

Short Wave for Quality inspection and process monitoring in Pharma

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EPIC Online Technology Meeting on Photonics
for Improved Pharma Processes

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Xenics
Infrared Solutions

Xenics: a supplier of leading-edge infrared solutions



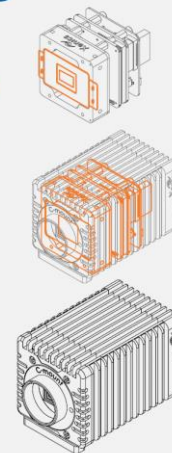
- From SWIR to LWIR
- Covering different applications including:
 - Highest speed linescan SWIR
 - 2k pixels, 256kHz
 - Highest speed 2D array SWIR
 - VGA 1,7kHz

An offer tailored to customers

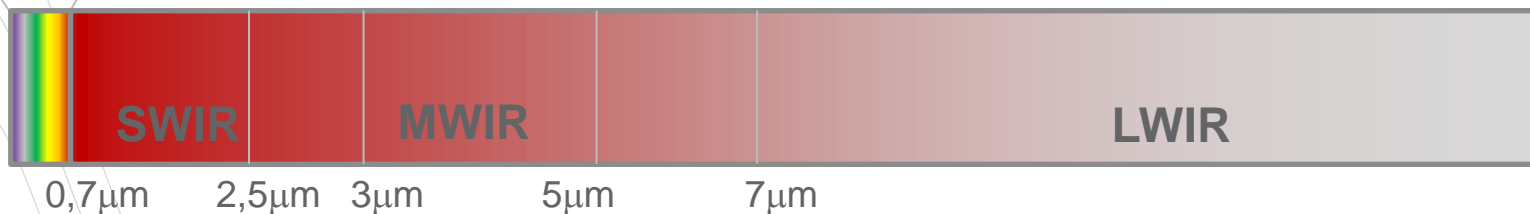
Vertically integrated manufacturing

Wavelength 0.9 - 1.7 μm

- Fully independent production of InGaAs sensors, cores and full cameras
- 3 levels of customisation to meet your application needs
- Continued R&D to produce breakthrough sensors & cameras



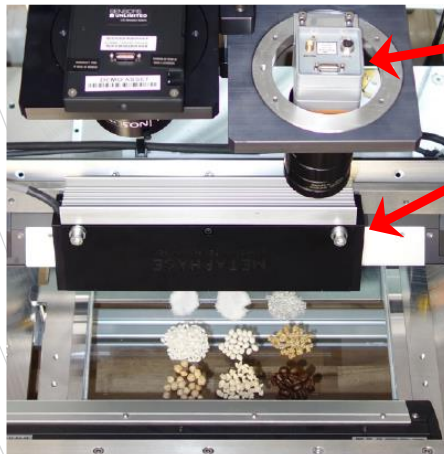
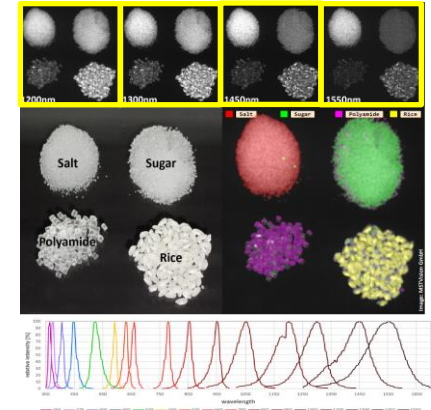
Visible



Hyperspectral and Multispectral Imaging



- 2D Arrays:
 - Several solutions: push-broom with spectral analyzer in the other dimension, snapshot with FT...
 - Need for:
 - *Low noise*
 - *High dynamic range*
 - *High speed*
 - Wildcat: 0,9-1,7 μ m, 640x512, 200Hz, low noise, 63dB(HG) 68dB (HDR) dynamic range



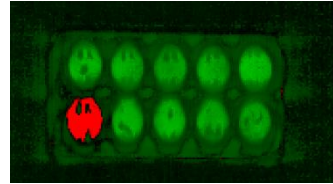
Presentation of the setup, using components by Metaphase, MTD, Polytec, Qioptiq and Xenics.

- High speed LineScan camera
 - Lynx or Manx type
- Multiplexed LED lighting
 - @ different wavelengths
 - Synchronized with acquisition
- Mobile conveyor
- Benefits
 - Up to 2048 pixels per line for wide belt
 - High speed scanning
 - Adjustable throughput

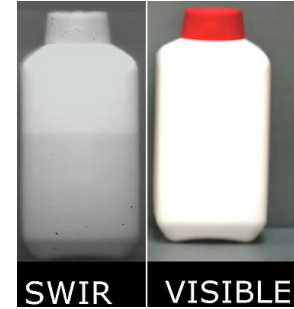
Short Wave Infrared vision in Pharma



See Inside



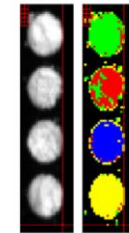
Courtesy of EVK



See What:
Check the type
of content using
HSI



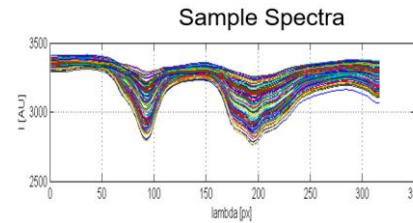
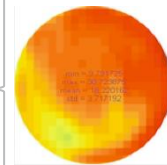
Courtesy of Resonon



Aspirin
Acetaminophen
Vitamin C
Vitamin D

Courtesy of Headwall Photonics

See
How much
using HSI



Courtesy of EVK

Check the
concentration
and homogeneity

Opportunities: identified next steps



NEED USERS TECHNICAL + BUSINESS INPUT

- Wavelength
- Resolution
- Different form-factor (not the standard 4/3 or linear)
- System cost reduction opportunities:
 - Joint specification of pixel operability (selection of bins)
 - Embedded filters
 - Additional intelligence on the sensor or on the camera



THANK YOU

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www.xenics.com