




JUPITER MW™

1280 x 1024 - 15µm - MCT

INFRARED DETECTORS

With the fusion of high-performance, high-resolution and large integration capacitance, JUPITER MW™ allows you to have the best DRI range on the battlefield. This MWIR SXGA 15µm pitch IDCA takes full advantages of LYNRED's high performance technologies.

THE HIGH-PERFORMANCE SXGA MEGAPIXEL PRODUCT

-  **HIGH IMAGE QUALITY**
-  **HIGH SENSITIVITY**
-  **ROBUSTNESS**

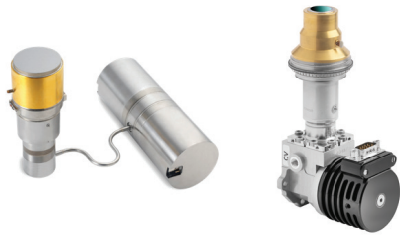
DEFENSE

SURVEILLANCE

SPACE



ORDERING REFERENCE: JUPITER MW™



MULTI-PURPOSE



HIGH RESOLUTION



HIGH SENSITIVITY



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THE HIGH-PERFORMANCE SXGA MEGAPIXEL PRODUCT

ARRAY FEATURES

Format	■ 1280 x 1024
Pixel pitch	■ 15 x 15µm
Detector spectral response	■ 3.7 - 4.8µm
FPA operating temperature	■ 80 K typical

ROIC (READ-OUT INTEGRATED CIRCUIT)

Selection	■ Serial electrical interface
ROIC architecture	■ Snapshot operation, direct injection input circuit, Integrate-While-Read mode
ROIC functionalities	■ Programmable integration time, anti-blooming, image invert / revert / inverse
Windowing modes	■ 1280 x 1024 or programmable (one or two windows of any size down 260 x 1)
Charge handling capacity	■ 1.8 10 ⁶ e- (Gain 0); 4.5 10 ⁶ e- (Gain 1)
Electrical dynamic range	■ 1.4 V (Gain 0) and 2 V (Gain 1)
Signal outputs	■ 4 or 8
Pixel output rate	■ Up to 20 MHz per output
Full Frame rate	■ Up to 60 Hz (4 outputs) or 118 Hz (8 outputs)

TYPICAL PERFORMANCES

NETD	■ 18 mK (293K, intergration time for 50% well fill)
Array operability	■ 99.9% typical

	LSF9548	K548
FOV	■ f/5.2; f/2	■ f/4; f/4.6; f/5.5
Regulated Input power	■ < 22 W _{DC} *	■ < 13 W _{DC} *
Cooldown Input power	■ < 50 W _{DC} *	■ < 30 W _{DC} *
Power Supply	■ 24 V	■ 24 V
Cooldown time @20°C	■ 6 min	■ 7 min 30 sec
Weight	■ < 2.1 kg	■ < 0.8 kg
Operating temperatures	■ -40°C / +71°C	■ -40°C / +71°C
MTTF (24/7 surveillance, 20 to 40°C)	■ 23 000 h	■ 8 000 h

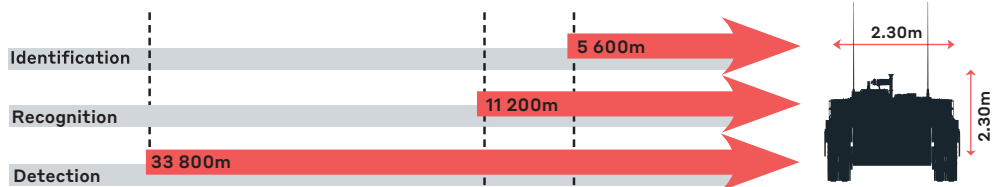
*W_{DC}: at cooler C&CE DC input

OPTIONS

Proximity driving electronics (including ADC)

Technical training and support

D.R.I Performances (300 mm lens) - 2.3 m vehicle target



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