

# MAKING THE INVISIBLE VISIBLE

## -with ace 2 X visSWIR Area Scan Cameras

### See what is hidden beneath the surface

Short-wave infrared (SWIR) cameras allow a look beneath the surface. Whether it's checking security features, detecting fill levels, shining a light through complex structures, or detecting hidden objects - Basler ace 2 X visSWIR cameras allow a close look at what remains hidden from our human eye.

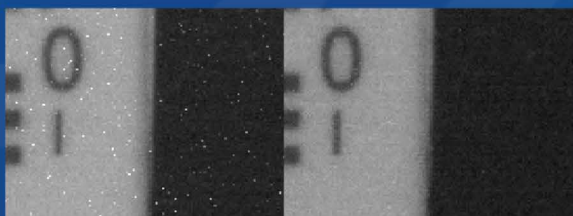


### Highlights

- Compact in size: 29 mm x 29 mm
- Excellent image quality: with unique Pixel Correction Beyond to dynamically correct pixel defects.
- Advanced sensor technology: featuring Sony SenSWIR sensors
- Versatile in spectrum: sees both visible and invisible light spectrum
- Easy Integration: all components you need in one place, plus easy-to-use pylon software

### Cameras: ace 2 X visSWIR

|     | CAMERA MODEL      | SENSOR | RESOLUTION (HXV PIXELS) | RESOLUTION (MP) | WAVELENGTH RANGE        | FRAME RATE [FPS] | INTERFACE | PIXEL SIZE [ $\mu\text{m}^2$ ] | OPTICAL SIZE |
|-----|-------------------|--------|-------------------------|-----------------|-------------------------|------------------|-----------|--------------------------------|--------------|
| NEW | a2A2560-20gmSWIR  | IMX992 | 2560 x 2048             | 5.2             | 0.4 - 1.7 $\mu\text{m}$ | 20               | GigE, PoE | 3.45 x 3.45                    | 1/4"         |
| NEW | a2A2560-70umSWIR  | IMX992 | 2560 x 2048             | 5.2             | 0.4 - 1.7 $\mu\text{m}$ | 70               | USB 3.0   | 3.45 x 3.45                    | 1/4"         |
| NEW | a2A2048-35gmSWIR  | IMX993 | 2048 x 1536             | 3.1             | 0.4 - 1.7 $\mu\text{m}$ | 35               | GigE, PoE | 3.45 x 3.45                    | 1/1.8"       |
| NEW | a2A2048-110umSWIR | IMX993 | 2048 x 1536             | 3.1             | 0.4 - 1.7 $\mu\text{m}$ | 110              | USB 3.0   | 3.45 x 3.45                    | 1/1.8"       |
|     | a2A1280-80gmSWIR  | IMX990 | 1280 x 1024             | 1.3             | 0.4 - 1.7 $\mu\text{m}$ | 80               | GigE, PoE | 5 x 5                          | 1/2"         |
|     | a2A1280-125umSWIR | IMX990 | 1280 x 1024             | 1.3             | 0.4 - 1.7 $\mu\text{m}$ | 125              | USB 3.0   | 5 x 5                          | 1/2"         |
|     | a2A640-240gmSWIR  | IMX991 | 640 x 512               | 0.3             | 0.4 - 1.7 $\mu\text{m}$ | 240              | GigE, PoE | 5 x 5                          | 1/4"         |
|     | a2A640-240umSWIR  | IMX991 | 640 x 512               | 0.3             | 0.4 - 1.7 $\mu\text{m}$ | 240              | USB 3.0   | 5 x 5                          | 1/4"         |



### Pixel Correction Beyond

Overcoming pixel defects in InGaAs SWIR imaging and creating image quality that matches TEC-based SWIR cameras.

More information:  
[baslerweb.com/en/cameras/ace2x-swir/beyond-features](http://baslerweb.com/en/cameras/ace2x-swir/beyond-features)

### Companion products for your complete SWIR vision system



Lighting



Optical filters



Lenses



Interface Cards



Accessories

For more information, please visit:  
[baslerweb.com/en/cameras/ace2x-swir/](http://baslerweb.com/en/cameras/ace2x-swir/)

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# What is SWIR?



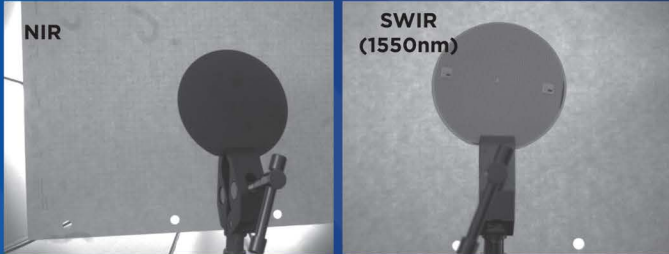
Basler ace 2 X visSWIR camera covers a spectrum range between 0.4 - 1.7  $\mu\text{m}$



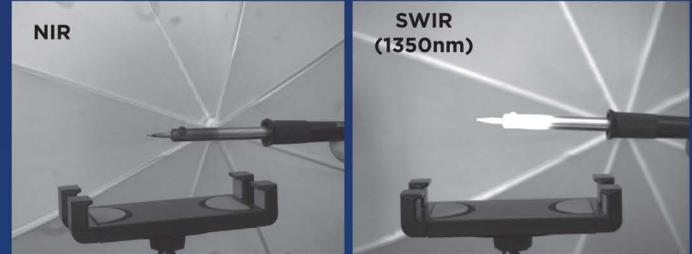
**SWIR** stands for Short Wave Infrared and is used for the spectral range between 0.9 - 2.5  $\mu\text{m}$

## What can a SWIR camera do?

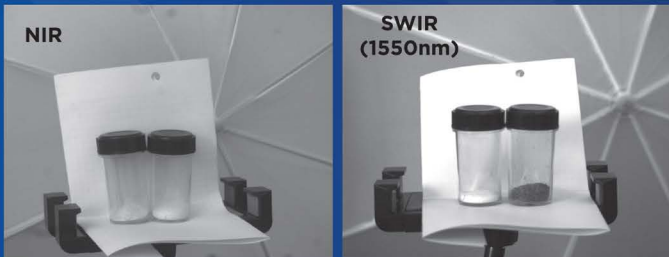
### Wafer inspection



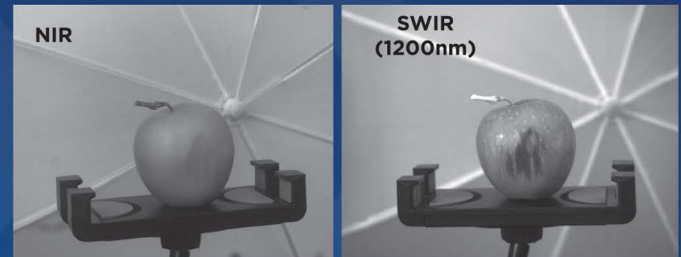
### Temperature detection



### Material sorting

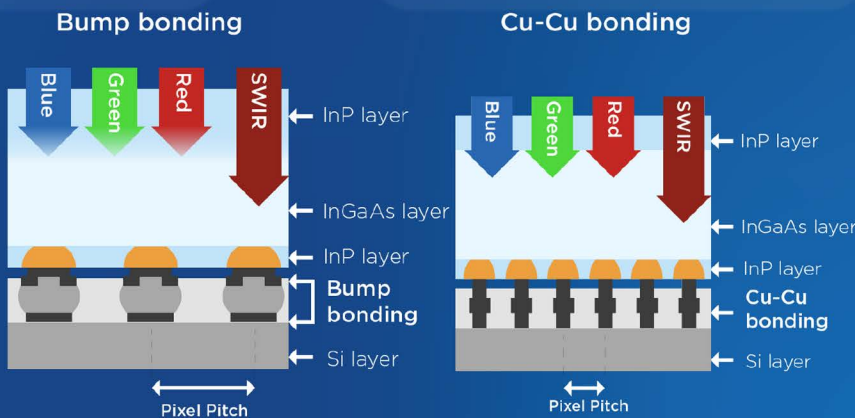


### Food inspection



## Low-cost SWIR technology, New promise for computer vision

Sony's SenSWIR technology utilize copper-to-copper interconnects, resulting in smaller pixels than conventional InGaAs sensors. This enables a compact camera design at affordable price. Basler leverages SenSWIR technology and vision expertise to deliver optimal SWIR imaging with unique in-camera features and integrated hardware and software.



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