

WP 1064 Raman Spectrometer Series

The fastest, cleanest NIR Raman available



FEATURES AND BENEFITS

f/1.3 input to capture more light

Superior optical design based on patented transmissive VPH grating

>10x faster data sampling rates

TEC cooling for best SNR

SMA fiber coupled, free space, and integrated laser models

Compact, robust & configurable

Excellent thermal stability

We've maximized the efficiency of our spectrometers to give you more sensitivity, better SNR, and faster measurements. Collect more light with our f/1.3 input, keep more light with our high transmission VPH gratings & diffraction-limited optics, and detect more light with scientific-grade detectors. Our build-to-print options for resolution and sample coupling allow you to configure a spectrometer or integrated system with the exact performance you need.

Wasatch Photonics offers the expertise & testing to find your optimal Raman solution. Contact us to get started!

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STANDARD PRODUCT SPECIFICATIONS & OPTIONS

The configuration options for our build-to-print 1064 nm Raman spectrometer and integrated laser systems include slit size (resolution) and sample coupling (fiber coupled or free space). We use only high sensitivity TEC cooled detectors to ensure the best possible signal to noise (SNR) and spectral reproducibility at the shortest acquisition times.

OPTICAL		
DETECTOR COOLING >		TEC Cooled
Wavenumber Range ($\lambda_{ex} = 1064 \text{ nm}$)	250 - 1850 cm^{-1}	
Resolution	25 μm slit	6 cm^{-1}
	50 μm slit	10 cm^{-1}
f-number (f/#)	1.3	
Connector (fiber coupled models only)	SMA 905	

DETECTOR & ELECTRONICS	
DETECTOR COOLING >	TEC Cooled
Hamamatsu Detector	G9214-512S InGaAs array
Detector Temperature	-15°C
Detector Temperature Stability	$\pm 0.1^\circ\text{C}$
Active Pixels	512
Pixel Size	25 x 500 μm
Detector Quantum Efficiency: Average / Peak	82% / 84%
Dynamic Range	16,666
Signal to Noise Ratio (SNR)	2400:1
Readout Noise	180 e- RMS
Integration Time	1 ms - 60 s
Maximum Sample Frequency	500 Hz
Communications	USB 2.0 Type B connector

MECHANICAL & ENVIRONMENTAL		
	Fiber or Free Space Coupled	Integrated Laser Model (-L)
Size	11.7 x 13.0 x 7.0 cm	19.3 X 13.0 X 7.0 cm
Weight	1.6 kg	2.1 kg
Operating Temperature	0°C to 40°C, non-condensing	

LASER	
Integrated Laser Model (-L)	
Laser CWL	1064 nm
Power	350 mW
Type	Single mode

Custom options available upon request

