



LN130BSI

High-Sensitivity Backside-Illuminated 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:

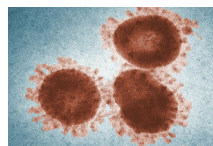
- Advanced Surveillance and Security
- Intelligent Traffic Systems
- Industrial Inspection and Automation
- Scientific and Biomedical Imaging
- Semiconductor / Wafer Inspection
- Astronomy and Deep Space Imaging

This 1" sensor features 1.3M 9.5µm backside-illuminated pixels with proprietary HDR technology at a 1280 x 1024 resolution. The LN130BSI achieves over 93% Quantum Efficiency at 560nm, delivering clear images in extreme low-light conditions down to 0.0003lx. Supporting both rolling and global shutter modes, it offers unparalleled versatility. It delivers an impressive dynamic range of over 93dB at 80fps in rolling shutter mode.

KEY FEATURES

- Low Read-Out Noise
- High Dynamic Range
- Backside-Illuminated
- 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

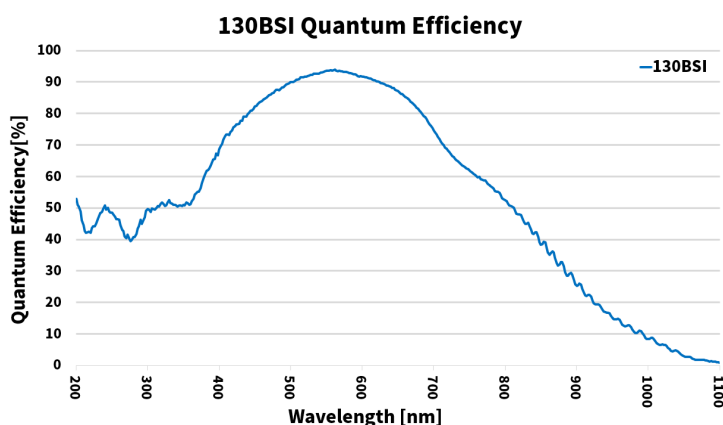
SPECIFICATIONS

LN130BSI		
Resolution [H×V]	1280 (H) × 1024 (V)	
Pixel Size [H×V]	9.5 μm × 9.5 μm	
Optical Format	1" (12.16mm * 9.73mm)	
Shutter Mode	Rolling Shutter	Global Shutter
Max Frame Rate	80 fps	40 fps
Quantum Efficiency	> 93% @ 560nm	
Read Noise	< 1.8 e ⁻	< 10.7 e ⁻
Full Well Capacity	> 82k e ⁻	> 72k e ⁻
Dynamic Range	> 93 dB	> 76 dB
Dark Current	< 11e ⁻ /pixel/sec @Room Temperature	
ADC Resolution	14 bit	
Package	72 pin 24.4mm x 24.4mm / 168 pin 38mm x 38mm	
Output	4-lane LVDS	

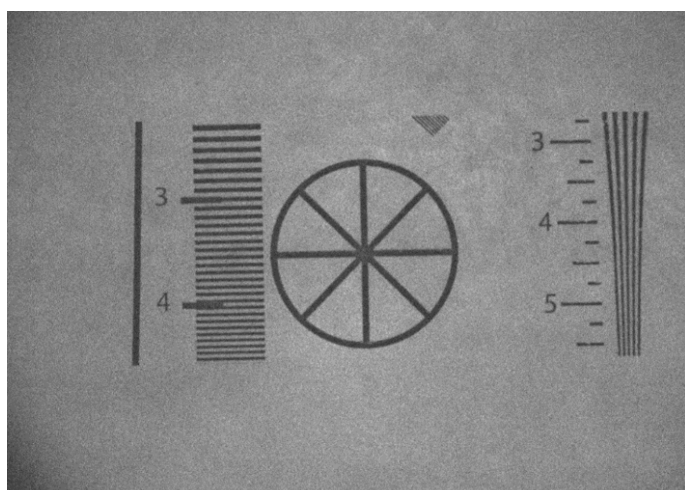
 **Backside-Illuminated**

 **QE > 93% @560nm**

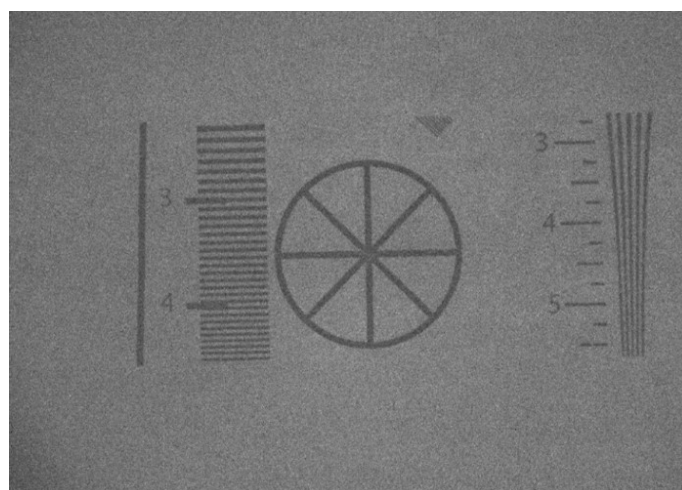
 **Read Noise < 1.8e⁻**



LOW-LIGHT IMAGING



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



0.0003 lx, 1/20s (50ms) f/2.8