

LEO-LP MW

640 x 512 - 15 μm pitch - improved MCT

→ The low power VGA
15 μm pitch MWIR detector
with a digital interface.



LEO-LP is a "Low Power" LEO thanks to an improved HgCdTe material enabling operating temperature +30K above the standard LEO product.

LEO MW digital output detectors are a family specially designed for SWAP (optimized size, weight and power) MWIR (3 - 5 μm) applications and take full advantage of Lynred's state of the art technologies.

Compared to standard LEO, the improved cooler performances will have the following direct benefits for your systems:

-20% on IDCA Power	Increased battery autonomy; Higher system compactness & lower system weight (with smaller battery size)
-20% on Cool Down Time	Lower time to operation; Decreased "blind" period after turn-ON
+30% on cooler MTF	Enlarged periods between maintenance operations; Better answer for 24/7; Reduced Life Cycle Cost; Reduced cooler acoustic noise

ARRAY FEATURES

Format	640 x 512
Pixel pitch	15 μm x 15 μm
Detector spectral response	3.7 μm - 4.8 μm
FPA Operating temperature	110 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), 5 10^6 e- (IWR mode)
Signal outputs	Digital, 14 bits, CAMERALINK®
Frame rate	Up to 60 Hz full frame rate

INPUT / OUTPUT

Board power supply	5 V
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LEO-LP MW

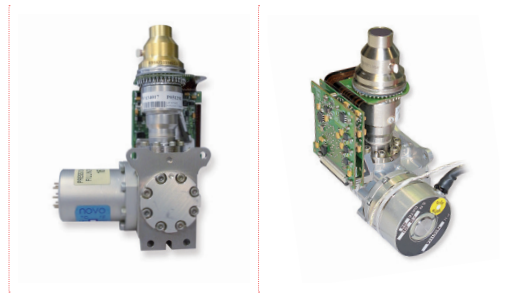
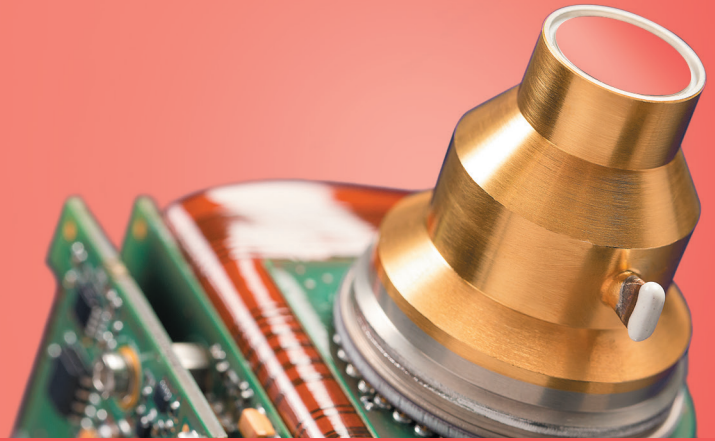


LYNRED USA

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TYPICAL(*) PERFORMANCES

NETD	20 mK (293 K, f/5.5, 50 % well fill, 60 Hz)	
Array operability	99.9%	
Non uniformity	< 2.5% RMS (σ /mean, 300 K uncorrected performance)	
	RM2	K563
FOV	f/4; f/5.5	f/4; f/5.5
Regulated input power (**)	4.4 W _{DC}	4.4 W _{DC}
Cooldown input power (**)	12.4 W _{DC}	11.8 W _{DC}
Power supply	12 V	12 V
Cooldown time	3 min 20 s	3 min 20 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 to 65° C	- 40° C to 65° C

(*) Expected production mean value : 40% @ 0.5 μ m, 75% @ 0.8 μ m, >80% from 0.9 μ m to 1.6 μ m

(**) W_{DC} = at cooler C&CE DC input

OPTIONS

Technical training and support

APPLICATIONS




Technical characteristics described in this data sheet are for information only. They are not contractual and may change without prior notice.

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