



LYNRED



INFRARED DETECTOR

# SNAKE SW

640 x 512 – 15 $\mu$ m – InGaAs

The infrared detector designed for the most demanding SWIR applications such as surveillance, industrial and science applications.

LYNRED InGaAs technology provides leading edge performance in terms of sensitivity, noise, dark current and operability.

## SEE BEYOND WHAT IS **VISIBLE**



**EASY INTERPRETATION**



**VISIBLE LIKE**



**ENHANCE YOUR VISION IN  
DIFFICULT LIGHT CONDITIONS**

INDUSTRY

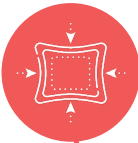
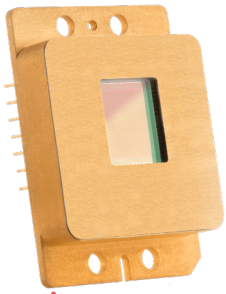
SURVEILLANCE



ORDERING REFERENCE: **SNAKE SW**

# SEE BEYOND WHAT IS VISIBLE

## SNAKE SW



VERSATILE

LOW NOISE

COMPACT

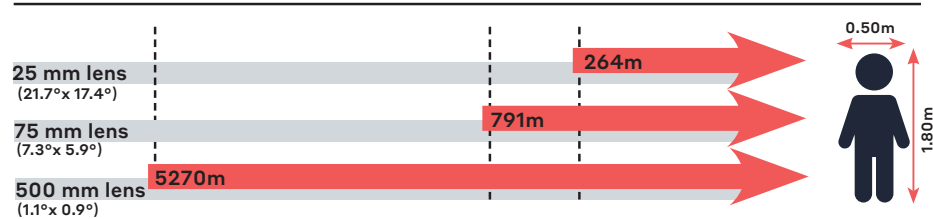
EASY INTERPRETATION  
VISIBLE-LIKE

ARRAY FEATURES		
Sensor type	■ InGaAs PIN-Photodiode	
Spectral response	■ 0.9 $\mu\text{m}$ - 1.7 $\mu\text{m}$	
ROIC (READ-OUT INTEGRATED CIRCUIT)		
Integration type	■ Snapshot / Global Shutter	
Readout modes	■ IWR, ITR, NDR	
Exposure time	■ 1 $\mu\text{s}$ to full frame	
Maximum full frame rate @ 9 MHz	■ 100 fps / 180 fps / 300 fps (2, 4 or 8 outputs)	
Maximum frame rate @ 9 MHz	■ 30 kHz (windowing mode)	
Maximum pixel rate	■ 18 MHz per output	
Charge handling capacity	■ 43 $10^3$ e- (Gain 0) / 120 $10^3$ e- (Gain 1) / 1.44 $10^6$ e- (Gain 2)	
TYPICAL PERFORMANCES		
Quantum efficiency (QE)	■ 70% from 1 $\mu\text{m}$ to 1.6 $\mu\text{m}$	
Noise with ROIC	■ 30 e- (Gain 0)	
Dark current	■ 30 fA @ 0.2 V detector bias	
Array operability	■ 99.9% (*)	
Non uniformity without correction	■ 4%	
PACKAGING	SNAKE SW	SNAKE SW TECLESS
Dimension (W x H x D)	■ 42 mm x 30 mm x 9 mm	16 mm x 16.5 mm x 2.8 mm
Windows	■ Sapphire	Borosilicate glass
Number of pins	■ 28 ■ Standard 1/10 inch pin pitch	44 Standard CLCC, 1.27 pin pitch
Cooler	■ Single stage TE Cooler	NA
Packaging characteristics	■ Hermetically sealed	NA
Operating and storage temperature	■ [- 40°C; +71°C]	[- 20°C; +60°C]

(\*) The fraction of pixels with responsivity deviation less than +/- 30 % from the mean.

OPTIONS	
Technical training and support	
Proximity driving electronics (Including ADC)	

### Recognition distances for human measuring 1.80 m x 0.50 m



Range for Johnson's criteria, target  $\Delta T = 2K$ , perfect atmospheric and optics transmissions, theoretical square pixel.



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