

# WP NIR I Spectrometer Series

The most sensitive NIR available



## FEATURES AND BENEFITS

- 900-1700 nm wavelength range
- f/1.3 input to capture more light
- Superior optical design based on transmissive VPH grating
- Fast data sampling rates
- TEC cooling for best SNR
- Fiber coupled & free space 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 system with the exact performance you need.

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

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## STANDARD PRODUCT SPECIFICATIONS & OPTIONS

The configuration options for our build-to-print NIR spectrometers 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 OPTIONS >		TEC Cooled
Spectral Range		900 - 1700 nm
Resolution	10 $\mu\text{m}$ slit	2 nm
	25 $\mu\text{m}$ slit	5 nm
	50 $\mu\text{m}$ slit	10 nm
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 $\mu\text{m}$
Detector Quantum Efficiency: Average / Peak	82% / 84%
Dynamic Range	16,666
Signal to Noise (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	
Size	16.5 x 12.7 x 5.1 cm
Weight	1.2 kg
Operating Temperature	0 °C to 40 °C, non-condensing

Custom options available upon request

