

# NEWSRELEASE

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*For Immediate Release*

## **Sensors Unlimited Linear Array Aids Inspection of Space Shuttle Discovery**

**August 31, 2005 – Princeton, NJ – Sensors Unlimited, Inc. (SUI)**, a leading manufacturer of shortwave infrared (SWIR) linear arrays, photodiodes and imaging systems, has played a critical role in the inspection system that was implemented during the flight of the Space Shuttle Discovery for the Return to Flight mission. The **SU256LX-1.7RT-0500**, a 256-element array on a 50  $\mu\text{m}$  pitch with a 1.7  $\mu\text{m}$  cutoff, was integrated into the 3-D Laser Camera System (LCS) developed by Neptec Design Group (Houston, TX, Ottawa, ON, [www.neptec.com](http://www.neptec.com)). Neptec's high-resolution 3D imaging laser system was part of the 15-meter boom detector system deployed to inspect the shuttle's hull and wings while in orbit. The rugged camera was designed to scan for tiny fractures and diagnose thermal tile problems even in hard to reach areas, such as the underside of the shuttle's hull.



The LCS uses a synchronized scanning technique patented by the National Research Council of Canada to generate three-dimensional data. Neptec's laser sensor system yields much more information than traditional, 2-dimensional imagery and is the first three-dimensional laser scanner qualified for use in space flight.

According to Neptec, the inspection boom provided essential information to NASA decision makers that helped them determine the space shuttle Discovery could safely return to earth. The imaging array, developed with Sensors Unlimited's proprietary indium gallium arsenide (InGaAs) technology, aided in the inspection and analysis of the tiles by enabling imaging in the shortwave infrared region.

Dr. Martin H. Ettenberg, director of imaging products at Sensors Unlimited notes, "We are proud to have played a role in the success of this unprecedented mission and to have our SWIR linear array integrated into Neptec's Laser Camera System. We congratulate all the tireless folks at NASA and the entire team of Space Shuttle Discovery for the successful flight and safe return of the 'Return to Flight Mission'."

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**Sensors Unlimited, Inc. (SUI)**, founded in 1991 to pioneer design and production of near-infrared detectors, is the world leader in indium gallium arsenide (InGaAs) imaging technology. With in-house capabilities, Sensors Unlimited manufactures advanced infrared cameras, short-wave infrared and near-IR focal plane arrays and revolutionary high speed PIN and avalanche photodiodes. Their proprietary foundry and expertise delivers reliable, high performance products for a variety of critical military, security, industrial, commercial and telecommunications industries. Applications include covert surveillance, machine vision, night vision, health and safety protocols, historical art inspection and more. Please visit [www.sensorsinc.com](http://www.sensorsinc.com) for more information.