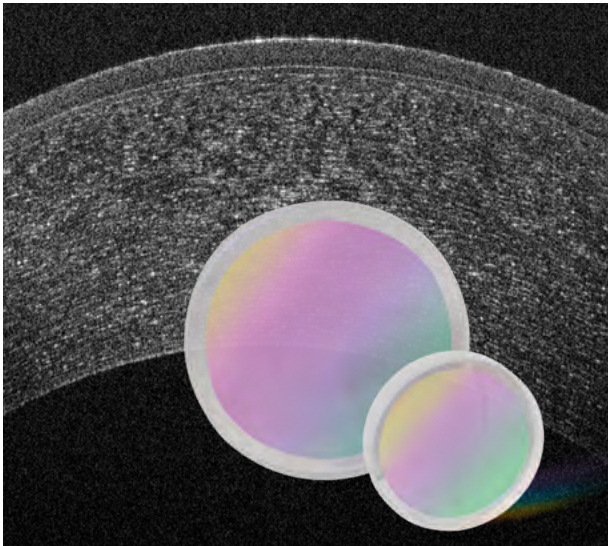




# VPH Gratings for OCT Imaging

Keep more light, get clearer images



## FEATURES AND BENEFITS

Patented broadband high dispersion designs

Excellent 1<sup>st</sup> order diffraction efficiency for greater sensitivity and faster scan rates

Superior uniformity over the full spectral band

Minimal polarization dependence

Low transmitted wavefront error

Robust, durable design for easy cleaning

Enables compact, transmissive optical designs

**Maximize your sensitivity and scan speed with our patented HD gratings.** The clearest, deepest SD-OCT images require an optical design that covers a broad bandwidth with maximum signal to noise. That's why we developed our HD gratings to have high efficiency for all polarizations, even at the extremes of a 100-200 nm operating wavelength range. Choose from our range of stock gratings, or draw on our expertise in OCT to design your ideal grating. Our OEMs trust us to work closely with them from initial concept to product launch, supporting volumes of tens to thousands.

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

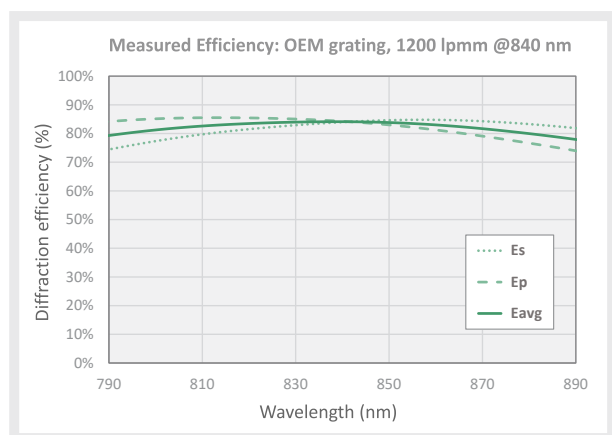




## High quality SD-OCT starts with the right grating.

Our volume phase holographic gratings are unmatched in performance and design, making them the #1 choice in ophthalmology and imaging. Our proprietary process encapsulates the grating structure in a robust package, facilitating easy cleaning & handling during system build. Transmissive VPH gratings allow more compact optical designs with higher efficiency and less stray light. Place our VPH gratings at the heart of your system and achieve clearer images, faster. Choose from our off-the-shelf gratings below for research, or contact us to discuss a custom design for your next OEM development project or product design, 300-2500 nm.

|                              | WP-1200/840-xx                                                               | WP-HD1800/840-xx                                                                 | WP-HD1145/1310-xx                                          |
|------------------------------|------------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------|
| <b>Nominal Wavelength</b>    | 740 - 940 nm                                                                 | 790 - 890 nm                                                                     | 1220 - 1400 nm                                             |
| <b>Peak Efficiency @ CWL</b> | ≥ 85%, ave pol                                                               | ≥ 82%, ave pol                                                                   | ≥ 86%, ave pol                                             |
| <b>Spatial Frequency</b>     | 1200 ± 0.5 lines/mm                                                          | 1800 ± 1 lines/mm                                                                | 1145 ± 1 lines/mm                                          |
| <b>Angle of Incidence</b>    | 30.2° @ 840 nm                                                               | 49.1° @ 840 nm                                                                   | 48.6° @ 1310 nm                                            |
| <b>Sizes Available (-xx)</b> | 25.4 mm Ø x 3.0 mm<br>50.8 mm Ø x 6.0 mm<br>25 x 25 x 3 mm<br>35 x 45 x 6 mm | 25.4 mm Ø x 3.0 mm<br>30.0 mm Ø x 6.0 mm<br>50.8 mm Ø x 6.0 mm<br>35 x 45 x 6 mm | 25.4 mm Ø x 3.0 mm<br>50.8 mm Ø x 6.0 mm<br>35 x 45 x 6 mm |
| <b>Wavefront Distortion</b>  | < $\lambda/5$ rms @ 633 nm over a 25 mm diameter                             |                                                                                  |                                                            |
| <b>Surface Quality</b>       | 60-40 scratch-dig                                                            |                                                                                  |                                                            |
| <b>AR Coating</b>            | Optimized for the specified wavelength range & AOI                           |                                                                                  |                                                            |



We measure every VPH transmission grating to ensure exceptional 1st order diffraction efficiency uniformity over the specified operating band. Not all vendors do!

### OEM SOLUTIONS

As the premier supplier of OCT gratings, we offer more design technologies to customize our VPH gratings to the needs of your specific application and optical design. Our industry leading Cobra OCT spectrometers use these gratings, and can be provided as turnkey or custom solutions to speed your system design and time to market. From prototyping through to volume production, we can provide solutions optimized for your exact OCT imaging needs, at wavelengths from 300 - 2500 nm.

Our skilled staff is ready to meet the needs of your most demanding projects.