

News release

trinamiX Demonstrates Industry-Leading IR Detectors and More at Photonics West 2020

January 27, 2020 – Photonics West 2020, German Pavilion, Hall F, Number 4545-38 – trinamiX GmbH (Ludwigshafen, Germany), a leader in 3D imaging and infrared sensing technologies, today announced the complete suite of products it is showcasing at Photonics West 2020 (the leading worldwide event for the photonics and laser communities). trinamiX was founded in 2015 as a wholly-owned subsidiary of BASF SE, the world's leading chemical company. As a startup operating within the organization of BASF, trinamiX is not just operationally independent – the company also has unique and unprecedented access to the expertise and experience of the entire BASF Group.

The full breadth of the trinamiX IR detection product portfolio will be on display at the company's booth in the German Pavilion. The single-pixel and multi-pixel lead salt IR detectors, as well as the arrays developed by trinamiX are short-wave infrared semiconductor sensors designed for 1 – 5 μm wavelength perception. The lead sulfide (PbS) and lead selenide (PbSe) near-infrared detectors from trinamiX excel in various applications and industries, such as:

- Gas sensing
- Moisture monitoring
- Spark detection
- Flame monitoring
- Near-infrared spectroscopy

Both the PbS- and PbSe-based IR detectors have been developed using a new, patent-pending encapsulation technique that allows a bare chip photoconductor to be directly wire-bonded to printed circuit boards. TO-packaging and on-PCB variants of the chip will also be on display, as well as complete IR detector array module. trinamiX lead salt detectors provide some of the best cost per detectivity between 1 – 5 μm .

For the first time, trinamiX is showcasing its multi-single-pixel detectors consisting of 2 to 16 single-pixels in a line or matrix design. The usage of single-pixel detectors enables high flexibility regarding both setup and filters. A live demo will show how such a multi-single-pixel detector can be used for precise differentiation of plastics such as PET, PVC or PP. Thanks to their flexible setup, the trinamiX multi-single-pixel detectors enable cost-efficient and scalable systems to distinguish materials.

In addition, a unique trinamiX CO₂ gas sensing solution will be demoed live throughout Photonics West. It accurately showcases the sensitivity and compactness of the company's product offerings for non-dispersive infrared (NDIR) applications.

Another live demo will include the company's acclaimed fiber optic sensor, the first compact system in the world that can measure absolute distance through optical fibers. Key benefits for industrial applications using the trinamiX fiber optic sensor technology include:

- Separation of optics and electronics to suit challenging environments
- Distance measurements with a small measurement head
- Consistent results independent of type of material and color
- Robust presence detection on objects with varying reflectivity

"trinamiX is very proud to exhibiting the full range of our IR sensing products here at Photonics West," said Dr. Wilfried Hermes, Director IR Sensors at trinamiX. "This is perhaps the world's most important show for all things related to photonics components, and we are very much looking forward to demonstrating how our solutions can be applied across many industry segments."

About trinamiX:

trinamiX www.trinamixsensing.com is a wholly-owned subsidiary of BASF SE, the world's largest chemical company. Founded in 2015, the company has developed a wide-ranging portfolio of technologies and products around both Infrared detection as well as 3D imaging and distance measurement employing a team of more than 100 experts across a wide-range of scientific disciplines.

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