Allied Vision

Pearleye
P-007 LWIR

- Maintenance free sensor
- Temperature range up to +200 °C
- Detects temperature differences less than 80 mK

LWIR camera, microbolometer sensor, 320 x 240 pixels

The Pearleye P-007 LWIR camera incorporates an uncooled microbolometer sensor with 320 x 240 pixels resolution. With its maintenance-free sensor, a temperature reference element, and a Peltier temperature stabilization, the camera reliably detects temperature differences <80 mK. Built-in image correction features ensure an excellent image quality.

Benefits and features:

- Amorphous silicon uncooled microbolometer focal plane array (FPA), 320 x 240 pixels, sensor time constant 7 ms
- 35 µm x 35 µm cell size, effective chip size 11.2 x 8.4 mm
- Spectral response: 8 - 14 µm (LWIR)
- NETD ≤ 80 mK@ 303 K @ f/1.0
- Temperature measurement range: -20 °C to +80 °C @ f/1.0
- Temperature reference element and Peltier temperature stabilizing
- Frame rate 40 fps (40 Hz)
- Built-in electromechanical calibration shutter
- Preprocessing functions included
- Including 18 mm lens, f/1.0 (field of view: 34.6° x 26.3°)
- Options
  - 12 mm lens, f/0.85
  - 35 mm lens, f/1.0
  - Other lenses on request

Models:

Pearleye P-007 LWIR, temperature monitoring range -20 °C to +80 °C

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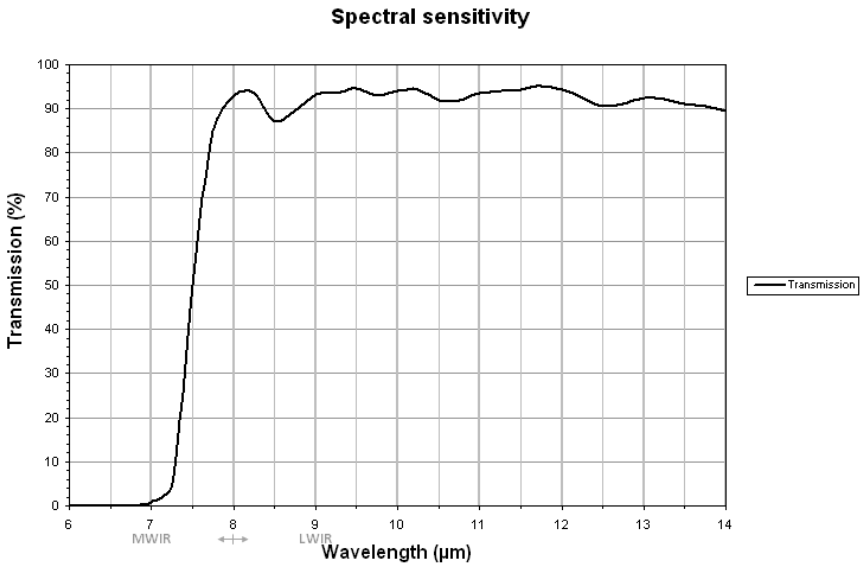
Pearleye P-007 LWIR High Temp, temperature monitoring range 0 °C to +200 °C

性能参数

Pearleye	P-007 LWIR
接口	IEEE 802.3 1000baseT
分辨率	320 (H) × 240 (V)
Spectral range	LWIR, 8 µm to 14 µm
传感器	ULIS UL 03 08 1
传感器类型	Microbolometer
传感器尺寸	No standard size
像元尺寸	35 µm × 35 µm
Lens mount (default)	M65 x 0.5
最大满帧帧率	40 fps
Temperature measurement	-20 °C to +80 °C, High temp version: 0 °C to +200 °C
Netd	≤ 80 mK@ 303 K @ f/1.0
ADC	14 Bit
输出	
Bit位数	12 Bit
黑白像素格式	Mono12
工作条件/尺寸	
工作温度	0 °C to +35 °C
电源要求 (DC)	12 V
功耗	18 W @ 12 VDC
重量	830 g
尺寸 (L × W × H in mm)	133.7 × 90 × 86 (including lens and connectors)
符合规范	CE: 2014/30/EU (EMC), 2011/65/EU (RoHS)

量子转换效率



特性

- Shipped with various 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

应用场景

The Pearleye P-007 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