

# 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 × 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.

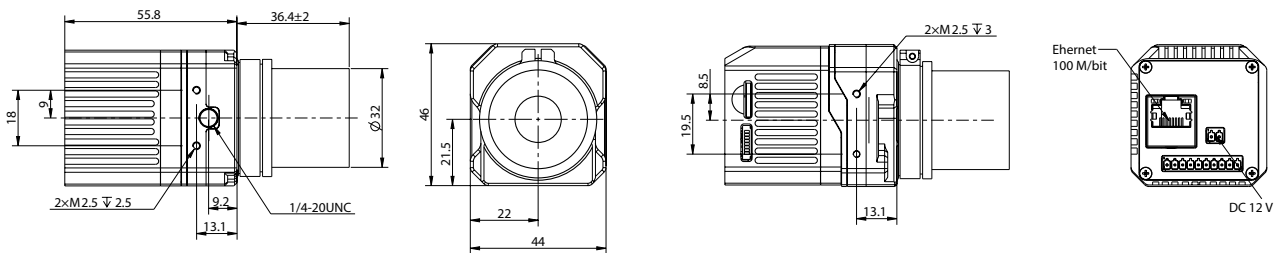
With the PIR uc 605 users can choose between different lenses. This allows the camera to be optimally adapted to the respective measurement task. The PIR uc 605's modern interface concept allows convenient camera control and data acquisition. Images can be stored and processed in real time on a PC via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

## Technical Specifications

Spectral range	(8 ... 14) $\mu\text{m}$
Pitch	17 $\mu\text{m}$
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 <sup>®</sup> 3 plus*, IRBIS <sup>®</sup> 3 professional*, IRBIS <sup>®</sup> 3 online*, SDK V4* (LabVIEW*, MATLAB*)

\* Depending on model, \*\* Temperature resolution different

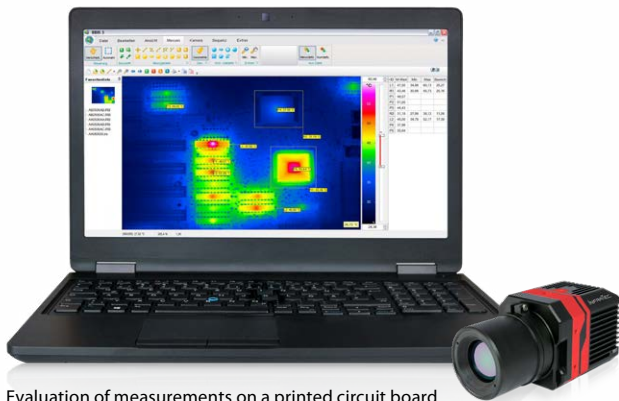


Housing dimensions of the PIR uc 605

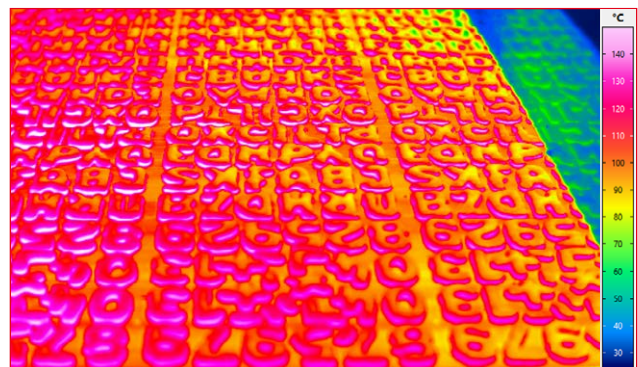
Lenses	Focal length (mm)	FOV ( $^{\circ}$ )	IFOV (mrad)
Super wide-angle lens	5	(95 $\times$ 78)	3.40
Wide-angle lens	10	(59 $\times$ 46)	1.77
Standard lens	20	(32 $\times$ 24)	0.89
Telephoto lens	50	(12 $\times$ 9)	0.34

### Starter kit

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



Evaluation of measurements on a printed circuit board



Production of bakery products (assembly line)

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