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**FOR IMMEDIATE RELEASE**

### **Variable Frequency Microwave Technology Adopted for Worldwide Manufacturing Processes**

**Morrisville, NC – June 22, 2004** – Lambda Technologies, Inc. announced that its patented Variable Frequency Microwave (VFM) technology has been approved and adopted by major electronic manufacturers for curing of adhesives within their product assemblies. Over the past three years, Lambda’s MicroCure<sup>®</sup> 5100 VFM system has been installed and is now operating 24/7 in multiple manufacturing plants around the world. Lambda uses the patented Variable Frequency Microwave technology to cure their customer’s standard thermal adhesives much faster than conventional techniques without compromising material properties.

The Variable Frequency Microwave technology process enables the rapid cure of standard adhesives and encapsulants at process rates typically 10 times faster than convection process, which increases product throughput. In addition, VFM produces selective heating, primarily focused on the adhesive bond joint and hence often reduces stress build up due to CTE mismatch and enables use of lower cost materials and substrates. No damage or interaction with metals or circuits occurs with Lambda’s Variable Frequency Microwave technique for applying microwaves over a broad frequency range, making the technology ideal for many electronic and semiconductor packaging requirements.

“Lambda began building for a variety of applications and installing beta site systems in development laboratories and have successfully begun delivery of the MicroCure<sup>®</sup> systems for production installations worldwide,” according to Dr. Zak Fathi, Chief Technical Officer of Lambda Technologies. “The current VFM process application provides customers a significant reduction in adhesive cure time and the selective heating feature facilitates use of optimum adjacent materials.” Dr Fathi adds that VFM also affords significant reduction in manufacturing floor space and energy use.

Lambda's Variable Frequency Microwave heating combines maximum energy coupling with a time-averaged uniform energy distribution throughout the entire sample volume. This is accomplished using preselected bandwidth sweeping around a central frequency employing frequency agile sources such as traveling wave tubes as the microwave power amplifier. The use of this technology overcomes the non-uniform energy distribution, hot spots, and thermal runaway of fixed frequency microwave heating of advanced materials in multi-mode cavities. Selective heating of complex samples and industrial scale-up are now viable.

### **About Lambda Technologies, Inc**

Founded in 1994, Lambda Technologies, Inc. is an equipment and process development company dedicated to the commercialization of a microwave technique for the processing of advanced materials. The Variable Frequency Microwave technology and Lambda's MicroCure® products were introduced to the electronics and semiconductor markets, when the MicroCure® 5100 won the SMT Vision Award for best new product.

Lambda's Variable Frequency Microwave technology offers the advantages of faster curing of adhesives and selective heating for die attach, flip chip under fill, cure of glob top and potting materials, polymer coatings and for selective curing required in many structural bonds. More recently, VFM technology has also been used for curing adhesives in the fiber optics and optoelectronics industry. For more information, visit [www.microcure.com](http://www.microcure.com) or contact (919) 462-1919.

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