

Архангельск (8182)63-90-72  
Астана (7172)727-132  
Астрахань (8512)99-46-04  
Барнаул (3852)73-04-60  
Белгород (4722)40-23-64  
Брянск (4832)59-03-52  
Владивосток (423)249-28-31  
Волгоград (844)278-03-48  
Вологда (8172)26-41-59  
Воронеж (473)204-51-73  
Екатеринбург (343)384-55-89  
Иваново (4932)77-34-06

Ижевск (3412)26-03-58  
Иркутск (395)279-98-46  
Казань (843)206-01-48  
Калининград (4012)72-03-81  
Калуга (4842)92-23-67  
Кемерово (3842)65-04-62  
Киров (8332)68-02-04  
Краснодар (861)203-40-90  
Красноярск (391)204-63-61  
Курск (4712)77-13-04  
Липецк (4742)52-20-81

Магнитогорск (3519)55-03-13  
Москва (495)268-04-70  
Мурманск (8152)59-64-93  
Набережные Челны (8552)20-53-41  
Нижний Новгород (831)429-08-12  
Новокузнецк (3843)20-46-81  
Новосибирск (383)227-86-73  
Омск (3812)21-46-40  
Орел (4862)44-53-42  
Оренбург (3532)37-68-04  
Пенза (8412)22-31-16

Пермь (342)205-81-47  
Ростов-на-Дону (863)308-18-15  
Рязань (4912)46-61-64  
Самара (846)206-03-16  
Санкт-Петербург (812)309-46-40  
Саратов (845)249-38-78  
Севастополь (8692)22-31-93  
Симферополь (3652)67-13-56  
Смоленск (4812)29-41-54  
Сочи (862)225-72-31  
Ставрополь (8652)20-65-13

Сургут (3462)77-98-35  
Тверь (4822)63-31-35  
Томск (3822)98-41-53  
Тула (4872)74-02-29  
Тюмень (3452)66-21-18  
Ульяновск (8422)24-23-59  
Уфа (347)229-48-12  
Хабаровск (4212)92-98-04  
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Череповец (8202)49-02-64  
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# Усовершенствованный конфокальный рамановский микроскоп

## Advanced Confocal Raman Microscope



- ATR8500 designed optimal optical path to improve the sensitivity up to 8 times higher than the miniature Raman microscope ATR8300. Free space patent technology optimization.
- ATR8500 designed user-friendly cabinet door to perform measurement at any time and space. It requires an exclusive room to perform the measurement in the dark condition in the past, but this new design can shut the door to perform accurate measurement without lighting. In addition, the inner light installed can be turned on after finishing measurement to see clearly inside.
- ATR8500 allow for customized triple bands selection among 532nm, 633nm, 785nm, 830nm and 1064nm.
- ATR8500 designs auto-focus, auto-scan, and one button operate a scientific-grade confocal Raman microscope.
- ATR8500 upgrade the laser spot size up to 1.6µm.
- The most advanced software can transfer the microscope imaging to computer screen in real time, Visualize accurate position by Raman spectrometer, and the observer can detect Raman signal of samples status on different surfaces, meanwhile synchronizing on PC display microarea status to be detected, it has greatly facilitated microarea detection by Raman spectroscopy tech.
- Reliable Raman database can be obtained in real time

- ATR8500 configured exclusive objective for Raman system, it makes laser spot size close to diffraction limits, and by using 5-mega camera can display focus information intuitively on computer screen. It can collect the maximum Raman signal from the best status of focal plane, and it perfectly solve collecting Raman signal collected above or below the best focal plane.
- ATR8500 unique software optical path switch reduce signal loss during camera imaging, it realize Raman signal collection is separated from camera imaging, and obtain the best Raman signal intensity.
- ATR8500 integrates the highest performance Raman spectrometer with excellent sensitivity, SNR, stability that are excel in the Raman scientific research industry.
- The most Powerful user friendly software make micro area imaging, imaging spicing functions into one instrument

## How To Select ATR8500 Series Models Type and Wavelengths?

Step 1: Choose model types from Single-Band, Dual-Band, and Triple-Band.

Step 2: Choose the wavelength and wavenumber range can refer to datasheet model selection sheet below:

Fig 1 ATR8500 Order Guide:

|                                       | Model                | Laser wavelength/nm | Laser Power/mW | Wavenumber | Resolution /cm <sup>-1</sup> |
|---------------------------------------|----------------------|---------------------|----------------|------------|------------------------------|
| Single wavelength Raman Microscope    | ATR8500-532          | 532                 | 100            | 200 ~ 3700 | 5 ~ 7                        |
|                                       | ATR8500-633          | 633                 | 50             | 200 ~ 3500 | 3 ~ 6                        |
|                                       | ATR8500-785          | 785                 | 500            | 200 ~ 3500 | 3 ~ 8                        |
|                                       | ATR8500-1064         | 1064                | 500            | 200 ~ 2600 | 7 ~ 12                       |
|                                       | ATR8500-830          | 830                 | 500            | 200 ~ 3500 | 3 ~ 8                        |
| Dual wavelength Raman Microscope      | ATR8500-785+1064     | 785+1064            | 500            | 200 ~ 3500 | 3 ~ 8                        |
|                                       |                      |                     | 500            | 200 ~ 2600 | 7 ~ 12                       |
|                                       | ATR8500-532+633      | 532+633             | 100            | 200 ~ 3700 | 5 ~ 7                        |
|                                       |                      |                     | 50             | 200 ~ 3500 | 3 ~ 6                        |
|                                       | ATR8500-532+1064     | 532+1064            | 100            | 200 ~ 3700 | 5 ~ 7                        |
|                                       |                      |                     | 500            | 200 ~ 2600 | 7 ~ 12                       |
|                                       | ATR8500-532+785      | 532+785             | 100            | 200 ~ 3700 | 5 ~ 7                        |
|                                       |                      |                     | 500            | 200 ~ 3500 | 3 ~ 8                        |
|                                       | ATR8500-633+1064     | 633+1064            | 50             | 200 ~ 3500 | 3 ~ 6                        |
|                                       |                      |                     | 500            | 200 ~ 2600 | 7 ~ 12                       |
| Tri-bands wavelength Raman Microscope | ATR8500-532+633+1064 | 532+633+1064        | 100            | 200 ~ 3700 | 5 ~ 7                        |
|                                       |                      |                     | 50             | 200 ~ 3500 | 3 ~ 6                        |
|                                       |                      |                     | 500            | 200 ~ 2600 | 7 ~ 12                       |
|                                       | ATR8500-532+785+1064 | 532+785+1064        | 100            | 200 ~ 3700 | 5 ~ 7                        |
|                                       |                      |                     | 50             | 200 ~ 3500 | 3 ~ 8                        |
|                                       |                      |                     | 500            | 200 ~ 2600 | 7 ~ 12                       |

RAMAN SPECTROMETER SYSTEM PARAMETERS

|                          |                              |
|--------------------------|------------------------------|
| Interface                | 2.0                          |
| Laser Stability          | $\sigma/\mu<\pm0.2\%$        |
| Microscope Camera System | Camera: 5-mega pixels camera |
| Focus Type               | Conjugating / Confocal Focus |

X,Y-AXIS ELECTRONIC CONTROLLED PLATFORM

|                      |         |
|----------------------|---------|
| Moving Range         | 50×50mm |
| Moving Resolution    | 0.1μm   |
| Positioning Accuracy | 1μm     |
| Scan Speed           | 20mm/s  |

Z-AXIS (AUTO-FOCUS)

|                |                            |
|----------------|----------------------------|
| Focus Accuracy | $\leq\pm0.2\pm\mu\text{m}$ |
| Focus Speed    | <10s                       |

|                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                         |
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