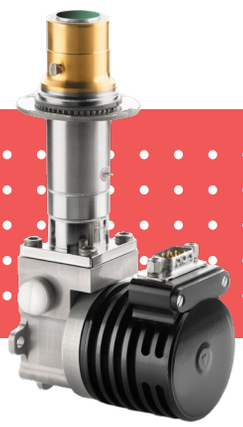
LYNRED

INFRARED DETECTOR



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 Surveillance applications.

SPECIALLY DESIGNED FOR LONG RANGE APPLICATIONS AND DETECTING FAST MOVING TARGETS

- **FAST ACQUISITION TIME**
- **BETTER IMAGE QUALITY**
- **HIGH SENSITIVITY THROUGH DUST AND SMOKE**
- **REDUCE BLOOMING EFFECT**
- **NO SENSITIVE TO SUN REFLECTION**

SURVEILLANCE

ORDERING REFERENCE: **SCORPIO** LW

SCORPIO LW

HIGH SENSITIVITY (<15mK)

COMPACT

HIGH RESOLUTION (VGA 15µM PITCH)

LOW POWER CONSUMPTION

SPECIALLY DESIGNED FOR LONG RANGE APPLICATIONS AND DETECTING FAST MOVING TARGETS

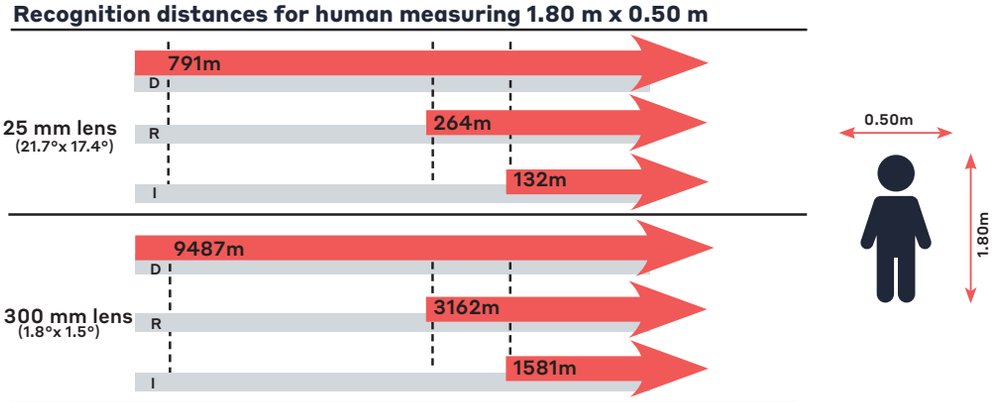
TYPICAL(*) PERFORMANCES	
NETD	*22mK (f/2, 210 Hz) ; 10 mK (f/2 ; 30 Hz post acc. \ 4 frames)*
ARRAY FEATURES	
Detector spectral response	*7.7 µm - 9.3 µm at 80 K*
FPA Operating temperature	*Up to 90 K*
ROIC (READ-OUT INTEGRATED CIRCUIT)	
Selection	*Serial electrical interface*
ROIC architecture	*Snapshot,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

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/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*

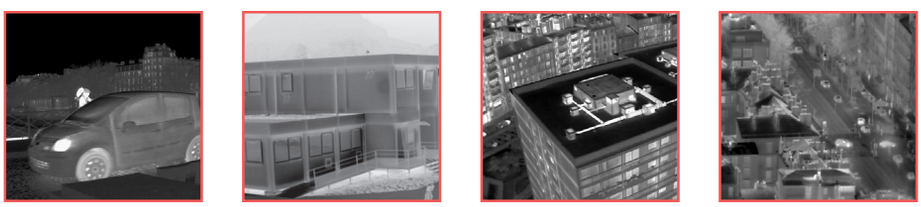
(*) Contact LYNRED for available configurations, (**) W_{DC} = at cooler C&CE DC input

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

Recognition distances for human measuring 1.80 m x 0.50 m



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



LYNRED

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