

Princeton Infrared Technologies, Inc.

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For Immediate Release

PIRT Introduces High-Resolution, Extended Shortwave Infrared (SWIR) Camera for Beam Profiling at BiOS & Photonics West 2022

• New T2SL thermoelectrically-cooled SWIR camera supports extended SWIR wavelength response to deliver superior beam profiling from the visible to 2050 nm using a single imager.

Monmouth Junction, NJ – January 19, 2022 - Princeton Infrared Technologies, Inc.

(PIRT), 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, introduces the **1280BPCam**, an extended-SWIR response camera developed specifically for laser beam profiling. The new InGaAs/GaAsSb (InGaAs/gallium arsenide antimonide) type-II super lattice (T2SL) detector features 1280 x 1024 pixels on a small 12-µm array pitch that delivers 90 frames per second (fps) at full resolution.



The extended wavelength response of the T2SL material plus the 3-stage thermoelectric cooler (TEC) enable high sensitivity from 400 nm to 2050 nm, making it possible to image from the Visible out to the SWIR spectrum with a single imager. The high-resolution imagers are specially fabricated on 100 mm substrates to enable low-cost production.

The **1280BPCam**'s advanced focal plane array integrated in the camera generates full 14-bit pixel data at high resolution which is reliably transferred by a Medium Camera Link interface. Other notable features include snapshot exposure, selectable trigger modes, and user-selectable regions of interest (ROI). Integration times range from 50 µs to greater

than 16 ms. With less than 275e- read noise, high dynamic range of greater than 1000:1, plus greater than 20% quantum efficiency for 1.9 μ m, the extended SWIR beam profiling detector camera is ideal for use in a variety of industrial, medical, and defense applications.

To see a live demo of Princeton Infrared Technologies' advanced **1280BPCam** for laser beam profiling, please visit **booth #8371 at SPIE's BiOS**, January 22 - 23, 2022, and **booth #3371 at Photonics West**, January 25 - 27, 2022, Moscone Center, San Francisco. For more information on Princeton Infrared Technologies' infrared imaging technology and affordable SWIR cameras, visit www.princetonirtech.com, or call 1-609-917-3380.

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 commercial markets.

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