

PHOTONIS

LYNX CMOS



Up to 100 fps at full resolution



4e- read-out noise



1.3 Mpx



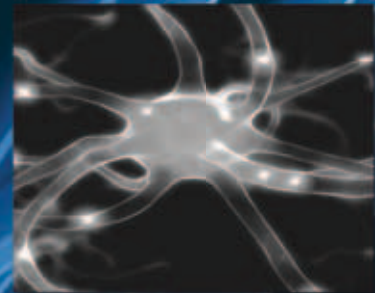
Security



Defense

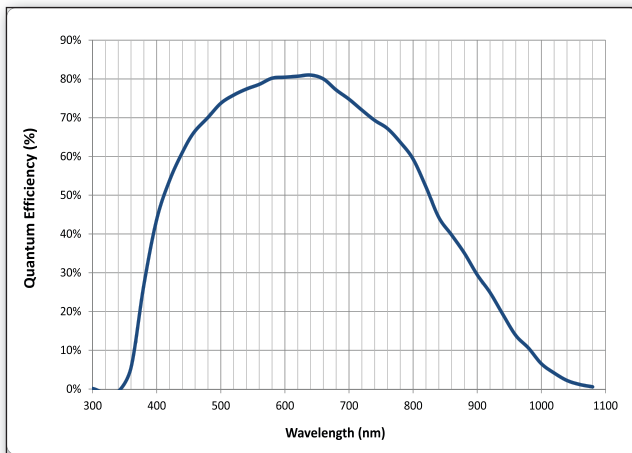


Scientific



Highly Sensitive Sensor For Low Light Level Imaging
For 24/7 Lighting Conditions

Technical Specifications



Quantum Efficiency of LYNX sensor with microlenses
>80% at peak

The LYNX CMOS imaging sensor is the first operational sensor specifically designed with Night Vision, Homeland Security, Surveillance and Scientific applications in mind. This fully solid-state CMOS sensor provides excellent imaging across varying light conditions, from daylight to low-light levels - such as those found during a quarter-moon.

The LYNX CMOS pixel architecture offers the best compromise between inherent signal-to-noise ratio (SNR), high resolution and intrascene dynamic range. With total read-out noise below 4 e⁻ without cooling, the LYNX CMOS sensor outperforms all low light imaging sensors down to 4 mlx while still supporting frame rates up to 100 fps at a full SXGA (1280 x 1024) resolution.

The LYNX CMOS sensor can be supplied with or without PHOTONIS video processing electronic boards (NOCTURN camera core) to facilitate integration into a wide range of compact imaging systems.

Sensor	Specifications
Resolution	1280 × 1024 pixels
Pixel Pitch	9.7 μm × 9.7 μm
Sensor Format/Diagonal	14.8mm x 12.74mm / 16mm
Full Well Capacity	> 25000 e ⁻
Dynamic Range	> 60 dB
Read Noise	< 4e ⁻ mean at frame rates up to 100 Hz
Quantum Efficiency	> 80% at peak
Frame Rate	Up to 100 Hz with full field resolution
Shutter Mode	Rolling
Features	
Image Lag	< 0.1%
SNR	42 dB
Read-out Modes	Windowing Y-direction X-Y mirroring
Multi-slope	Three slopes
Limiting Resolution	51 lp/mm (1280 lines)
PRNU	< 2% RMS
Environmental and Power	
Carrier	73 pin PGA 23 x 23 mm
Video Output	10-bit, digital outputs (LVDS) up to 100 fps at full resolution
Power Consumption	< 425mW @ 60fps < 450mW @ 100fps

Examples of LYNX CMOS snapshot

Color temp 2856K
F=0.95
Target at 12 m



100 mlx on scene - 60 fps



4 mlx on scene - 60 fps



4 mlx on scene - 10 fps