

# InGaAs SWIR Detector

1280 x 1024 10 $\mu$ m

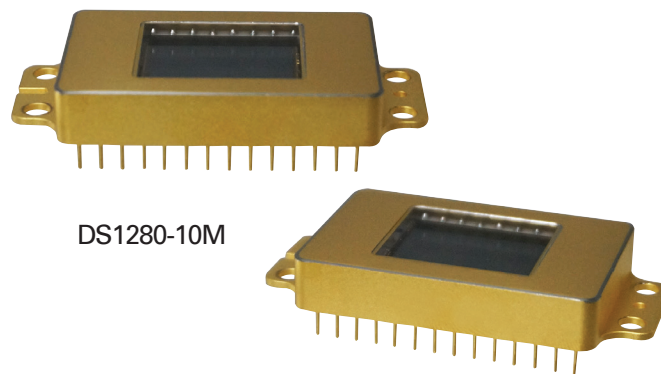
DS1280-10M

## Array Features

- 1280 x 1024 Array Format
- 10 $\mu$ m Pixel Pitch
- 28-pin Metal Package
- Thermoelectric Cooler
- Typical Pixel Operability  $\geq$  99.5%

## Applications

- Short wave infrared Imaging
- Imaging Spectroscopy
- Surveillance
- Semiconductor Inspection
- Medical Science and Biology
- Astronomy and Scientific



## Images from the 2D IR detector

Visible



SWIR



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## Specifications

Array Features	
Sensor type	InGaAs
Array format/Pixel Pitch	1280 x 1024, 10 $\mu$ m
Spectral range	SWIR (0.9 $\mu$ m~1.7 $\mu$ m)
Detector Features	
Integration time	10us to full frame
Frame rate	30 Hz (Max. 50 Hz)
Well Capacity	LG : 540ke- / MG : 310ke- / HG : 50ke- (LG : Low Gain / MG : Mid Gain / HG : High Gain)
Dynamic Range	1.2V
Input Bias	3.3V
Power consumption	$\leq$ 400mW
Windowing	Programmable
Temperature sensor output	Yes
Readout Noise	$\leq$ 100e-
Quantum Efficiency	70% @ 1550nm
Dark current	19,000 @ 15 $^{\circ}$ C
Operability	$\geq$ 99.5%
Operating temperature	-33 $^{\circ}$ C to 50 $^{\circ}$ C
Packaging Features	
Dimension (W x H x D)	50 x 25 x 6.8mm
Windows	Sapphire
Number of pins	28
Cooler	Single stage TEC [9W Max]
Packaging characteristics	Hermetically sealed

## Dimensions

