

## 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:

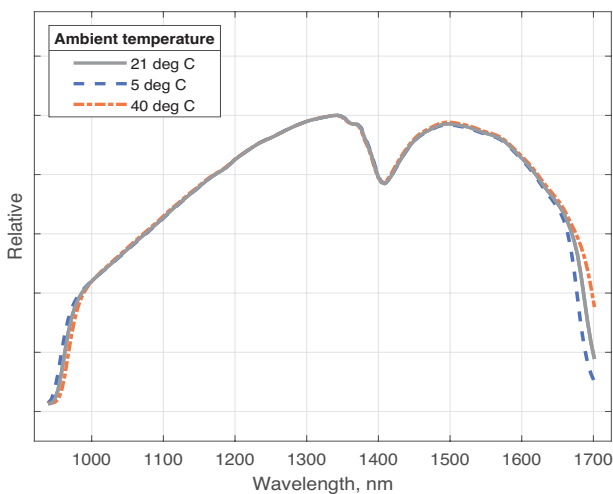
- Waste sorting
- Food sorting, inspection, and grading
- Researching NIR spectra with SpecimINSIGHT

## FEATURES

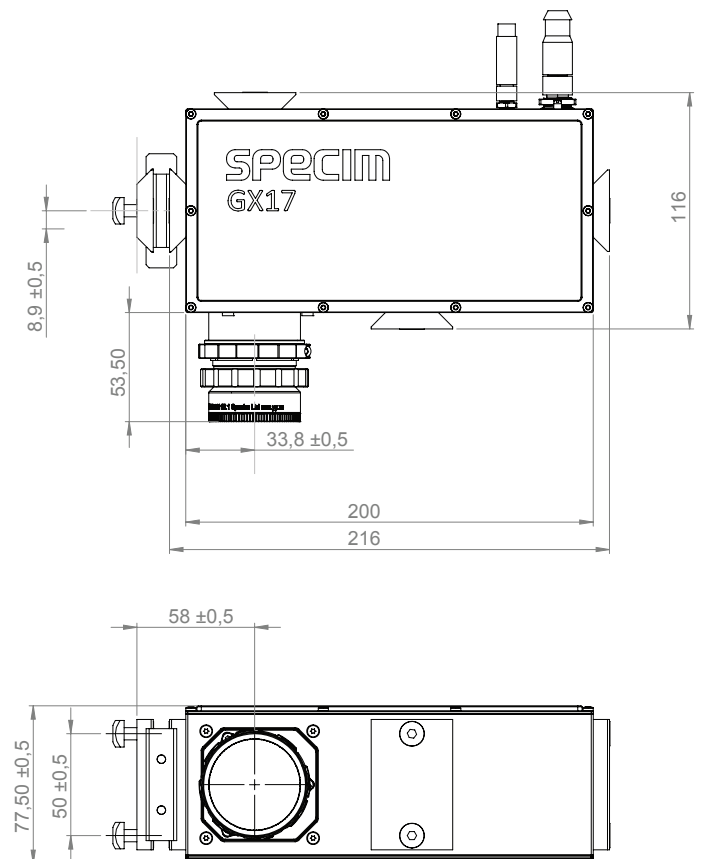
The high spatial resolution, light-throughput, and signal quality make Specim GX17 the most high-performing hyperspectral camera in its class.

- 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



<b>Spatial pixels</b>	480
<b>Spatial resolution (FWHM)</b>	1.5 pixel
<b>Spectral Range</b>	950-1700 nm (varies depending on ambient temperature)
<b>Spectral resolution (FWHM)</b>	8 nm (mean)
<b>Spectral sampling/pixel</b>	4.6 nm
<b>Spectral bands</b>	168
<b>Numerical aperture</b>	1.7
<b>Optics magnification</b>	0.80
<b>Effective pixel size</b>	24.9 $\mu\text{m}$ (slit plane)
<b>Effective slit width</b>	42 $\mu\text{m}$ (slit plane)
<b>Effective slit length</b>	12.0 mm (slit plane)
<b>SNR @ max. signal</b>	700
<b>Bit depth</b>	16 (effective bits: 14)
<b>Maximum frame rate</b>	800 fps (with 0.5 ms integration time)
<b>Binning</b>	1x
<b>ROI</b>	Yes
<b>Pixel operability</b>	99.5%
<b>Image corrections</b>	With SpecimCUBE (without camera-internal correction)
<b>Sensor material</b>	InGaAs
<b>Sensor cooling</b>	No
<b>Full well capacity</b>	550 ke-
<b>Read-out noise</b>	110 e-
<b>Mechanical shutter</b>	Shutterless
<b>Read-out modes</b>	ITR
<b>Lens mount</b>	Custom mount
<b>Fore lens FOV options</b>	12 deg 38 deg 53 deg 66 deg 75 deg (C-mount lens) 90 deg (C-mount lens)
<b>Camera digital data output/control interface</b>	CameraLink
<b>Camera control protocols</b>	GenCP
<b>Power input</b>	10 - 32 VDC
<b>Power consumption</b>	7.5 W (typical)
<b>Triggers</b>	2 in and 2 out
<b>Connectors</b>	Power M8-4pin; Control M12-12pin, Camera Link SDR
<b>IP</b>	IP52
<b>Dimensions (L x W x H)</b>	202 mm x 75 mm x 102 mm
<b>Weight</b>	1.9 kg (spectral camera)
<b>Storage temperature</b>	-20 ... +50 C (non-condensing)
<b>Operating temperature</b>	+5 ... +40 C (non-condensing)
<b>Relative humidity</b>	5% – 95% (non-condensing)

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