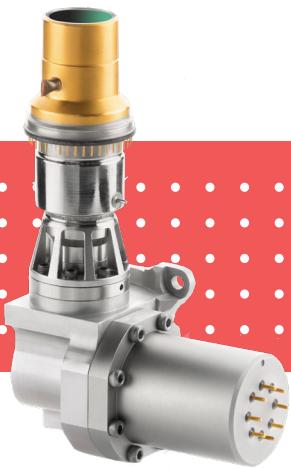




LYNRED



From wide spectral range, available on version up to 110K, the MWIR SCORPIO product range is designed to meet the requirements of numerous markets.



INFRARED DETECTORS

# SCORPIO MW PRODUCT RANGE

640 x 512 - 15 μm - MCT

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



HIGH IMAGE QUALITY



PROVEN RELIABILITY



ROBUSTNESS

DEFENSE

SURVEILLANCE

INDUSTRY



ORDERING REFERENCE: SCORPIO MW

# SCORPIO MW



RELIABILITY



HIGH PERFORMANCE



ROBUSTNESS



MULTI APPLICATIONS

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

### ARRAY FEATURES

Detector spectral response	■ 3.7 $\mu\text{m}$ - 4.8 $\mu\text{m}$
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	■ 6.5 $10^6$ e <sup>-</sup> (for 100% well fill and ITR mode) or 5 $10^6$ e <sup>-</sup> (for well fill and IWR mode)
Electrical dynamic range	■ 1.5 V
Readout noise	■ < 420 e <sup>-</sup>
Signal outputs	■ 4
Pixel output rate	■ Up to 10 MHz per output
Frame rate	■ Up to 120 Hz full frame rate

### TYPICAL(\*) PERFORMANCES

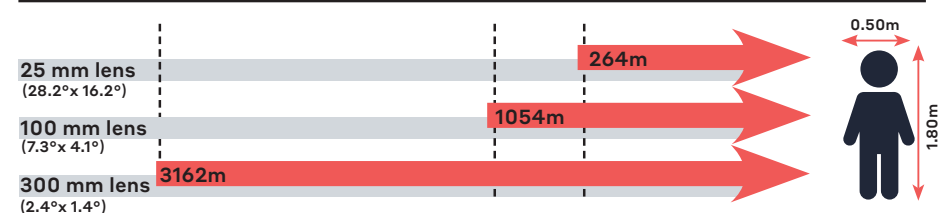
NETD	■ 18 mK (293 K, 50% well fill, 100 Hz)				
Array operability	■ 99.8%				
Non uniformity (DC level and responsivity)	■ 2.5% RMS ( $\sigma$ /mean, 293 K uncorrected performance)				
	RM2	RM3	RM4(*)	K508	K508N(*)
FOV	f/2; f/4	f/2; f/4	f/4	f/2; f/4	f/4
Regulated input power (**)	< 3 W <sub>AC</sub>	< 4.3 W <sub>DC</sub>	< 4 W <sub>AC</sub>	< 5 W <sub>DC</sub>	< 4 W <sub>AC</sub>
Cooldown input power (**)	< 10 W <sub>AC</sub>	< 12.5 W <sub>DC</sub>	< 18 W <sub>DC</sub>	< 13.5 W <sub>DC</sub>	< 15 W <sub>AC</sub>
Power supply	12V	24V	24V	24V	24V
Cooldown time	5 min	4min50s	3 min	5min30s	3 min
Cooler dimensions (mm)	$\varnothing$ 30.85 x L 82	$\varnothing$ 46 x L71	$\varnothing$ 46 x L71	$\varnothing$ 46 x L71	$\varnothing$ 46 x L71
Weight	< 0.45kg	< 0.57kg	< 0.6kg	< 0.6kg	< 0.6kg
Operating temperature	[-40°C; +71°C]	[-40°C; +71°C]	[-40°C; +71°C]	[-40°C; +71°C]	[-40°C; +71°C]
MTTF	>20 000h	>10 000h	>15 000h	>10 000h	>20 000h

(\*) Contact LYNRED for available configurations; (\*\*) WDC = at cooler C&CE DC input

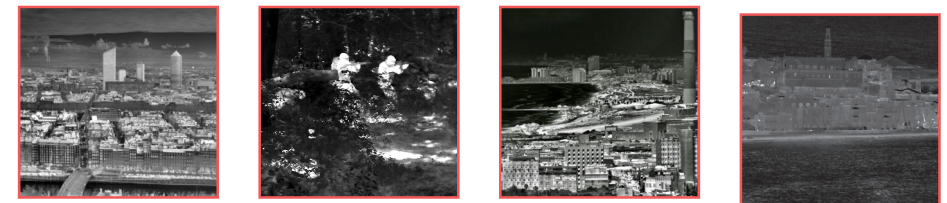
### OPTIONS

Technical training and support
Demokit for easy image processing in lab

### 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 square pixel.



**LYNRED HEADQUARTERS**  
Avenue de la Vauve - CS 20018  
91127 Palaiseau - France  
Phone +33 (0)1 60 92 18 30  
info@lynred.com

**DEVELOPMENT AND PRODUCTION CENTER**  
Actipole - CS 10021 - 364, route de Valence  
38113 Veurey-Voroize - France  
Phone +33 (0)4 76 28 77 00  
info@lynred.com

