

INFRARED DETECTORS

LEO MW PRODUCT RANGE

640 x 512 - 15 μm - MCT

LEO MW is a compact detector specially designed for SWaP (optimised size, weight and power) MWIR applications.

In function of your application and your main requirements, the LEO MW product range is available in version up to 110 K.

Thanks to its digital output, this product simplifies your interfaces and speeds up the development of your systems.

THE BEST PERFORMANCE IN A COMPACT VGA PRODUCT



OPTIMIZED FORM FACTOR



INTEGRATION FRIENDLINESS



RELIABILITY

DEFENSE

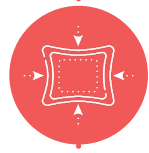
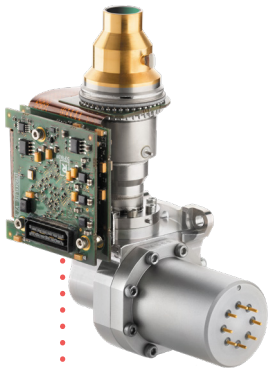


SURVEILLANCE

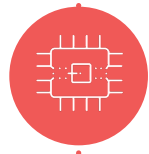


ORDERING REFERENCE: LEO MW

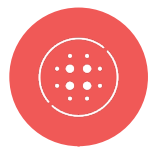
LEO MW



COMPACT



SWAP



DIGITAL CONVERSION



RELIABILITY

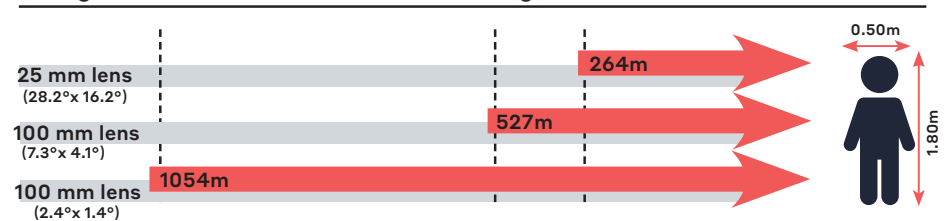
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ARRAY FEATURES		
Detector spectral response	■ 3.7 μm - 4.8 μm	
FPA Operating temperature	■ 90K to 100 K	
ROIC (READ-OUT INTEGRATED CIRCUIT)		
Selection	■ Serial electrical interface (driven by the proxy board)	
ROIC architecture	■ Snapshot operation, direct injection input circuit, selectable read mode (IWR or ITR)	
ROIC functionalities	■ Programmable integration time ■ Anti-blooming ■ Image invert/revert/inverse	
Windowing modes	■ 640 x 512 / 640 x 480 / 512 x 512 or programmable	
Charge handling capacity	■ 6.5 10 ⁶ e ⁻ (ITR mode) or 5 10 ⁶ e ⁻ (IWR mode)	
Signal outputs	■ Digital, 14 bits, CAMERALINK®	
Pixel output rate	■ Up to 10 MHz per output	
Frame rate	■ Up to 60 Hz full frame rate	
INPUT / OUTPUT		
Board power supply	■ 5V	
TYPICAL(*) PERFORMANCES		
NETD	■ 20 mK (293 K, f/5.5, 50 % well fill, 60 Hz)	
Array operability	■ 99.8%	
Non uniformity (DC level and responsivity)	■ 2.5% RMS (σ /mean, 293 K uncorrected performance)	
	RM2 (***)	K563 (***)
FOV	f/4; f/5.5	f/4; f/5.5
Regulated input power (**)	5.3 WDC	5.3 WDC
Cooldown input power (**)	12.4 WDC	11.8 WDC
Power supply	12 V	12 V
Cooldown time	4 min 10 s	4 min 10 s
Cooler dimensions (mm)	\varnothing 30.85 x L 82	\varnothing 37.8 x L 59
IDCA height (optical axis, mm)	119.2	119.2
Weight	< 0.355 kg	0.38 kg
Operating temperature	[- 40° C; 65° C]	[- 40° C; 65° C]
MTTF	30000h	8025h

(*) Optional extended waveband : 40% @ 0.5 μm , 75% @ 0.8 μm , >80% from 0.9 μm to 1.6 μm
 (**) WDC = at cooler C&E DC input
 (***) Performances related to the 80K LEO MW

OPTIONS	
Technical training and support	
Demokit for easy image processing in lab	

Recognition distances for human measuring 1.80 m x 0.50 m



Range for Johnson's criteria, target deltaT = 2K, perfect atmospheric and optics transmissions, theoretical square pixel.



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