BONDHUB IMAGING BOND TESTER

NDT Systems
Worldwide Excellence in Ultrasonics

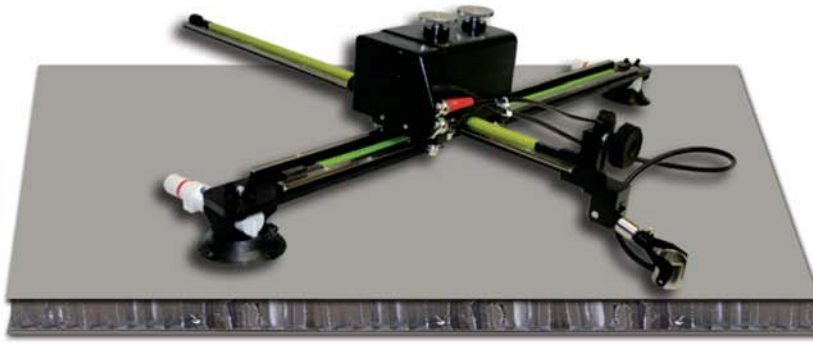
Multimode Imaging Bond Tester

Made In USA

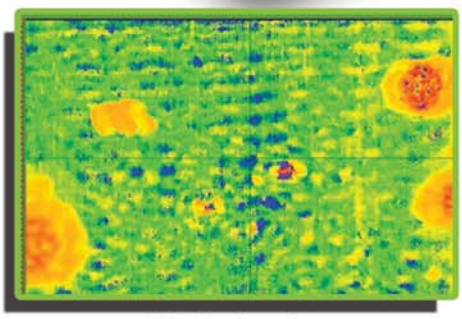
NDT Systems Inc is proud to announce the launch of the world's first multimode imaging bond tester with fully automatic C-scan imaging capability. The BondHub Imaging Bond Tester utilizes the full capability of the well-established Bondascope 3100 and connects to any of our manual or automatic scanners to generate high-resolution C-scan images in Pitch-catch, MIA and Resonance modes. Inspection of composites and adhesively bonded materials has not seen such an advancement for many years. The power of full-field inspection images using bond testing elevates non-destructive inspection capability to a new level. Imaging Bond Testing offers many advantages including:

- Easy interpretation
- Increased probability of detection
- Digital Archiving of results
- Pitch-catch and MIA modes require no couplant
- More consistent and reliable results
- Reduced effect of human error on results
- Increased speed of inspection

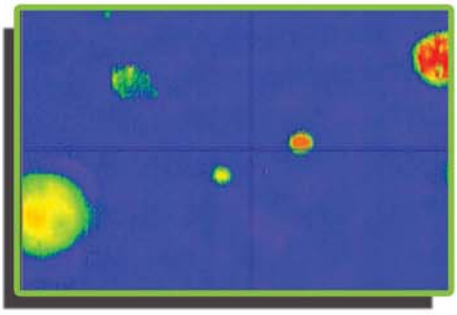
NEW PRODUCT LAUNCH



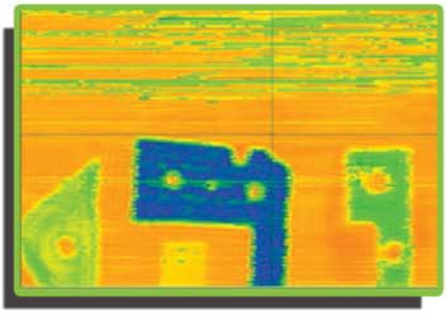
Full-field C-scan results on composites & bonded structures, 12"x18" scan area



Pitch-Catch



MIA



Resonance

"A picture is worth a thousand words….
…and ten thousand point measurements"

ADVANCED NDT LTD
www.advanced-ndt.co.uk

NOVA INSTRUMENTS

BONDHUB IMAGING BOND TESTER

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Applications

- Integrity of composites and adhesively bonded structures
- Multi-layered laminates, glass fiber/ carbon fiber composites, honeycomb and foam cores, metal to metal bonding, adhesively bonded fittings
- Delaminations, disbonds, crushed core, skin to core flaws, far-side defects, impact damage, liquid ingress and more

Features

- C-scan Imaging using Resonance, Pitch-Catch and Mechanical Impedance (MIA) modes
- No couplant required for Pitch-Catch and MIA modes
- Image analysis, defect sizing, multiple gates, reporting
- Portable, battery operated system, large sunreadable screen
- Connects directly to a Bondascope 3100 and scanners
- Compatible with other manufacturer's bond testers

TECHNICAL SPECIFICATIONS	
BondHub Package includes*	BondHub integrated in Pelican style case, batteries, AC charger (110-240V), user manual. Windows 7, 1GHz processor, 128GB solid state HDD, CompVue software, keyboard, mouse, 12" sunreadable display
Physical Dimensions	7.5"H x 18"W x 14"D (191x457x356mm)
Physical Weight	25lb (11kg)
Power Source	Two Li-ion Batteries (4-5hrs) or AC mains
Operating Modes	Pitch-Catch, Mechanical Impedance (MIA), Resonance.
Alarms/ Gates	Box, ring, sectorial individually sizable gates. LED and audible alarms
Display Modes	C-scan- Phase, Magnitude or Additive view Impedance plane (flying dot)- direct representation of bond tester Strip chart- rectangular real-time streaming of outputs
Display Analysis	Retrace position of all dots acquired Flaw sizing- length, area Changeable gates in post-processing, Save scan plans, user setups etc. Auto and user defined scaling, mm/inch units, move scanner to position
Image & Data Output	BMP, JPG, PNG, XLS
Compatible Scanners	Manual Scanners: StringScan, SlideScan. Automatic Scanners: CrosScan, TunnelScan
Operating Temperature	15 °F to 158 °F (-10 °C to 70 °C)

The specifications in this document are subject to change without notice.

Introduction

As the use of composites and adhesively bonded joints has increased across many industries, the need for testing bond integrity has grown to improve the quality of the final product. Conventional ultrasonic methods can be limited for these applications and so a variety of alternative methods have been developed to handle this range of material combinations. Bond testing was once limited to manual point measurements, which offer no archiving, were open to user error, and often defects could be missed because of the small variation in signal that the defect represents.

Imaging Device and Motion Controller

The new BondHub imaging system interfaces with the outputs from a standard BondaScope 3100. It acts as the motion controller for the x-y scanners and has dedicated imaging software preloaded for generation and analysis of C-scan images.

Featuring a large sunreadable screen, high-speed CPU and large solid state storage, the Bondhub is built into a robust Pelican style case for easy set-up and transportation, and even acts as storage for the Bondascope 3100, probes and cables.

Full Battery Operation

Meeting the demands of the job, the entire system, including scanners, is battery operated, making inspections possible in almost any location. A quick release keyboard and mouse are standard for practical operation.

Advanced Image Analysis

The CompVue software displays the live signal from the Bondascope in the well-known Phase and Amplitude Impedance plane. Once a scan is defined, the system automatically generates the C-scan image in real-time. Various alarms and gates can be used, including new color gating for depth analysis in resonance mode. Phase, Amplitude, and a special Additive display can be displayed as variables. A host of analysis tools including defect sizing, jog to position, post-processing of gates, and reporting can be used before simple export via USB.

The Imaging Bond Tester takes composite inspection into the 21st century with the BondHub delivering the most significant advancement in years.

***Requires Bondascope 3100, probes, probe cables and scanner**

ADVANCED NDT LTD
www.advanced-ndt.co.uk

Advanced NDT Limited
Orchard House, Orchard Close
Severn Stoke, Worcester, WR8 9JJ, England
Tel: 01905 371460 **Fax:** 01905 371477
Web: www.advanced-ndt.co.uk
Email: sales@advanced-ndt.co.uk

Buckingham Drive, Huntington Beach, CA 92649 Phone 714-893-2438
Website: www.ndtsystems.com Email: info@ndtsystems.com

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