURES

**1.3 Megapixel resolution**  
with a 1,244 x 1,024 pixel array

**Ultra-high speed of 980 fps**  
at full frame & 12 bits

**High-performance global shutter pixel**  
for blur-free images

**Embedded features to increase frame rate and dynamic range**  
(ROI, binning, HDR, subsampling)

## CUSTOMER BENEFITS

**Upgrade your inspection system throughput**  
with superior frame rate

**Perfect your slow-motion capture**  
with highly dynamic and blur-free images

**Improve your production yields**  
with higher contrast images and better defect classification

**Deliver the best quality images** under any illumination condition



## Sensor Characteristics

PARAMETER	LINCE1M3
Resolution – pixels	1,244 (H) x 1,024 (V)
Pixel size –square	10 μm
Shutter type	Global shutter
Size type – inch	1
Frame rate @12bits	980 fps @ full-frame 1,925 fps @ 1,244 x 512 3,710 fps @ 1,244 x 256
Bit depth	8 – 10 – 12
SNR <sub>max</sub> – dB	39.8
Dynamic range – dB	58 (standard mode) up to 100 (HDR mode)
Sensitivity – V/lux.s	14.4
Power consumption	≤2W @ max frame rate

### KEY BENEFITS

- 1.3 Megapixel resolution
- 10 μm global shutter pixel enabling exposure during readout
- C-mount compatible (16.39mm diagonal)
- Ceramic LGA package, 28 x 28mm<sup>2</sup>, 181 pins
- Pin-to-pin and optical compatible with Lince5M
- 4 LVDS ports (scalable down to 4) providing a speed up to 16.6 Gbps
- SPI control
- Power down capability for very low power dissipation

### EMBEDDED FEATURES

- High Dynamic Range (HDR)
- Region of Interest (ROI)
- Vertical binning
- Sub sampling
- Horizontal blanking

### TYPICAL APPLICATIONS

- Machine vision
- Robotics
- Intelligent Transportation Systems (ITS)
- Medical
- Slow-motion