

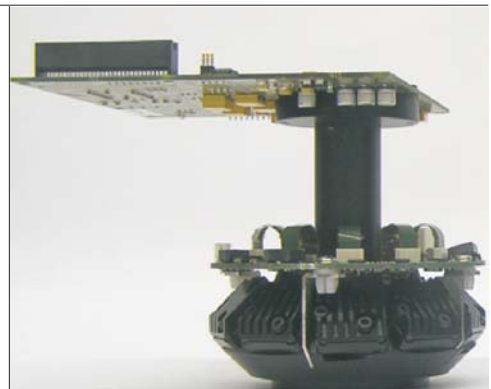
Product Data Sheet

LumiSens 830

Miniaturized Fluorescence Imaging Module with 8 Mpixel CCD

The LumiSens 830 is a fist-size miniaturized fluorescence imaging system, providing the power of lab microscopes for portable applications. It comes complete with microscope, high-power LED excitation and ultra-high resolution camera.

LumiSens 830 is designed specifically for low cost and consistent high sensitivity low noise performance. As an OEM product it is designed for easily imbedding into portable instrumentation - for robust operation in the field or on the lab bench. The modular design allows up to 3 dyes with no moving parts, up to 10 high-intensity LEDs per dye. Customized magnification, and integration of alternative image sensors are available, while maintaining standardized software, mechanical and, as far as possible, optical interfaces.



Features:

- High Sensitivity, High NA
- High Resolution 8.3 MPixel CCD
- Large Field of View
- No moving Parts
- High Quality single Shot Acquisition
- Fast Auto-Focussing
- Integrated LED drivers
- Interface:
 High-speed 12-bit Data intended for direct data processor
- Ready for cost efficient OEM integration

Applications:

- Cell Counting, Immunophenotyping
- Fluorescence Readers for Biochip Detection
- Micro-Array Reader
- Fluorescence Microscopy
- Point of Care / Diagnostics

Specifications:

standard Configuration:
 Two-Dye & white, Alexa 488/647, 4.3x Magnification

Sensitivity:	Signal/Dark Noise = 150 (fluorescent bead standard #L-14822 and #14819, Molecular Probes; 0.4%, at exposure time = 5 seconds)
Dye set:	Alexa 488 & Alexa 647 (Cy3 & Cy5 also available)
Field of view:	4mm diameter
Spatial Pixel Res.:	1.26 microns
Optical Resolution:	100 lp/mm
Numerical Aperture:	0.3
Excitation Power, FOV:	30mW per color (up to 100mW/color possible)
Image sensor:	Kodak KAF-8300, Full frame microlensed, ITO transparent gate, low dark current, Anti-blooming
Sensitive Area:	18mm (H) x 13.5mm (V)
CCD pixel resolution:	3326 (H) X 2504 (V)
Pixel size:	5.4µm x 5.4µm square
Wavelength Range:	400 - 1000 nm
Peak QE:	65%
Full Well Capacity:	25.5 Ke-
Dark Current:	200 e- /pix/s (at 25°C)
Readout Noise:	20 e- rms
Digital Resolution:	12 bits
Frame Readout Rate:	1 s (Full Resolution) 0.25 s (VGA, for focussing)