

# 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

USB, Ethernet & Bluetooth connectivity

Compact, robust & configurable

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, detector cooling, 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 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), sample coupling (fiber coupled or free space), and detector cooling (ambient temperature or regulated). We offer a high sensitivity TEC cooled detector 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, Ethernet and Bluetooth optional

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

