



PIR uc 605

Entry Level Stationary Thermal Imaging for Industry and Research

640
x
480
Detector

Detector Format

Thermographic images with high resolution for temperature measurement

640
x
480
25 Hz

IR-Frame Rate

Analysis of temperature changes and dynamic processes

≤ 60
mK

Thermal Resolution

Detection of small temperature differences



Optical Assortment

Wide range of lenses for optimal adaptation of the image geometry to the measuring situation



Light weight

Extremely small and robust light metal housing



Software

Comprehensive control and processing tools for a wide variety of measurement tasks and areas of application

InfraTec's **radiometric infrared camera module PIR uc 605** is designed for universal use and enables the entry into stationary thermal imaging for research and development as well as into process optimisation.

It is based on an uncooled microbolometer FPA detector with **(640 x 480) IR pixels**. It supports easy integration into existing systems with its low weight, a very small and robust light metal housing and the SDK.

With the PIR uc 605 users can choose between different lenses. This allows the camera to be optimally adapted to the respective measurement task. The PIR uc 605's modern interface concept allows convenient camera control and data acquisition. Images can be stored and processed in real time on a PC via the Ethernet interface at **image frequencies of up to 25 Hz**.

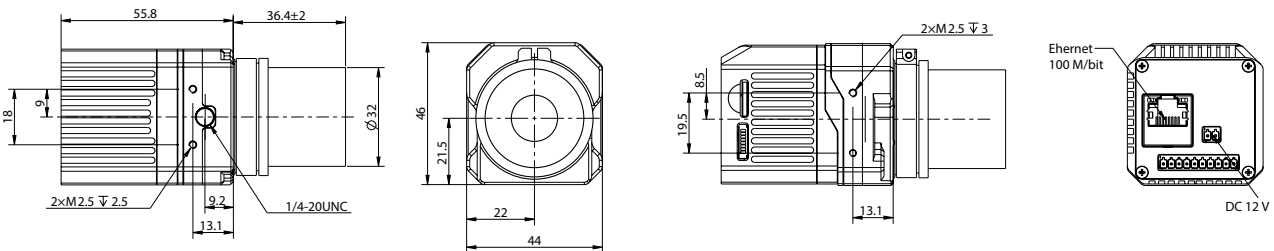
In combination with InfraTec's **control and analysis software solutions of the IRBIS® 3 family**, PIR uc 605 is a versatile tool for numerous monitoring and measurement tasks in production as well as for computer-aided laboratory applications.

PIR uc 605

Technical Specifications

| | |
|--|---|
| Spectral range | (8 ... 14) μm |
| Pitch | 17 μm |
| Detector | Uncooled microbolometer focal-plane array |
| Detector format (IR pixels) | (640 \times 480) |
| Temperature measuring range | (-20 ... 400) $^{\circ}\text{C}$, up to 1,000 $^{\circ}\text{C}^*$ |
| Measurement accuracy | $\pm 5 \text{ K}$ (0 ... 100) $^{\circ}\text{C}$, $\pm 5 \%$ (<0 respectively > 100) $^{\circ}\text{C}$ |
| Temperature resolution @ 30 $^{\circ}\text{C}$ | $\leq 0.06 \text{ K}$ |
| Frame rate | 25 Hz (640 \times 480) |
| Image storage | To hard disk (Notebook) |
| Focus | Manual |
| Lens focal length | 5 mm**, 10 mm, 20 mm, 50 mm |
| Interfaces | Ethernet RJ45, 100 BaseT |
| Trigger | Software-Trigger |
| Tripod adapter | 1/4" photo thread |
| Power supply | 12 (9 ... 15) V DC |
| Power consumption | < 3 W |
| Storage and operation temperature | (-45 ... 65) $^{\circ}\text{C}$, (-20 ... 60) $^{\circ}\text{C}$ |
| Protection degree | IP40 |
| Dimensions; weight | (55.8 \times 44 \times 46) mm; < 110 g (each without a lens) |
| Protective housing | Robust metal housing |
| Analysis and evaluation software | IRBIS [®] 3 plus*, IRBIS [®] 3 professional*, IRBIS [®] 3 online*, SDK V4* (LabVIEW*, MATLAB*) |

* Depending on model, ** Temperature resolution different



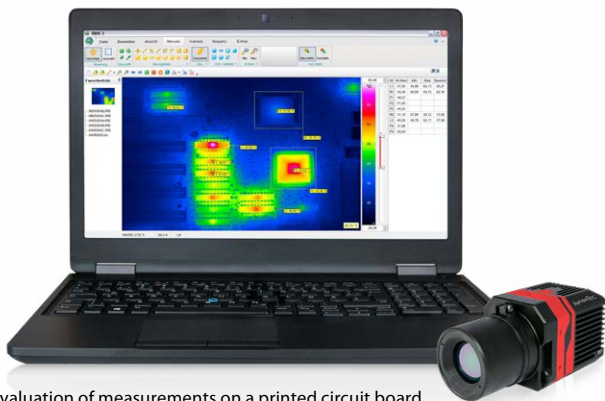
Housing dimensions of the PIR uc 605

2xM2.5 3

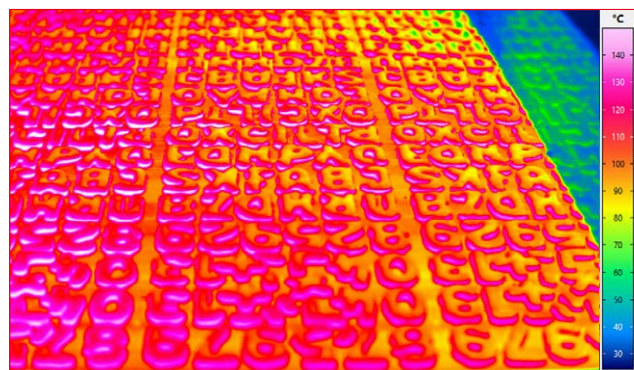
| Lenses | Focal length (mm) | FOV ($^{\circ}$) | IFOV (mrad) |
|-----------------------|-------------------|--------------------|-------------|
| Super wide-angle lens | 5 | (95 \times 78) | 3.40 |
| Wide-angle lens | 10 | (59 \times 46) | 1.77 |
| Standard lens | 20 | (32 \times 24) | 0.89 |
| Telephoto lens | 50 | (12 \times 9) | 0.34 |

Starter kit

- Camera with lens
- Tabletop tripod
- I/O connector
- 12 V power supply
- 1 m Ethernet cable
- Software IRBIS[®] online and IRBIS[®] plus



Evaluation of measurements on a printed circuit board



Production of bakery products (assembly line)

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