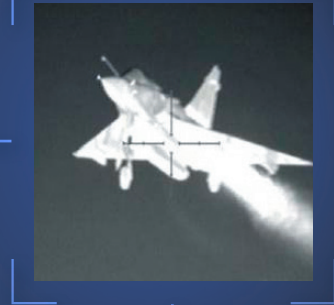


# MARS VLW

320 x 256 - 30  $\mu\text{m}$  pitch - MCT

→ The reference QVGA detector beyond 11  $\mu\text{m}$ .



MARS VLW offers unique LWIR detection beyond 11  $\mu\text{m}$ .

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

## ARRAY FEATURES

Format	320 x 256
Pixel pitch	30 $\mu\text{m}$ x 30 $\mu\text{m}$
Detector spectral response	7.7 $\mu\text{m}$ - 11.7 $\mu\text{m}$
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 <sup>6</sup> e <sup>-</sup> (Gain 0); 37 x 10 <sup>6</sup> e <sup>-</sup> (Gain 1)
Electrical dynamic range	2.75 V (Gain 1); 3 V (Gain 0)
Readout noise	1000 e <sup>-</sup>
Singal outputs	1 or 4
Pixel output rate	Up to 6.6 MHz per output
Frame rate	Up to 320 Hz full frame rate

MARS VLW

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320 x 256 - 30  $\mu\text{m}$  pitch - MCT

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## TYPICAL<sup>(\*)</sup> PERFORMANCES

NETD	$\leq 25 \text{ mK}$ (11 $\mu\text{m}$ , 37 $10^6 \text{ e}^-$ , 300 K, 50% well fill, 200 Hz)
Non uniformity (DC level and responsivity)	5% RMS ( $\sigma/\text{mean}$ , 300 K uncorrected performance)
	<b>LS10 Compressor</b>
FOV	f/2
Regulated input power (**)	16 $\text{W}_{\text{AC}}$
Cooldown input power (**)	50 $\text{W}_{\text{AC}}$
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  $\mu\text{m}$ , 75% @ 0.8  $\mu\text{m}$ , >80% from 0.9  $\mu\text{m}$  to 1.6  $\mu\text{m}$

(\*\*)  $\text{W}_{\text{DC}}$  = 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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MARS VLW