

MARS VLW

320 x 256 - 30 μm pitch - MCT



→ The reference QVGA detector beyond 11 μm .



MARS VLW offers unique LWIR detection beyond 11 μm .

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

ARRAY FEATURES

Format	320 x 256
Pixel pitch	30 μm x 30 μm
Detector spectral response	7.7 μm - 11.7 μm
FPA Operating temperature	50 K to 75 K

ROIC (READ-OUT INTEGRATED CIRCUIT)

Selection	Parallel and serial electrical interface
ROIC architecture	Snapshot, direct injection input circuit, Integrate Then Read mode
ROIC functionalities	Programmable integration time, anti-blooming
Windowing modes	320 x 256 / 320 x 240 / 256 x 256 or programmable
Charge handling capacity	12 x 10 ⁶ e ⁻ (Gain 0); 37 x 10 ⁶ e ⁻ (Gain 1)
Electrical dynamic range	2.75 V (Gain 1); 3 V (Gain 0)
Readout noise	1000 e ⁻
Singal outputs	1 or 4
Pixel output rate	Up to 6.6 MHz per output
Frame rate	Up to 320 Hz full frame rate

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LYNRED USA

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TYPICAL^(*) PERFORMANCES

NETD	$\leq 25 \text{ mK}$ (11 μm , $37 \cdot 10^6 \text{ e}^-$, 300 K, 50% well fill, 200 Hz)
Non uniformity (DC level and responsivity)	5% RMS (σ/mean , 300 K uncorrected performance)
	LS10 Compressor
FOV	f/2
Regulated input power (**)	16 W_{AC}
Cooldown input power (**)	50 W_{AC}
Power supply	13.5 V
Cooldown time	6 min
Cooler dimensions (mm)	$\varnothing 44.5 \times \text{L } 123$
IDCA height (optical axis, mm)	115
Weight	1.7 kg
Operating temperature	- 40° C to 71° C

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

OPTIONS

Proximity driving electronics (including ADC)

Technical training and support

Cooler driving electronics for LS5

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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