Company Presentation

February 2020

trinamiX

A brand of
BASF – We create chemistry

We are trinamiX

- Spin-off and wholly-owned subsidiary of BASF SE
- Founded 2015 in Ludwigshafen/ Germany
- A team of 120+ dedicated specialists
- 70+ patents and patent applications
- ISO 9001:2015 certified

trinamiX technologies provide actionable results in real time

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Seeing beyond the visible: Molecular sensing

- Fraud detection
- Smart quality and process control
- Mobile NIR spectroscopy

Mobile NIR spectrometer and cloud-based data analytics

Smart interaction between humans and machine

- Face authentication
- Object recognition for collaborative robotics
- 2D/3D imaging + material sensing

trinamiX 3D sensing software

Improved decision-making and security through technology

Our product portfolio

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trinamiX infrared sensing

trinamiX 3D sensing

Infrared detectors

NIR spectroscopy

3D imaging

Distance measurement

PbS and PbSe based
IR detectors

Mobile NIR
spectroscopy
applications

2D, depth and
material sensing

Distance measurement
through fiber optics

Infrared detectors - Hertzstück™

Key markets for Hertzstück™ IR detectors

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Infrared detectors
Hertzstück™

Spark
detection

Gas sensing

Flame
detection

Flame
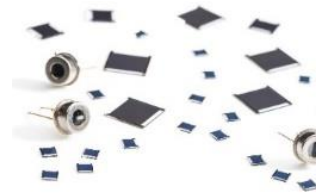monitoring

Moisture
monitoring

IR spectroscopy

Small form factor and superior stability even as bare chip are key advantages of Hertzstück™ detectors

Hertzstück™ features

- Wide wavelength range:
  1-3 µm (PbS) and
  1-5 µm (PbSe)

- Highest detectivity at
  room temperature

- Unique thin film
  encapsulation
  technology

Single pixel detectors
PbS and PbSe

- Available in TO-Housing
  and as bare chip

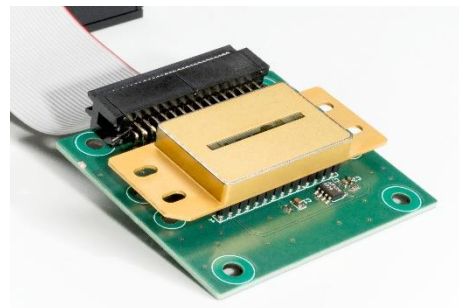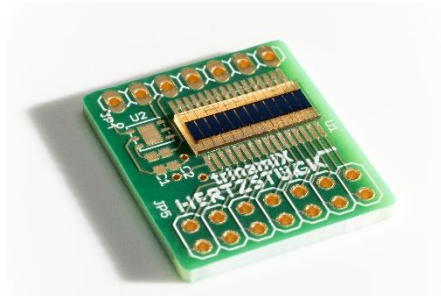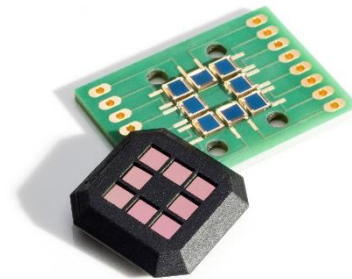## PbS Multi-pixel and arrays
Up to 512 pixel

Hertzstück™ solutions for spectroscopy applications

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Hertzstück™ features

- Multi-Single-Pixel:
  1-3 µm (PbS)
  1-5 µm (PbSe)

- Multipixel (PbS)

- Array Module (PbS)

Multi-Single-Pixel

- Highest flexibility in design and filters
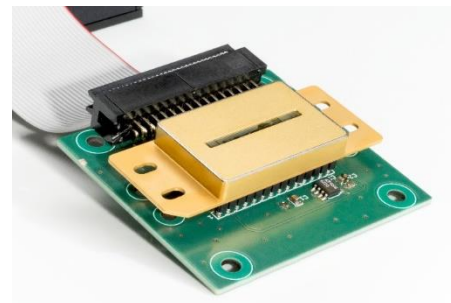
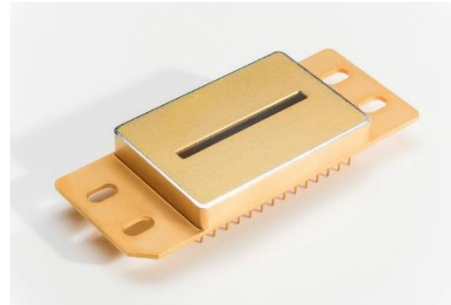**Multipixel**

- Up to 16 pixels on one chip

Array Module

- 256 Pixel

- PS28 housing incl. TEC

Hertzstück™ solutions for spectroscopy applications

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Hertzstück™ PbS Array Module

- 256 Pixels
    - 50μm Pixel pitch
    - 40μm Pixel width
    - 380μm pixel height
    - Double encapsulation: Thin film and PS28 housing with 1-stage TE-cooler
    - Sapphire window

- Evaluation-Kit with read-out software available

Customization available upon request:

- Filter
- Variable pixel geometry
- Variable number of pixels (up to 512)
- Other packaging options

We can offer customizable and flexible pixel or array designs tailored to your needs

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Sensor design options

- Flexible pixel or array design

- Advanced packaging including development

- Read-out electronics

- Bonding

Production capabilities

- World scale mass production: > 1.000.000 pieces / a

- Development and production inhouse in Ludwigshafen, Germany

The best choice for cost-efficient high-performance applications