

WP VIS-NIR Spectrometer Series

High throughput for speed or sensitivity



FEATURES AND BENEFITS

400-1080 nm wavelength range

f/2.0 input to capture more light

Superior optical design based on patented transmissive VPH grating

>10x faster data sampling rates

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/2.0 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 VIS-NIR spectrometers include slit size (resolution), sample coupling (fiber coupled or free space), and detector cooling (ambient temperature or regulated). We offer ambient and regulated detectors, allowing you to balance your required signal to noise (SNR) and temperature stability with cost for the best possible value.

OPTICAL			
DETECTOR COOLING OPTIONS >		Ambient	Regulated
Spectral Range		400 - 1080 nm	
Resolution	10 μm slit	1 nm	
	25 μm slit	2 nm	
	50 μm slit	4 nm	
f-number (f/#)		2.0	
Connector (fiber coupled models only)		SMA 905	

DETECTOR & ELECTRONICS			
DETECTOR COOLING OPTIONS >		Ambient	Regulated
Hamamatsu Detector		S10420-1006 CCD	S10420-1006 CCD
Detector Temperature		ambient	10°C
Detector Temperature Stability		-	$\pm 0.2^\circ\text{C}$
Active Pixels		1024 x 64	
Pixel Size		14 x 14 μm	
Detector Quantum Efficiency: Average / Peak		76% / 78%	
Dynamic Range		50,000	
Signal to Noise (SNR)		500:1	
Readout Noise		6 e- RMS	
Integration Time		1 ms - 60 s	
Maximum Sample Frequency		285 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

