

Edge Pass Filters – Spectroscopy

Optical edge pass filters are needed to isolate transmitted wavelengths from blocked wavelengths often in a sharp transition. This allows intelligent light instruments such as spectrometers to identify and effectively separate the excitation wavelength from emitted wavelengths without interfering with the wavelengths of interest.

This product line includes both short pass filters and long pass filters for a range of wavelengths (UV, visible and NIR – 400 to 2200 nm) and for various angles of incidence (AOI). Extra wide wavelength blocking is also available.

Advantage: Steep, high-blocking edge filters eliminate the need for multiple filters for spectral noise reduction and have a low ripple performance in transmission range. All filters use hard dielectric coatings and do not require cover glass for durability. This greatly improves the transmission levels in all our filters compared to traditional filters.

We are particularly adept at manufacturing edge pass filters with a very sharp transition between the reflect and pass bands while still maintaining very low insertion loss and pass band ripple. Low ripple in the pass band makes these filters suitable to meet the demanding specifications of spectroscopy instruments and telecom environments.



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Products

Ultra Steep Long Pass

Laser Line (nm)	6OD- 50% (nm)	Pass Band Start (nm)
442	1.4	444.8
457	1.4	459.9
476	1.4	479.5
488	1.4	491.1
514.5	1.6	517.8
532	1.7	535.4
633	2.0	637.0
638	2.4	642.0
650	2.1	654.1
660	2.1	664.2
676	2.3	680.3
752	2.3	756.8
785	2.5	790.0
830	3.6	840.0
1064	6.3	1071.0

Low-Ripple Long Pass

Laser Line (nm)	6OD- 50% (nm)	Pass Band Start (nm)
405	2.0	410.0
442	1.9	447.3
457	2.0	463.5
476	2.1	481.7
488	2.1	493.3
514.5	2.2	520.2
532	2.3	538.4
633	2.7	640.4
650	2.8	657.8
676	2.9	684.1
752	3.3	761.1
785	3.4	794.5
830	3.6	840.0

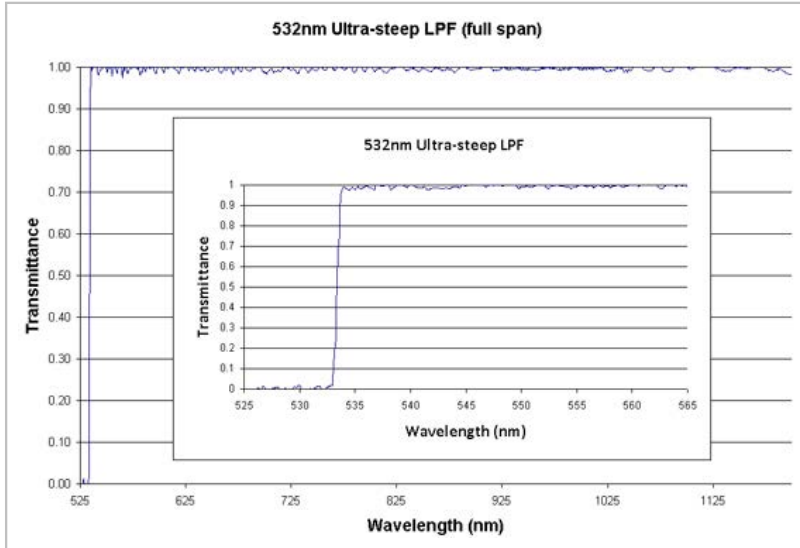
Optical Specifications

- Optical density at laser line (nm): > 6.0
- Peak transmission in pass band to 1200 nm (%): > 90
- Angle of incidence (degrees): 0.0

Physical Specifications

- Clear aperture (mm): 8 or 20 +0.0/-0.2
- Outer diameter (mm): 12.5 or 25 +0.0/-0.2 ring mounted
- Thickness (mm): 5.0 ± 0.1 ring mounted
- Surface quality: 60/40 scratch/dig

Sample Curve



Ultra Steep Short Pass

Laser Line (nm)	6OD- 50% (nm)	Pass Band Start (nm)	Pass Band End (nm)
488	1.7	350	485
514.5	1.9	350	512
532	2.0	350	529
632.8	2.4	380	629
785	3.1	470	779

Optical Specifications

- Optical density at laser line (nm): > 6.0
- Peak transmission in pass band (%): > 90
- Angle of incidence (degrees): 0.0

Physical Specifications

- Clear aperture (mm): 20 +0.0/-0.2
- Outer diameter (mm): 25 +0.0/-0.2 ring mounted
- Thickness (mm): 5.0 ± 0.1 ring mounted
- Surface quality: 60/40 scratch/dig

