LEO MW

640 x 512 - 15 μm pitch - MCT

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





LEO MW is a compact detector specially designed for SWAP (optimised size, weight and power) MWIR (3 - 5 μ m) applications.

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

This high-performance IDCA takes full advantage of Lynred's state of the art technologies.

ARRAY FEATURES

	Format	640 x 512
FPA Operating temperature 80 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 ROIC functionalities Programmable integration time, anti-blooming, image invert / revert / invertive windowing modes 640 x 512 / 640 x 480 / 512 x 512 or programmable Charge handling capacity 6.5 106 e- (ITR mode), 5 106 e- (IWR mode) Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate INPUT / OUTPUT	Pixel pitch	15 μm x 15 μm
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 ROIC functionalities Programmable integration time, anti-blooming, image invert / revert / invertive Windowing modes 640 x 512 / 640 x 480 / 512 x 512 or programmable Charge handling capacity 6.5 106 e- (ITR mode), 5 106 e- (IWR mode) Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate INPUT / OUTPUT	Detector spectral response	3.7 µm – 4.8 µm
Selection Serial electrical interface (driven by the proxy board) ROIC architecture Snapshot operation, direct injection input circuit, selectable read mode (IWR or ROIC functionalities Programmable integration time, anti-blooming, image invert / revert / invertive windowing modes 640 x 512 / 640 x 480 / 512 x 512 or programmable Charge handling capacity 6.5 106 e- (ITR mode), 5 106 e- (IWR mode) Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate	FPA Operating temperature	80 K
ROIC architecture ROIC functionalities Programmable integration time, anti-blooming, image invert / revert / invertive windowing modes Charge handling capacity Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate INPUT / OUTPUT	ROIC (READ-OUT INTEGRATE	D CIRCUIT)
ROIC functionalities Programmable integration time, anti-blooming, image invert / revert / invertive windowing modes 640 x 512 / 640 x 480 / 512 x 512 or programmable 6.5 106 e- (ITR mode), 5 106 e- (IWR mode) Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate INPUT / OUTPUT	Selection	Serial electrical interface (driven by the proxy board)
Windowing modes 640 x 512 / 640 x 480 / 512 x 512 or programmable Charge handling capacity 6.5 106 e- (ITR mode), 5 106 e- (IWR mode) Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate	ROIC architecture	Snapshot operation, direct injection input circuit, selectable read mode (IWR or ITR)
Charge handling capacity 6.5 106 e- (ITR mode), 5 106 e- (IWR mode) Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate INPUT / OUTPUT	ROIC functionalities	Programmable integration time, anti-blooming, image invert / revert / inverse
Signal outputs Digital, 14 bits, CAMERALINK® Frame rate Up to 60 Hz full frame rate INPUT / OUTPUT	Windowing modes	640 x 512 / 640 x 480 / 512 x 512 or programmable
Frame rate Up to 60 Hz full frame rate INPUT / OUTPUT	Charge handling capacity	6.5 10 ⁶ e- (ITR mode), 5 10 ⁶ e- (IWR mode)
INPUT / OUTPUT	Signal outputs	Digital, 14 bits, CAMERALINK®
	Frame rate	Up to 60 Hz full frame rate
Board power supply 5 V	INPUT / OUTPUT	
	Board power supply	5 V



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 \rightarrow The VGA 15 μ m pitch MWIR detector with a digital interface.







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 (**)	5.3 W _{DC}	5.3 W _{DC}
Cooldown input power (**)	12.4 W _{DC}	11.8 W _{DC}
Power supply	12 V	12 V
Cooldown time	4 min 10 s	4 min 10 s
Cooler dimensions (mm)	Ø 30.85 x L 82	Ø 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

(*) Optional extended waveband : 40% @ 0.5 µm, 75% @ 0.8 µm, >80% from 0.9 µm to 1.6 µm (**) WDC = at cooler C&CE DC input

OPTIONS

Technical training and support

APPLICATIONS



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