



## COMPACT, HIGH-PERFORMING, AND COST-EFFECTIVE

Specim GX17 is the next-generation NIR line-scan hyperspectral camera for real-time machine vision.

This fast-operation push-broom hyperspectral camera is a powerful and accurate tool for inline sorting, inspection, and quality control.

Specim GX17 camera is best suited for:

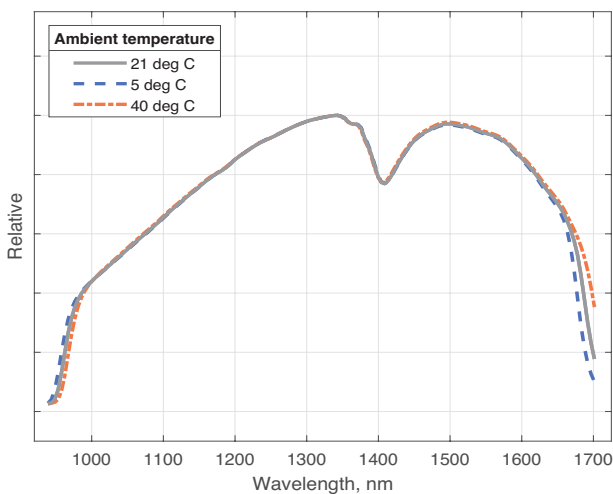
- Waste sorting
- Food sorting, inspection, and grading
- Researching NIR spectra with SpecimINSIGHT

## FEATURES

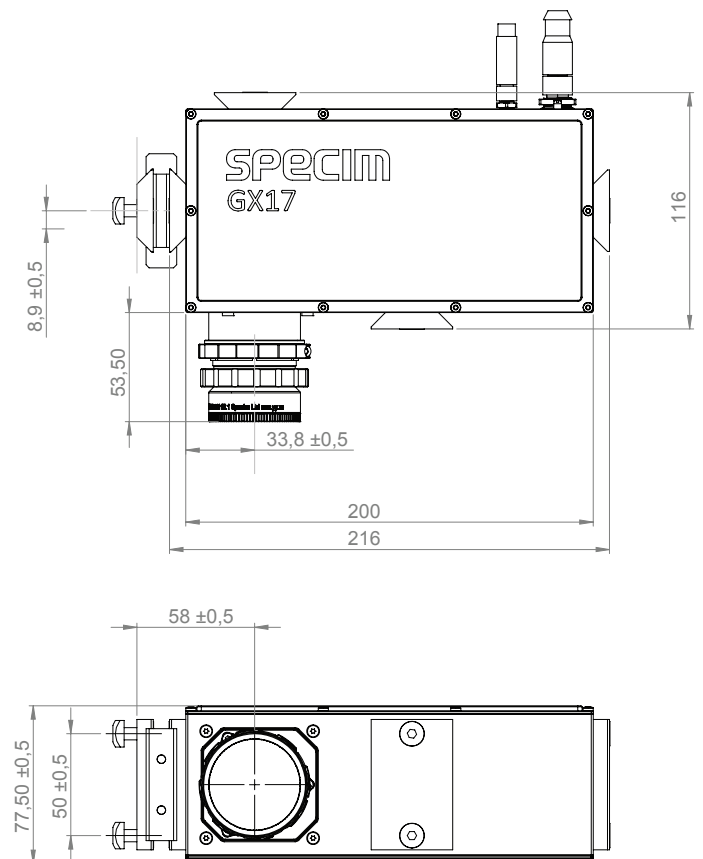
The high spatial resolution, light-throughput, and signal quality make Specim GX17 the most high-performing hyperspectral camera in its class.

- 950 – 1700 nm spectral range (varies depending on ambient temperature)
- 480 spatial pixels
- 800 Frames per second
- Signal-to-noise ratio 700
- F-number 1.7 (light-throughput)
- FOV options from 12° to 90°
- Compatible with SpecimONE
- GenCP-compliant Cameralink interface

## SPECTRAL RESPONSE



## DIMENSIONS



|  |  |
|--|--|
| Spatial pixels                               | 480  |
| Spatial resolution (FWHM)                    | 1.5 pixel  |
| Spectral Range                               | 950-1700 nm (varies depending on ambient temperature)                                  |
| Spectral resolution (FWHM)                   | 8 nm (mean)  |
| Spectral sampling/pixel                      | 4.7 nm   |
| Spectral bands                               | 168  |
| Numerical aperture                           | 1.7  |
| Optics magnification                         | 0.80   |
| Effective pixel size                         | 24.9 $\mu\text{m}$ (slit plane)  |
| Effective slit width                         | 42 $\mu\text{m}$ (slit plane)  |
| Effective slit length                        | 12.0 mm (slit plane)   |
| SNR @ max. signal                            | 700  |
| Bit depth                                    | 16 (effective bits: 14)  |
| Maximum frame rate                           | 800 fps (with 0.5 ms integration time)   |
| Binning                                      | 1x   |
| ROI  | Yes  |
| Pixel operability                            | 99.5%  |
| Image corrections                            | With SpecimCUBE (without camera-internal correction)                                   |
| Sensor material                              | InGaAs   |
| Sensor cooling                               | No   |
| Full well capacity                           | 550 ke-  |
| Read-out noise                               | 110 e-   |
| Mechanical shutter                           | Shutterless  |
| Read-out modes                               | ITR  |
| Lens mount                                   | Custom mount   |
| Fore lens FOV options                        | 12 deg<br>38 deg<br>53 deg<br>66 deg<br>75 deg (C-mount lens)<br>90 deg (C-mount lens) |
| Camera digital data output/control interface | CameraLink   |
| Camera control protocols                     | GenCP  |
| Power input                                  | 10 - 32 VDC  |
| Power consumption                            | 7.5 W (typical)  |
| Triggers                                     | 2 in and 2 out   |
| Connectors                                   | Power M8-4pin; Control M12-12pin, Camera Link SDR                                      |
| IP   | IP52   |
| Dimensions (L x W x H)                       | 202 mm x 75 mm x 102 mm  |
| Weight                                       | 1.9 kg (spectral camera)   |
| Storage temperature                          | -20 ... +50 C (non-condensing)   |
| Operating temperature                        | +5 ... +40 C (non-condensing)  |
| Relative humidity                            | 5% – 95% (non-condensing)  |

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