

Optics

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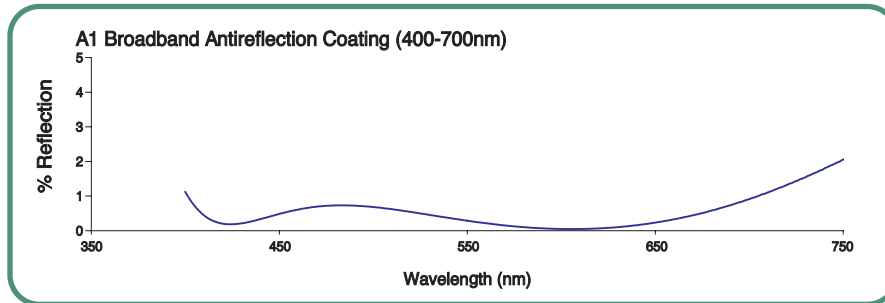
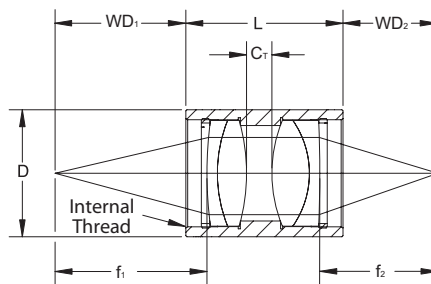
Matched Achromatic Pairs

- Ideal for Image Relay, NA Conversion, or Image Magnification
- SM1 (1.035"-40) or SM05 (0.535"-40) Threaded
- Mounts Engraved With Focal Lengths
- AR Coated: $R_{avg} < 0.5\%$ From 400-700 nm



Our achromatic doublets are designed for applications requiring an infinite conjugate ratio (i.e. situations in which the object is at infinity and the image is at the focal point). However, when used in pairs, these doublets are also ideal for finite conjugate applications. The matched achromatic pairs combine two of our stock doublets and can be used as an image relay system for NA conversion or for image magnification. The spacing between elements is optimized to give the best image quality and optimal numerical aperture conversion.

These pairs are housed in SM1 (1.035"-40) or SM05 (0.535"-40) threaded housings with standard diameters of 0.7" or 1.2". Each housing is engraved with the part number, focal lengths, and magnification of the pair, allowing for easy identification. Since the lenses are pre-mounted, the need to handle loose optics has been eliminated, making these achromats ideal for integration into a host of OEM applications.



ITEM#	f ₁	f ₂	bf ₁	bf ₂	MAG	C _T	D	L	WD ₁	WD ₂	\$	£	€	RMB
MAP105050-A1	50 mm	50 mm	43.7	43.7	1:1	8.1 mm	1.20in	1.51in	38.02 mm	38.02 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP105075-A1	50 mm	75 mm	43.2	43.2	1:1.5	9.6 mm	1.20in	1.49in	37.70 mm	65.74 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP1050100-A1	50 mm	100 mm	43.2	43.2	1:2	6.8 mm	1.20in	1.29in	37.71 mm	92.66 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP107575-A1	75 mm	75 mm	70.4	70.4	1:1	9.0 mm	1.20in	1.39in	65.30 mm	65.41 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP1075100-A1	75 mm	100 mm	70.2	70.2	1:1.33	6.5 mm	1.20in	1.20in	65.04 mm	92.02 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP1075150-A1	75 mm	150 mm	70.2	70.2	1:2	5.1 mm	1.20in	1.22in	65.05mm	141.22 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP10100100-A1	100 mm	100 mm	97.2	97.2	1:1	6.1 mm	1.20in	1.09in	92.2 mm	91.89 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP10100150-A1	100 mm	150 mm	97.1	97.1	1:1.5	3.66 mm	1.20in	1.13in	9.86 mm	140.92 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP051919-A1	19 mm	19 mm	15.2	15.2	1:1	6.9 mm	0.70in	1.05in	10.58 mm	10.58 mm	\$ 108.00	£ 68.00	€ 100,40	¥ 1,031.40
MAP051925-A1	19 mm	25 mm	15.6	15.6	:1.3	26.4 mm	0.70in	1.09in	10.27 mm	16.40mm	\$ 104.00	£ 65.50	€ 96,70	¥ 993.20
MAP051930-A1	19 mm	30 mm	15.6	15.6	1:1.58	6.5 mm	0.70in	1.02in	10.22 mm	22.60mm	\$ 104.00	£ 65.50	€ 96,70	¥ 993.20
MAP051950-A1	19 mm	50 mm	15.6	15.6	1:2.63	6.1 mm	0.70in	1.01in	10.26 mm	42.87 mm	\$ 104.00	£ 65.50	€ 96,70	¥ 993.20
MAP052525-A1	25 mm	25 mm	21.6	21.6	1:1	6.9 mm	0.70in	1.17in	16.27 mm	16.23 mm	\$ 100.00	£ 63.00	€ 93,00	¥ 955.00
MAP052530-A1	25 mm	30 mm	21.4	21.4	1:1.2	6.0 mm	0.70in	1.05in	15.99 mm	22.46 mm	\$ 100.00	£ 63.00	€ 93,00	¥ 955.00
MAP052550-A1	25 mm	50 mm	21.4	21.4	1:2	5.6 mm	0.70in	1.07in	15.99mm	41.75 mm	\$ 100.00	£ 63.00	€ 93,00	¥ 955.00
MAP103030-A1	30 mm	30 mm	22.8	22.8	1:1	12.9 mm	1.20in	1.74in	17.75 mm	17.75 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP103040-A1	30 mm	40 mm	21.7	21.7	1:1.33	10.4 mm	1.20in	1.58in	16.63 mm	29.90 mm	\$ 180.00	£ 113.40	€ 167,40	¥ 1,719.00
MAP103050-A1	30 mm	50 mm	21.7	21.7	1:1.67	11.0 mm	1.20in	1.65in	16.65 mm	39.36 mm	\$ 144.00	£ 90.70	€ 133,90	¥ 1,375.20
MAP103075-A1	30 mm	75 mm	21.7	21.7	1:2.5	8.9 mm	1.20in	1.49in	16.65 mm	68.54 mm	\$ 144.00	£ 90.70	€ 133,90	¥ 1,375.20
MAP1030100-A1	30 mm	100 mm	21.8	21.8	1:3.33	8.5 mm	1.20in	1.38in	16.73 mm	91.72 mm	\$ 144.00	£ 90.70	€ 133,90	¥ 1,375.20
MAP104040-A1	40 mm	40 mm	32.9	32.8	1:1	10.0 mm	1.20in	1.52in	28.02 mm	28.01 mm	\$ 138.00	£ 86.90	€ 128,30	¥ 1,317.90
MAP104050-A1	40 mm	50 mm	32.9	32.9	1:1.25	9.0 mm	1.20in	1.52in	28.17 mm	38.55 mm	\$ 138.00	£ 86.90	€ 128,30	¥ 1,317.90
MAP104075-A1	40 mm	75 mm	32.9	32.9	1:1.88	8.4 mm	1.20in	1.42in	28.17 mm	67.04 mm	\$ 138.00	£ 86.90	€ 128,30	¥ 1,317.90
MAP1040100-A1	40 mm	100 mm	32.9	32.9	1:2.5	8.0 mm	1.20in	1.31in	28.17 mm	91.60 mm	\$ 138.00	£ 86.90	€ 128,30	¥ 1,317.90