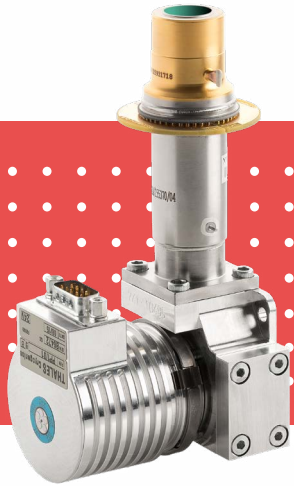




LYNRED®

See Beyond Horizons



SCORPIO MW™

640 x 512 - 15μm - MCT

INFRARED DETECTORS

From a wide spectral range, available in versions up to 110K, the SCORPIO MW™ is a trusted and widely adopted solution designed to meet the requirements of numerous markets.

A UNIQUE AND VERSATILE
VGA MWIR DETECTOR TO FIT
ALL YOUR REQUIREMENTS
FOR YOUR APPLICATIONS



HIGH IMAGE QUALITY



PROVEN RELIABILITY



ROBUSTNESS IN HARSH
ENVIRONMENT

DEFENSE

SURVEILLANCE



ORDERING REFERENCE: SCORPIO MW™

TECHNICAL DATA NOT CLASSIFIED UNDER EXPORT CONTROL REGULATION

●● A UNIQUE AND VERSATILE VGA MWIR DETECTOR TO FIT ALL YOUR REQUIREMENTS FOR YOUR APPLICATIONS ●●



RELIABILITY



HIGH PERFORMANCE



ROBUSTNESS



MULTI APPLICATIONS

ARRAY FEATURES

Detector spectral response	■ 3.7µm - 4.8µm
FPA Operating temperature	■ Up to 110 K

ROIC (READ-OUT INTEGRATED CIRCUIT)

Selection	■ Serial electrical interface
ROIC architecture	■ Snapshot operation, direct injection input circuit, selectable read mode (IWR or ITR)
ROIC functionalities	■ Programmable integration time ■ Anti-blooming
Windowing modes	■ 640 x 512 / 640 x 480 / 512 x 512 or programmable
Charge handling capacity	■ 6.4 10 ⁶ e- (for 100% well fill and ITR mode) or 5 10 ⁶ e- (for well fill and IWR mode)
Electrical dynamic range	■ 1.5 V
Readout noise	■ < 420 e-
Signal outputs	■ 4
Pixel output rate	■ Up to 10 MHz full frame rate
Frame rate	■ Up to 210 Hz full frame rate

TYPICAL(*) PERFORMANCES

NETD	■ 19 mK (293 K, 50% well fill, 100 Hz)
Array operability	■ 99.8%
Non uniformity (DC level and responsivity)	■ <2% RMS (σ/mean, 293 K uncorrected performance)

	RM2	RM3	RM3 LOW POWER	K508	K508N(*)
FOV	f/4	f/2; f/3; f/4	f/2; f/4	f/2; f/4	f/2; f/3; f/4
Regulated input power (**)	3 W _{AC}	3.7 W _{DC}	3 W _{DC}	4.4 W _{DC}	5/4(***) W _{DC}
Cooldown input power (**)	11 W _{AC}	12.5 W _{DC}	12 W _{DC}	13.5 W _{DC}	14 W _{DC}
Power supply	12V	24V	24V	24V	24V
Cooldown time	4 min 10 s	5 min	4 min 20 s	4 min 40 s	5 min 20 s / 4 min (***)
Cooler dimensions (mm)	Ø 30 x L82	Ø 46 x L71	Ø 46 x L71	Ø 46 x L71	Ø 46 x L71
Weight	<0.35 kg	<0.57 kg	<0.57 kg	<0.57 kg	<0.61 kg
Operating temperature	[- 40°C; +71°C]	[- 40°C; +71°C]	[- 40°C; +71°C]	[- 40°C; +71°C]	[- 40°C; +71°C]
RoHS compliant	Yes	Yes	Yes	No	Contact Lynred for compliant configurations

Typical MTTF (in calendar hours)

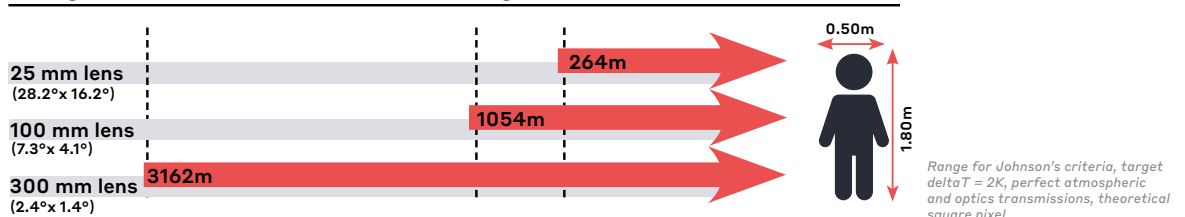
Ground vehicle life profile	96 000h	72 000h	>100 000h	36 000h	58 000h
Military surveillance life profile	38 000h	23 000h	44 000h	12 000h	20 000h
24/7 ground fixed surveillance life profile profile temperate to hot region	30 000h	18 000h	35 000h	10 000h	16 000h

(*) Contact LYNRED for available configurations, (**) WDC = at cooler C&CE DC input including C&CE efficiency, (***) for low power version, contact LYNRED for availability

OPTIONS

Technical training and support	Demonstration kit for easy image processing in lab
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Recognition distances for human measuring 1.80 m x 0.50 m



LYNRED HEADQUARTERS DEVELOPMENT & PRODUCTION CENTER

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