

WP Raman X series

Powerful & comprehensive compact Raman



POWER, FLEXIBILITY & STYLE

Single design philosophy, multiple configurations for research & OEM use

High sensitivity, compact bench based on our patented [VPH transmission gratings](#)

Choice of fiber input aperture: f/1.3 for maximum signal or f/1.8 for resolution

Modular design: spectrometer only / integrated laser / laser + interface optics

User-configurable input coupling & slit

Our 'OEM inside' design ensures reliable, consistent, thermally stable results

Harness the full power of Raman with a sensitive, configurable optical bench that can take you from idea to application development and out into the world. We've designed the X series specifically for the needs of Raman spectroscopy, leveraging our patented VPH transmission gratings to deliver superior efficiency at every wavelength, and consistent spectra every time. Our robust, modular opto-mechanical design adapts to **your** unique application needs with options to balance signal and noise with resolution, power consumption, and degree of system integration. We give you the power to make the measurements you need today and the flexibility to be ready for tomorrow, because the future of Raman - *your Raman* - is bright.

We offer the Raman applications expertise & sample evaluation to find your ideal solution.

[Contact us to get started!](#)




Designed for Innovation

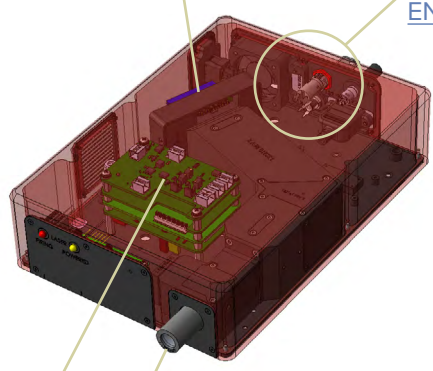
Transform research to reality with 'OEM Inside'

We've created our Raman X series optical platform for the people who don't like to be held back, who are always thinking ahead to the next step, and who want an instrument that can get them there faster. We've worked with researchers who are developing innovative new applications of Raman, and with OEM instrument manufacturers who require reproducible Raman to realize their ideas. The problems they seek to solve vary widely, but many of the needs we hear are the same: sensitivity, stability, and consistent results. Dependable answers begin with high quality data you can trust, and a company you can trust to deliver.

That's why we've designed a unique line of Raman products to meet the needs of both, in a highly sensitive, configurable and manufacturable platform that accelerates an application's journey from research to reality. At the research/innovation stage, we get you started with a high throughput, low noise optical bench configured to your exact needs - and reconfigurable for future projects. Then, when you're ready to take your concept to market, we simply remove the cover. That's it. No redesign, no model redevelopment, no rework - just speed. We call it 'OEM Inside'. *Let's take a look.*




Choice of spectrometer only, spectrometer + laser, or fully integrated system & output in a single compact footprint



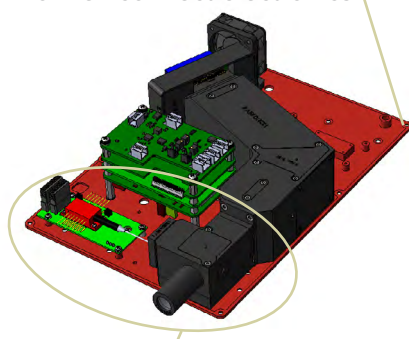
Choice of detector cooling level to balance cooling needs, cost and power consumption

Laser safety interlock & laser power control via our free [ENLIGHTEN™ software/SDKs](#)



Factory-reconfigurable input slit for spectrometer to balance signal & resolution

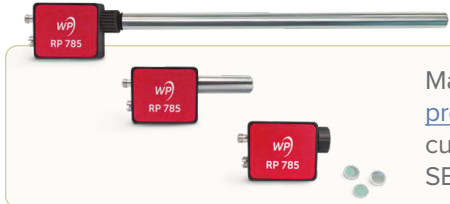
Select between f/1.3 input aperture for maximum signal or f/1.8 for best resolution



Streamlined 'OEM inside' bench with choice of mounting plate or flex-connect electronics

Onboard calibration data for spectral response & wavelength ensures high unit-to-unit reproducibility

Customized sampling interface, optical range/resolution, or laser for volume OEM developments



Matched user-configurable [Raman probes](#) for process, research, and custom sample interfaces - from SERS to SERDS and microscopy






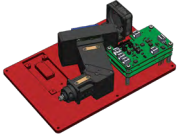
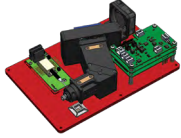
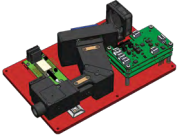
WP Raman X series

STANDARD PRODUCT SPECIFICATIONS & OPTIONS

One high-sensitivity optical bench, endless configurations to take you from research to reality. Standard models include spectrometer only, spectrometer + laser, or fully integrated spectrometer, laser & sampling optics. Design your own, or let us help you choose the best f/# and detector cooling for your needs with our applications knowledge & testing.

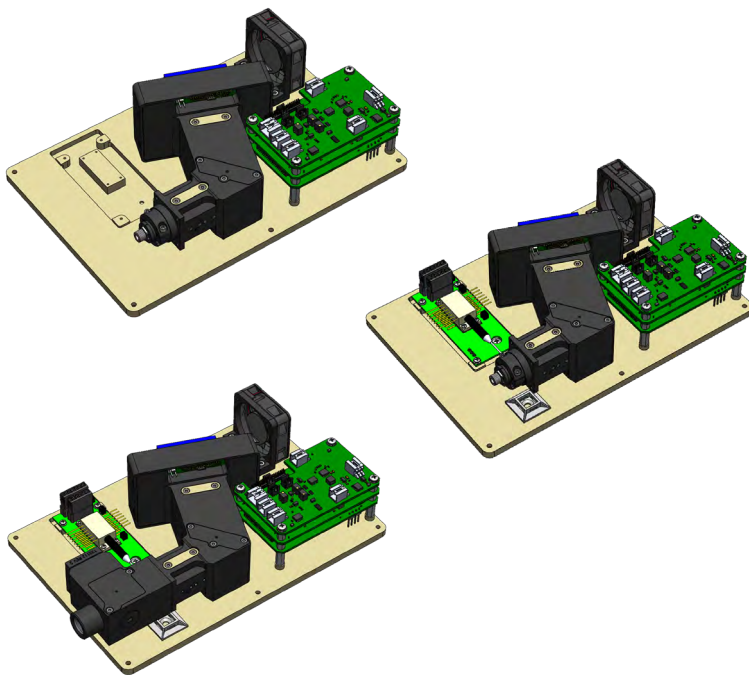
PART NUMBER	DETECTOR OPTION	SPECTRAL RANGE	RESOLUTION		DETECTOR COOLING	LASER OPTION	LASER + OPTICS	LASER SPECS
			f/1.3 Input	f/1.8 Input				
WP 532X	-R	270 - 4700 cm ⁻¹	10 cm ⁻¹	8 cm ⁻¹	10°C	✗	✗	N/A
	-C	270 - 4250 cm ⁻¹	11 cm ⁻¹	9 cm ⁻¹	-15°C			
WP 638X	-R	270 - 3800 cm ⁻¹	9 cm ⁻¹	7 cm ⁻¹	10°C	✓	✓	200 mW, multimode
	-C	270 - 3500 cm ⁻¹	10 cm ⁻¹	8 cm ⁻¹	-15°C			
WP 785X	-R	270 - 3500 cm ⁻¹	8 cm ⁻¹	7 cm ⁻¹	10°C	✓	✓	450 mW, multimode
	-C	270 - 3100 cm ⁻¹	9 cm ⁻¹	7 cm ⁻¹	-15°C			
WP 830X	-R	270 - 2950 cm ⁻¹	9 cm ⁻¹	8 cm ⁻¹	10°C	✓	✓	450 mW, multimode
	-C	270 - 2950 cm ⁻¹	10 cm ⁻¹	8 cm ⁻¹	-15°C			
WP 1064	-C	225 - 2500 cm ⁻¹	8 cm ⁻¹	—	-15°C	✓	✓	450 mW, multimode

*Resolution for a standard 25 μm slit. See product pages on wasatchphotonics.com for detailed specifications

CONFIGURATION OPTIONS	SPECTROMETER	SPECTROMETER + LASER	SPECTROMETER + LASER + PROBE
Spectrometer input	Fiber-coupled SMA 905 connector (FC/PC, free space collimating lens, or open slit upon request)		Fully integrated sampling optics: 22 mm working distance 120 μm laser spot size on sample
Laser output	N/A	450 mW, FC/PC connector	
Dimensions & Weight	24.3 x 17.2 x 6.0 cm, <1.8 kg		
Operating Temperature	0°C to 40°C, non-condensing		
Communications	USB 2.0 Type B connector		
Software / Control	ENLIGHTEN™ software & SDKs for developers (included at no charge)		
SYSTEM TYPE	FULLY MODULAR	SEMI-INTEGRATED	FULLY INTEGRATED
Complete your research & innovation system with our perfectly matched accessories	Add a user-configurable Raman probe, laser & sample holder 	Add a user-configurable Raman probe & sample holder 	Add a sample holder 
OEM INSIDE' MODEL	SPECTROMETER ONLY	SPECTROMETER + LASER	SPECTROMETER + LASER + PROBE
OEM schematic / layout (optional mounting plate with holes; flexible connection between optical bench & electronics also available)			
Dimensions & Weight	16.3 x 15.1 x 4.4 cm, 400 g (12.6 x 10.1 x 4.8 cm, 400 g for 1064X)	16.3 x 15.1 x 4.4 cm, 400 g (12.6 x 10.1 x 4.8 cm, 400 g for 1064X)	22.5 x 15.1 x 4.4 cm, 475 g (12.6 x 10.1 x 4.8 cm, 400 g for 1064X)

WP Raman X series for OEMS

Accelerate & simplify your product development



DESIGNED WITH OEMS IN MIND

Superior optical design based on our patented [VPH transmission gratings](#)

Choice of fiber input aperture: f/1.3 for maximum signal or f/1.8 for resolution

'OEM inside' design for rapid development

Configurable platform: spectrometer only / integrated laser / laser + interface optics

Fingerprint + functional Raman range

Choice of detector cooling level to balance noise level, power draw & cost

Robust, thermally stable optical bench

Dream bigger and innovate faster with a Raman engine that adapts to your unique application needs and evolves with you as you move from proof-of-concept to launch. Our 'OEM inside' design approach ensures that the high-sensitivity optical bench you use for application development & testing is the same optical bench you take into the field - delivering reliable, consistent answers every time. We understand the details important to Raman OEMs: calibrations to ensure excellent unit-to-unit reproducibility, customization options, [ISO-certified](#) processes, full lifecycle support, and more. Our vertically integrated supply chain, volume manufacturing facility, and personal commitment stand behind your products, in volumes from tens to thousands.

Partnership you can count on. Experience you can trust.

[Contact us to get started!](#)

