

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

SCORPIO MW

PRODUCT RANGE
640 x 512 - 15 μ m - MCT

A UNIQUE AND VERSATILE VGA MWIR DETECTOR TO MEET 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

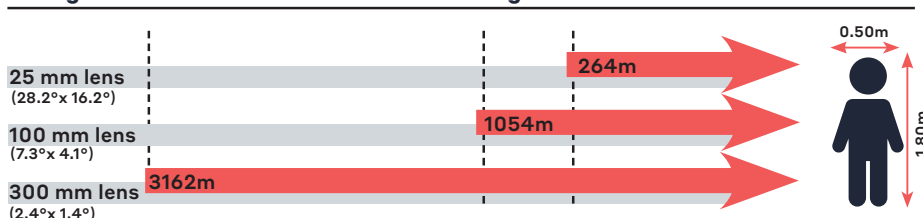
A UNIQUE AND VERSATILE VGA MWIR DETECTOR TO MEET ALL YOUR REQUIREMENTS FOR YOUR APPLICATIONS

ARRAY FEATURES						
Detector spectral response	■ 3.7 μm - 4.8 μm					
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 ⁻ (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 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 (σ /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 _{AC}	< 4.3 W _{DC}	< 4 W _{AC}	< 5 W _{DC}	< 4 W _{AC}	
Cooldown input power (**)	< 10 W _{AC}	< 12.5 W _{DC}	< 18 W _{DC}	< 13.5 W _{DC}	< 15 W _{AC}	
Power supply	12V	24V	24V	24V	24V	
Cooldown time	5 min	4min50s	3 min	5min30s	3 min	
Cooler dimensions (mm)	Ø 30.85 x L 82	Ø 46 x L71	Ø 46 x L71	Ø 46 x L71	Ø 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	

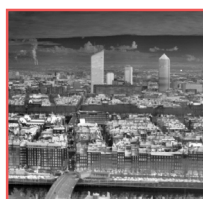
(*) Contact LYNRED for available configurations; (**) WDC = at cooler C&CE DC input

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.



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