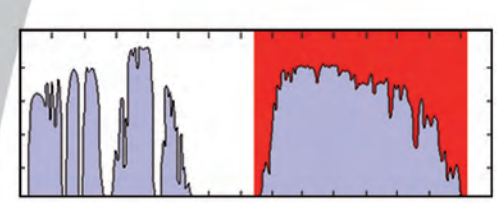
HiPIR-1024L - MCT LWIR 1024 x 768 10µm PITCH IDCA

HIGH PERFORMANCE XGA LWIR-MODULES



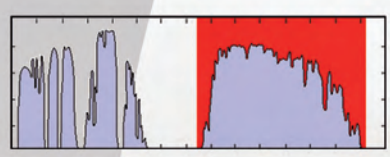
- XGA resolution in a compact configuration
- Same configuration for MWIR and LWIR modules available
- Various cooler options available

High resolution, crisp and clear XGA format images at up to 120Hz full frame rates. Short integration times can be used for capturing of sharp images of fast moving objects. The integrated command and control electronics delivers 14bit resolution digital video data and provides a comprehensive system programming interface.

Whether minimum vibration output and maximum lifetime, or compactness and low power consumption are key requirements, all AIM detectors can be integrated with AIM long lifetime split linear coolers, or with non-AIM integral rotary coolers.
The compact AIM SX095 long lifetime linear Stirling cooler matches perfectly with the HiPIR-1024L IR-detector.

HiPIR-1024L - MCT LWIR 1024 x 768 10µm PITCH IDCA

HIGH PERFORMANCE XGA LWIR-MODULES



IR Sensor

Material	HgCdTe - Cadmium Mercury Telluride
Format	1024 x 768
Pixel pitch	10µm x 10µm
Detector spectral response	7.6µm - 9µm

ROIC

Technology	Si-CMOS
Input	Direct charge injection
Operating mode	Snapshot
Readout modes	selectable ITR / IWR
Windowing	programmable (any window in steps of 8 columns and 1 row)
Charge handling capacity	~ 6.7Me⁻ (ITR); ~ 6.5Me⁻ (IWR)

Command & Control Electronics

Type	CCE8K-LP
Output video	CL LVDS 16bit (14bit ADC)
Input supply / control / synchronization	5VDC / CL LVDS, UART LVTTL / Internal, external frame sync
Power consumption	~ 2.5W
Max. data rate	up to 80MHz
Max. full frame rate	up to 100Hz

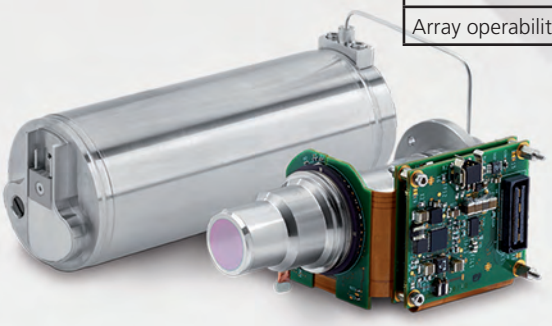
Dewar / Cooler

Cooler	**SX095**	**K508**
Cooler type	Split Linear	Integral Rotary
Cooler electronics	external digital DCE100	internal
FPA operating temperature	~ 75K	~ 75K
Cool down time*	4min	6min
Cooler power consumption*	15W	5W
MTTF cooler**	> 15,000h	> 8,000h
Cold shield	F/2.0, others on request	
Total weight IDCA	1.1kg	0.6kg

* at ambient room temperature
** will depend on usage profile

Performance

NETD (300K; half well)	~ 30mK
IETD	< 1.0 x NETD
Array operability	> 99.3%



AIM Infrarot-Module GmbH
Theresienstraße 2
74072 Heilbronn/Germany
Tel.: +49 7131 6212-0
info@aim-ir.com
www.aim-ir.com