



News Release

For Immediate Release

Bob Struthers +1 (609) 520-0610

Robert.Struthers@goodrich.com

Sensors Unlimited, Inc.,
part of Goodrich Corporation
3490 Route 1
Building 12
Princeton, New Jersey
08540-5914
www.sensorsinc.com
Ph.: 1-609-520-0610
Fax: 1-609-520-0638

Sensors Unlimited's SWIR Cameras Ideal for Photovoltaic Inspection

- Shortwave infrared area and linescan cameras are used for solar cell inspection.

PRINCETON, NJ, JUNE 8, 2009 – Sensors Unlimited, Inc., part of Goodrich Corporation, announces that high resolution, shortwave infrared (SWIR) area and linescan cameras are being used to improve the manufacturing yield of photovoltaic cells. SWIR technology is well suited to monitor the quality of solar thin films, concentrated PV, and crystalline cells, to maximize efficiency of the solar cell manufacturing process through final assembly of the completed modules.

The InGaAs-based SWIR cameras, which operate between 0.9 to 1.7 microns, are ideal for inspecting silicon boules and wafers due to the material's transparency beyond 1.2 microns. The Goodrich cameras reveal voids in silicon boules, bricks, and ingots before they are sliced into wafers to produce mono- and multi-crystalline solar cells. They can also detect hidden cracks by mapping stress in raw wafers, finished cells, and thin-films made for solar electricity generating panels. SWIR cameras can also spot saw marks on the opposite side of a silicon wafer and/or defects inside the material. In addition, by applying forward bias to cells to generate electroluminescence, the SWIR cameras are used to gauge cell efficiency and uniformity. This aids improvement of cell manufacturing processes, and aids matching cells with similar efficiencies for assembly into modules. The latter step prevents the loss of energy from the stronger cells which would be lost in heating the inefficient cells.

Sensors Unlimited, Inc., part of Goodrich Corporation, based in Princeton, NJ, has pioneered the design and production of NIR and SWIR cameras and systems utilizing advanced Indium Gallium Arsenide (InGaAs) imaging technology for industrial, commercial, military, agricultural, and scientific markets. For additional information on InGaAs-based shortwave infrared imaging detectors, arrays, and systems, please visit www.sensorsinc.com.



Goodrich Corporation, a *Fortune* 500 company, is a global supplier of systems and services to aerospace, defense and homeland security markets. With one of the most strategically diversified portfolios of products in the industry, Goodrich serves a global customer base with significant worldwide manufacturing and service facilities. For more information, visit www.goodrich.com.

Goodrich Corporation operates through its divisions and as a parent company for its subsidiaries, one or more of which may be referred to as "Goodrich Corporation" in this press release.

GR - Electronic Systems

###