

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

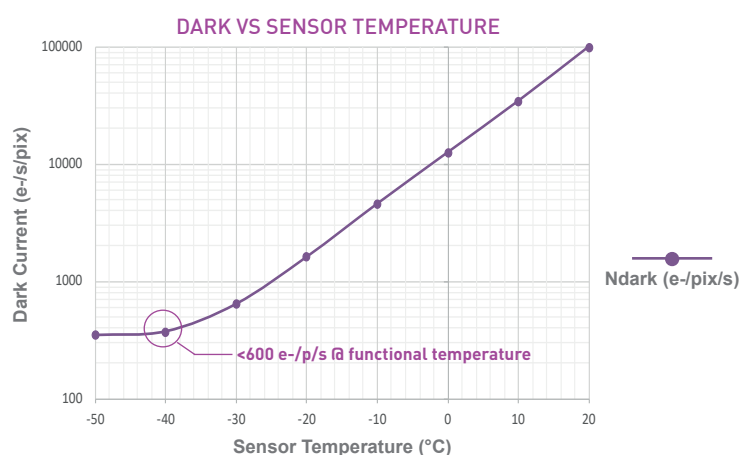
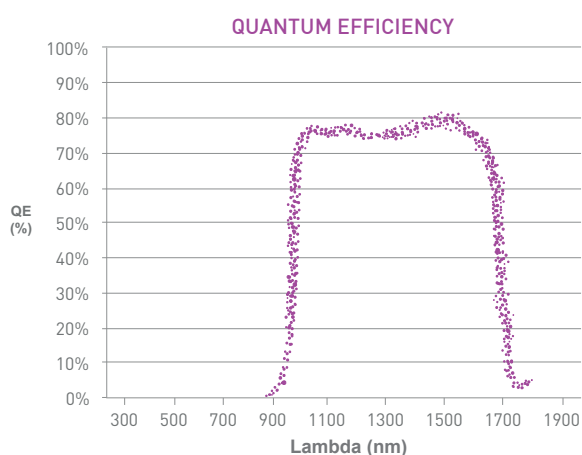
LIFE SCIENCES:

OCT Imaging
Bio Imaging
Spectroscopy
Fluorescence Microscopy

C- RED 2 PERFORMANCES

TEST MEASUREMENT	Result	Unit
Maximum speed Full Frame	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

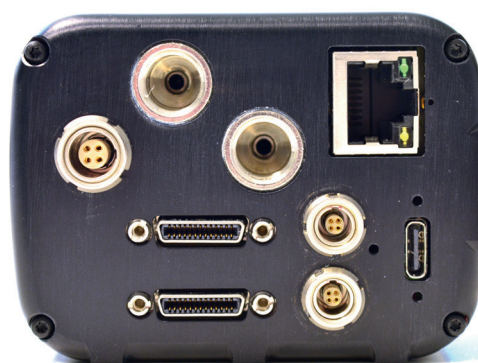
ADDITIONAL FEATURES
Outputs: USB 3.1 Gen 1 or CL
Optical interface: C-Mount
LVTTL /LVDS synchronization



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