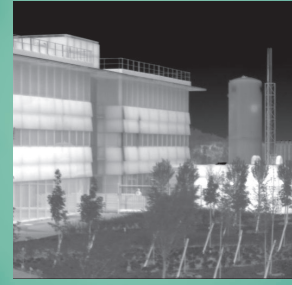


MARS BBLW

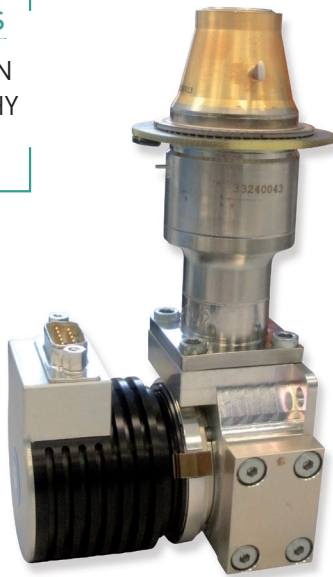
320 x 256 - 30 μm pitch - MCT

→ The broadband Long-wave QVGA 30 μm pitch detector for scientific and industrial applications.



APPLICATIONS

GAS DETECTION
THERMOGRAPHY
SCIENTIFIC



Mars BBLW is a versatile broad band Long-wave QVGA 30 μm pitch detector.

Thanks to its high sensitivity, MARS BBLW can be used as a broad band detector ranging from 2.7 μm to 10 μm , or as specific wavelengths detection (with the integration of a customer application dedicated filter).

MARS BBLW is the best choice to address a large range of scientific and industrial applications, such as thermography and gas detection. His Linear Split cooler configuration gives the best reliability for 24/7 operational mode whereas Rotary Monobloc cooler one proposes the more compact solution.

MARS BBLW benefits from MARS LW product range industrial maturity, guarantying best performances, excellent reliability and robustness in harsh environments

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

ARRAY FEATURES

Format	320 x 256
Pixel pitch	30 μm x 30 μm
Detector spectral response	2.7 μm - 10 μm
FPA Operating temperature	Up to 80 K

ROIC (READ-OUT INTEGRATED CIRCUIT)

Selection	Parallel and serial electrical interface
ROIC architecture	Snapshot operation, direct injection input circuit, Integrate Then Read mode (ITR)
ROIC functionalities	Programmable integration time, anti-blooming
Windowing modes	320 x 256 / 320 x 240 / 256 x 256 or programmable
Charge handling capacity	36 10^6 e- (Gain 1) 14.8 10^6 e- (Gain 0)
Electrical dynamic range	2.75 V (Gain 1) 3 V (Gain 0)
Readout noise	1000 e-
Singal outputs	1 or 4 (default mode)
Pixel output rate	Up to 6.6 Mpix/sec (1 output) 26.4 Mpix/sec (4 outputs)
Frame rate	Up to 320 Hz full frame rate

MARS BBLW

MARS BBLW

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TYPICAL PERFORMANCES

NETD	27 mK ($f/2.48$ 10^6 e ⁻ , 300 K, 50% well fill, 200 Hz)
Array operability	99.7%
Non uniformity (DC level and responsivity)	5% RMS (σ /mean, 300 K uncorrected performance)

	RM3	LS5-7i
FOV	$f/2$; $f/2.48$	$f/2$
Regulated input power (*)	8.5 W _{DC}	10.5 W _{AC}
Cooldown input power (*)	16 W _{DC}	35 W _{AC}
Power supply	24 V	11 V
Cooldown time	7 min 30 s	4 min 30 s
Cooler dimensions (mm)	$\varnothing 46 \times L 71$	$\varnothing 44.5 \times L 123$
IDCA height (optical axis, mm)	143.3	115
Weight	0.575 kg	1.20 kg
Operating temperature	- 40° C to 71° C	- 40° C to 71° C

(*) W_{DC} = at cooler C&CE DC input

OPTIONS

Proximity driving electronics (including ADC)

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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