

eZ-NDT

Resonant Inspection Software

Features

- Provides inspection of metal, ceramic, and hard plastic parts
- Removes the ambiguity that is common in other inspection systems
- Requires no parts preparation, making the test fast and inexpensive
- Tests parts in less than 1 seconds
- Quantifies and documents the first natural frequency for end-user comparison to final assembly resonant frequencies
- Compatible with ZonicBook/618E, 640 and 650 models
- Supported Operating Systems: Windows 2000®, Windows Vista® x86 (32-bit), and Windows XP®

IOtech's eZ-NDT (non-destructive test) systems provide a fast and inexpensive method of 100% inspection of production parts, such as powder metal, ceramics, and composites. eZ-NDT uses acoustic analysis to identify part variations that are caused by process inconsistencies and defects. eZ-NDT systems apply acoustic energy to your part, monitor its acoustic response, and analyze its resonant frequencies. It then compares the results to the acoustic signature of a known-good part stored in its library. The test takes less than two seconds and requires no special tooling, dyes, chemicals, cleaning, magnetization, or expensive time-consuming visual inspection equipment.

eZ-NDT can detect deviations in dimensions, material properties, and defects including cracks, residual stress, inclusions, and variations in hardness, tempering, porosity, mass, holes, bonding and/or welding failures. Resonant inspection performs a whole body measurement, not just a spot check for visual indications. It also quantifies the first natural frequency, which many end users require for comparison to final assembly resonant frequencies. By keeping component first natural frequencies different from final assembly resonant frequencies, the end user avoids the potential for noise, vibration, or product damage. Because it's fast, you can test all of your parts, not just a sampling.

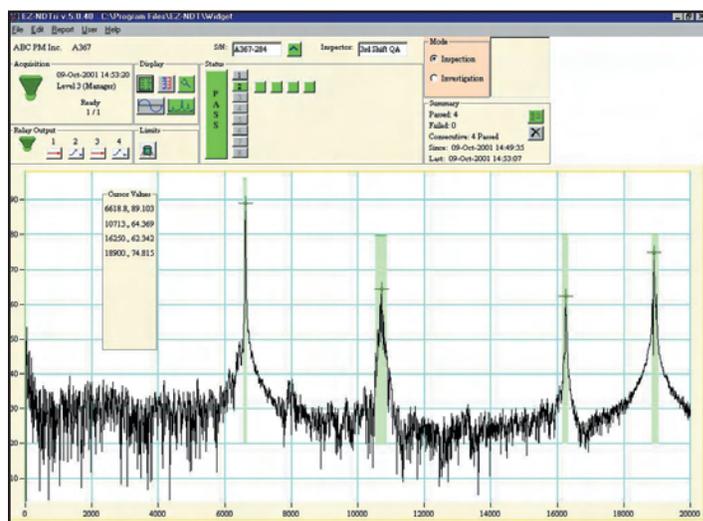
Before purchasing an eZ-NDT system from IOtech, we recommend that you engage in our Feasibility Study, where we verify that your parts respond appropriately to our inspection process.

Software

The eZ-NDT software is extremely easy to use, with step-by-step instructions and an intuitive graphical user interface. Three password-controlled security levels are provided: Manager (full access), Technician (limited access), and Inspector (test only). Only the manager can access the setup screens that set the pass/fail criteria and the known-good resonant signature. Operators are provided with simple, straight forward screens showing the performance of each part against the predetermined resonant signature and the pass/fail results.



Production quality can be measured and recorded using eZ-NDT



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The eZ-NDT software stores several test parameters during normal testing. Users with Manager and Technician privilege levels can access part-specific information and summary reports, including statistical analysis.

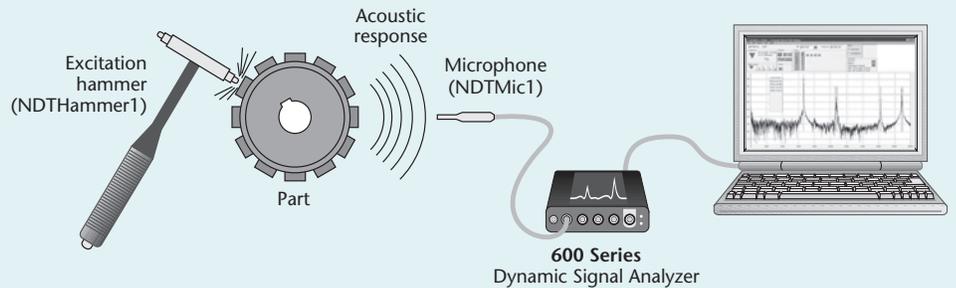
Feasibility Study Service

IOtech offers a service that determines the feasibility of resonant inspection for your parts, minimizing the risk of problems during deployment of the final test system. As part of the Feasibility Study, IOtech tests a sample lot of both good and bad parts. The Feasibility Study isolates the resonant disparities between the two lots and states whether the part-under-test is a good candidate for resonant inspection. When the system is purchased, IOtech will include the pass/fail criterion developed during the Feasibility Study, and credit the cost of the Feasibility Study to the purchase of a system.

eZ-NDT

General Information & Ordering Information

eZ-NDT hardware consists of an excitation hammer to “ping” the part, a microphone to measure the acoustic energy emanating from the part, a 600 Series dynamic signal analyzer, and a PC running the eZ-NDT software. Two systems are available; the lower-cost Manual System for spot-check and low-volume inspection, and the Automated System for 100% inspection of high-volume production, including a conveyer system.



NDTHammer1



NDTHammer2

Ordering Information

Description

eZ-NDT resonant inspection software for manual and automated systems

eZ-NDT resonant inspection system for manual and automated systems with the ZonicBook

Feasibility study performed by IOtech to characterize one part type

Manual hand-held hammer

Automated electric hammer

Impact hammer tip assembly, steel

High accuracy, directional microphone

Two day on-site training and system integration

Automation module with 8 relay outputs

6 ft. BNC to BNC signal connection cable; 2 are needed

to connect hammer and microphone to ZonicBook

Part No.

eZ-NDT

Zonic/618EZNDT

NDTFeas

NDTHammer1

NDTHammer2

NDTHamtip2

NDTMic1

NDTTrain*

NDTRelay2

CA-148

BUY NOW!

For complete product specifications, pricing, and accessory information, call 1-888-714-3272 (U.S. only) or visit iotech.com.

* Contact factory for availability