



# TarisIR<sup>®</sup> mini

When Size Matters!

640  
x  
480  
Detector

#### Detector Format

Uncooled microbolometer FPA detector;  
12  $\mu\text{m}$  pitch

640  
x  
480  
50 Hz

#### IR-Frame Rate

Analysis of extreme temperature changes  
and gradients in full frame

$\pm 2$   
%

#### Measurement Accuracy

Highly accurate and repeatable  
measurements

$\geq 20$   
mK

#### Thermal Resolution

Precise detection of smallest  
temperature differences

GigE

#### GigE Interface

For loss-free real-time data transmission  
and analysis

Case

#### Rugged Light Metal Housing

Easy and economical installation

Designed for universal use, the compact camera TarisIR<sup>®</sup> mini with the corresponding IRBIS<sup>®</sup> software from InfraTec enables entry-level access to stationary thermography at an excellent price-performance ratio. The radiometrically calibrated infrared camera is based on an uncooled microbolometer FPA detector of the latest generation with (640  $\times$  480) IR pixels and a pixel pitch of only 12  $\mu\text{m}$ . In combination with the high thermal resolution of 20 mK, the camera provides unprecedented image quality in this camera segment with exceptionally sharp detail.

The TarisIR<sup>®</sup> mini is designed for uncompromising continuous operation. It provides reliable thermographic real-time image data that can be operated in any position with a full-frame rate of up to 50 Hz. The camera measures in the long-wave atmospheric window of (8 ... 14)  $\mu\text{m}$ , making it well suited for monitoring applications in outdoor areas. Algorithms specially developed for this detector technology in combination with a very comprehensive and sophisticated calibration process ensure precise results with a measurement accuracy of 2 %, even under difficult measurement conditions.

## Technical Specifications

Spectral range	(8 ... 14) $\mu\text{m}$
Pitch	12 $\mu\text{m}$
Detector	Uncooled microbolometer FPA detector
Detector format (IR pixels)	(640 $\times$ 480)
Temperature measuring range	(-40 ... 600) $^{\circ}\text{C}$
Measuring accuracy	$\pm 2 \text{ K}$ or $\pm 2 \text{ \%}^{**}$
Temperature resolution @ 30 $^{\circ}\text{C}$	0.02 K
Frame rate	50 Hz or $< 9 \text{ Hz}$
Focus	Manual
Lens focal length	6.2 mm / 13.6 mm / 25 mm; further focal lengths on request
Field of view (FOV)	(75 $\times$ 55) $^{\circ}$ / (32 $\times$ 24) $^{\circ}$ / (17,6 $\times$ 13,2) $^{\circ}$
IFOV (mrad)	1.9 / 0.88 / 0.47
Focusing range	Approx. (0.25 m ... $\infty$ )
Dynamic range	16 bit
Interfaces	GigE-Vision (RJ45), RS232
Trigger	2x IN/OUT
Tripod adapter	1/4" photo thread
Power supply	(9 ... 36) VDC or PoE
Power consumption	Approx. 2.2 W @12 V, 2.7 W @PoE
Storage and operation temperature	(-40 ... 70) $^{\circ}\text{C}$ , (-25 ... 50) $^{\circ}\text{C}$
Humidity (operation and storage)	Relative humidity (10 ... 95) %, not condensing
Housing, Protection degree	Light metal housing, IP40
Dimensions; weight (without lens)	(50 $\times$ 30 $\times$ 30) mm; 66 g (OEM module) / (50 $\times$ 55 $\times$ 55) mm; 220 g
Further functions	In-camera emissivity correction, color chart, 3 ROI, 8 Isotherms, 4 user configurations (plus a factory setting)
Analysis and evaluation software	IRBIS <sup>®</sup> 3, IRBIS <sup>®</sup> 3 view, IRBIS <sup>®</sup> 3 plus*, IRBIS <sup>®</sup> 3 professional*, IRBIS <sup>®</sup> 3 control*, IRBIS <sup>®</sup> 3 online*, IRBIS <sup>®</sup> 3 process*, IRBIS <sup>®</sup> 3 active*, IRBIS <sup>®</sup> 3 mosaic*, IRBIS <sup>®</sup> 3 vision* SDK V4* (LabVIEW*, MATLAB*)

\* Depending on model  
\*\* In selected measurement ranges

The extremely small and robust light metal housing and the lightweight design of the camera module enable simple integration. In system environments with installation situations with limited space, high dynamic loads and adverse environmental conditions, small size and lightweight design are key – and the TarisIR<sup>®</sup> mini offers both! Depending on the application, the module can be combined with different lenses and thus optimally configured to suit the measuring task.



## TarisIR<sup>®</sup> mini for Integration Applications

The compact camera is characterised by very low power consumption and can be conveniently supplied with power via Ethernet (PoE). Thanks to the individual configurability of the TarisIR<sup>®</sup> mini, it is also predestined for use in OEM solutions as a radiometric IR camera module. It can be easily integrated into machines, systems and devices for monitoring and measuring tasks in process optimisation and quality assurance. The included Software Development Kit (SDK) makes this significantly easier.

The modern interface concept of the TarisIR<sup>®</sup> mini enables convenient camera control and data acquisition. Recordings can be saved and/or processed on a PC in real time at frame rates of up to 50 Hz via the GigE interface.

## Increased Service for Our Customers

In combination with the control and analysis programs of the IRBIS<sup>®</sup> software family from InfraTec, the TarisIR<sup>®</sup> mini is a versatile tool for numerous measuring tasks, including in:

- Industry and automation (e. g. process control, quality assurance)
- Security (e. g. monitoring, building protection, border security, airborne thermography)

In addition to the hardware and software, InfraTec also offers a range of training courses and customer-oriented service and support to help camera users achieve the best possible results.

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