

ALIZÉ 1.7

INFRARED CAMERA

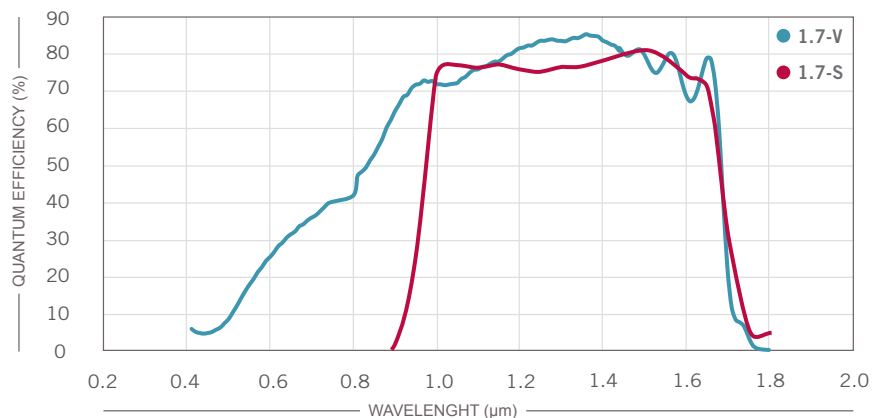


Continuing its push to extend the boundaries of scientific and industrial imaging, Photon etc. presents its high performance, yet affordable, deep-cooled SWIR camera line. Based on a sensitive InGaAs FPA, and integrating a four-stage TE cooler, Alizé 1.7 deliver an astounding 350 frame-per-second rate while reaching very low noise levels. First designed for demanding faint-flux applications such as small animal imaging in the second biological window, these cameras also bring new capabilities for industrial applications in quality control and sorting.

* Export licence may be required for this item.

TECHNICAL SPECIFICATIONS

Focal Plane Array (FPA)	InGaAs		
FPA size	640 x 512		
Pixel size	15 μm		
Spectral range	~ 0.9 - 1.69 μm @ 25 °C		
Dark Current	< 600 $\text{e}^-/\text{px}/\text{s}$ (To be measured soon with a target at 21°C and sensor at -40°C)		
Gain Setting (e^-/ADU)	High Gain	Med Gain	Low Gain
	2.2	7.4	89
Typical Readout Noise (e^-)	35	75	350
Full Well Capacity (ke^-)	27	110	1400
Readout Modes	ITR, IWR, CDS, IMRO		
Digitization	14 bits		
Full Frame Rate (FPS) Camera Link	140		
Peak Responsivity	1.0 A/W @ 1550 nm		
Quantum Efficiency	> 70%		
Operability (typical)	> 99%		
Integration Time Range	1 μs to >9 minutes (low gain)		
Cooling	TEC 4 stages, forced air		
FPA Operating Temperature	-50°C		
Cool Down Time	< 10 minutes		
Ambient Temperature Range	10°C to 35°C		
Cold Shield	f#/1.4		
Software	PhySpec™ control and analysis software included		
Computer Interface	CaremaLink™ or USB 3.0		
External Control	On demand		
Power Supply Requirement	12 VDC @ 5A		
Physical Dimensions	169 x 130 x 97.25 mm		
Weight	2.6 kg		
Certification	CE		



Quantum efficiency presented at 25°C.

The cut-off wavelength shifts towards the blue by ~ 7nm for every 10°C of cooling.



TECHNICAL SPECIFICATIONS	ZEPHIR 1.7-V			ZEPHIR 1.7-S			ZEPHIR 2.5		ZEPHIR 2.9	
Focal Plane Array (FPA)	InGaAs			InGaAs			HgCdTe		HgCdTe	
FPA size	640 x 512			640 x 512			320 x 256		320 x 256	
Pixel size	15 μm			15 μm			30 μm		30 μm	
Spectral range	0.5 - 1.7 μm (~ 0.5-1.63 μm @-80 °C)			0.9 - 1.7 μm (~ 0.9 - 1.62 μm @-80°C)			0.85 - 2.5 μm		0.85 - 2.9 μm	
Dark Current	< 300 e ⁻ /px/s (Target at 21°C and sensor at -80°C)			< 300 e ⁻ /px/s (To be measured soon with a target at 21°C and sensor at -80 °C)			4.8 pA or 30 Me ⁻ /px/s (measured with a target at room temperature and sensor at -80 °C)		54 pA or 340 Me ⁻ /px/s (measured with a target at room temperature and sensor at -80 °C)	
	<i>High Gain</i>	<i>Med Gain</i>	<i>Low Gain</i>	<i>High Gain</i>	<i>Med Gain</i>	<i>Low Gain</i>	<i>High Gain</i>	<i>Low Gain</i>	<i>High Gain</i>	<i>Low Gain</i>
Gain Setting (e ⁻ /ADU)	2.8	28	130	2.2	7.4	89	10.30	216	10.30	216
Readout Noise (e ⁻)	50	150	800	35	75	350	150	1650	150	1650
Full Well Capacity	12 ke	800 ke	3.5 Me	27 ke	110 ke	1.4 Me	160 ke	3.3 Me	160 ke	3.3 Me
Readout Modes	CDS	ITR	ITR	ITR, IWR, CDS, IMRO			ITR		ITR	
Digitization	13 bits	15 bits	15 bits	14 bits			14 bits		14 bits	
Full Frame Rate	115	220	220	140			Up to 340 fps		Up to 340 fps	
Peak responsivity	1.1 A/W @ 1660 nm			1.0 A/W @ 1550 nm			1.8 A/W @ 2450 nm		1.56 A/W @ 2700 nm	
Quantum Efficiency	Up to 85%			> 70%			Up to 85%		Up to 85%	
Operability (typical)	> 99%			> 99.5%			> 98.5%		> 98.5%	
Integration Time Range	1 μs to 19 minutes (low gain)			1 μs to 19 minutes (low gain)			1 μs to 100 ms (low gain)		1 μs to 10 ms (low gain)	
Cooling	TEC 4 stages, forced air			TEC 4 stages, forced air			TEC 4 stages, forced air		TEC 4 stages, forced air	
FPA Operating Temperature	-80 °C			-80 °C			-80 °C		-80 °C	
Cool Down Time	< 7 minutes			< 10 minutes			10 minutes		10 minutes	
Ambient Temperature Range	10 °C to 35 °C			10 °C to 35 °C			10 °C to 35 °C		10 °C to 35 °C	
Cold Shield	f#/1.4			f#/1.4			f#/1.5		f#/1.5	
Software	PHYSpec™ control and analysis software included									
Computer Interface	CameraLink™ or USB 3.0			CameraLink™ or USB 3.0			CameraLink™ or USB3		CameraLink™ or USB3	
External Control	On demand			On demand			On demand		On demand	
Power Supply Requirement	12 VDC @ 5A			12 VDC @ 5A			12 VDC @ 5A		12 VDC @ 5A	
Physical Dimensions	169 x 130 x 97.25 mm			169 x 130 x 97.25 mm			169 x 130 x 97.25 mm		169 x 130 x 97.25 mm	
Weight	2.6 kg			2.6 kg			2.6 kg		2.6 kg	
Certification	CE			CE			CE		CE	

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