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## **iRoC TECHNOLOGIES AND ALPHA SCIENCES TO PARTNER ON ALPHA PARTICLE MEASUREMENT SERVICE**

*The partnership will provide the industry with a complete offering on SER testing.*

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For Immediate Release – As of October 1st, 2007, Alpha Sciences Inc. of Milpitas, CA, (ASI), and iRoC Technologies of Santa Clara, CA, have begun a technology and service partnership, providing a one-stop solution for customers seeking radiation measurement and effects on semiconductor devices. According to Mike Tucker, Managing Director at Alpha Sciences Inc.: “With this partnership, both companies will continue to provide their respective services and remain separate organizations. However, by combining resources, experience and geographic coverage, we increase our market reach and provide a more complete and efficient service to customers.”

Tucker continues “It is a well documented fact dating back more than 25 years that radiation-induced “soft errors”, from both celestial and terrestrial sources, are causing increasing numbers of failures in recent integrated circuits. As technology moves into the 65 and 45 nm, the amount of radiation-induced soft errors will increase exponentially, more so with the lower operating voltages being considered.”

Alpha particles are known as terrestrial based or localized source of radiations, most commonly in the form of Uranium and/or Thorium (and their progeny). Alpha Sciences provides equipments for sale and training focused on the alpha particle detection and measurement of all components of the semiconductor device. The goal is to measure and possibly reduce the amount of inherent alpha emitters in the device and surrounding packaging. In addition, Alpha Sciences provides testing services at their labs, wherein designers have samples tested for emission reports. “In the last year, we’ve seen dramatic increase in demand for both counting services and equipment, indicating the alpha issue is not going away anytime soon” added Tucker. iRoC Technologies will soon receive for its lab in Grenoble, France, a ASI 3950 alpha detector model. “The partnership with ASI and our purchase of their very accurate alpha detector makes a lot of sense. ASI expertise creates a great synergy with our existing SER testing experience for customer support.” said Olivier Lauzeral, General Manager at iRoC Technologies in Santa Clara. Nowadays, the industry is debating on a standard value for Very Low Alpha and Ultra Low Alpha. The need for standard definition of emission levels is urgent as sensitivity to tiny amount of radiations is increasing. iRoC and ASI are asked to measure alpha emissions with accuracy better than .002 alpha/cm<sup>2</sup>/hr (we call it very low alpha) or .0005 alpha/cm<sup>2</sup>/hr (we call it ultra low alpha).

Celestial radiations in a myriad of forms bombard the Earth constantly, with several cascading levels of particles actually reaching the Earth surface, capable of causing radiation-induced errors. iRoC Technologies provides a wide spectrum of simulation, testing and measurement capabilities related to medium and high energy particles associated with neutrons and alpha particles induced errors in semiconductor designs.

“At iRoC’s test division, we are focusing on bringing the best service to Soft Error testing demand, the large part of which being on Cosmic ray testing.” added Lauzeral. “We are seeing a growing concern about alpha particle effects. The partnership with Alpha Science will complement our alpha particles test offering with packaging alpha emission measurement. Our customers will have the best set of data to understand all soft error related issues in their design. We are now able to offer a true complete Soft Error Testing Solution to our customers.”

Radiation induced soft errors are a growing factor in the success or failure of a product. From measuring the molding compound alpha flux rate, to the final stages of neutron beam bombardment, designers can determine their design susceptibility well before the final product is released to manufacturing. iRoC and ASI work together to provide the industry with a complete service, by simply contacting either supplier.