

Princeton Infrared Technologies, Inc.

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For Immediate Release

Princeton Infrared Technologies Announces SBIR Phase II Award for Coherent LADAR Detectors

Monmouth Junction, NJ – May 1, 2019 - Princeton Infrared Technologies, Inc. (PIRT) - www.princetonirtech.com, specialists in indium gallium arsenide (InGaAs) imaging technology and affordable shortwave-infrared (SWIR) linescan cameras, visible-SWIR science cameras, and 1- and 2-D imaging arrays, announces a Small Business Innovation Research (SBIR) award. The Phase II SBIR contract with Air Force Research Laboratory (AFRL) will fund the development of detector arrays for coherent laser detection and ranging (LADAR). Princeton Infrared Technologies will focus on developing detector arrays using multi-quantum well materials enabling detection from 0.9 to 2.4 μm with low-dark current and high-quantum efficiency. This will enable a new generation of high-resolution cameras that can image at, or near, room temperature while allowing high sensitivity in the shortwave-infrared spectrum. The new arrays will be high speed, enabling next-generation coherent LADAR using arrays versus single-element detectors.

The SBIR Phase II project is a \$750,000, 2-year effort that will concentrate on new material development. Princeton Infrared Technologies and its' subcontractors will be conducting research on the development of new multi-quantum well materials, in addition to strained-superlattice materials manufactured on indium phosphide (InP) substrates. The R&D work will be supported by the Air Force Research Laboratory at Wright-Patterson Air Force Base, Ohio.

President of Princeton Infrared Technologies, Martin H. Ettenberg, Ph.D., notes, "Utilizing multi-quantum well materials will enable high-sensitivity detectors to image beyond what lattice-matched InGaAs detectors can detect in the SWIR range. These next-generation detector arrays will benefit long-range LADAR used by the Air Force to identify targets. Current systems require cryogenic cooling while these materials will not, thus vastly lowering costs, size, weight, and power. The material development will also be useful in the commercial sector for spectroscopy and industrial imaging."

To learn more about Princeton Infrared Tech's full line of innovative, affordable InGaAs SWIR linear arrays and cameras, please visit www.princetonirtech.com, or call 1-609-917-3380 for more information.

Princeton Infrared Technologies, Inc. (PIRT - www.princetonirtech.com) - Specialists in indium gallium arsenide (InGaAs) imaging technology, PIRT focuses on design and manufacture of both shortwave infrared cameras, and one- and two-dimensional imaging arrays. All products are created in the company's fabless environment under strict testing and quality control guidelines, providing innovative and cost-effective detectors that image in the visible, near- and shortwave-infrared wavelengths. Application areas include spectroscopy for sorting materials, moisture detection, thermal imaging, night vision, and laser imaging for military, industrial, and medical markets.

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