

# SNAKE SW TECLESS

640 x 512 – 15µm pitch – 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 SORTER DETECTION CAPABILITY**



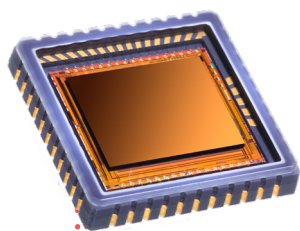
**DEFECTS DETECTION IN PROCESSING**

INDUSTRY

SURVEILLANCE



# SNAKE SW TECLESS



ARRAY FEATURES	
Sensor type	■ InGaAs PIN-Photodiode
Spectral response	■ 0.9 μm x 1.7 μm




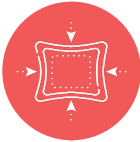
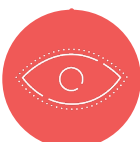
ROIC (READ-OUT INTEGRATED CIRCUIT)	
Integration type	■ Snapshot / Global Shutter
Readout modes	■ IWR, ITR, NDR
Exposure time	■ 1 μs to full frame
Maximum full frame rate @ 9 MHz	■ 100 fps / 180 fps / 300 fps (2, 4 or 8 outputs)
Maximum frame rate @ 9 MHz	■ 30 KHz (windowing mode)
Maximum pixel rate	■ 18 MHz per output
Charge handling capacity	■ 43 10 <sup>3</sup> e <sup>-</sup> (Gain 0) / 120 10 <sup>3</sup> e <sup>-</sup> (Gain 1) / 1.44 10 <sup>6</sup> e <sup>-</sup> (Gain 2)

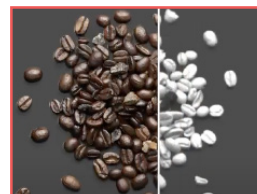
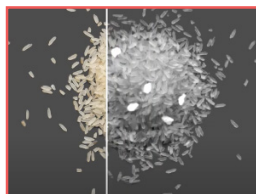
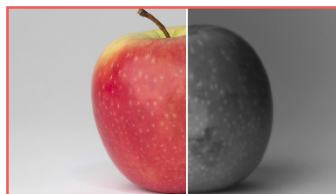
TYPICAL PERFORMANCES	
Quantum efficiency (QE)	■ 70% from 1 μm to 1.6 μm
Noise with ROIC	■ 30 e <sup>-</sup> (Gain 0)
Dark current	■ 30 fA @ 0.2 V detector bias
Array operability	■ 99.9% (*)
Non uniformity without correction	■ 4%

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	
Number of pins	■ 28 ■ Standard 1/10 inch pin pitch	44 Standard CLCC, 1.27 pin pitch
Cooler	■ Single stage TE Cooler	Single stage TE Cooler
Packaging characteristics	■ Hermetically sealed	Hermetically sealed
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)

- 
-  VERSATILE
-  LOW NOISE
-  COMPACT
-  EASY INTERPRETATION VISIBLE-LIKE



**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