VideometerLab 4 is a complete and unique spectral imaging system.
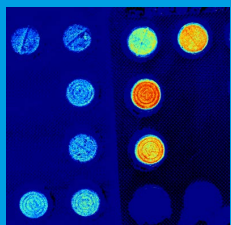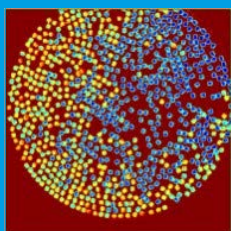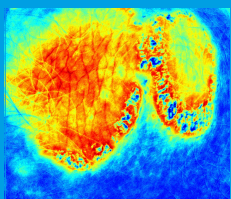
Fusarium detection in cereals.

Counterfeit detection.

Moisture in biscuits.

Coating analysis of granular products.

Skin imaging.

SPECTRAL IMAGING MADE EASY

VideometerLab 4

VideometerLab 4 is a spectral imaging instrument designed for fast and accurate determi-nation of color, texture, and chemical composition on surfaces up to 90*123 mm per image. The instrument is an easy-to-use system integrating illumination, camera, and computer technology with advanced digital image analysis and statistics. Using strobed LED techno-logy VideometerLab 4 combines measurements at up to 20 different wavelengths into a single high-resolution spectral image. Every pixel in the image is a reflectance spectrum and the instrument may include UV, visual, and NIR wavelengths.

VideometerLab 4
KEY FEATURES AND ADVANTAGES

- Integrating sphere providing homogeneous and diffuse illumination.
- Spectral imaging and quantitative analysis in 5-10 seconds.
- 19-20 different wavelengths/illuminants.
- Multispectral fluorescence option.
- Autofeeder option for granular products.
- 6 or 12.3 Mpixels per wavelength providing 246-360 million pixels/image.
- Standardized instrument including easy-to-use instrument calibration.
- Superior color determination compared to traditional RGB technology.

- Automatic change of dynamic range, depending on the application.
- Long lifetime of the light sources. Up to 100.000 hours.
- Increased stability due to LED source technology.
- Combined frontlight and backlight using optional backlights.
- Automatic movement of illumination in relation to the sample.
- Powerful exploratory software for R&D.
- Recipe building tool for easy-to-use routine applications.

VideometerLab 4

## TECHNICAL SPECIFICATIONS

Light sources	19 high power LED sources with a range from 365 nm to 970 nm. One optional external light source.
Image size	2992 * 4096 pixels.
Resolution	~30 µm / pixel
Dynamic range	Optimized according to the application using autolight setup.
Calibration	Absolute reflectance calibration using 2 reflectance calibration targets and one geometric calibration target. Simple calibration wizard procedure that takes 3 minutes.
Sample size	Free height max. 90 mm, field-of-view 90*123,mm.
Time of complete analysis	5-10 seconds per sample.
Dimensions instrument Dimensions flight case	460-560 mm(h) * 430 mm(w) * 600 mm(d) 570 mm(h) * 500 mm(w) * 710 mm(d).
Weight	13.2 kg (Net), 25.1 kg (Gross).
Power supply	110-240 VAC, 50/60 Hz.
Ambient temperature	Operation: 5-40 °C, Storage: –5-50 °C.
Ambient humidity	20-90 % RH non-condensing.
PC requirements Software requirements	Minimum configuration: Intel i7 10th generation or better, 32 GB RAM, USB-C port. Microsoft Windows 10 Professional 64 bit, full Windows update.
Hardware options	Darkfield/brightfield backlight. Darkfield frontlight. Filter changer (for combined reflectance/fluorescence). VideometerLiq for liquid stability. Topshade for glossy samples. Autofeeder (for granular products). Deep UV excitation light source 270-340 nm.
Software options	Image processing toolbox (IPT). Spectral imaging toolbox (MSI). Blob toolbox. Classification Design Tool (CDT).

Videometer offers a wide range of multi spectral imaging instruments measuring what you see with your eyes – and beyond. They are fast, non-destructive, versatile, and reproduceable with world-leading accuracy. The accompanying Videometer software provides a unique variety of machine learning and AI spectral imaging analysis tools. Laboratory, at-line, on-line, and in-line systems are designed for quality assurance, process control, PAT, and product development.
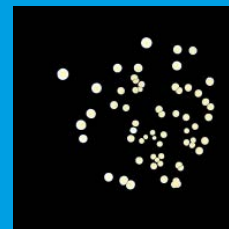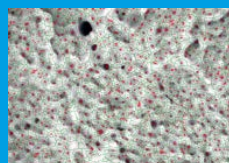
Colony counting.
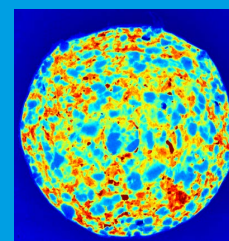
Salami fermentation.

Powder analysis.

Pore structure analysis.

Textile analysis.