



For Immediate Release

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SONIX INTRODUCES ITS MOLDED FLIP CHIP IMAGING (MFCI) ENHANCEMENT

Sonix™ MFCI™ for Molded Flip Chips and Packages with Polyimide (PI) Layers

Springfield, VA - Sonix™¹, Inc., a leading designer and manufacturer of Scanning Acoustic Microscopes, introduces its Molded Flip Chip Imaging (MFCI) enhancement. Sonix MFCI™ improves image quality and defect detection in molded flip chips and packages with polyimide (PI) layers.

To improve the thermal properties (conductivity and expansion) of semiconductor packages, filler particles are added to compounds used for overmolding and underfill. When using ultrasonic inspection to identify defects (eg. cracks, voids, delaminations) in molded flip chips, these filler particles increase scattering of the ultrasonic signal, causing shadows in the images, and in some cases completely obscure solder bumps and Cu pillars, resulting in reduced image quality and inaccurate defect detection. Also, the polyimide materials (PI) used to improve the thermal properties of thinner dielectric layers attenuate the ultrasonic signal, further degrading image quality and defect detection. Lower frequency (<100 MHz) transducers can be used to penetrate the mold compound, however, these are not ideal for inspecting solder bump and underfill defects, or for increasingly thinner die.

Sonix MFCI has been designed to reduce the impact of the scattering and attenuation effects of filler particles in mold compounds and PI layers. Configured through Sonix WinIC™, Sonix MFCI improves the spatial resolution, contrast and edge definition when inspecting samples containing materials that scatter or attenuate ultrasonic signals.

Sonix MFCI is available as an option on all Echo™, Echo Pro™ and AutoWafer™ tools, and as a field upgrade on all Sonix Fusion™ and Vision™ tools.

Sonix, Inc. is a designer, developer, and manufacturer of scanning acoustic microscopes (SAM), for use in FA/QA laboratories, R&D and as part of the production process. All Sonix systems have the CE Mark and are Semi S2/S8 compliant.

For more information on the Sonix MFCI, or Sonix's complete product line, contact Sonix, Inc., 8700 Morrisette Drive, Springfield, VA 22152; call 703-440-0222, fax: 703-440-9512 or e-mail: info@sonix.com.

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