



DATASHEET
EOC-SI-R8800
True Confocal Scientific-Grade Raman Microscope

Description

The EOC-SI-R8800 series scientific-grade Raman microscope integrates 4 lasers, and combines the advantages of the microscope and the Raman spectrometer. Our Raman imaging microscope visualizes precision positioning the micro-area of the sample at the microscope platform, so that the observer can collect the Raman signals from different surface of the sample, and meanwhile displaying the image of the detected areas on the computer.

The EOC-SI-R8800 series integrates automatic focus, automatic scanning, mapping, high throughput tests, uniformity scanning etc. into one, no need to wait and can be obtained highly reliable scanning imaging of Raman database very fast.

EOC-SI-R8800 is also equipped with objective options, which brings laser spots to the limit of diffraction, and then displays focus information accurately and intuitively on the computer through 5-mega cameras.

EOC-SI-R8800 perfectly solves the loss of the camera imaging time path, and realizes the separation of camera imaging from Raman signal collection, so as to obtain the best signal intensity. At the same time, the EOC-SI-R8800 uses high-performance Raman system with the scientific grade sensitive, signal-to-noise ratio, stability, which represent a leading level in the industry, providing a strong guarantee for Raman spectroscopy research.

Features:

- Fully automated Raman imaging, auto-focus and auto-scan.
- Ultra-large imaging (50X50mm), automatic image splicing.
- Support up to four excitation wavelengths Raman system.
- Rotating grating design, integrated high resolution and wide range advantage in one equipment
- Seal door design fit to different ambient light
- Long focal length & super high-resolution design.
- Ultra-field imaging function (optional).
- Super sensitivity, SNR > 6000:1.
- The maximum integration time reach up to 1.3 hours.
- True focus ensures more accurate Raman images.
- Ultra-high spatial resolution.
- Exclusive software for switching optical path.
- Fast positioning and quickly find the focus position.
- Good quality objective lens, spot size up to micron.
- 5-mega cameras with clear and accurate images
- USB 2.0 connector to the computer.

Application:

- Nanoparticles and new materials.
- Research institute research.
- Biological sciences.
- Forensic expertise.
- Materials science.
- Medical immune analysis.
- Agricultural and food identification.
- Gemstones and inorganic mineral identification
- Environmental science

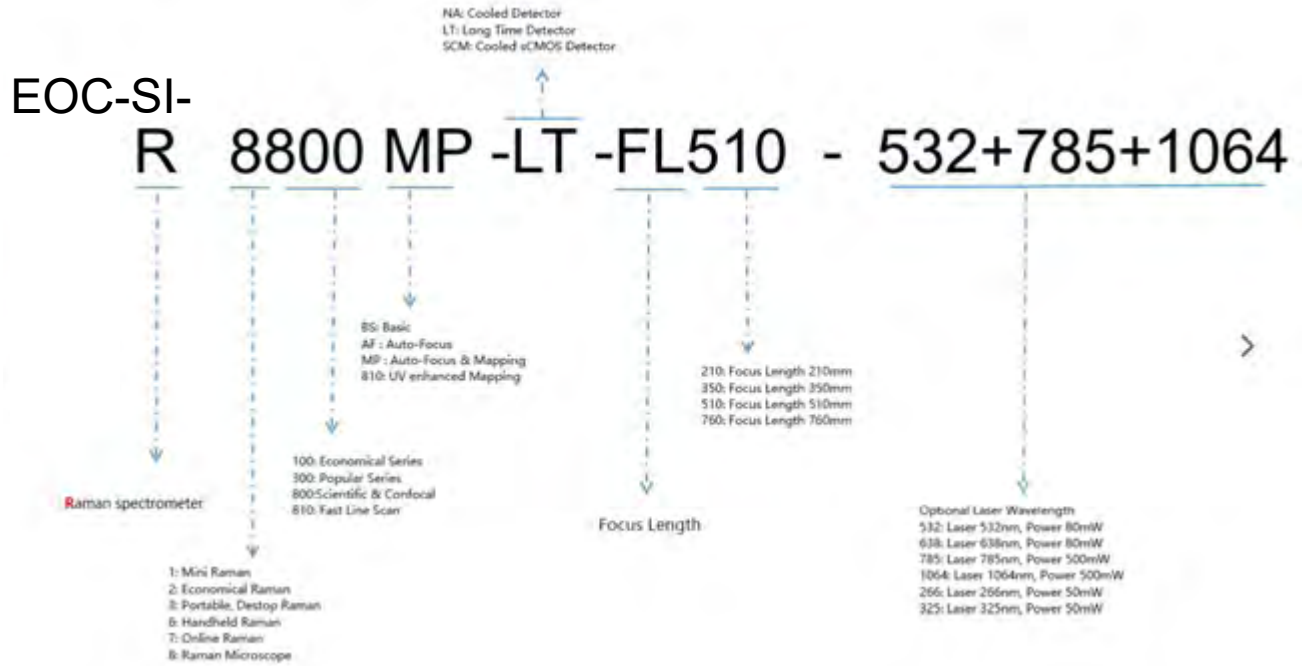


EOC-SI-R8800 Product Selection Table

Model	Focus length	Excitation wavelength /nm	Laser power /mW	Maximum wave number range	Miniature resolution/cm ⁻¹
EOC-SI-R8800-FL350	350mm	325	30	150 ~ 4000	2.6
		532	100	200 ~ 3700	1.4
		638	80	200 ~ 3500	1.4
		785	350	200 ~ 3500	2.1
		1064	500	200 ~ 2500	5.2
EOC-SI-R8800-FL510	510mm	325	30	150 ~ 4000	1.9
		532	100	200 ~ 3700	0.9
		638	80	200 ~ 3500	0.9
		785	350	200 ~ 3500	1.4
		1064	500	200 ~ 2500	3.6
EOC-SI-R8800-FL760	760mm	325	30	150 ~ 4000	1.2
		532	100	200 ~ 3700	0.5
		638	80	200 ~ 3500	0.5
		785	350	200 ~ 3500	1.0
		1064	500	200 ~ 2500	2.7

EOC-SI-R8800LT:
 3rd stage cooling to -30°C, long integration time (up to 1.3h)
 EOC-SI-R8800SCM:
 Te-Cooled sCMOS detector
 EOC-SI-R8800BS: Basic series
 EOC-SI-R8800AF: Auto-focus
 EOC-SI-R8800MP: Scan imaging-Mapping, Auto-focus

Order Guide:



EOC-SI-R8800 Performance Parameters	
Excitation wavelength	325, 532,633,638,785,1064nm Optional
Laser power	325nm: 30mW 532nm: 100mW 633nm: 80mW 638nm: 80mW 785nm: 350mW 1064nm: 500mW
Optical path	C-T optical path
Focal length	350mm,510mm,760mm Optional
Objectives	Standard configuration: 4X,10X,20X; Optional configuration: 50X,100X
Microscopic lighting	High brightness long life white light LED
Lighting Type	Epi Illumination
Microscope camera	5-mega pixels industrial camera
Focusing method	Confocal Focus
Laser spot diameter	>1 μ m
Laser stability	$\sigma/\mu < \pm 0.2\%$
Interface	USB2.0
X, Y axis two-dimensional platform	
Move method	Manual/Electric optional
Moving range	50 X 50 mm
Mobile resolution	0.1 μ m
Positioning accuracy	1 μ m
Scan speed	20 mm/s
Z axis (auto focus)	
Focus accuracy	$\leq \pm 0.2 \mu\text{m}$
Maximum stroke	20 mm
Focus speed	< 10 s
Physical parameter	
Dimensions	EOC-SI-R8800-FL210: 823(L) \times 500(W) \times 643(H) EOC-SI-R8800-FL350: 905(L) \times 500(W) \times 643(H) EOC-SI-R8800-FL510: 1009(L) \times 500(W) \times 643(H) EOC-SI-R8800-FL760: 1320(L) \times 500(W) \times 643(H)
Weight	EOC-SI-R8800-FL210: 53 Kg EOC-SI-R8800-FL350: 59 Kg EOC-SI-R8800-FL510: 63 Kg EOC-SI-R8800-FL760: 78Kg

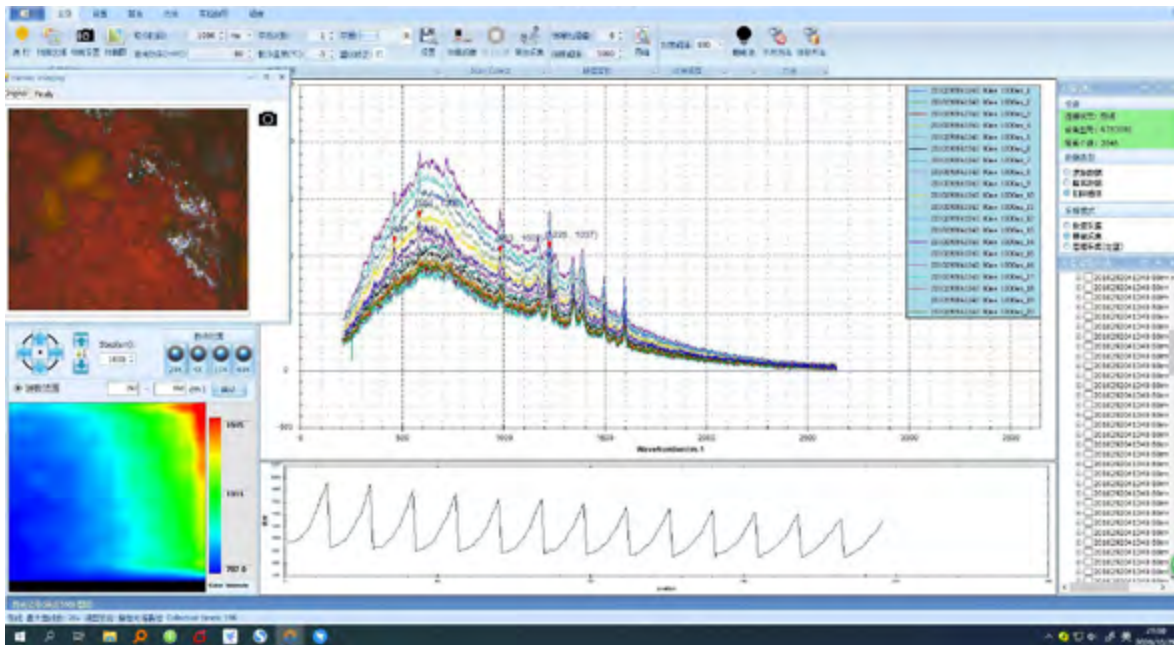


Fig 2 EOC-SI-R8800 software interface 1

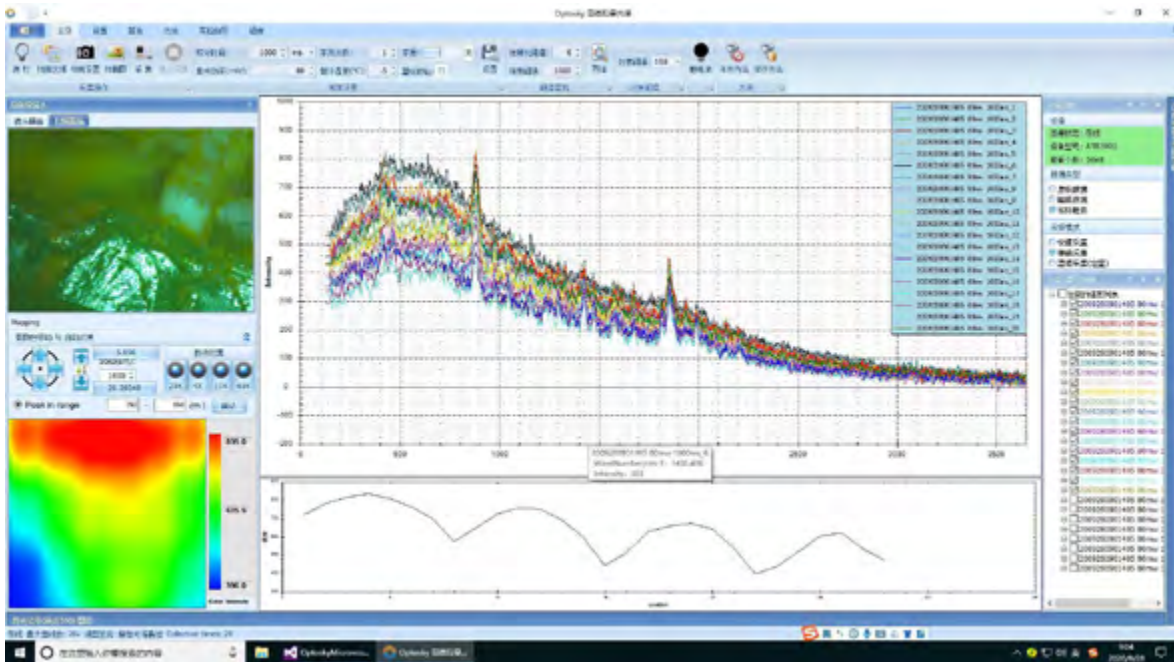


Fig 2 EOC-SI-R8800 software interface 2