



# Pearleye P-030 LWIR



## Description

### **LWIR camera, microbolometer sensor, 640 x 480 pixels, NETD < 120 mK**

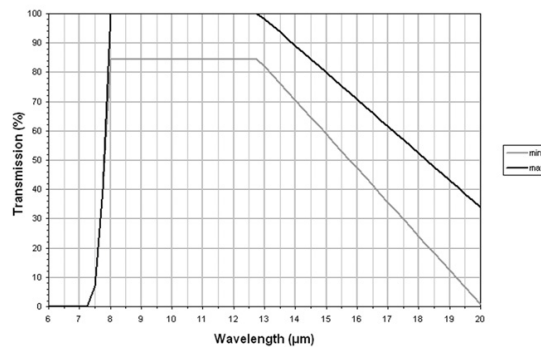
The Pearleye P-030 LWIR camera incorporates an uncooled microbolometer sensor with 640 x 480 pixels resolution. With its maintenance-free sensor, a temperature reference element, and a Peltier temperature stabilization, the camera reliably detects temperature differences. Image correction features ensure an excellent image quality.

- Microbolometer sensor, uncooled, 640 x 480 pixels
- 25  $\mu\text{m}$  x 25  $\mu\text{m}$  cell size, effective chip size 16 mm x 12 mm
- Spectral response: 8 - 14  $\mu\text{m}$  (LWIR)
- NETD  $\leq$  120 mK @ 303 K @ f/1.0
- Sensor time constant 7 ms
- Temperature range: -20°C to +80°C @ f/1.0
- Temperature reference element and Peltier temperature stabilizing
- Frame rate 24 fps
- Built-in electromechanical calibration shutter
- Preprocessing functions included
- Including 18 mm lens, f/1.0
- Options
  - Other lenses available on request

## Specifications

<b>Pearleye</b>		<b>P-030 LWIR</b>	
<b>Interface</b>	IEEE 802.3 1000baseT		
<b>Resolution</b>	640 x 480		
<b>Spectral range</b>	LWIR, 8 - 14 $\mu$ m		
<b>Sensor</b>	ULIS UL 04 17 1		
<b>Sensor type</b>	Microbolometer		
<b>Sensor size</b>	No standard size		
<b>Cell size</b>	25 $\mu$ m x 25 $\mu$ m		
<b>Lens mount</b>	M65 x 0.5		
<b>Max frame rate at full resolution</b>	24 fps		
<b>Temperature measurement</b>	-20 °C ... +80 °C		
<b>NETD</b>	< 120 mK@ 303 K @ f/1.0		
<b>A/D</b>	14 bit		
<b>Output</b>			
<b>Bit depth</b>	14 bit		
<b>Mono modes</b>	Mono8, Mono10, Mono12, Mono14		
<b>Operating conditions/Dimensions</b>			
<b>Operating temperature</b>	0°... +35 °C (ambient)		
<b>Power requirements (DC)</b>	12 V		
<b>Power consumption (12 V)</b>	18 W		
<b>Mass</b>	760 g		
<b>Body Dimensions (L x W x H in mm)</b>	133.7 x 90 x 86 mm, incl. lens and connectors		
<b>Regulations</b>	CE, RoHS (2002/95/EC)		

[Download Technical drawing \(click here\)](#)



## Smart features

- Shipped with built-in correction data sets
- Factory adjusted bad pixel correction
- Background (FPN) correction
- Gain/offset correction (NUC / non-uniformity correction) for each pixel
- Drift compensation
- Temperature linearization (LUT)
- Continuous mode (image acquisition with maximum frame rate)

In combination with AVT's AcquireControl software, extensive image analysis functions are available:

- Pseudo color LUT with several color profiles
- Auto contrast
- Auto brightness
- Temperature measurement
- Analyze multiple regions (rectangular, circle) within the image
- Real-time statistics and histogram display
- Background (FPN) correction
- ... and more

## Applications

The Pearleye P-030 LWIR is a maintenance-free, robust, compact LWIR camera with excellent image quality and precise temperature measurement. It detects subtle temperature differences with high precision.

- OEM Applications
- Surveillance
- Automation
- Quality control
- Science and research

