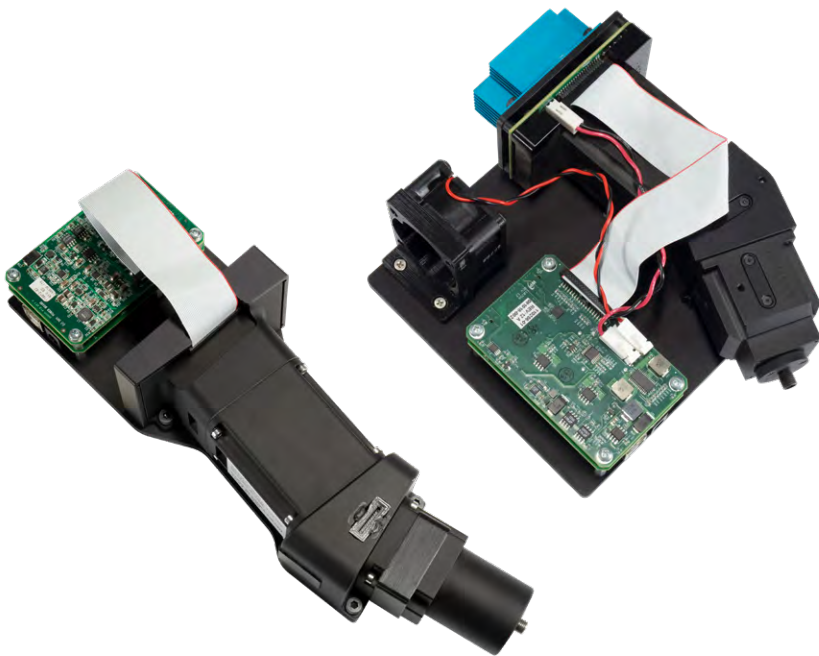


# WP VIS-NIR & NIR OEM Spectrometers

Boost your signal & speed your time to market



## FEATURES AND BENEFITS

- Industry-leading, high efficiency optics
- Patented VPH transmission gratings
- Diffraction-limited design for better SNR
- Excellent unit-to-unit reproducibility
- Robust, thermally stable optical bench
- Comprehensive engineering support
- Fiber coupled, free space & integrated laser models

At Wasatch Photonics, we've built a team that understands the needs of OEM customers, and a spectrometer bench that exceeds them. Our OEM spectrometers are robust, compact, and easy to integrate, while delivering the same outstanding sensitivity and SNR of our standard products. Our optical bench is designed in transmission with diffraction-limited optics, and remains aligned over temperature and at every wavelength to allow intensity matching to <10% across the spectrum. Consistency is key when you're designing a product to be built in the thousands, and we deliver – in performance, in expertise, and in the quality of our service.

Partnership you can count on. Experience you can trust.  
Contact us to get started!



# WP VIS-NIR & NIR OEM Spectrometers

## PRODUCT SPECIFICATIONS & OPTIONS

The configuration options for our build-to-print OEM spectrometers include slit size (resolution), sample coupling (fiber coupled, free space, or integrated laser), and starting wavelength (dependent on input filter). Our regulated detector ensures excellent SNR and stability at low cost. Contact us to discuss your needs for custom wavelength or range.

| OPTICAL            |                       |                            |                            |
|--------------------|-----------------------|----------------------------|----------------------------|
| MODELS AVAILABLE > |                       | WP VIS-NIR OEM             | WP NIR OEM                 |
| Wavenumber Range   |                       | 350 - 1000 nm              | 900 - 1700 nm              |
| FWHM Resolution    | 25 $\mu\text{m}$ slit | 1.5 nm                     | 5 nm                       |
|                    | 50 $\mu\text{m}$ slit | 3.0 nm                     | 6 nm                       |
| f-number (f/#)     |                       | 2.0                        | 1.3                        |
| Coupling options   |                       | SMA 905 or free space port | SMA 905 or free space port |

| DETECTOR & ELECTRONICS                       |  |                          |                          |
|----------------------------------------------|--|--------------------------|--------------------------|
| MODELS AVAILABLE >                           |  | WP VIS-NIR OEM           | WP NIR OEM               |
| Hamamatsu Detector                           |  | S10420-1106 CCD          | G9214-512SA InGaAs       |
| Detector Temperature                         |  | 10°C                     | -15°C                    |
| Detector Temperature Stability               |  | $\pm 0.2^\circ\text{C}$  | $\pm 0.1^\circ\text{C}$  |
| Active Pixels                                |  | 2048 x 64                | 512                      |
| Pixel Size                                   |  | 14 x 14 $\mu\text{m}$    | 25 x 500 $\mu\text{m}$   |
| Detector QE/Photosensitivity: Average / Peak |  | 66% / 77%                | 0.80 / 0.97 A/W          |
| Dynamic Range                                |  | 50,000                   | 16,666                   |
| Signal to Noise Ratio (SNR)                  |  | 500:1                    | 2400:1                   |
| Readout Noise                                |  | 6 e <sup>-</sup> RMS     | 180 e <sup>-</sup> RMS   |
| Integration Time                             |  | 3 ms - 60 s              | 1 ms - 60 s              |
| Maximum Sample Frequency                     |  | < 250 Hz                 | < 250 Hz                 |
| Communications                               |  | USB 2.0 Type B connector | USB 2.0 Type B connector |

| DETECTOR & ELECTRONICS |  |                             |                     |
|------------------------|--|-----------------------------|---------------------|
| MODELS AVAILABLE >     |  | WP VIS-NIR OEM              | WP NIR OEM          |
| Size                   |  | 19.0 x 7.0 x 4.3 cm         | 18.3 x 7.5 x 4.8 cm |
| Weight                 |  | 600 g                       | 600 g               |
| Power Consumption      |  | TBD                         | TBD                 |
| Operating Temperature  |  | 0°C to 40°C, non-condensing |                     |

Custom options available upon request

