

► Our line of standard interference filters is representative of typical industry specifications. Available to ship in 5 business days. Need sooner? Please contact us.

STANDARD – BANDPASS FILTERS

Bandpass Filters - UV

Center Wavelength (nm)	FWHM	Peak T%	Minimum Optical Density	Product SKU	Description
185	20	12%	4	XB32	185BP20
190	20	12%	4	XB33	190BP20
200	20	12%	4	XB34	200BP20
200	25	12%	3	XB35	200BP25
200	10	12%	3	XB36	200BP10
210	10	12%	3	XB37	210BP10
214	10	12%	3	XB38	214BP10
220	10	12%	3	XB39	220BP10
228	10	12%	3	XB40	228BP10
232	10	12%	3	XB41	232BP10
239	10	12%	3	XB42	239BP10
250	10	12%	3	XB43	250BP10
253.7	10	12%	3	XB44	253.7BP10
260	10	12%	3	XB45	260BP10
265	25	20%	3	XB46	265BP25
265	10	12%	3	XB47	265BP10
270	10	12%	3	XB48	270BP10
280	25	20%	3	XB49	280BP25
280	10	12%	3	XB50	280BP10
289	10	12%	3	XB51	289BP10
296.7	10	12%	3	XB52	296.7BP10
300	10	12%	3	XB53	300BP10
310	10	12%	3	XB54	310BP10
313	10	12%	3	XB55	313BP10
334	10	25%	3	XB56	334BP10
337	10	25%	3	XB57	337BP10
340	10	25%	3	XB58	340BP10
350	10	25%	3	XB59	350BP10
360	10	25%	3	XB60	360BP10
370	10	25%	3	XB61	370BP10
380	10	25%	3	XB62	380BP10
390	10	25%	3	XB63	390BP10

Bandpass Filters - Visible

Center Wavelength (nm)	FWHM	Peak T%	Minimum Optical Density	Product SKU	Description
400	50	40%	4	XB64	400DF50
400	25	40%	4	XB65	400DF25
400	10	35%	4	XB66	400BP10
405	10	35%	4	XB67	405BP10
405.4	3	30%	4	XB68	405.4NB3
410	10	50%	4	XB69	410DF10
420	10	50%	4	XB70	420DF10
430	10	50%	4	XB71	430DF10
435.8	10	50%	4	XB72	435.8BP10
440	10	60%	4	XB73	440DF10

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Bandpass Filters - Visible *Continued*

Center Wavelength (nm)	FWHM	Peak T%	Minimum Optical Density	Product SKU	Description
450	50	60%	4	XB74	450DF50
450	25	60%	4	XB75	450DF25
450	10	60%	4	XB76	450DF10
460	10	60%	4	XB77	460DF10
470	10	60%	4	XB78	470DF10
480	10	70%	4	XB79	480DF10
486.1	10	70%	4	XB80	486.1DF10
488	10	70%	4	XB81	488DF10
490	10	70%	4	XB82	490DF10
500	50	70%	4	XB83	500DF50
500	25	70%	4	XB84	500DF25
500	10	70%	4	XB85	500DF10
510	10	70%	4	XB86	510BP10
514.5	10	70%	4	XB87	514.5DF10
520	10	70%	4	XB88	520BP10
530	10	70%	4	XB89	530BP10
532	10	70%	4	XB90	532BP10
540	10	70%	4	XB91	540BP10
546.1	10	70%	4	XB92	546.1BP10
546.1	3	70%	4	XB93	546.1NB3
550	50	65%	4	XB94	550DF50
550	25	65%	4	XB95	550DF25
550	10	65%	4	XB96	550DF10
560	10	65%	4	XB97	560BP10
568.2	3	65%	4	XB98	568.2NB3
570	10	65%	4	XB99	570DF10
577	10	65%	4	XB100	577DF10
580	10	65%	4	XB101	580DF10
590	10	65%	4	XB102	590DF10
600	50	65%	4	XB103	600DF50
600	25	65%	4	XB104	600DF25
600	10	65%	4	XB105	600DF10
610	10	65%	4	XB106	610DF10
620	10	65%	4	XB107	620DF10
630	10	65%	4	XB108	630DF10
640	10	65%	4	XB109	640DF10
650	50	65%	4	XB110	650DF50
650	25	65%	4	XB111	650DF25
650	10	65%	4	XB112	650DF10
660	10	65%	4	XB113	660DF10
670	10	65%	4	XB114	670DF10
680	10	65%	4	XB115	680DF10
690	10	65%	4	XB116	690DF10
700	50	75%	4	XB117	700DF50
700	25	75%	4	XB118	700DF25
700	10	75%	4	XB119	700DF10
710	10	75%	4	XB120	710DF10

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STANDARD – BANDPASS FILTERS

Bandpass Filters - Visible *Continued*

Center Wavelength (nm)	FWHM	Peak T%	Minimum Optical Density	Product SKU	Description
720	10	75%	4	XB121	720DF10
730	10	75%	4	XB122	730DF10
740	10	75%	4	XB123	740DF10
750	50	75%	4	XB124	750DF50
750	25	75%	4	XB125	750DF25
750	10	75%	4	XB126	750DF10

Bandpass Filters - IR

Center Wavelength (nm)	FWHM	Peak T%	Minimum Optical Density	Product SKU	Description
760	10	75%	4	XB127	760DF10
765	10	75%	4	XB128	765DF10
770	10	75%	4	XB129	770DF10
780	10	75%	4	XB130	780DF10
790	10	75%	4	XB131	790DF10
794.7	10	75%	4	XB132	794.7DF10
794.7	3	75%	4	XB133	794.7DF3
794.7	1.5	75%	4	XB134	794.7DF1.5
800	50	75%	4	XB135	800DF50
800	25	75%	4	XB136	800DF25
800	10	75%	4	XB137	800DF10
810	10	75%	4	XB138	810DF10
820	10	75%	4	XB139	820DF10
830	10	75%	4	XB140	830DF10
840	10	75%	4	XB141	840DF10
850	50	75%	4	XB142	850DF50
850	25	75%	4	XB143	850DF25
850	10	75%	4	XB144	850DF10
860	10	75%	4	XB145	860DF10
870	10	75%	4	XB146	870DF10
880	10	75%	4	XB147	880DF10
890	10	75%	4	XB148	890DF10
900	50	75%	4	XB149	900DF50
900	25	75%	4	XB150	900DF25
900	10	75%	4	XB151	900DF10
910	10	75%	4	XB152	910DF10
920	10	75%	4	XB153	920DF10
930	10	75%	4	XB154	930DF10
940	10	75%	4	XB155	940DF10
950	50	75%	4	XB156	950DF50
950	25	75%	4	XB157	950DF25
950	10	75%	4	XB158	950DF10
960	10	75%	4	XB159	960DF10
970	10	75%	4	XB160	970DF10
980	10	75%	4	XB161	980DF10
990	10	75%	4	XB162	990DF10

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Bandpass Filters - IR

Center Wavelength (nm)	FWHM	Peak T%	Minimum Optical Density	Product SKU	Description
1000	50	40%	4	XB163	1000DF50
1000	25	45%	4	XB164	1000DF25
1000	10	45%	4	XB165	1000DF10
1010	10	45%	4	XB166	1010DF10
1020	10	45%	4	XB167	1020DF10
1030	10	45%	4	XB168	1030BP10
1040	10	45%	4	XB169	1040BP10
1050	10	45%	4	XB170	1050BP10
1060	10	45%	4	XB171	1060BP10
1070	10	45%	4	XB172	1070BP10
1080	10	45%	4	XB173	1080BP10
1090	10	45%	4	XB174	1090BP10
1100	10	40%	4	XB175	1100BP10
1200	10	40%	4	XB176	1200BP10
1300	10	40%	4	XB177	1300BP10
1310	10	40%	4	XB178	1310BP10
1330	10	40%	4	XB179	1330BP10
1400	10	40%	4	XB180	1400BP10
1500	10	40%	4	XB181	1500BP10
1600	10	40%	4	XB182	1600BP10
1650	10	40%	4	XB183	1650BP10
1700	10	40%	4	XB184	1700BP10
1800	10	60%	4	XB185	1800BP10
1900	10	60%	4	XB186	1900BP10
2000	12	65%	4	XB187	2000BP12
2100	12	60%	4	XB188	2100BP12
2200	12	60%	4	XB189	2200BP12
2300	12	60%	4	XB190	2300BP12
2400	12	60%	4	XB191	2400BP12
2500	12	55%	4	XB192	2500BP12

Specifications

	CWL Range	Specification	Blocking Range
Blocking	185 - 200 nm	OD 4 Min.	UV to FAR IR
	200 - 313 nm	OD 6 Avg. / OD 3 Min.	UV to FAR IR
	334 - 390 nm	OD 6 Avg. / OD 3 Min.	UV to 1,300 nm
	400 - 1,000 nm	OD 6 Avg. / OD 4 Min.	UV to 1,150 nm
	1,000 - 1,700 nm	OD 4 Min.	UV to FAR IR
	1,800 - 2,500 nm	OD 4 Min.	UV to 3,000 nm
Physical	Size	25, 50, 50 x 50 mm	
	Thickness	< 7.0 mm	

50x50 size is not available for products in the following ranges 185 - 313 nm, and 1000 - 2500 nm.

► CUSTOM CONFIGURATIONS AVAILABLE UPON REQUEST

3RD MILLENNIUM FILTERS

- ▶ Steep slopes
- ▶ Specified by the critical cut-on/cut-off edges
- ▶ Standard 25 mm diameter off the shelf components



3RD Millennium filters are manufactured using Omega Optical's proprietary ALPHA coating technology, a process which produces exceptionally steep cut-on and cut-off slopes. The result is precise location of cut-on and cut-off edges, the ability to place transmission and rejection regions extremely close together, and higher attenuation between the passband and the rejection band. These filters are produced in custom engineered coating equipment that progresses from raw material to complete assemblies in a shortened manufacturing cycle. The coating chamber is load-locked so that it remains under stable high vacuum conditions between coating cycles.

- ▶ Control and design of manufacturing processes lead to yield and product uniformity
- ▶ Short manufacturing cycles results in controlled inventories and shorter lead times

Specifying by the critical cut-on and cut-off edges will result in much more accurate band placement and bandwidth.

Bandpass filters are made using a combination of an ALPHA longpass (cut-on) and ALPHA shortpass (cut-off). Longpass and shortpass filters are each made using a single surface coating. Passbands can be made wider and still achieve the blocking requirements of narrower, less steep designs. Wider bandpass filters outperform narrower standard designs with improved transmission, deeper blocking, and improved signal-to-noise.

3RD Millennium part numbers are unassigned. To order a 3RD Millennium filter:

Longpass – specify a cut-on wavelength

Shortpass – specify a cut-off wavelength

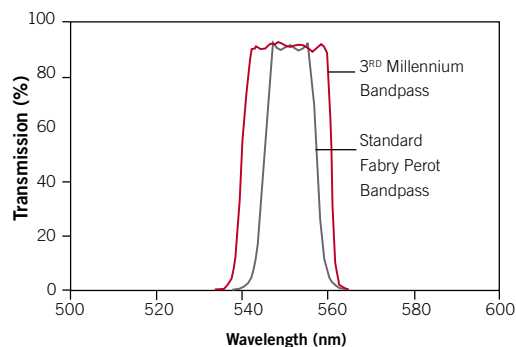
Bandpass – specify a cut-on & cut-off wavelength

Example: Product SKU 3RD650LP

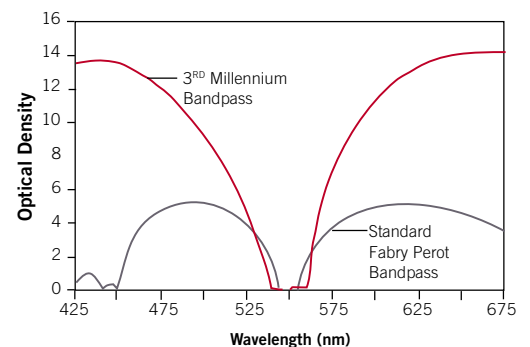
Example: Product SKU 3RD520SP

Example: Product SKU 3RD580-600

Actual Transmission



Typical Optical Density



- ▶ Steep slopes
- ▶ Specified by the critical cut-on/cut-off edges
- ▶ Standard 25 mm diameter off the shelf components

3RD MILLENNIUM FILTERS

3RD Millennium Filters

3RD Millennium filters are offered every 10 nm from 400-700 nm, every 20 nm from 700-800 nm and every 50 nm from 800 nm to 1100 nm.

Filter Type	Wavelength Range	Transmission	Attenuation Range	Attenuation
Longpass	Cut-On from 400-700 nm at every 10 nm Cut-On from 700-800 nm at every 20nm Cut-On from 800-1100 nm at every 50 nm	≥ 90% peak	UV to cut-on	OD 6
Shortpass	Cut-Off from 400-700 nm at every 10 nm Cut-Off from 700-800 nm at every 20 nm Cut-Off from 800-1100 nm at every 50 nm	≥ 90% peak	Cut-off to 1.3x cut-off	OD 6
Bandpass	Cut-On + Cut-Off from 400-700 nm at every 10 nm 700-800 nm at every 20 nm 800-1100 nm at every 50 nm	≥ 80% peak	UV to 1.3x cut-off	OD 6

Attenuation Extension:

When using a silicon detector, in some cases a blocker filter is required to extend the attenuation range to 1100 nm nominally. For optimal performance we recommend locating a separate blocking filter in a position remote from the 3RD Millennium filter.

Specifications

Physical	Size	25 mm
	Thickness	5.5 mm
	Clear Aperture	21.3 mm
Filter Construction	Single substrates, air spaced	