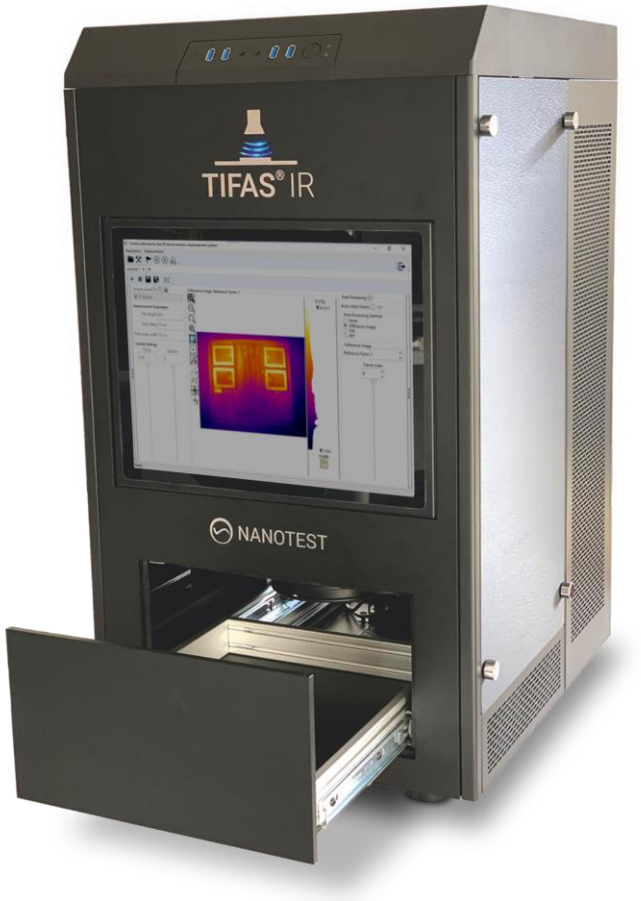
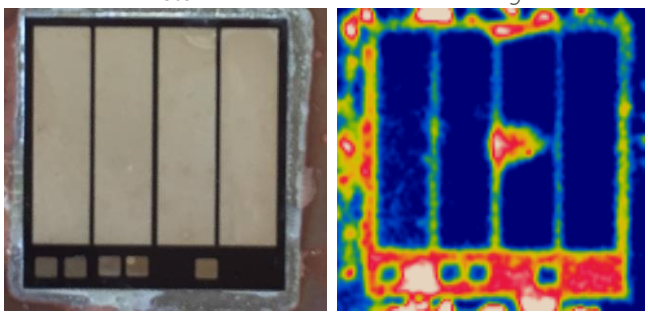


Description

TIFAS® IR is a compact desktop system for infrared thermography-based failure analysis. It brings everything necessary to apply a wide range of various failure analysis techniques to inspect the full spectrum of electronic components, systems, composites, laminates, soldered or sintered parts.

Photo *IR image*



Power transistor soldered on active metal brazed (AMB) substrate

Key features

- Compact and all-in-one benchtop system
- Integrated analysis software
- Contactless and without coupling medium
- Automated temporary foil lamination available for low emissivity sample surface (VacBlack®)
- 1 kJ flash lamp for thermal excitation
- Cooling concept for optimal flash lamp lifetime

Measurement specification

Measurement duration	1 s … 10 s
Type of defect	Void, delamination, crack, foreign object, etc.
Application	Microelectronic and power electronic packages
Area of interest	Composite, die attach, coating, welded joint
Sensing depth	Ratio size/depth of defect ≥ 1
Detectable failure size	> 100 µm

Sample measurement with and without VacBlack® (temporary foil lamination)

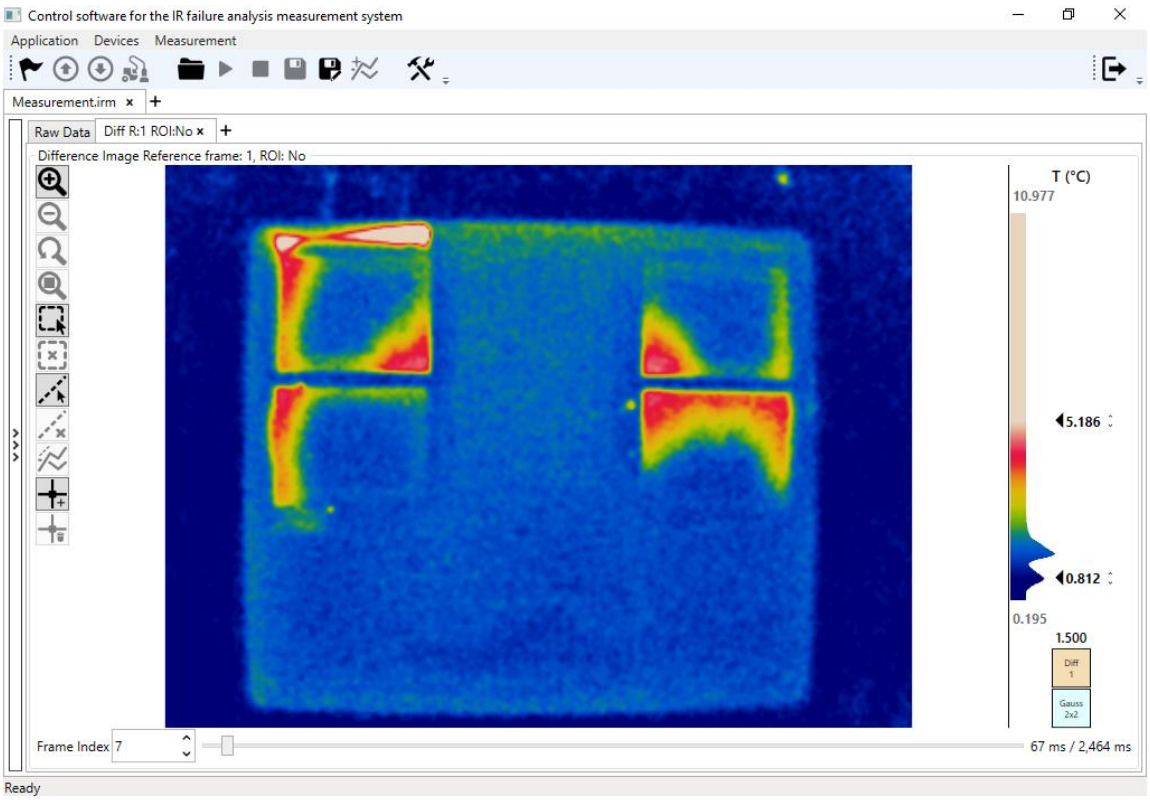
Software description and features

- Control of all hardware components
- Automated measurements and analysis procedures
- User-friendly GUI
- Touch display for easy usage
- Preset: A set of user-defined settings for fast measurement and analysis for defined sample type
- Optimized multi-core processing software architecture

Post-processing methods

- Difference images (DI)
- Thermographic signal reconstruction (TSR)
- Pulse phase thermography (PPT)
- Principal component Thermography (PCT)*
- Hybrid mode (PCT on TSR)*

* coming soon



Control software for the IR failure analysis measurement system

Hardware description

Dimensions (*L x W x H*)	423 x 483 x 752 mm^3
Weight	50 kg
Power consumption	2500 W
Power supply	230 V or 110 V (50 Hz / 60 Hz accordingly)
Compressed air for VacBlack®	5-10 bar / 75-145 psi
IR-camera	382 x 288 px, max. 80 Hz frame rate long-wavelength (8-14 µm)
Field of view	Min.: 30 mm x 40 mm
	Max.: 95 mm x 123 mm
Allowed sample size	Without VacBlack® 250 mm x 250 mm
	With VacBlack® 170 mm x 170 mm