xiSpec

- smallest hyperspectral cameras
- linescan and mosaic snapshot
- 16 to 150 hyperspectral bands

ximea

USB3.0 hyperspectral imaging cameras

xiSpec

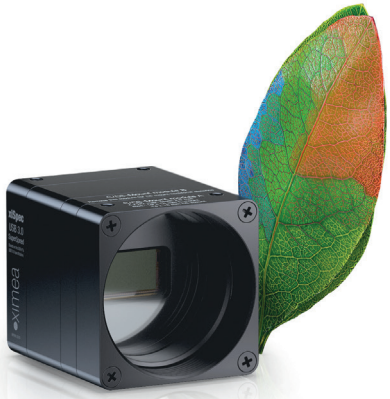
[sci-spek]
or [ksi-spek]

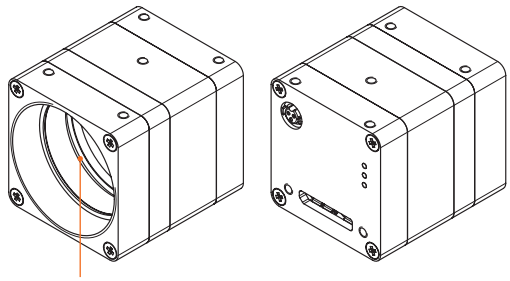
The unique **xiSpec** series offers linescan and snapshot mosaic hyperspectral cameras, being smallest in class by far and combining extreme low power consumption and acquisition of hyperspectral imaging (HSI) raw data at very high frame rates. This camera is implemented in a plethora of applications where chemical differentiation is required: e.g. medicine, agriculture, food processing, waste disposal and many more. The small size, low weight and robustness make it an ideal choice for mobile environments such as drones or handheld devices.

Quick facts

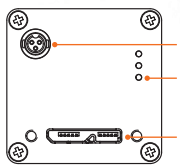
- Smallest and lightest HSI camera
- Single PCB, board-level versions available
- Lowest power consumption, only 1.8 W
- 16 to 150 bands, 170 HSI data cubes or up to 1360 lines per second
- USB3 Vision compliant

Housed cameras

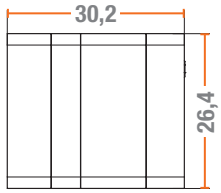


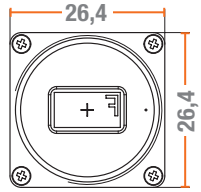


Standard C/CS lens mount with
model-specific, customized filter glass



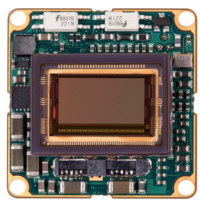
1 * fast opto-isolated input
1 * fast opto-isolated output
LED indicators
SuperSpeed USB3.0 image data port





Board-level cameras

All HSI cameras are available in various board-level camera versions (only on request):



- Board-level version of standard housed camera with Micro-B connector
- Connector for flat flex cables (FFC) including USB3.0 and USB2.0 signals and GPIOs
- Board stack with remote usable sensor board, connector for flat flex cables (FFC) including USB3.0 and USB2.0 signals and GPIOs (xiC series board stack)
- Board stack with remote usable sensor board, connector for flat flex cables (FFC) including PCIe Gen2 x2 signals and GPIOs (xiX series board stack)

Applications:

Precision Agriculture, Remote Sensing, Mineralogy (mining), DNA sequencers/flow cytometers, Medical Imaging (cancer cells inspection), Endoscopy, Fluorescence, Ophthalmology, Skin tones/ tissue analysis, Material and Life science microscopy, Terrestrial/ maritime earth observation, Space exploration, Astronomy, Environmental Monitoring, Security (industrial gas leaks, forensics), Spectroscopy instrumentation, Optical sorting (plastic, ceramic, glass, pharmaceutical), Food inspection (quality grading), Defect detection, UAV

Specifications

Resolution	Original:2048 x 8
Sensor type	CMOS,Hyperspectral filters added at wafer-level
Sensor model	Linescan
Sensor size	2/3”
Sensor active area	100+ bands
Spectral range	600-975nm
Bits per pixel	8,10 bit RAW pixel data
Frame rates	Up to 1360 lines/sec
Image data interface	USB 3.0
Data I/O	GPIO IN, OUT
Power requirements	1.6 Watt
Lens mount	C or CS Mount
Weight	32grams
Dimensions WxHxD	26 x 26 x 31 mm
Operating environment	50℃
Customs tariff code	8525.80 30(EU)/8525.80 40(USA)
ECCN	EAR99