

SCORPIO LW

640 x 512 - 15 μm - MCT

Scorpio LW is a compact high resolution LWIR detector specially designed for long range applications and detecting fast moving targets.

Built on proven technology, its low power consumption is well-suited to ground based applications.

THE BEST CHOICE FOR THE THERMAL SIGHT IN THE BATTLEFIELD CONDITIONS



FAST ACQUISITION TIME



BETTER IMAGE QUALITY



HIGH SENSITIVITY THROUGH DUST AND SMOKE



REDUCE BLOOMING EFFECT

DEFENSE

SURVEILLANCE



THE BEST CHOICE FOR THE THERMAL SIGHT IN THE BATTLEFIELD CONDITIONS

SCORPIO LW



HIGH SENSITIVITY (<15MK)

COMPACT

HIGH RESOLUTION (VGA 15µM PITCH)

LOW POWER CONSUMPTION

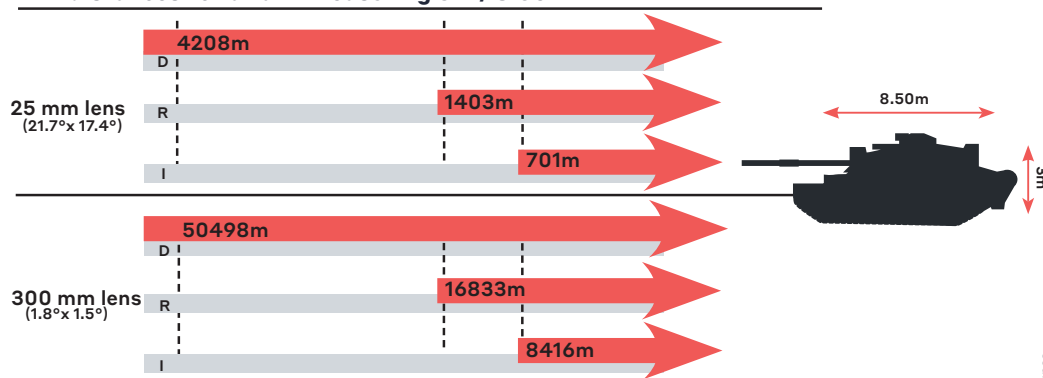
TYPICAL(*) PERFORMANCES	
NETD	■ 22mK (f/2, 210 Hz) ; 10 mK (f/2 ; 30 Hz post acc. \ 4 frames)
ARRAY FEATURES	
Detector spectral response	■ 7.7 µm - 9.3 µm at 80 K
FPA Operating temperature	■ Up to 90 K
ROIC (READ-OUT INTEGRATED CIRCUIT)	
Selection	■ Serial electrical interface
ROIC architecture	■ Snapshot, direct injection, Integrate Then Read (ITR)
ROIC functionalities	■ Programmable integration time
	■ Anti-blooming
	■ Image invert / revert / inverse
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

TYPICAL(*) PERFORMANCES			
Array operability	■ 99.8%		
Non uniformity (DC level and responsivity)	■ < 20 mK (293K, 50% well fill, 85 Hz)		
	K508	RM3	LSF
FOV	f/2; f/2.24; f/1.76	f/2; f/2.24	f/1.76
Cooler power @ 20°C (regulation/cooldown) (**)	6.1 W _{DC} / 15 W _{DC}	6.7 W _{DC} / 13 W _{DC}	11 W _{AC} / 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; +71°C]	[- 40°C; +71°C]	[- 40°C; +71°C]
MTTF	≥ 10 000 Hrs	≥ 10 000 Hrs	≥ 20 000 Hrs

(*) Contact LYNRED for available configurations, (**) W_{DC} = at cooler C&CE DC input

OPTIONS	
Proximity driving electronics (including ADC)	
Technical training and support	

DRI distances for a tank measuring 3m / 8.50m



Range for Johnson's criteria, target deltaT = 2K, perfect atmospheric and optics transmissions, theoretical 15µm square pixel.



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