



irNDT

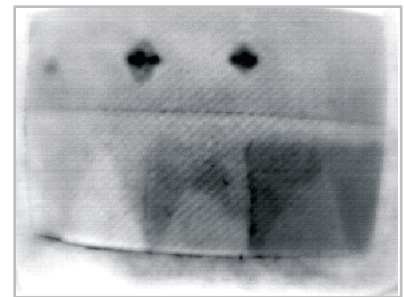
C-CheckIR

Mobile *ir*NDT Inspection Solution

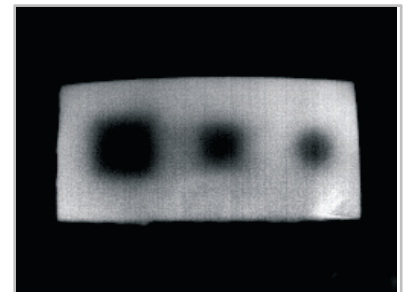
C-CheckIR is a mobile infrared non-destructive testing (*ir*NDT) inspection system that uses active thermography for the reliable detection of delaminations, water inclusions, debondings, and other defects in composite materials. The system achieves precise and reliable measurements and is ideal for inspecting composite materials like glass- or carbon-fiber reinforced plastics (GRP/CFRP). C-CheckIR is easy to operate and requires minimal training. The entire inspection head is mounted on a lightweight support frame equipped with vacuum suction feet. This design permits positioning of the system over a wide variety of surfaces. The system is controlled from a handy tablet-PC through an intuitive user interface. For the most common materials, C-CheckIR features pre-set inspection parameters, so that the operator can start measuring right away.

Features

- Non-contact *ir*NDT
- Optimized for portability
- Integrated smart infrared camera
- Touchscreen tablet PC with intuitive user interface
- Integrated electronics for accurate excitation
- Vacuum pedestal for vertical mounting



Impact Damage



Dissolved Bondings

Key Benefits

NON-CONTACT DEFECT DETECTION

Active *ir*NDT thermography “sees” common composite defects.

- ✓ Structural Cracks
- ✓ Delaminations & Disbonds
- ✓ Impact Damage
- ✓ Moisture Ingress
- ✓ Voids & Porosity

MOBILE IN-FIELD *ir*NDT INSPECTION

Ideal Solution for in-field Inspection of Composites and other Materials.

- ✓ Lightweight, self-contained inspection solution
- ✓ Suction feet support for vertical inspections
- ✓ System control with tablet pc

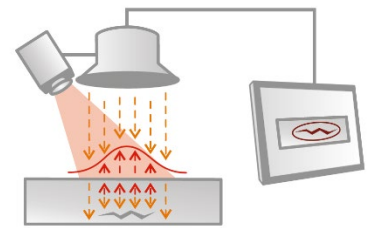
THERMOGRAPHY *ir*NDT MADE EASY

Complex analysis technology simplified for automated inspection.

- ✓ Simple System Configuration & Maintenance
- ✓ Automated Loading of Inspection Parameters
- ✓ No Surface Preparation Required

How does it work?

C-CheckIR works by means of active thermography. The Sensor-Head stimulates the test area with an optical excitation source (halogen lamp). Then, the system’s software analyzes, from a sequence of thermal images, the heat-flow over time, generating a result image that shows the internal structure of the material.



Specifications

TESTING UNIT

General	
Inspection Area	430 x 340 mm / 17 x 13 in
Operating Distance	400 mm / 16 in
Power Requirements	230 V AC, 2.3kW / 115 V AC, 1.9kW
Power Cable	7 m / 23 ft length
Weight (device)	6 kg / 13.2 lbs
Weight (device & case)	20.5 kg / 45 lbs
Infrared Camera	
Available Resolutions	320 x 256 or 640 x 512
Image Rate	30 Hz / 60 Hz
Thermal Sensitivity	< 30 mK @ 30°C
Excitation Source	
2.2 kW @ 230 V / 1.8 kW @ 115 V (Extendable with Second Source)	
Fixture Tool	
Operating Pressure	5-7 bar / 72.5-116 psi

CONTROL UNIT

Tablet PC	
Display	13” Multi-Touch Screen
Operating System	Windows 10
Data Storage	128 GB
Software <i>ir</i> NDT-Mobile	
Analysis Software for Pulse/Transient Measurement, optional Lock-In Evaluation	
Synchronization of Infrared Camera and Excitation Source	
Graphical User-Interface with Touchscreen for Intuitive Handling	
OPTIONS	
Available Test Kit Versions	
C-CheckIR Professional	
C-CheckIR Airbus-Kit for NTM 55-40-50	
Additional Equipment	
Universal Tripod Mount	
Second Excitation Source	
Software Analysis Modules for Non-Destructive Evaluation	

*Specifications subject to change without notice. 11/2021