

VERY HIGH SPEED COMPACT SWIR CAMERA

AVAILABILITY: SPRING 2019

PROVISIONAL DESIGN



POLYVALENT CAMERA FOR INFRARED IMAGING



0.9 – 1.7
 μm



600 FPS



< 50 e-
RON



InGaAs,
640 x512



93 dB
and 16 bits

MAIN FEATURES

- TECless
- SWaP-Optimized
- 15 μm pixel pitch
- < 5 μs electronic shutter
- OEM Module available

UNCOOLED InGaAs FOR SHORT EXPOSURE TIMES APPLICATIONS

APPLICATIONS

INDUSTRY:

Semiconductor Inspection
Quality and Production control
Waste sorting
Non-destructive Testing
Environmental monitoring
Welding

LASERS:

Free Space Optics
Laser alignment
Laser Beam Profiling

SURVEILLANCE:

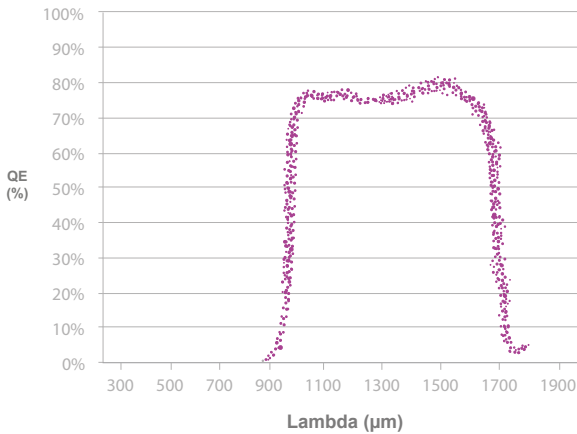
UAV
Security

C- RED 3 PERFORMANCES

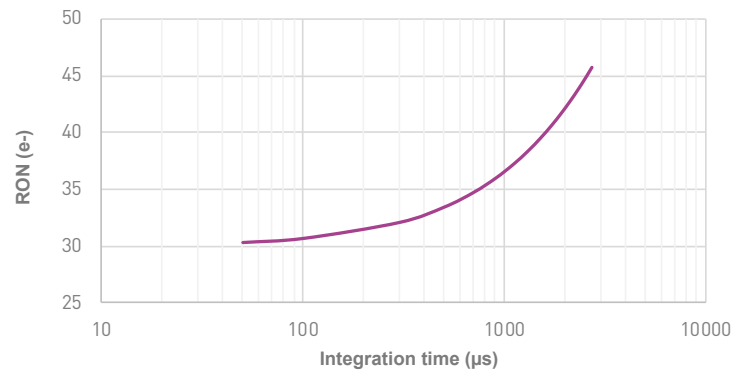
TEST MEASUREMENT	Result	Unit
Maximum speed Full Frame with CL	602	FPS
Readout Noise at 600 FPS Full Frame	< 50	e-
Quantization	14	bit
Flat Quantum Efficiency 1.0 to 1.65 μm	> 70	%
Operability	99.5	%
Image Full well capacity at low gain, 600 fps	1400	ke-
Image Full well capacity at high gain, 600 fps	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
Possible optical interface: C-Mount, CS-Mount, T-Mount
LVTTTL Synchronization (5 V tolerant)

QUANTUM EFFICIENCY



TYPICAL READOUT NOISE VS INTEGRATION TIME (35 °C)



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



With Camera Link® Output



With USB 3 Output

For USB 3 Output: Max 9999 FPS

SWaP : H55 x W55 x L60 mm, 230 g, 5W typical

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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