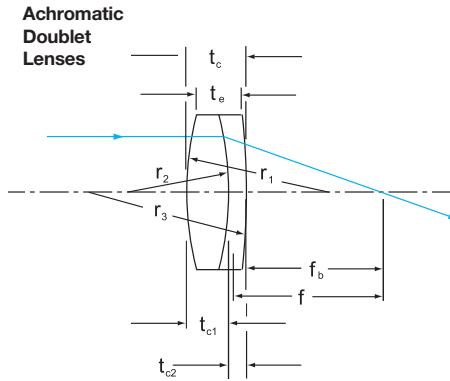


Telecom Achromatic Doublets (Page 1 of 2)

Specifications

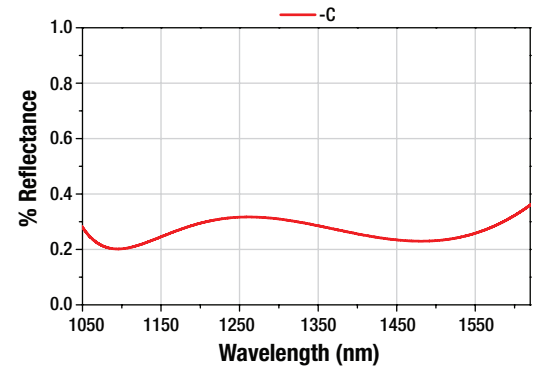
- **Design Wavelengths:**
1016, 1330, and 1550 nm
- **Diameter Tolerance:**
+0.00/-0.10 mm
- **Focal Length Tolerance:** $\pm 1\%$
- **Surface Quality:**
40-20 Scratch-Dig
- **Surface Power:** $3\lambda/2$
- **Surface Irregularity:** $\lambda/4$
- **Centration:** <3 arcmin
- **Clear Aperture:**
>90% of Diameter
- **Coating:**
 $R_{avg} < 0.5\%$ from 1050 - 1620 nm
(C Coating Range)
- **Operating Temperature:**
-40 to 85 °C
- **Damage Threshold:** 5.0 J/cm²
(1542 nm, 10 ns, 10 Hz, Ø0.188 mm)



Please refer to our website for complete models and drawings.



Achromatic Doublet Broadband Antireflection Coating



These achromatic doublets, like our near IR achromats on pages 696 - 699, are designed to work in the telecommunications wavelength range. The design wavelengths are 1016, 1330, and 1550 nm. All of these are computer optimized at infinite conjugate ratios.

In many of the designs, diffraction-limited spots may be achieved when using a monochromatic source. For further details, please visit our website, www.thorlabs.com, to see individual specification sheets and Zemax® files.

Zemax® is the registered trademark of Zemax Development Corporation.

Telecom Achromatic Doublets: Infinite Conjugate Ratio

ITEM #	DIA (mm)	f (mm)	f _b (mm)	r ₁ (mm)	r ₂ (mm)	r ₃ (mm)	t _{c1} (mm)	t _{c2} (mm)	t _c (mm)	MATERIALS	\$	£	€	RMB
AC050-008-C	5.0	7.5	5.2	4.6	-3.9	-23.9	2.5	1.5	3.1	N-LAK22/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC050-010-C	5.0	10.0	6.9	4.6	-4.6	36.0	2.5	1.5	3.3	N-LAK22/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC050-015-C	5.0	15.0	11.6	5.3	-5.5	15.2	2.0	1.3	2.9	N-BAF10/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC060-010-C	6.0	10.0	8.5	10.4	-3.6	-9.2	3.5	1.3	3.9	N-LAK22/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC064-013-C	6.35	12.7	11.4	13.2	-4.9	-12.4	2.8	1.3	3.3	N-LAK22/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC064-015-C	6.35	15.0	14.4	22.7	-4.9	-11.3	2.3	1.3	2.9	N-LAK22/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC080-010-C	8.0	10.0	7.1	7.1	-4.9	-20.9	4.2	1.3	3.9	N-BAF10/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC080-016-C	8.0	16.0	12.3	7.5	-7.8	68.5	3.5	1.3	3.8	N-LAK22/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC080-020-C	8.0	20.0	15.7	7.8	-8.6	31.9	3.3	1.3	3.7	N-LAK22/N-SF6HT	\$ 45.00	£ 32.40	€ 39.15	¥ 358.65
AC127-019-C	12.7	19.0	15.4	12.4	-10.0	-48.8	5.0	1.5	4.3	N-LAK22/N-SF6HT	\$ 67.00	£ 48.24	€ 58.29	¥ 533.99
AC127-025-C	12.7	25.0	20.3	12.0	-12.9	151.7	4.7	1.5	4.5	N-LAK22/N-SF6HT	\$ 67.00	£ 48.24	€ 58.29	¥ 533.99
AC127-030-C	12.7	30.0	24.5	12.4	-14.0	65.3	4.7	1.5	4.8	N-LAK22/N-SF6HT	\$ 67.00	£ 48.24	€ 58.29	¥ 533.99
AC127-050-C	12.7	50.0	43.5	16.0	-18.4	44.6	4.0	1.5	4.6	N-BAF10/N-SF6HT	\$ 67.00	£ 48.24	€ 58.29	¥ 533.99
AC127-075-C	12.7	75.0	69.7	23.2	-27.9	66.7	3.0	1.5	3.9	N-BAF10/N-SF6HT	\$ 67.00	£ 48.24	€ 58.29	¥ 533.99
AC254-030-C	25.4	30.0	22.2	21.1	-15.2	-71.1	13.0	1.8	9.4	N-BAF10/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-035-C	25.4	35.0	27.4	23.2	-17.9	-105.2	11.5	1.8	8.7	N-BAF10/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-040-C	25.4	40.0	32.8	24.4	-21.1	-143.2	10.0	1.8	7.7	N-LAK22/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-045-C	25.4	45.0	36.7	22.9	-23.7	900.0	9.6	1.8	7.7	N-LAK22/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-050-C	25.4	50.0	41.2	22.9	-25.9	194.5	9.0	1.8	7.4	N-LAK22/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-060-C	25.4	60.0	50.5	23.9	-28.1	112.1	8.3	1.8	7.2	N-LAK22/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-075-C	25.4	75.0	64.9	26.4	-29.4	84.9	7.6	1.8	7.1	N-BAF10/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-100-C	25.4	100.0	90.3	32.1	-38.0	93.5	6.5	1.8	6.6	N-BAF10/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-150-C	25.4	150.0	140.6	42.7	-52.0	111.5	5.0	2.5	6.3	N-BAF10/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-200-C	25.4	200.0	193.1	70.0	-95.9	274.3	4.0	3.0	6.1	N-LAK22/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-250-C	25.4	250.0	235.3	44.0	-57.7	93.1	4.5	2.5	6.0	SF2/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-300-C	25.4	300.0	285.9	52.5	-68.5	112.2	4.5	2.5	6.2	SF2/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-400-C	25.4	400.0	386.8	70.0	-93.1	151.4	4.2	2.5	6.1	SF2/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30
AC254-500-C	25.4	500.0	486.9	87.9	-115.5	194.5	3.5	2.0	5.0	SF2/N-SF6HT	\$ 90.00	£ 64.80	€ 78.30	¥ 717.30

Have you
seen our...1064 nm
Air-Spaced
DoubletsSee page
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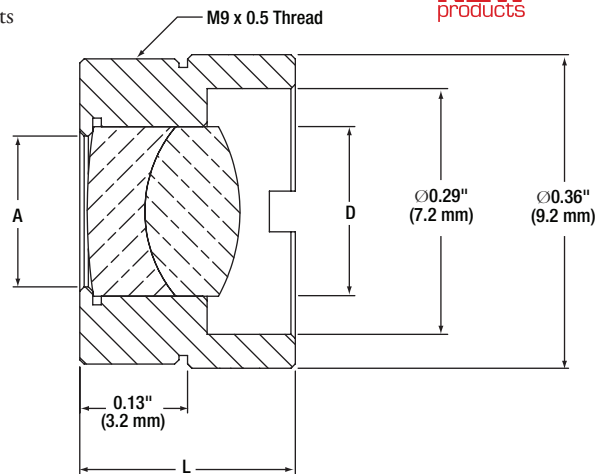
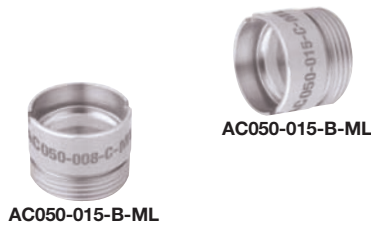
Telecom Achromatic Doublets (Page 2 of 2)

Telecom Achromatic Doublets: Infinite Conjugate Ratio (Continued)

ITEM #	DIA (mm)	f (mm)	f _b (mm)	r ₁ (mm)	r ₂ (mm)	r ₃ (mm)	t _{c1} (mm)	t _{c2} (mm)	t _c (mm)	MATERIALS	\$	£	€	RMB
AC300-050-C	30.0	50.0	44.7	41.7	-22.7	-75.7	10.0	2.0	7.7	N-BAF10/N-SF6HT	\$ 108.00	£ 77.76	€ 93.96	¥ 860.76
AC300-080-C	30.0	80.0	68.4	29.4	-33.9	97.7	9.5	2.0	8.5	N-BAF10/N-SF6HT	\$ 108.00	£ 77.76	€ 93.96	¥ 860.76
AC300-100-C	30.0	100.0	88.0	33.6	-39.2	100.7	8.5	2.2	8.3	N-BAF10/N-SF6HT	\$ 108.00	£ 77.76	€ 93.96	¥ 860.76
AC508-075-C	50.8	75.0	63.0	49.9	-39.1	-230.7	19.0	2.5	13.1	N-BAF10/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-080-C	50.8	80.0	66.9	47.2	-43.2	-640.7	18.0	2.5	12.6	N-BAF10/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-100-C	50.8	100.0	83.0	44.7	-48.3	259.4	17.0	2.5	12.8	N-BAF10/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-150-C	50.8	150.0	117.7	39.5	-49.9	83.6	18.0	5.0	17.7	N-LAK22/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-200-C	50.8	200.0	182.7	67.1	-87.6	234.3	12.0	3.0	11.4	N-LAK22/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-250-C	50.8	250.0	234.4	78.6	-95.9	230.7	10.0	3.0	10.2	N-BAF10/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-300-C	50.8	300.0	287.4	93.8	-112.2	280.6	8.5	3.0	9.1	N-BAF10/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-400-C	50.8	400.0	391.1	125.6	-161.5	376.3	6.5	3.0	7.8	N-BAF10/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-500-C	50.8	500.0	474.4	86.1	-103.2	166.0	8.8	3.0	9.9	SF5/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-750-C	50.8	750.0	711.0	91.6	-95.9	130.6	8.8	3.0	10.7	SF10/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32
AC508-1000-C	50.8	1000.0	990.5	173.0	-234.3	336.0	6.0	3.0	8.1	SF5/N-SF6HT	\$ 156.00	£ 112.32	€ 135.72	¥ 1,243.32

M9-Threaded Mounted Telecom Achromatic Doublets

- Holds Ø5.0 mm, Ø6.0 mm, and Ø6.35 mm Achromatic Doublets
- Cell Engraved with Part Number
- Easily Adaptable to SM Lens Tube Systems (See Page 351)



NEW
products

ITEM #	D (mm)	f (mm)	L (mm)	A (mm)	MATERIALS	\$	£	€	RMB
AC050-008-C-ML	5.0	7.5	6.4	4.4	N-LAK22/N-SF6HT	\$ 65.00	£ 46.80	€ 56.55	¥ 518.05
AC050-010-C-ML	5.0	10.0	6.4	4.4	N-LAK22/N-SF6HT	\$ 65.00	£ 46.80	€ 56.55	¥ 518.05
AC050-015-C-ML	5.0	15.0	6.4	4.4	N-BAF10/N-SF6HT	\$ 65.00	£ 46.80	€ 56.55	¥ 518.05
AC060-010-C-ML	6.0	10.0	6.4	5.5	N-LAK22/N-SF6HT	\$ 65.00	£ 46.80	€ 56.55	¥ 518.05
AC064-013-C-ML	6.35	12.7	5.7	5.8	N-LAK22/N-SF6HT	\$ 65.00	£ 46.80	€ 56.55	¥ 518.05
AC064-015-C-ML	6.35	15.0	5.7	5.8	N-LAK22/N-SF6HT	\$ 65.00	£ 46.80	€ 56.55	¥ 518.05

Have you seen our...

Achromatic Lens Kits

- ◆ Mounted and Unmounted Options
- ◆ Three AR Coated Ranges Available

Our achromatic lens kits are available with an AR coating optimized for use in the 400 – 700 nm, 650 – 1050 nm, or 1050 – 1620 nm wavelength range. The 14-piece kit includes Ø1" lenses mounted in SM1-threaded lens tubes, while the 50-piece kit has a variety of lens diameters housed in a stackable storage cabinet.

See pages 990 - 991

