

INFRARED DETECTORS

SCORPIO LW™

640 x 512 - 15μm - MCT

SCORPIO LW™ is a high resolution LWIR detector particularly adapted for thermal sight applications subjected to demanding battlefield environments.

Built on proven technology, its robust shape is well-suited to ground based applications.

THE OBVIOUS 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



ORDERING REFERENCE: **SCORPIO LW™**



●● THE OBVIOUS CHOICE FOR THE THERMAL SIGHT IN THE BATTLEFIELD CONDITIONS ●●

MULTI-PURPOSE



HIGH SENSITIVITY



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 ■ 7.7μm - 9.3μm 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 ■ 13.6 10⁶ e⁻ (standard), 27.2 10⁶ 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%

	K508	RM3	K508N ROHS
FOV	f/2; f/2.24	f/2; f/2.24	f/2.24
Cooler power @ 20°C (regulation/cooldown) (**)	6.1 W _{DC} / 15 W _{DC}	6.7 W _{DC} / 13 W _{DC}	7 W _{DC} / 15 W _{DC}
Power supply @ 20°C	24 V	24 V	24 V
Cooldown time @ 20°C	6 min	6 min 30s	6 min 30s
IDCCA height (optical axis, mm)	143	143	143
Weight	0.55 kg	0.55 kg	0.59 kg
Operating temperature	[- 40°C; +71°C]	[- 40°C; +71°C]	[- 40°C; +71°C]
MTTF (calendar hours) for typical ground vehicle life profile (40 days/year @50°C operationnal / Storage @20°C)	≥ 30 000 Hrs	≥ 70 000 Hrs	≥ 50 000 Hrs

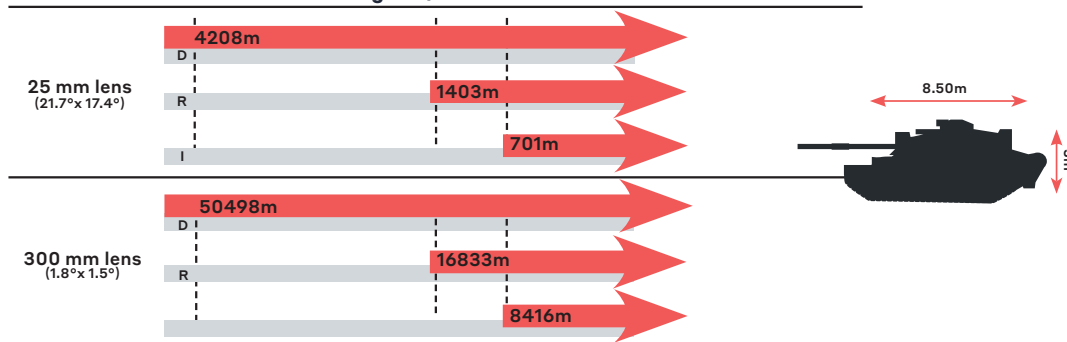
(*) Contact LYNRED for available configurations, (**) W_{DC} = at cooler C&CE DC input

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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