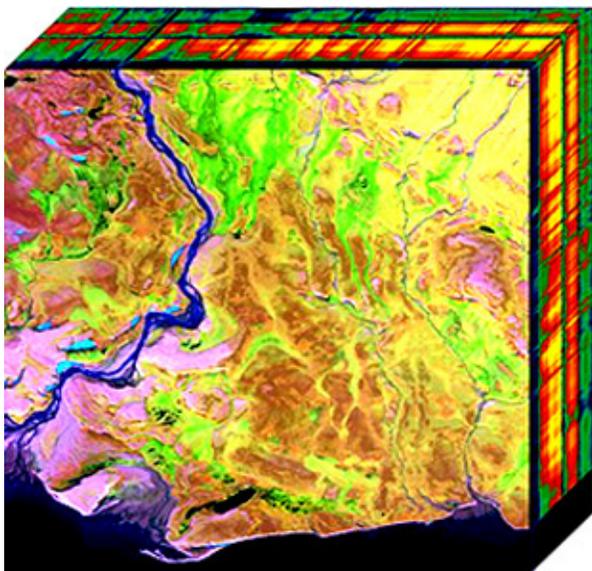


VPH Gratings for Spectral Analysis

Hyperspectral imaging and beyond



FEATURES AND BENEFITS

Patented broad bandwidth grating designs

Excellent 1st order diffraction efficiency for greater sensitivity and faster scan rates

Low polarization sensitivity, uniform efficiency

Near-zero ghosting & scatter – less stray light

Low wavefront error for clearer images

Robust design facilitates cleaning & handling

Ideal for NIR imaging to 2500 nm

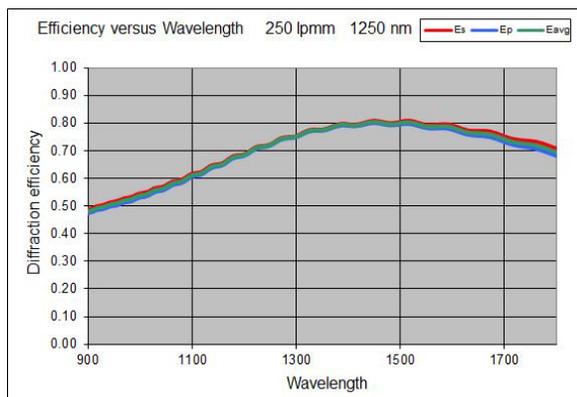
We build industry-leading spectrographs with our gratings, and you can too. Our transmissive VPH gratings offer the optical designer many advantages. They are more efficient and much lower scatter than reflective ruled gratings. More robust to handling, they enable transmissive spectral instruments that are smaller in size, lower aberration, and easier to align. At Wasatch Photonics, we apply our multiple patented technologies to optimize for bandwidth, low polarization sensitivity, and/or transmission. Choose from our range of stock gratings, or contact us to discuss your OEM needs.

Wasatch Photonics can customize a transmissive VPH grating to your exact size, wavelength, and dispersion needs. Contact us to get started!

Best-in-class spectral imaging is just a grating away.

Our volume phase holographic gratings are unmatched in performance, and outperform surface relief gratings in efficiency by up to 40%. Our proprietary process encapsulates the grating structure in a robust package, facilitating easy cleaning & handling during system build. From 350-2500 nm, we offer both broad bandwidth & high dispersion solutions to enable your next hyperspectral imager, Raman instrument, imaging spectrograph, or conventional spectrometer.

| | WP-250/1250-xx | WP-600/600-xx | WP-1800/532-xx | WP-600/1550-xx |
|------------------------------|---|--|--|--|
| Nominal Wavelength | 900 - 1800 nm | 450 - 750 nm | 450 - 650 nm | 1300 - 1800 nm |
| Efficiency (ave pol) | ≥ 70% at 1310 nm | ≥ 80% at 633 nm | ≥ 88% at 532 nm | ≥ 90% at 1550 nm |
| Spatial Frequency | 250 ± 0.5 lines/mm | 600 ± 0.5 lines/mm | 600 ± 0.5 lines/mm | 600 ± 0.5 lines/mm |
| Angle of Incidence | 9° @ 1250 nm | 10.4° @ 600 nm | 28.6° @ 532 nm | 27.7° @ 1550 nm |
| Sizes Available (-xx) | 30 mm Ø x 3.0 mm | 25.4 mm Ø x 3.0 mm 50.8 mm Ø x 6.0 mm | 25.4 mm Ø x 3.0 mm 50.8 mm Ø x 6.0 mm | 25.4 mm Ø x 3.0 mm 50.8 mm Ø x 6.0 mm |
| Wavefront Distortion | Standard: $\lambda/5$ rms Enhanced: $\lambda/10$ rms (@ 632.8 nm) | | | |
| Surface Quality | 60-40 scratch-dig | | | |
| AR Coating | Standard: R <math>< 1.0\%</math> Enhanced: R <math>< 0.5\%</math> (over bandwidth) | | | |



We offer broadband grating designs with highly efficient, low polarization-dependence performance at bandwidths of up to 1000 nm in the VIS/NIR, as modeled here.

OEM SOLUTIONS

Our patented HD gratings offer an advantage you won't find anywhere else – high efficiency and low polarization dependence over a broad wavelength range. As spectroscopists ourselves, we're able to customize our VPH gratings to the needs of your specific application, and can even provide turnkey spectrometer solutions to speed your system design and time to market. We work with you from initial design to volume production to provide full OEM customization and support.

With over 150 years of combined experience, our skilled staff is ready to meet the needs of your most demanding projects.