

508 PV™
Microscope
Spectrometer

508 PV™ Microscope Spectrophotometer

Add spectroscopy to your microscope

The 508 PV™ microscope spectrophotometer is designed to add spectroscopy, color imaging, thin film thickness measurement and colorimetry capabilities to your optical microscope or probe station. It can also be used to upgrade an older microspectrometer with cutting edge optics, electronics and software.

The 508 PV™ attaches to an open photoport and enables you to collect transmission, reflectance, polarization or even fluorescence and luminescence spectra of microscopic samples. Featuring Lightblades™ spectrophotometer technology from CRAIC, the 508 PV™ spectrophotometer has a usable spectral range from the ultraviolet to the near infrared. With the 508 PV™, you can acquire high quality spectra of even sub-micron samples rapidly, non-destructively and with ease.

The 508 PV™ microscope spectrophotometer is ideal for diverse applications such as colorimetry of pixels on flat panel displays, reflectometry of vitrinite coal and source rock, or thin film thickness measurements of optics and semiconductors. The 508 PV™ is also a cost effective way to upgrade older microspectrometers to the latest hardware and software.

Introduction



Features

Key Features*

Add the 508 PV™ to any microscope or probe station for spectroscopy, colorimetry and micro spot film thickness.

- Featuring Lightblades (<https://www.microspectra.com/component/content/article/34-products/236-lightblades>)™ spectrophotometers designed specifically for microspectroscopy
- User selected spectral range from deep UV to NIR
- 250 to 2100 nm available spectral range
- Permanently calibrated, variable measurement areas even below a micron
- Thermoelectric cooling available to improve signal-to-noise ratios and long term stability.
- Incorporates high resolution, color digital imaging...up to 6 megapixels available
- Featured with LambdaFire™ (<https://www.microspectra.com/products/craic-software/lambdafire-spectroscopy-software>) spectroscopy and imaging control and analysis software. LambdaFire™ also includes touchscreen control.
- Calibrated, variable measurement areas even smaller than a micron
- Transmission microspectroscopy
- Reflectance microspectroscopy



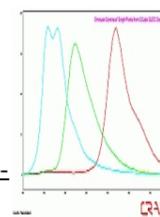
- Fluorescence microspectroscopy
- Polarization microspectroscopy
- Photoluminescence microspectroscopy
- Thin film thickness measurements (<https://www.microspectra.com/products/craic-software/microspot-film-thickness>)
- Colorimetry (<https://www.microspectra.com/products/craic-software/colorimetry>) of microscopic samples
- Refractive index measurements (<https://www.microspectra.com/products/riq>) with the rIQ™ package
- Manual or fully automated operation (<https://www.microspectra.com/component/content/article/34-products/94-microspectrometer-automation>)
- Precision temperature control (<https://www.microspectra.com/component/content/article/34-products/219-thermal-stage>) of samples
- Specialized software (<https://www.microspectra.com/products/craic-software>) including statistical analysis, spectral databasing, image analysis and more
- NIST traceable microspectrometer standards (<https://www.microspectra.com/products/craic-nist-standards>)
- Easy to use and maintain
- From *the* experts in microspectroscopy

UV-vis-NIR Microspectroscopy

Adding spectroscopy to your microscope™

The 508 PV™ is a spectrophotometer, incorporating an imaging system, designed to add to any microscope or probe station with a photoport. Configurable for work ranging from the deep UV through the visible and into the near infrared, this powerful tool gives your systems new capabilities including film thickness measurements and colorimetry.

Featuring Lightblades (<https://www.microspectra.com/component/content/article/34-products/236-lightblades>)™ technology, the 508 PV™ also allows you the ability to measure transmission, reflectance, polarization and photoluminescence spectra of even sub-micron samples.

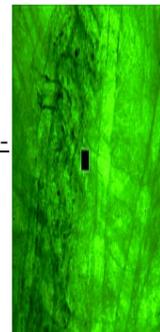


Photoluminescence

Cutting edge fluorescence & luminescence

The 508 PV™ can be configured for fluorescence and luminescence spectroscopy of even sub-micron samples.

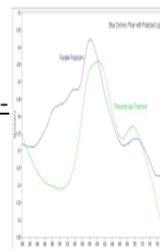
Featuring Lightblades (<https://www.microspectra.com/component/content/article/34-products/236-lightblades>)™ technology and with the ability to measure the fluorescence and luminescence from the UV to the NIR, the 508 PV™ is a powerful tool for photoluminescence analysis of materials sciences, biology, geology and more.



Polarization

Polarization Microspectroscopy

The 508 PV™ can be configured to acquire the polarization spectra of microscopic samples. Featuring Lightblades (<https://www.microspectra.com/component/content/article/34-products/236-lightblades>)™ technology, the 508 PV™ polarization microspectroscopy capabilities allow you to acquire spectra of birefringent and other types of samples quickly and easily.

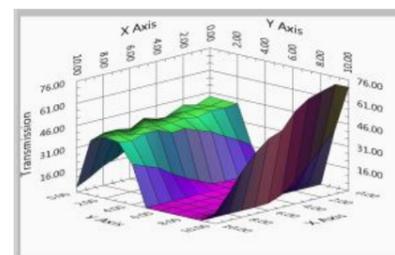


Spectral Surface Mapping

5D Spectral Surface Mapping™

(<https://www.microspectra.com/products/craic-software/5d-hyperspectral-mapping>)

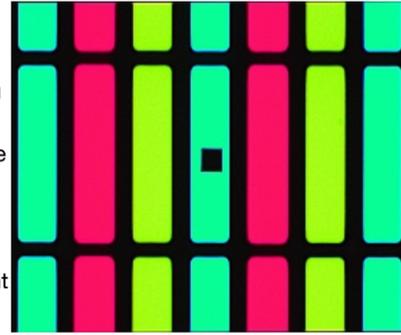
Combines hardware and software for automated spectral analysis and 5D mapping of samples with microscopic spatial resolution. 5D maps of the absorbance, transmission, reflectance, fluorescence, emission and Raman spectra of samples may be generated.



Imaging & Microscopy

High resolution color digital imaging

The 508 PV™ features high resolution, color digital imaging with sophisticated software. It allows you to simultaneously see both the spectrophotometer entrance aperture and the sample. This makes it very easy to align the sample for measurements and to capture full color images under any measurement conditions.



Applications

Applications

- Add spectroscopy to a microscope
- Add thin film thickness measurements to a probe station
- Upgrade an older microspectrophotometer
- Colorimetry of LCD and OLED displays
- Vitrinite reflectance of coal, coke and petroleum source rock
- Biotechnology research

Support

CRAIC Technologies provides service and support for its instruments worldwide. CRAIC Technologies service engineers offer instrument repair, maintenance, training and technical support for all aspects of CRAIC Technologies products.

- [Technical Support \(https://www.microspectra.com/support/technical-support\)](https://www.microspectra.com/support/technical-support)
- [Service Contracts \(https://www.microspectra.com/support/service-contracts\)](https://www.microspectra.com/support/service-contracts)
- [Standards Recertification \(https://www.microspectra.com/support/service-contracts\)](https://www.microspectra.com/support/service-contracts)
- [Preventative Maintenance \(https://www.microspectra.com/support/service-contracts\)](https://www.microspectra.com/support/service-contracts)
- [Instrument Relocation Services \(https://www.microspectra.com/support/service-contracts\)](https://www.microspectra.com/support/service-contracts)

The 508 PV™ Microscope Spectrophotometer can be configured to acquire spectra from the deep ultraviolet to the near infrared. It can be added to a microscope to acquire spectra and images in absorbance, reflectance, and fluorescence.

Perfect Vision for Science™

[Contact CRAIC Today!](#) 

/component/chronofoms5/?chronofom=product_information&productname=%20RFI%20for%20508%20PV%20Microspectrometer UV-visible-NIR microscopes, UV-visible-NIR microspectrometers and Raman microspectrometers are general purpose laboratory instruments. They have not been cleared or approved by the European IVD Directive, the United States Food and Drug Administration or any other agency for diagnostic, clinical or other medical use.

The lit octagonal optical head is a trademark of CRAIC Technologies, Inc. CRAIC Technologies, 508™, 508 PV™ and "Perfect Vision for Science" are all trademarks of CRAIC Technologies, Inc. Instrument features offered depend upon instrument configuration. Features listed here may not be present in some configurations.

*Features and specifications depend upon instrument configuration. Specifications subject to change without notice.



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