

ATR8000 full-auto & high throughput Portable Raman Analyzer is a all-auto detection instrument for improving detection throughput, reducing workload & protecting the health of testing personnel.

ATR8000’s software uses two-dimensional platform of high-precision & all-auto scanning technique. And it runs automatically at original manual operation with the step of Raman test, calculating the result, judgment, display & printing results, etc.

ATR8000 set to test 100 (maximum number)) samples at once. The sample tray can be changed and customized. It supports Raman probe illuminating laser beam from above which direct detection of SRES with Raman, and from the bottom to the top.

ATR8000 uses the customized Android with high security. It has thermal printer, bar code scanner, USB interface, WIFI & 4G with customized which can directly print or submit to competent authorities by internet for testing results.

**Specification：**

| **EXCITATION LIGHT** |
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| **Light Source** | Central wavelength: 785±0.5nm HBW: 0.08nm Maximum power ≥500mW Power stability σ/μ<±0.2% |
| **DETECTOR** |
| **Cooled Down To** | -10℃ |
| **Detector Type** | 200-1100nm dynamic range: 50000:1 |
| **Detector Model** | TE-Cooled |
| **RAMAN INSTRUMENT** |
| **Integration Time** | 4ms-120s |
| **Resolution** | 6, 8, 10 |
| **Weight** | 25kg |
| **Reliability** | Optical stability σ/μ<0.5% (COT 8 hours) Intensity variation<±5% |
| **Size** | 800\*500\*300nm |
| **Microscope Camera** | Working distance : 6mm Resistance:OD>8 |
| **Interface** | USB2.0 |
| **Temperature Reliability** | shift≤1cm-1(10-40℃) |
| **OPTICAL PARAMETER** |
| **Wavelength Range** | 250-2700, 200-3500, 200-4200(Customized) |
| **Working Temperature** | -10-40℃ |
| **Numberical Aperture** | 0.3 |
| **Working Humidity** | <95% |
| **SNR** | >3000:1 |
| **RAMAN PROBE** |
| **Aperture** | 7mm |

**Feature：**

l Test 100 samples at the same time;

l All-auto Detection;

l High sensitivity;

l Wavelength customized：532nm, 633nm, 785nm, 1064nm;

l Double wavelengths customized: 785+1064nm, 532+1064nm, 532+633nm, 633+1064nm;

l Bar codes & QR codes recognition, it is easy for management;

l High reliability;

l It can auto-identify, and auto-skip without sample;

l Smart & intuitive software supports operation.

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|  | Model | Excitation Wavelength /nm | Laser Power /mW | Wavelength Range | Resolution/cm-1 |
| Single Wavelength | ATR8000-532 | 532 | 100 | 200 ~ 3700 | 5 ~ 7 |
| ATR8000-633 | 633 | 50 | 200 ~ 3500 | 3 ~ 6 |
| ATR8000-785 | 785 | 500 | 200 ~ 3500 | 3 ~ 8 |
| ATR8000-1064 | 1064 | 500 | 200 ~ 2600 | 7 ~ 12 |
| ATR8000-830 | 830 | 500 | 200 ~ 3500 | 3 ~ 8 |
| Double Wavelength | ATR8000-785+1064 | 785+1064 | 500 | 200 ~ 3500 | 3 ~ 8 |
| 500 | 200 ~ 2600 | 7 ~ 12 |
| ATR8000-532+633 | 532+633 | 100 | 200 ~ 3700 | 5 ~ 7 |
| 50 | 200 ~ 3500 | 3 ~ 6 |
| ATR8000-532+1064 | 532+1064 | 100 | 200 ~ 3700 | 5 ~ 7 |
| 500 | 200 ~ 2600 | 7 ~ 12 |
| ATR8000-532+785 | 532+785 | 100 | 200 ~ 3700 | 5 ~ 7 |
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| ATR8000-633+1064 | 633+1064 | 50 | 200 ~ 3500 | 3 ~ 6 |
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