# Scanning Acoustic Microscopy



Scan Tools View - Showing C-Scan and A-Scan



Enhanced TAMI Imaging Display





*WinIC*™

WinIC is the innovative new software developed for Sonix' digital Scanning Acoustic Microscopes. WinIC provides advanced image analysis features to aid in quantitative and qualitative interpretation of image data. With the introduction of WinIC, companies will experience the power of customization with amazing ease of use.

Patented phase inversion algorithm for delamination detection

Acquire peak amplitude, delamination/phase inversion, time of flight and package void images in a single scan

Real-time A-, B-, and C-Scans

Simultaneously perform pulse echo and thrutransmission scans (optional)

Perform TAMI<sup>™</sup> imaging and view enhanced TAMI displays (optional)

Automatically size and center on a part Perform full package scan with independent gates Simultaneous collection of C-Scans and B-Scans

WinIC takes advantage of the robust features of Windows' platforms and operating systems (Windows 95/98/NT).

Full networkability

Manipulate large amounts of image data and allow updates via the web or local servers Examine and transfer data over networks while operating software

Easily integrate data with standard Windows packages and print to network printers Edit parameter files using text editors Remote operation

WinIC uses extensive graphics and on-screen guides to help all users, novice to expert, inspect devices without worrying about the intricacies and details of the tool.

Friendly graphical user interface

Toolboxes used for easy scan setup

Extensive on-line help

Application file libraries with customized

instructions for easy setup

Exclusive user page with configurable interface



8700 Morrissette Dr. • Springfield, VA 22152 tel: 703-440-0222 • fax: 703-440-9512 www.sonix.com • e-mail: info@sonix.com

## **Technical Specifications**

#### Scan Modes:

Single gate and multiple gate C-Scans Automatic region of interest ( ROI ) selection for measurements like "delamination on die-pad only" Post-scan transducer placement for correlation of C-Scan image data with live A-Scan display Peak amplitude, delamination/phase inversion, time of flight, and package void images acquired simultaneously TAMIM Imaging

### TAMI<sup>™</sup> Imaging

Simultaneous pulse echo and thru-transmission scans (optional)

Skip & scan software (optional)

Automatic focus adjustment for each chip in jump scan mode for scanning JEDEC trays in both pulse echo and thru-transmission scans (optional) Select sub-section of image to re-scan using the B-Scan or C-Scan

Move and resize gates using the mouse

#### Data Acquisition:

1 GHz flash A/D

Electronically up-sampled to 8 Ghz sampling rate Multiple gates

#### Oscilloscope:

Real-time digital oscilloscope with gates and measurement capabilities

A-Scans can be created and saved for all locations on the device being tested

Multiple A-Scans can be overlaid for clear visual interpretation of differences in reflected signal at different locations on the device

FFT display in real-time on any rf waveform (signal) selected by the user

#### **Image Processing:**

Low pass filters High pass filters Edge crispening Contrast stretching Normalization Image addition/subtraction/merge

8700 Morrissette Dr. • Springfield, VA 22152 tel: 703-440-0222 • fax: 703-440-9512 www.sonix.com • e-mail: info@sonix.com

#### Image Interpretation:

Histogram analysis
Interactive control of image color and contrast
Image data quantification tools
Auto edge alignment for analysis template
On-screen measurement
3-D display algorithms
Continuous zoom and pan of images
Image presentations using multiple image palettes

WinIC<sup>™</sup>

#### Data:

Images saved in TIFF, PCX or IC formats Image annotation

## WinIC Pro:

Designed for production oriented inspection. WinIC Pro has all the features of WinIC plus:

Automatic tray scanning

Automatic package quality grading

Skip and Scan<sup>TM</sup> for board mounted scanning

Customized operator access levels

Special modes for production/automation



Automatic Tray Scanning

