

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 transmissive VPH grating

Fast data sampling rates

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/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 system with the exact performance you need.

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

WP VIS-NIR Spectrometer Series

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. 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 | 1.5 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 | | 62% / 77% | |
| Dynamic Range | | 50,000 | |
| Signal to Noise (SNR) | | 500:1 | |
| Readout Noise | | 6 e- RMS | |
| Integration Time | | 7 ms - 60 s | |
| Maximum Sample Frequency | | 285 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

