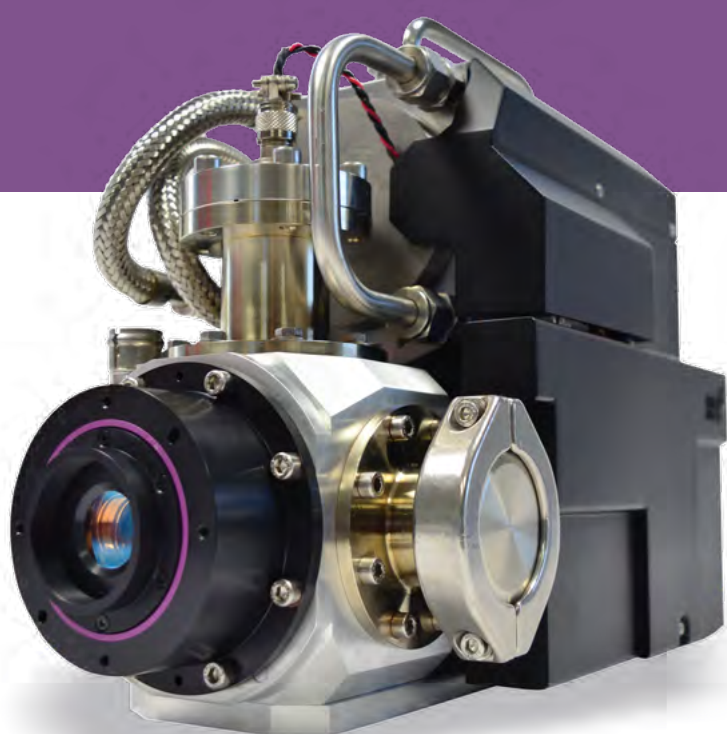


ULTRA LOW NOISE ULTRA HIGH SPEED SWIR CAMERA



SCIENTIFIC CAMERA FOR INFRARED IMAGING



0.8 – 2.5
µm



3500 FPS



Subelectron
RON



e-APD MCT,
320 x 256

MAIN FEATURES

- Deep cooled sensor @80K for ultra low dark operation
- Revolutionary e-APD MCT array
- 24 µm pixel pitch
- Multiple readout modes

FASTEST AND LOWEST NOISE SWIR CAMERA FOR HIGHLY DEMANDING SCIENTIFIC APPLICATIONS

APPLICATIONS

ASTRONOMY:

Adaptive Optics for Astronomy
Astronomical Observations
with Interferometers
Speckle Interferometry
Space Debris Tracking
Fringe Tracking

LIFE SCIENCES:

Cellular Microscopy
Fluorescence Microscopy
Raman Spectroscopy
Hyperspectral Imaging
OCT imaging

INDUSTRY:

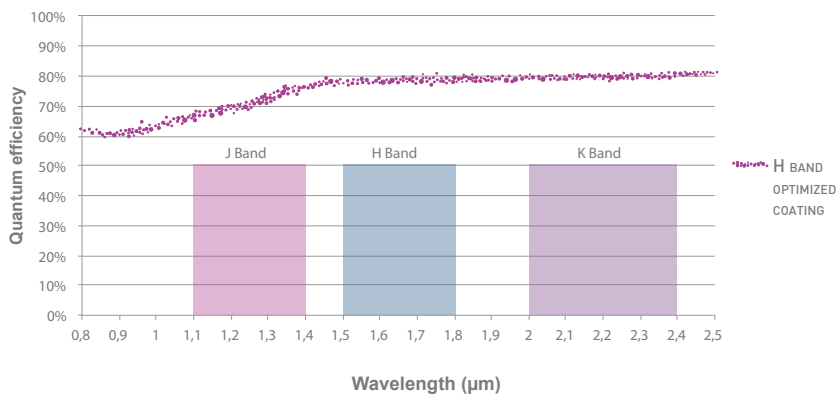
Semiconductor inspection

C- RED One PERFORMANCES

TEST MEASUREMENT	Result	Unit
Maximum speed Full Frame	3507	FPS
Readout Noise at 3500 FPS and gain ~ 30	<1	e-
Mean Dark (looking at cold stop)	<50	e-/p/s
Quantization	16	bit
Detector Operating Temperature (No LN)	80	K
Flat Quantum Efficiency from 1.1 μm to 2.5 μm	>70	%
Operability \pm 30%	99.3	%
Image Full well capacity at gain X1, 3500 fps	50 000	e-
Excess noise Factor F	<1.25	n/a

ADDITIONAL FEATURES
Output : Camera Link® Full
Optical Interface : T-Mount
Multiple Readout Modes <ul style="list-style-type: none"> •Global reset in single, CDS or multiple non destructive reads •Rolling reset
Windowing
ROI
Ultra low latency Camera Link® full interface
Clock & Trigger input/output for synchronous operation
Custom design available upon request
F/4 or F/2 Aperture
Embedded cold blocking filters

TYPICAL QE OF SAPHIRA E-APD



SWaP : H 238 x W 180 x L 365 mm, 19.4 kg, up to 300 W

First Light Imaging SAS
 Europarc Sainte Victoire Bât 6, Route de Valbrillant, Le Canet 13590
 Meyreuil FRANCE
 Tel.: + 33 4 42 61 29 20
www.first-light-imaging.com
contact@first-light.fr

First Light Imaging Corp.
 185 Alewife Brook Parkway, Suite 210, Cambridge, MA 02138 USA
www.first-light.us



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