

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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TYPICAL(*) PERFORMANCES

| | |
|--|--|
| NETD | $\leq 25 \text{ mK}$ (11 μm , 37 10^6 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.

LYNRED HEADQUARTER
Avenue de la Vauve - CS 20018
91127 Palaiseau - France
Phone + 33 1 60 92 18 30
info@lynred.com

DEVELOPMENT AND PRODUCTION CENTER
Z.I. - BP 21
38113 Veurey-Voroize - France
Phone + 33 4 76 28 77 00
info@lynred.com




LYNRED
BY SOFRADIR & ULIS
www.lynred.com

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