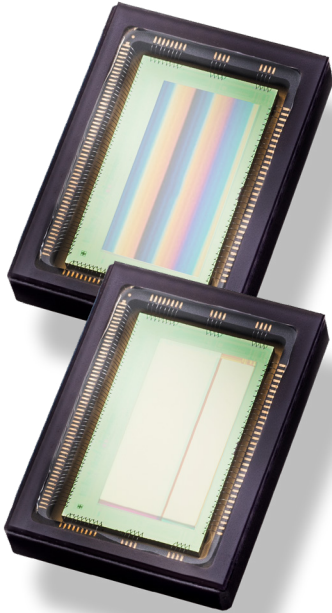


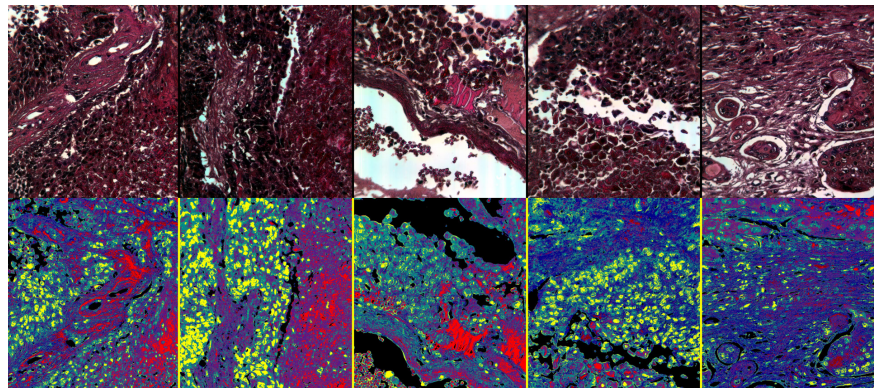


## Snapscan system product specification



VNIR Linescan hyperspectral image sensors integrated into the Snapscan camera system

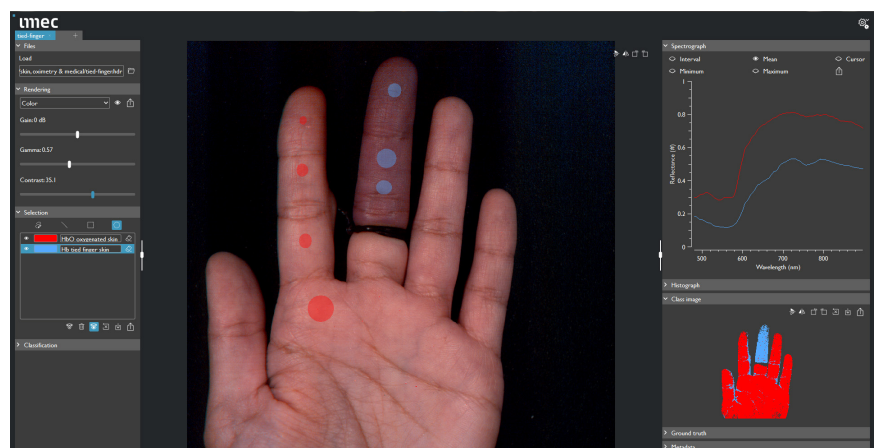
Spatial resolution	up to 3600 x 2048px (7Mpx RAW per band)
Spectral resolution	150 bands (VNIR version)
Spectral range	470 – 900 nm (VNIR)
FWHM	- 10 – 15 nm (collimated)
Acquisition speed	- 2 – 20 seconds, depending on acquisition parameters, lighting and object
SNR	up to 200:1
SW scanning modes	Digital TDI (x5-8 stages max) Multi-exposures Digital binning (2x2, 3x3, 4x4) Spectral ROI - Region of Interest Spatial ROI - Region of Interest
Dynamic range	10 bit
Optics	20/24/35/50 mm lenses C-mount
Smile & keystone	Software corrected
Software	HSI SNAPSCAN software for raw image acquisition, data pre-processing, hypercube visualization and classification; C and Python API for acquisition and data pre-processing in custom software
Interface	USB3.0 + GPIO for triggering
Cooling	Passive & active cooling (fan based + TEC)
Temperature	15°C to 45°C (operation), 5°C to 50°C (transport)
Mechanical	Integrated mechanical shutter for automatic dark-counts, Tripod mount (1/4"-20) + side mounting M5 holes
Dimensions (LxWxH)	10 x 7 x 6.5 cm
Weight	580 g (without optics)
Hyperspectral software compatibility	Output in standard ENVI hyperspectral data format



Predictive compositional maps (color RGB & classified images) created using hyperspectral data. Lung cancer tissues are in yellow. Courtesy of university of Innsbruck & Hyperspectral Imaging Intelligence Inc

## Research applications

- Digital microscopy for pathology, cytogenetics & research
- Wound healing & diagnostics
- Medical endoscopy
- Medical guided surgery
- Agriculture
- Mineral & material characterization
- General purpose research for Indoor or outdoor environment



4MP hyperspectral data-cube acquisition of hand: true color RGB rendering picture, spectral plots of Hb versus HbO<sub>2</sub> spectra within oxygenated and deoxygenated skin where finger blood circulation is tied by rubber band

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