Photon etc
A spectrum of solutions

5795 DE GASPE AVENUE, #222
MONTREAL, QUEBEC, H2S 2X3
CANADA

ALIZÉ 1.7
INFRARED CAMERA

Continuing its push to extend the boundaries of scientific and industrial imaging, Photon etc. presents its high performance, quality for value, air-cooled SWIR camera line. Based on a sensitive InGaAs FPA and integrating a four-stage TE cooler, Alizé™ 1.7 delivers an astounding 190 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.

TECHNICAL SPECIFICATIONS	ALIZÉ 1.7-S		
Focal Plane Array (FPA)	InGaAs		
FPA size	640 x 512		
Pixel size	15 µm		
Spectral range	**0.9 - 1.7 µm** (~0.9 - 1.65 µm @-50°C)		
Dark Current	< 600 ē/px/s *(To be measured soon with a target at 21°C and sensor at -50 °C)*		
	High Gain	***Med Gain***	***Low Gain***
Gain Setting (ē/ADU)	2.1	7.4	89
Readout Noise (ē)	30	75	350
Full Well Capacity	27 kē	110 kē	1.4 Mē
Readout Modes	ITR, IWR, CDS, IMRO		
Digitization	14 bits		
Full Frame Rate	220		
Peak responsivity	1.0 A/W @ 1550 nm		
Quantum Efficiency	> 75% from 1.0 to 1.6 µm		
Operability (typical)	> 99%		
Integration Time Range	1 µs to 19 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 30 °C		
Cold Shield	f#/1.4		
Software	PHySpec™ control and analysis software included		
Computer Interface	CameraLink™ 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		

MAIN ADVANTAGES OF TE COOLED AIR SYSTEM

- › Compact
- › Highly reliable
- › Long lifetime
- › No maintenance
- › Low dark current
- › Low readout noise

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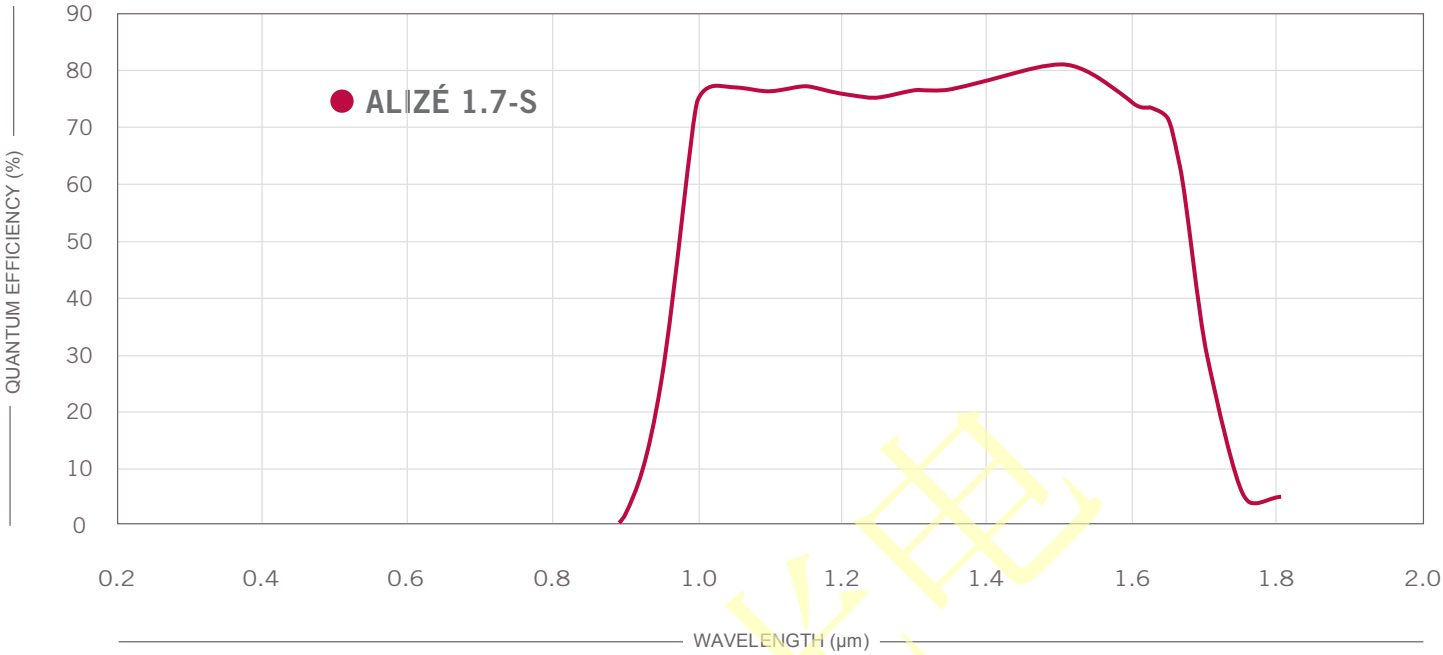

Quantum efficiency presented at 25°C.
The cut-off wavelength shifts towards the blue by ~ 7nm for every 10°C of cooling.

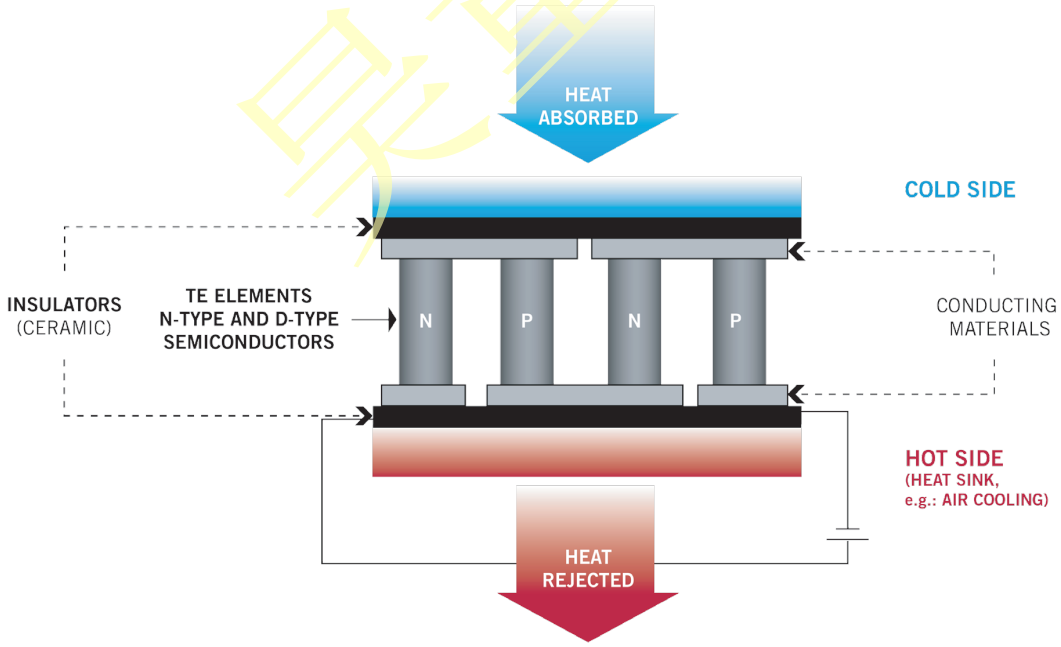

FIG. 1. Schematic of a thermoelectric device where the Peltier effect is used to generate heat flow between two materials.