LYNRED

STARING ARRAY INFRARED DETECTOR

LYNRED Staring Array

NGP

1024 x 1024

15 µm pitch – MCT - SWIR

NGP SW is a **high spectral and spatial resolution space qualified detector** well-suited for integration in different kinds of space applications like superspectral or hyperspectral imaging as well as spectroscopy.

Based on LYNRED space proven MCT technology, this detector offers the **highest level of performances** as well as numerous features to fit with the different needs.

LARGE SHORT-WAVE INFRARED(SWIR) DETECTOR FOR SPACE IMAGING APPLICATIONS

- **HIGH SPECTRAL AND SPATIAL RESOLUTION**
- **SPACE QUALIFIED**
- **WELL ADAPTED FOR HYPERSPECTRAL AND SPECTROSCOPY IMAGING**

SPACE

PRODUCT NUMBER: **NGP SW**

LARGE SHORT-WAVE INFRARED(SWIR) DETECTOR FOR SPACE IMAGING APPLICATIONS

HIGH RESOLUTION

MULTI-APPLICATION

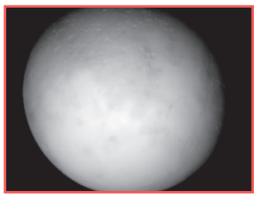
SPACE QUALIFIED

ADVANCED PERFORMANCES

ARRAY FEATURES	
Array format & pitch	■ *1024 x 1024 pixels, 15 µm*
Spectral range	■ *0.8 - 2.5 µm*
FPA operating temperature	■ *150K*
ROIC (READ-OUT INTEGRATED CIRCUIT)	
ROIC functionalities	■ *Snapshot integration type, IWR/ITR/multi-reading readout/CDS modes, Line selection, Anti-blooming, Pseudo-differential mode*
Integration time	■ *Adjustable from 110 µs to 99.8% Frame period*
Maximum Pixel Rate	■ *8 MHz per output*
Number of outputs	■ *4 outputs*
CHC (Charge Handling Capacity)	■ *≥ 650 ke-*
CVF (Charge Voltage Factor)	■ *≥ 1.96 µV/e-*
TRON (Readout Noise)	■ *< 140 e-*
Non linearity	■ *<1% p-p from 5 to 90% of CHC*
Electrical Crosstalk	■ *< -47dB*
Power Dissipation	■ *< 115 mW @ 3MHz* ■ *< 125 mW @ 8MHz*
TYPICAL PERFORMANCES	
Detection Efficiency (=QE*Fill Factor)	■ *> 80%*
Dark Current	■ *< 15 e-/s/µm² @ 150K*
MTF @Nyquist	■ *> 0.45*
PRNU	■ *< 3 %*
Radiation hardness	■ *Maximum TID: up to 20 krad (Si)* ■ *See robustness: SEL free / Low SEU & SEFI rate*

DETECTOR CONFIGURATIONS*	Passive	Active (with cooler)
		 *In collaboration with Absolut System*

* Detailed technical information available on request



LYNRED

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