

# LN130FSI

## High-sensitivity CMOS Image Sensor

The MinVision Series CMOS image sensor excels in ultra low-light imaging with low read-out noise and high dynamic range. It is ideal for a diverse range of applications, including:

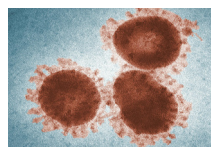
- Advanced Surveillance and Security
- Intelligent Traffic Systems
- Industrial Inspection and Automation
- Scientific and Biomedical Imaging
- Semiconductor / Wafer Inspection
- Astronomy and Deep Space Imaging

This 1" sensor features 1.3M 9.5 $\mu$ m pixels with proprietary HDR technology at a 1280 x 1024 resolution. The LN130FSI achieves over 55% Quantum Efficiency at 560nm, delivering clear images in extreme low-light conditions down to 0.00066 lx. Supporting both rolling and global shutter modes, it offers unparalleled versatility. It delivers an impressive dynamic range of over 95dB in rolling shutter mode.

## KEY FEATURES

- Low Read-out Noise
- High Dynamic Range
- Rolling Shutter and Global Shutter

## APPLICATIONS



Scientific and Biomedical Imaging



Semiconductor / Wafer Inspection



Advanced Surveillance and Security



Intelligent Traffic Systems



Astronomy and Deep Space Imaging



Industrial Inspection and Automation

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# SPECIFICATIONS

LN130FSI	Rolling Shutter	Global Shutter
Resolution [H×V]	1280 (H)×1024 (V)	
Pixel Size [H×V]	9.5 μm×9.5 μm	
Optical Format	1" (12.16mm * 9.73mm)	
Max Frame Rate	37 fps	18 fps
Quantum Efficiency	> 55%@560nm	
Read Noise	< 2.1 e <sup>-</sup>	< 5.5 e <sup>-</sup>
Full Well Capacity	> 130k e <sup>-</sup>	> 130k e <sup>-</sup>
Dynamic Range	> 95 dB	> 87 dB
Dark Current	< 10 e <sup>-</sup> /pixel/sec @Room Temperature	
ADC Resolution	14 bit	
Output	4-lane LVDS	

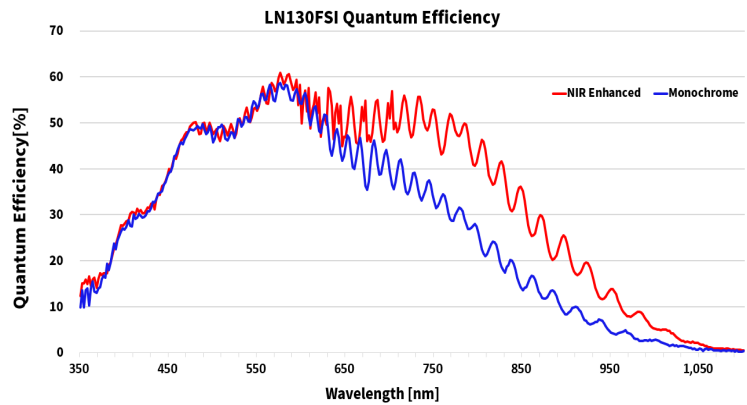
- Dynamic Range > 95dB**
- Read Noise < 2.1e<sup>-</sup>**
- Rolling & Global Shutter**



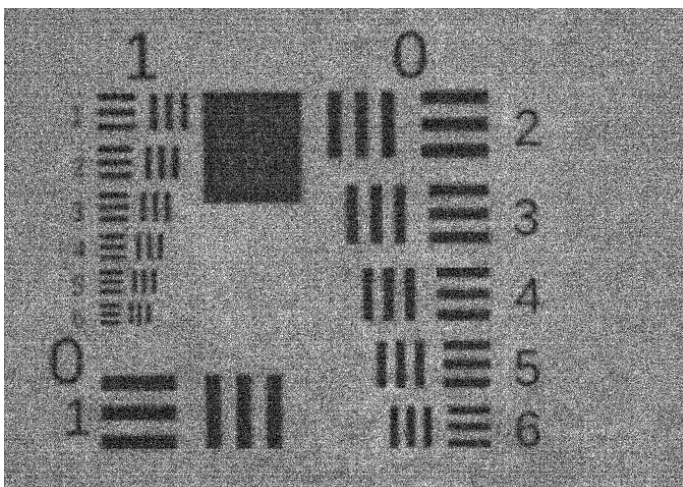
Rolling Shutter



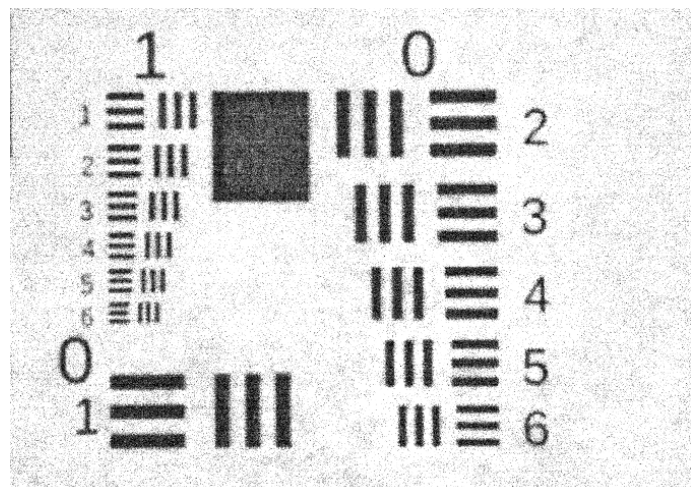
Global Shutter



# LOW-LIGHT IMAGING



0.00066 lx, 1/20s (50ms) f/2.8



0.002 lx, 1/20s (50ms) f/2.8