

SCORPIO LW

640 x 512 - 15 μm 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.

SCORPIO LW

ARRAY FEATURES

Format	640 x 512
Pixel pitch	15 μm x 15 μm
Detector spectral response	7.7 μm - 9.3 μm at 80 K
FPA Operating temperature	Up to 90 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
Windowing modes	640 x 512 / 640 x 480 / 512 x 512 or programmable
Charge handling capacity	13.6 10^6 e- (standard), 27.2 10^6 e- (binning)
Electrical dynamic range	2.8 V
Pixel output rate	80 Mpix/s [20 Mpix/s per output]
Frame rate	Up to 210 Hz full frame rate

SCORPIO LW

640 x 512 - 15 μm pitch - MCT

→ The High performance
VGA format LWIR IDCA.



TYPICAL[*] PERFORMANCES

NETD	22mK (f/2, 210 Hz) ; 10 mK (f/2 ; 30 Hz post acc. \ 4 frames)		
Array operability	99.8%		
Non uniformity (DC level and responsivity)	< 20 mK (293K, 50% well fill, 85 Hz)		
	K508	RM3 / SRI	LSF
FOV	f/2; f/2.24; f/1.76	f/2; f/2.24	f/1.76
Regulated input power @ 20°C (**)	6.1 W _{DC}	6.7 W _{DC}	11 W _{AC}
Cooldown input power @ 20°C (**)	15 W _{DC}	13 W _{DC}	40 W _{AC}
Power supply @ 20°C	24 V	24 V	24 V
Cooldown time @ 20°C	6 min	6 min / 7 min	3 min 30 s
IDCA height (optical axis, mm)	143	143	110
Weight	0.55 kg	0.55 kg	1.76 kg
Operating temperature	- 40° C to 71° C	- 40° C to 71° C	- 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

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



SCORPIO LW