

## **Spectrolab Announces Low-Cost Monitor Photodetector for Fiber-Optic Communication Applications**

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A cost-saving germanium-based photodetector designed for use as a monitor photodetector in fiber-optic telecommunication systems is commercially available from Spectrolab, Inc., a subsidiary of The Boeing Company (NYSE: BA). This germanium photodetector offers excellent performance and potential cost savings of approximately 50 percent over indium gallium arsenide monitor photodiodes.

Laser light sources used in fiber-optic telecommunication systems must maintain a constant power level in order to function properly and maintain signal quality. This feedback function is achieved using monitor photodetectors that are commonly made from indium gallium arsenide. Using a proprietary process, Spectrolab has developed less expensive and more versatile germanium monitor photodetectors.

Spectrolab is currently in discussions with several customers who are interested in this solution.

Spectrolab possesses one of the largest MOVPE (Metal Organic Vapor Phase Epitaxy) facilities in North America with state-of-the-art production reactors. This facility is used for the growth and fabrication of the device structures on which solar cells and optoelectronics components are based. Spectrolab's goal is to become a leading MOVPE wafer and device fabrication foundry services provider for optoelectronic products.

"Supplying space solar cells and solar panels to the satellite industry makes up the largest percentage of our business. Because similar materials and compatible processes are also involved in producing optoelectronics products, Spectrolab is uniquely positioned to become a major player, providing germanium photodetectors and other components to the optoelectronics marketplace," said Dr. David Lillington, Spectrolab president.

Spectrolab's Optoelectronic Products Division offers epitaxial wafer foundry services by MOVPE for sensors based on indium gallium arsenide, gallium arsenide and germanium; heterojunction bipolar transistors made from gallium indium phosphide on gallium arsenide substrate; and waveguide modulator and laser diode wafers on gallium arsenide and indium phosphide substrates. Spectrolab also offers wafer-fabrication services for indium phosphide- and gallium arsenide-based devices as well as prototype packaging for sensors and lasers.

"Through our commitment to high quality, short lead times and aggressive pricing, we are confident our optoelectronics products will find a broad market and will meet customers' expectations," said Dr. Nasser Karam, Spectrolab vice president, Optoelectronic Products.

Spectrolab, an ISO 9001-2000 certified company, was founded in 1958 and has been supplying solar cells and panels to the space industry for more than 40 years. Pioneer 1, launched in 1958, carried the first body-mounted panels used in space. Today, the most powerful satellite to orbit Earth, a Boeing 702 with a power output of 18 kilowatts at beginning of life (BOL), is powered by Spectrolab solar cells and panels. Spectrolab also supplied the solar cells in the solar panels on the International Space Station.

Spectrolab is headquartered in Sylmar, Calif., a suburb of Los Angeles. It also is a leading supplier of searchlights and solar simulators. Visit Spectrolab's web site .

Boeing Space and Communications is the world's leading manufacturer of commercial communications satellites, and is also a major provider of space systems, satellites, and payloads for national defense, science and environmental applications.

The Boeing Company is the world's leading aerospace company, with its heritage mirroring the history of flight. It is the largest manufacturer of satellites, commercial jetliners, and military aircraft. The company is also a global market leader in missile defense, human space flight, and launch services. Chicago-based Boeing has an extensive global reach with customers in 145 countries.

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