Air-Spaced Doublet Lenses

Our two-element, air-spaced achromats are designed for diffraction-limited focusing in the visible spectrum. The lenses are mounted in a black-anodized cell. All four surfaces are anti-reflection coated for the visible spectrum so that transmittance exceeds 96%. These are "fast" lenses, being f/4, and designed for focusing or collimating.

An advantage of additional lens elements is the ability to combine lenses of different material and optical propertires to correct for chromatic aberrations. Achromatic foucusing objectives are aberration corrected at two wavelengths simultaneously. A doublet consisting of two lense of different materials can be designed such that the effective focal length and performance will be the same at two separate wavelengths.



Part Numbers	EFL (mm)	BFL (mm)	Aperture (mm)	F/#	Wavelength (nm)	O.D.(mm)
54-30-60	62.3	48.5	30	2	532/1064	41.3
54-37-117	117.4	109.4	37	3.2	532/1064	50.8
54-10-120	120	115	10	12	266/532	15
54-50-175	175	143.5	50	3.5	488/514	60
54-100-200	200.5	182.5	100	2	450/600	120.7
54-74-210	210	189.4	74	2.8	532/1064	88.9
54-75-250	250	210.6	75	3.5	488/514	88.6
54-120-260	258	231.5	120	2.2	450/650	152.4
54-106-370	370	305.2	106	3.5	488/514	119.4
54-100-576	575.5	563.5	100	5.7	480/650	120.7
54-200-1193	1192.7	1150.2	200	5.9	500/650	208
54-25-88N	-88	94.1	25	-3.5	488/514	33.3
54-50-175N	-175	186.1	50	-3.5	488/514	60