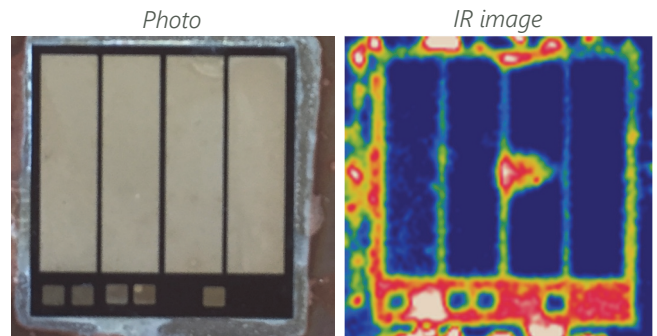


Description

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.



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

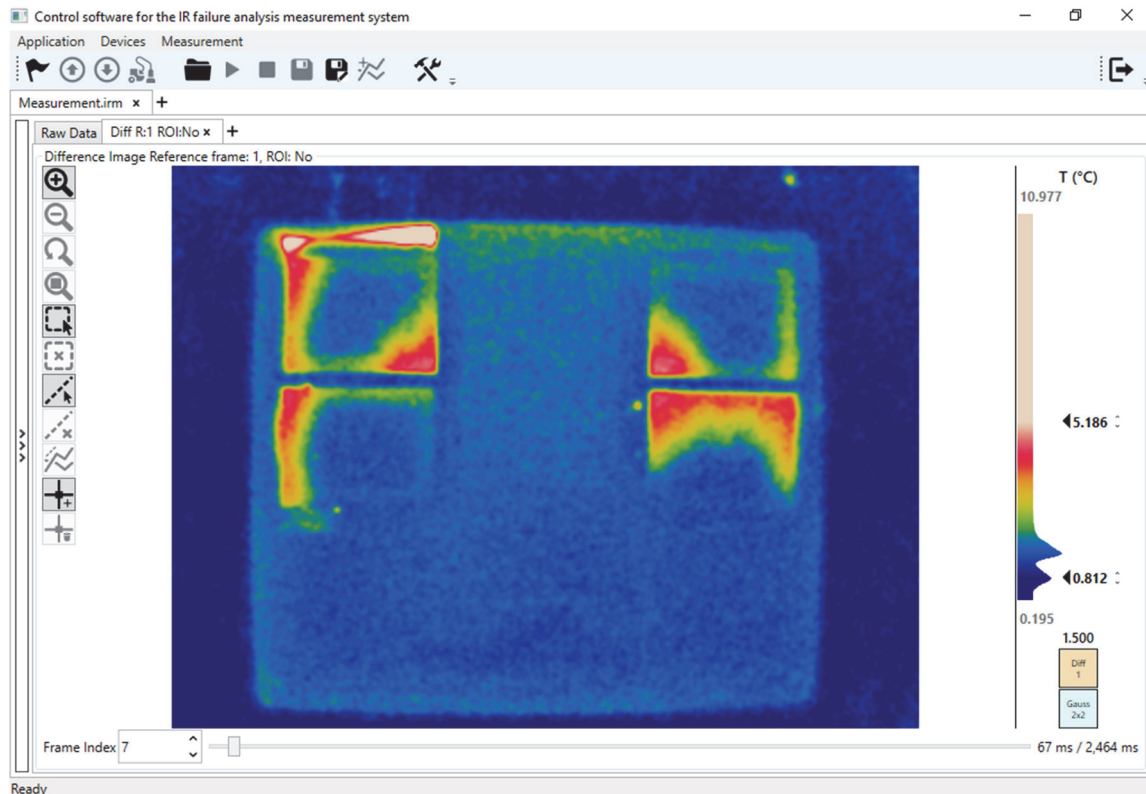
Measurement duration	1 s ... 10 s
Type of defect	Void, delamination, crack, foreign object, etc.
Application	Microelectronic and power electronic packages
Area of interest	Composite, die attach, coating, welded joint
Sensing depth	Ratio size/depth of defect ≥ 1
Detectable failure size	> 100 μm
Sample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