

# JUPITER MW

1280 x 1024 - 15  $\mu\text{m}$  pitch - MCT

→ The megapixel IDCA  
for best performance systems.



Jupiter MW sets the standard for MWIR SXGA IDCA's.

With the fusion of high-performance, high-resolution and high-reliability, Jupiter MW allows you to have the best DRI range on the battlefield.

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

## ARRAY FEATURES

Format	1280 x 1024
Pixel pitch	15 $\mu\text{m}$ x 15 $\mu\text{m}$
Detector spectral response	3.7 $\mu\text{m}$ – 4.8 $\mu\text{m}$
FPA Operating temperature	Up to 90 K

## ROIC (READ-OUT INTEGRATED CIRCUIT)

Selection	Serial electrical interface
ROIC architecture	Snapshot operation, direct injection input circuit, Integrate-While-Read mode
ROIC functionalities	Programmable integration time, anti-blooming, image invert / revert / inverse
Windowing modes	1280 x 1024 or programmable (one or two windows of any size down to 260 x 1)
Charge handling capacity	4 10 <sup>6</sup> e <sup>-</sup> (Gain 0); 1.5 10 <sup>6</sup> e <sup>-</sup> (Gain 1)
Electrical dynamic range	1.6 V (Gain 0) and 1.1 V (Gain 1)
Readout noise	< 150 $\mu\text{V}$
Signal outputs	4 or 8
Pixel output rate	Up to 20 MHz per output
Frame rate	Up to 120 Hz full frame rate

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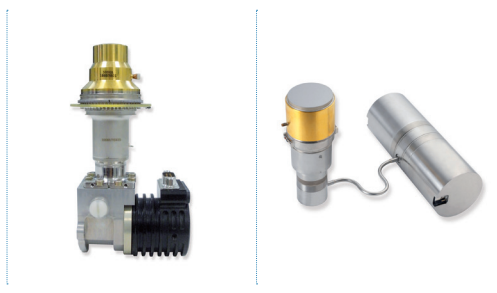
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## TYPICAL<sup>(\*)</sup> PERFORMANCES



NETD	19 mK (293 K, integration time for 50% well fill)	
Array operability	99.8%	
Non uniformity	2.5% RMS ( $\sigma$ /mean, 293 K uncorrected performance)	
	<b>K548</b>	<b>LSF9548</b>
FOV	f/2; f/4.6	f/2
Regulated input power (**)	9 W <sub>DC</sub>	15 W <sub>AC</sub>
Cooldown input power (**)	23 W <sub>DC</sub>	35 W <sub>AC</sub>
Power supply	24 V	50 V
Cooldown time	7 min	6 min
Cooler dimensions (mm)	Ø 46 × L 77	Ø 60 × L 122
IDCA height (optical axis, mm)	154	126
Weight	0.70 kg	1.90 kg
Operating temperature	- 40° C to 71° C	- 40° C to 71° C

(\*) Optional extended waveband : 40% @ 0.5  $\mu$ m, 75% @ 0.8  $\mu$ m, >80% from 0.9  $\mu$ m to 1.6  $\mu$ m

(\*\*) W<sub>DC</sub> = at cooler C&CE DC input

## OPTIONS

Proximity driving electronics (including ADC)

Technical training and support

Cooler driving electronics for LSF

## APPLICATIONS



Exclusive Distributor - North America

Technical characteristics described in this data sheet are for information only.  
They are not contractual and may change without prior notice.



**SOFRADIR-EC**

373 Route 46W, Fairfield, NJ 07004 USA  
Phone: 973-882-0211 Fax: 973-882-0997  
Email: info@sofradir-ec.com  
[www.sofradir-ec.com](http://www.sofradir-ec.com)

