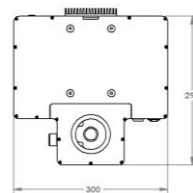




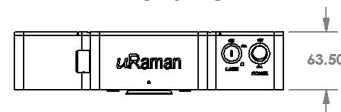
uRaman™ Modules integrated with Nikon Ci Upright Microscope

uRaman™ module dimension

Top View



Front View



### FEATURES

- Compact and affordable
- Research-grade sensitivity
- Laser spot size down to 1.0um
- User controllable laser power
- Available in 532nm, 633nm, 785nm, 830 nm
- Suitable for Raman, Photoluminescence and Fluorescence

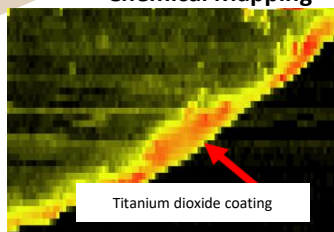
## uRaman™-Ci

The uRaman™-Ci is a complete Raman Microscopy System that consists of the uRaman module being integrated with the Nikon Ci-L research grade upright microscope. The uRaman™-Ci is capable of performing transmitted Brightfield Imaging with other add on such as Reflected Brightfield, Darkfield, DIC and Fluorescence imaging modes available.

We also have a full range of Nikon Objective Lens and accessories such as cuvette holder for measuring liquid samples for you to choose from.

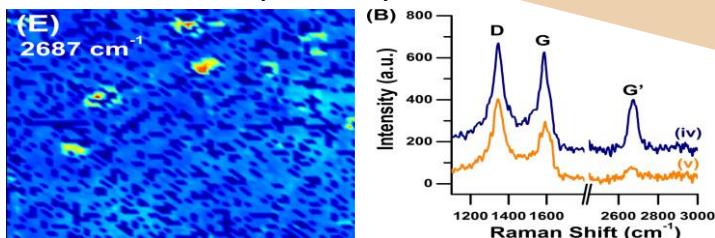
In addition, uRaman™-Ci can also be equipped with a XY Motorized Stage and uSoft Map Software for Raman Chemical Mapping.

### 2D Raman Chemical Mapping



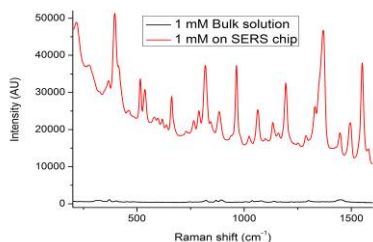
Mapping of the pharmaceutical tablet revealing the external titanium dioxide coating.

### Graphene Sample



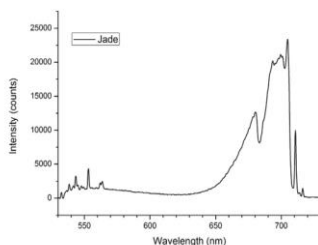
Graphene Spectrum and chemical mapping using 532nm excitation.

### Surface Enhanced Raman Scattering (SERS)

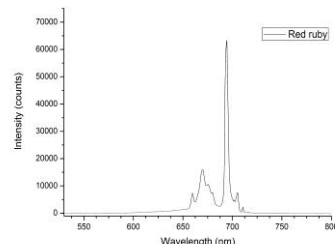


SERS enhancement of weak Raman signal by  $10^6$  times is very useful in applications involving low concentration detection.

### Photoluminescence



grade petrol.  
Photoluminescence sample of Jade with 532nm excitation.



Photoluminescence sample of Red Ruby with 532nm excitation.

## uRaman™-M Specification

Laser	532 nm	633 nm	785 nm	830 nm
Laser Type	Single Mode Frequency-Stabilized			
Laser Power	100 mW	70 mW	100 mW	100 mW
Laser FWHM Bandwidth	1 < MHz	<150 KHz	<100 KHz	<100 KHz
Detector	Cooled 2048 pixel CCD array			
Spectral Range/ resolution	95 / 200 - 5400 @10cm <sup>-1</sup> 95 / 200 - 3400 @ 8cm <sup>-1</sup> 95 / 200 - 1900 @ 6cm <sup>-1</sup>	80 / 160 - 3800 @ 8cm <sup>-1</sup> 80 / 160 - 2400 @ 6cm <sup>-1</sup>	80 / 150 - 3600 @ 9cm <sup>-1</sup> 80 / 150 - 2400 @ 6cm <sup>-1</sup> 80 / 150 - 2400 @ 10cm <sup>-1</sup>	150 - 2400 @ 6.5 cm <sup>-1</sup> 150 - 2800 @ 7cm <sup>-1</sup>
Integration Time	2 ms to 120 secs			
Software	uSoft			
Power Supply	12 Vdc			

## Nikon Ci-L Microscope Specification

Optical System	CFI60 Infinity Optical System
Eyepieces (F.O.V. mm)	CFI 10× (22) CFI 12.5× (16) CFI 15× (14.5) CFI UW 10× (25)
Focusing	Coaxial Coarse/Fine with Min 0.1mm/Focusing stroke 30mm
Tubes	Trinocular Tube (100/0,0/100)
Nosepiece	Sextuple Nosepiece
Stages	Cross travel 78 (X) x 54 (Y) nm. Manual right handle stage with 2 sample holder.
Condenser	Abbe NA 0.9
Observation methods	Brightfield, Epi-fluorescence, Darkfield, Phase contrast, Simple polarizing, Sensitive color polarizing
Power Consumption	6W LED (Brightfield configuration)
Weight	Approximately 13.4kg

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