

VERY HIGH SPEED ULTRA LOW DARK SWIR CAMERA

SCIENTIFIC CAMERA FOR INFRARED IMAGING



0.9 – 1.7
 μm



600 FPS



< 30 e-
RON



InGaAs,
640 x512



93 dB
and 16 bits

MAIN FEATURES

- Cooled sensor for very low dark: 600 e-/p/s @ -40°C
- 15 μm pixel pitch
- < 5 μs electronic shutter

ENABLES LONG EXPOSURE TIMES FOR LOW LIGHT SWIR APPLICATIONS

APPLICATIONS

ASTRONOMY:

Adaptive Optics
Astronomical Observations
Hyperspectral Imaging
Laser Communications

INDUSTRY:

Semiconductor Inspection
Quality control
Production control

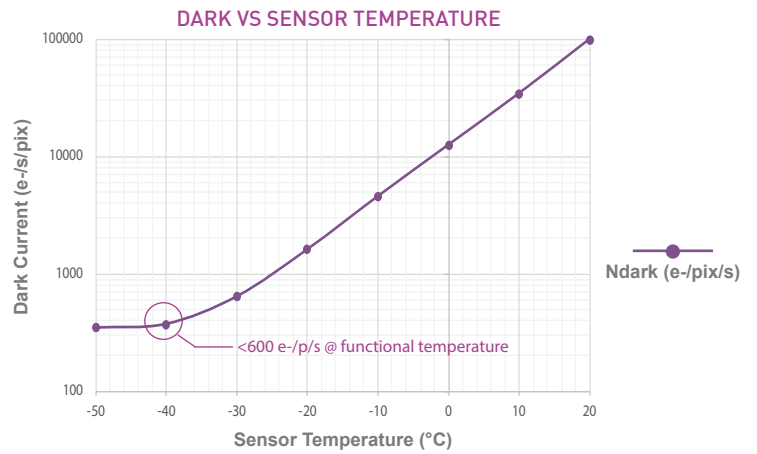
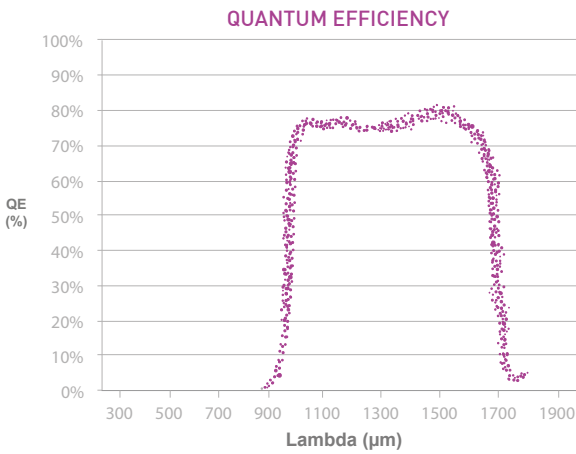
LIFE SCIENCES:

OCT Imaging
Bio Imaging
Spectroscopy
Fluorescence Microscopy

C- RED 2 PERFORMANCES

| TEST MEASUREMENT | Result | Unit |
|--|--------------|------------|
| Maximum speed Full Frame with CL | 602 | FPS |
| Readout Noise at 600 FPS Full Frame | < 30 | e- |
| Dark Current in e-/p/s @ -40°C | 600 | e- |
| Quantization | 14 | bit |
| Detector Operating Temperature in Liquid Cooling (No LN) | -40 | °C |
| Detector Operating Temperature in Air Cooling | -15 | °C |
| Flat Quantum Efficiency 1.0 to 1.65 µm | > 70 | % |
| Operability | 99.5 | % |
| Image Full well capacity at low gain, 600 fps | 1400 | ke- |
| Image Full well capacity at high gain, 600 fps | 43 | ke- |
| Maximum speed in 32 x 4 (min) | 32066 | FPS |
| Maximum speed in 320 x 256 | 1779 | FPS |

| ADDITIONAL FEATURES |
|------------------------------|
| Outputs: USB 3.1 Gen 1 or CL |
| Optical interface: C-Mount |
| LVTTTL /LVDS synchronization |



FRAME RATE TABLE AT 600 FPS READOUT SPEED CAMERA LINK® OUTPUT

| | | Columns | | | | | |
|-------|-----|---------|--------|--------|--------|--------|--------|
| | | 32 | 64 | 128 | 256 | 512 | 640 |
| Lines | 4 | 32 066 | 31 512 | 30 458 | 28 548 | 25 367 | 24 029 |
| | 8 | 28 108 | 27 348 | 25 945 | 23 532 | 19 840 | 18 397 |
| | 16 | 22 542 | 21 631 | 20 015 | 17 413 | 13 819 | 12 526 |
| | 32 | 16 147 | 15 254 | 13 736 | 11 455 | 8 599 | 7 646 |
| | 64 | 10 302 | 9 596 | 8 440 | 6 801 | 4 898 | 4 297 |
| | 128 | 5 975 | 5 509 | 4 765 | 3 752 | 2 632 | 2 291 |
| | 256 | 3 247 | 2 975 | 2 547 | 1 978 | 1 367 | 1 184 |
| | 512 | 1 697 | 1 549 | 1 319 | 1 016 | 697 | 602 |

For USB 3 Output: Max 9999 FPS



SWaP : H55 x W75 x L140 mm, 0.9 kg, up to 90W @-40°C

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