



Thermal Imager (Infrared-Camera)

Measured values

- Radiance temperature
- Infrared images
- Surface temperature

Description of facility

IR-Cameras:

1) Type FLIR E45

Detector: Microbolometer array (w/o cooling)

Spectral range: 7.5 - 13 μm

160 x 120 Pixel

Field of View: 19° x 14°

Temperature range: -20°C - 250°C

Sensitivity: 0.1 K @ 30°C

Accuracy: +-2°C or +- 2% of displayed temperature

Saves images in JPG format

2) Type FLIR ThermaCAM "Merlin"

Detector: InSb (with Sterling cooling unit)

Spectral range: 3 - 5 μm

320 x 256 Pixel

Field of View: 11° x 8° bzw. 22° x 16°

Temperature range: 0°C - 2000°C

Sensitivity: 0.02 K @ 300 K

Accuracy: +-2°C or +- 2% of displayed temperature

Frame rate: 50 Hz

Image acquisition and evaluation with Laptop.

Application

Non-contact measurement of (radiance) temperature.

Visualization of radiance distributions.

Contact

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This handout, and cross-references to related measurement techniques and facilities are available at: <http://messtec.dlr.de/link-82-en>.