

# SCORPIO LW

640 x 512 - 15  $\mu\text{m}$  pitch - MCT



THE HIGH PERFORMANCE  
VGA FORMAT LWIR IDCA.

Scorpio LW is a compact high-resolution LWIR IDCA with low power consumption. This IDCA offers high speed operation for detecting fast moving targets or improving the sensitivity. Thus, it is well-suited to high-performance and long-range applications. Sofradir's MCT technology allows operations in LWIR waveband, the preferred solution for ground-based applications. This high-performance IDCA takes full advantage of Sofradir's state of the art technologies.



## ARRAY FEATURES

• Format	640 x 512
• Pixel pitch	15 $\mu\text{m}$ x 15 $\mu\text{m}$
• Detector spectral response	7.7 $\mu\text{m}$ - 9.3 $\mu\text{m}$ at 80 k
• FPA Operating Temperature	Up to 100 K

## ROIC (READ-OUT INTEGRATED CIRCUIT)

• Selection	Serial electrical interface
• ROIC architecture	Snapshot, direct injection, Integrate Then Read (ITR)
• ROIC functionalities	Programmable integration time, anti-blooming, image invert / revert / inverse, interlaced mode
• Window modes	640 x 512 / 640 x 480 / 512 x 512 or programmable
• Charge handling capacity	13.6 10 <sup>6</sup> e- (standard), 27.2 10 <sup>6</sup> e- (binning)
• Electrical dynamic range	2.8 V
• Signal outputs	4
• Pixel output rate	Up to 20 MHz per output
• Frame rate	Up to 210 Hz full frame rate

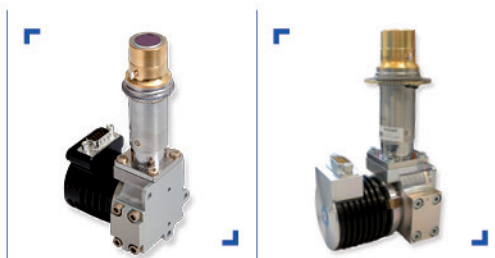
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## ELECTRO-OPTICAL TYPICAL PERFORMANCES



Typical NETD	22 mK (f/2, 210 Hz)
Array operability	> 99.5 % typical
Non uniformity	< 5 % RMS ( $\sigma$ /mean, 300 K uncorrected performance)

	K508	RM3
FOV	f/2; f/2.24	f/2; f/2.24
Regulated input power	< 7.5 W <sub>DC</sub> (*)	< 7.5 W <sub>DC</sub> (*)
Cooldown input power	< 15 W <sub>DC</sub> (*)	< 15 W <sub>DC</sub> (*)
Power supply	24 V	24 V
Cooldown time	< 6 min 30 s	< 6 min 30 s
Weight	< 0.57 kg	< 0.57 kg
Operating Temperatures	- 40° C / + 71° C	- 40° C / + 71° C

(\*) W<sub>DC</sub> = 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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**SOFRADIR**

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