

# NEWS RELEASE

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*For Immediate Release*

## **New USB3.0 SWIR Linescan Camera for Spectroscopy & Machine Vision**

**Monmouth Junction, NJ – April 15, 2016 - Princeton Infrared Technologies, Inc.**

**(PIRT)** ([www.princetonirtech.com](http://www.princetonirtech.com)), introduces the affordable **LineCam12**, an indium gallium arsenide (InGaAs) linescan camera that operates in the shortwave infrared (SWIR) and visible spectrum, from 0.4 to 1.7  $\mu\text{m}$ . The compact camera features a 1024 x 1 pixel format with a 12.5  $\mu\text{m}$  pitch and has two digital outputs, USB3 Vision™ and Camera Link; it can also be powered by USB3.0 in most applications. This is the only USB3 Vision SWIR camera currently available, allowing for easy integration into new or existing machine vision and spectroscopic systems.



Princeton Infrared's advanced SWIR-InGaAs

1024-element linear array camera can image over 37k lines per second and comes in two models: the LineCam12-12.5-1.7T with 250  $\mu\text{m}$  tall pixels for spectroscopy, and the LineCam12-12.5-1.7M with 12.5  $\mu\text{m}$  square pixels for machine vision tasks.

There are several advantages to this new SWIR linescan camera. The low read noise of  $<80\text{e}^-$  is a factor of 4x lower than the best in the industry. Combined with varied integration times from 10  $\mu\text{s}$  to  $>10\text{ s}$  and the 14-bit analog-to-digital conversion (dynamic range  $>6000:1$ ) the LineCam12 provides excellent versatility. This is in addition to the incredibly large selection of full wells from 75ke $^-$  to 100 Me $^-$  with 128 steps of variation, which far exceeds any other linear array in the SWIR band. Importantly, there is also on-chip optical pixel binning available by command, allowing the user to trade spectral resolution for increased signal levels, as well as faster line rates. The TEC-stabilized camera offers 18 non-uniformity correction (NUC) tables (12 factory set and 6 user defined) for added flexibility.

According to Martin H. Ettenberg, Ph. D., president of Princeton Infrared Technologies, “This is the state of the art in SWIR linescan cameras. Utilizing our fabless manufacturing model, we are enabling numerous machine vision and spectroscopic applications at a much lower cost than other SWIR cameras on the market. The other big advantage is that our LineCam12 does not require a frame grabber, which is an additional expense when purchasing other SWIR linescan cameras.”

The SWIR LineCam12 is specially designed and optimized for complex and demanding imaging applications, for example in imaging lasers, and in environments where objects are moving (factory lines), such as sorting, detecting moisture, characterizing different plastics, and more. The camera starting price is \$9500 in single units. For multiple units or OEM quantities, please contact PIRT for pricing.

To learn more about Princeton Infrared Technologies’ line of affordable shortwave infrared linear arrays and cameras, please visit: [www.princetonirtech.com](http://www.princetonirtech.com) or call 1-609-917-3380.

**Princeton Infrared Technologies, Inc. (PIRT - [www.princetonirtech.com](http://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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