Pearleye

P-030 LWIR

- Maintenance free sensor
- Detects temperature differences less than 80 mK

For the detection of temperature differences

Pearleye P-030 LWIR 搭载 ULIS UL 04 17 1 传感器，在 0.3 MP 分辨率下速度可达 24 帧/秒。

The Pearleye camera family incorporates uncooled microbolometer sensors. With their maintenance-free sensors, a temperature reference element, and Peltier temperature stabilizing, the cameras reliably detect temperature differences < 80 mK. Image correction features ensure an excellent image quality.

- Amorphous silicon uncooled microbolometer focal plane array (FPA)
- Spectral response: 8 - 14 µ m (LWIR)
- NETD ⩽ 80 mK @ 303 K @ f/1.0
- Built-in electromechanical calibration shutter
- Temperature reference element and Peltier temperature stabilization
- Preprocessing functions included

性能参数

接口	IEEE 802.3 1000BASE-T
分辨率	640 (H) × 480 (V)
Spectral range	LWIR, 8 µm to 14 µm
传感器	ULIS UL 04 17 1
传感器类型	Microbolometer
传感器尺寸	No standard size
像元尺寸	25 µm × 25 µm
标准镜头接口	M65 x 0.5
最大满帧帧率	24 fps
Temperature measurement	-20 °C to +80 °C
Netd	< 80 mK@ 303 K @ f/1.0
ADC	14 Bit

输出

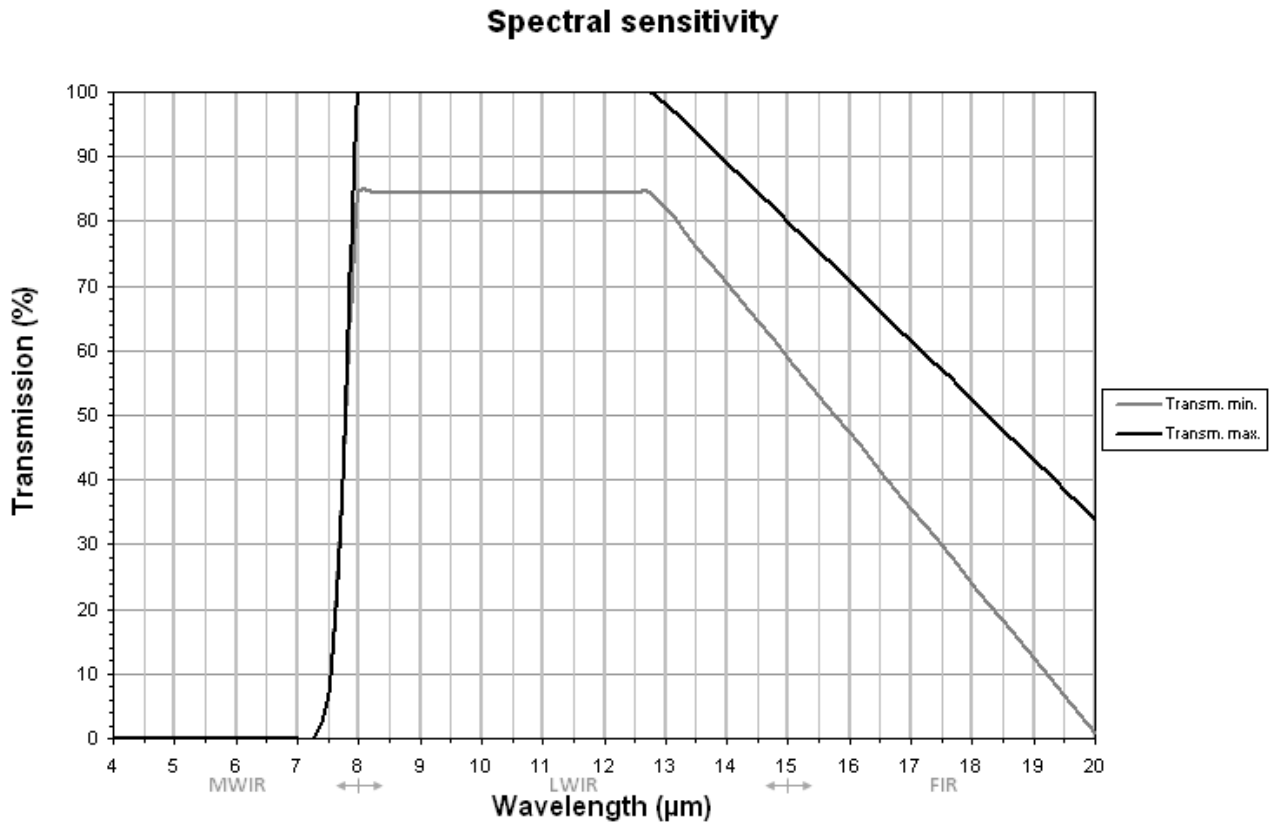
Bit 位数	14-bit
黑白像素格式	Mono14

通用输入输出口 (GPIOs)

工作条件/尺寸

工作温度	0 °C to +35 °C (ambient)
电源要求 (DC)	12 V
功耗	18 W @ 12 VDC
重量	760 g
尺寸 (L × W × H in mm)	133.7 × 90 × 86 (including lens and connectors)

量子转换效率


Spectral sensitivity
Transmission (%)
100
90
80
70
60
50
40
30
20
10
0
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
MWIR
LWIR
FIR
Wavelength (µm)
Transm. min.
Transm. max.

特性

- 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 Allied Vision'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

应用场景

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