

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 Sofradir'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 typical

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
• Window 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

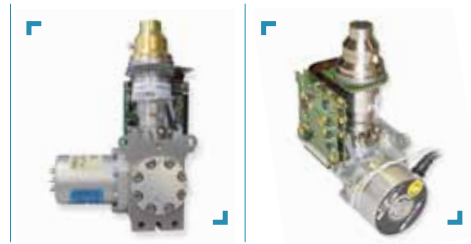
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TYPICAL^(**) PERFORMANCES

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 (all included)	4.4 WDC (*)	4.4 WDC (*)
Cooldown input power	12.4 WDC (*)	11.8 WDC (*)
Power supply	9 V	12 V
Cooldown time	3 min 20 s	3 min 20 s
Cooler dimensions (mm)	\varnothing 30.5 x L 82	\varnothing 37.8 x L 59
IDCA height (optical Axir, mm)	119.2	119.2
Weight	0.40 kg	0.36 kg
Operating Temperatures	- 40° C / + 71° C	- 40° C / + 71° C

(*) Wdc = at cooler C&CE DC input

(**) Typical = Expected production mean value

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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