



Lynceus-320 InGaAs Camera

The Lynceus-320 is a fast and lightweight InGaAs camera with high sensitivity and a wide dynamic range. The InGaAs focal plane array has a resolution of 320×256 pixels and offers a full framerate of 50 fps. A USB 2.0 interface serves as power supply and guarantees convenient compatibility with PC driven operations.

Possible applications involve water and moisture detection, profiling infrared laser beams and analyzing NIR spectra or lasers, testing silicon wafers, seeing through glass, viewing objects with temperature $> 400^\circ\text{C}$ and sorting objects according to their NIR reflection behaviour.

- Digital framerate: 50 fps
- Spectral range: 0,9 - 1,7 μm
- Size: 89 x 63 x 79 mm
- Weight: 380 g
- Dynamic range: 60dB
- Passive cooling
- Interface & power supply via USB 2.0
- Windows 2000 and later



Ångström



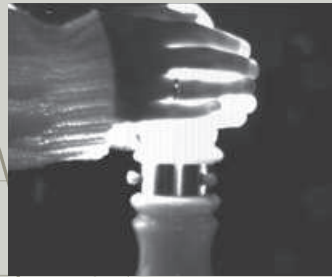
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IR filter testing –
looking through glass



Water absorption –
fluid level monitoring



Radiation insulation analysis



Thermal imaging

Camera specifications

| | |
|-------------------------------|-----------------------------|
| Dimensions | 89 × 63 × 78 mm (L × W × H) |
| Weight | 380 g – without lens |
| Lens mount | C-mount |
| Power consumption | Power supply via USB 2.0 |
| Camera cooling | Passive cooling |
| Ambient operating temperature | ca. 0 – 50 °C |
| Humidity | non condensing |
| Dynamic range | 60 dB, 1600:1 in low gain |

Array specifications

| | |
|--|-----------------------------|
| Type of sensor | InGaAs (Focal Plane Array) |
| Wavelength range (spectral band) | 0.9 – 1.7 μm |
| Resolution | 320 × 256 pixels |
| Pixel size | 30 × 30 μm |
| Framerate | 50 fps |
| Read out mode | global |
| Array cooling | uncooled |
| Exposure time range | 40 μs – 40 ms |
| Nonlinearity capacity (max. deviation) | < 2 % |
| Gain low/high | 0.77 / 14.38 μV / e-, 25 °C |

Interface

| | |
|-------------------|---|
| Operation mode | PC driven |
| Camera control | USB 2.0 |
| Image acquisition | USB 2.0 |
| Triggering | TTL |
| Software | Demonstration software and SDK for camera |
| Software features | image stabilization, storing images and videos, image histogram, line profiles, image correction algorithms (brightness, contrast, gamma correction), dynamic image transposition (top-to-bottom + left-to-right), time control, image live view, array control |
| Compatibility | Windows 2000 and later |

Accessories

| | |
|-----------------|---|
| Interface cable | USB 2.0 cable included |
| Lens | 16.2 mm f/1.4 included (other lenses on request) |
| Filter | Visual wavelength cut filter (other filters on request) |



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