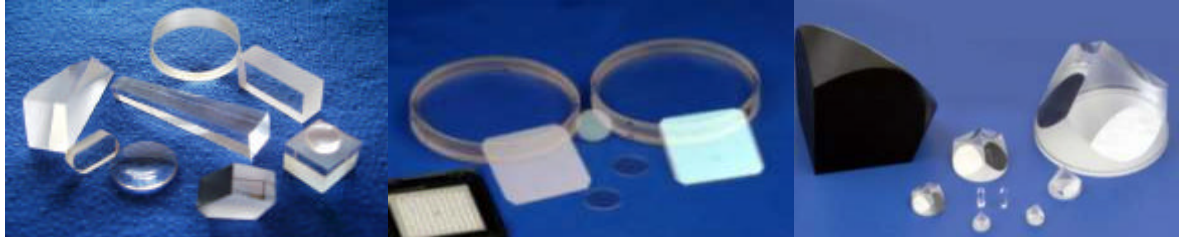

Sunny Precision Optics



Products

Lenses

Cylindrical

Aspherical Lens

Mirrors

Prisms

Wedges

Windows

Beamsplitters

Waveplates

Polarizers

Crystal

Filters



Telephone: 1- 408- 2448972

Website: www.yoptics.com

Mailing Address: P.O. Box 61151, Sunnyvale CA 94088

Fax: 1 - 408- 2288789

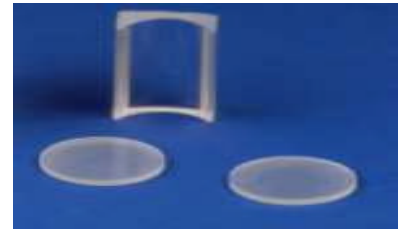
Email: Market@yoptics.com

LENSES

Material: Optical Glass (BK7, j), Fused Silica, Silicon, Germanium, CaF₂, MgF₂

Plano-Convex, Plano-Concave, Double-Convex, Double-Concave, Meniscus, Drum, Ball, Achromatic Doublet, Air spaced Achromatic, Cylindrical Lenses

Specifications	
Focal Length Tolerance	2 %
Dimension Tolerance	0.0/-0.15 mm
Fringes	1-3
Irregularity of Fringe	0.2-0.5
Center Thickness (Tc) Tolerance	0.02 - 0.1mm
Concentricity	3 Arc minutes
Clear Aperture	90% of dimension
Surface Quality	40/20 scratch & dig
Coating	MgF ₂



✍ Plano-Convex Lenses Product List: (BK7)

Product No.	Diameter (mm)	Focal length (f)	Fb (mm)	R (mm)	Center Thickness Tc (mm)	Edge Thickness Te(mm)
LPX061	6.3	25.0	23.75	12.912	1.9	1.51
LPX062	6.3	40.0	38.87	20.65	1.7	1.46
LPX063	6.3	63.0	61.82	32.51	1.7	1.55
LPX101	10.0	25.0	23.35	12.912	2.5	1.49
LPX102	10.0	31.5	29.99	16.27	2.3	1.51
LPX103	10.0	40.0	38.61	20.65	2.1	1.49
LPX104	10.0	63.0	61.69	32.51	1.9	1.51
LPX161	16.0	25.0	22.36	12.912	4.0	1.22
LPX162	16.0	31.5	29.13	16.27	3.6	1.50
LPX163	16.0	40.0	37.95	20.65	3.1	1.49
LPX164	16.0	63.0	61.29	32.51	2.5	1.50
LPX251	25.0	25.4	18.03	13.112	11.16	2.0
LPX252	25.0	40.0	35.89	20.65	6.21	2.0
LPX254	25.0	160.0	158.05	82.60	2.95	2.0
LPX255	25.0	500.0	498.47	258.2	2.30	2.0
LPX256	25.0	1000.0	998.8	516.4	2.15	2.0
LPX401	40.0	63.0	56.75	32.51	9.38	2.5
LPX403	40.0	500.0	497.8	258.2	3.28	2.5
LPX501	50.0	160.0	155.47	82.60	6.87	3.0
LPX502	50.0	500.0	497.21	258.2	4.21	3.0
LPX1002	100.0	500.0	494.13	258.2	8.89	4.0

☞ Plano-Concave Lenses Product List (BK7)

Product No.	Diameter (mm)	Focal length (f)	Fb (mm)	R (mm)	Center Thickness Tc (mm)	Edge Thickness Te(mm)
LPA062	6.3	-40.0	-40.98	-20.65	1.5	1.71
LPA063	6.3	-63.0	-63.93	-32.51	1.5	1.65
LPA101	10.0	-25.0	-25.99	-12.912	1.5	2.51
LPA103	10.0	-40.0	-40.98	-20.65	1.5	2.11
LPA161	16.0	-25.0	-25.99	-12.912	1.5	4.22
LPA165	16.0	-160.0	-161.0	-82.60	1.5	1.89
LPA251	25.0	-25.4	-26.71	-13.112	2.0	11.16
LPA252	25.0	-31.5	-32.83	-16.27	2.0	7.86
LPA253	25.0	-40.0	-40.98	-20.65	2.0	6.21
LPA254	25.0	-63.0	-64.26	-32.51	2.0	4.50
LPA255	25.0	-160.0	-161.3	-82.60	2.0	2.95
LPA256	25.0	-500.0	-501.3	-258.2	2.0	2.30
LPA257	25.0	-1000.0	-1001	-516.4	2.0	2.15
LPA401	40.0	-63.0	-64.58	-32.51	2.5	9.38
LPA403	40.0	-500.0	-501.6	-258.2	2.5	3.28
LPA501	50.0	-160.0	-162	-82.60	3.0	6.87
LPA502	50.0	-500.0	-502	-258.2	3.0	4.21

☞ Fused Silica Plano-Convex Product List

Product No.	Diameter (mm)	Focal length (f)	Fb (mm)	R (mm)	Center Thickness Tc (mm)	Edge Thickness Te(mm)
LFX1202	12.7	20.0	16.9	9.20	4.5	2.0
LFX1203	12.7	30.0	27.5	13.804	3.6	2.0
LFX2503	25.4	35.0	29.4	16.106	8.2	2.0
LFX2505	25.4	50.0	46.0	23.00	5.8	2.0
LFX2507	25.4	75.0	72.0	34.51	4.4	2.0
LFX2515	25.4	150.0	147.8	69.02	3.2	2.0
LFX2525	25.4	250.0	248.2	115.0	2.7	2.0
LFX2530	25.4	300.0	298.2	138.04	2.6	2.0
LFX2550	25.4	500.0	498.4	230.1	2.4	2.0
LFX3805	38.0	50.0	41.1	23.00	13.0	3.0
LFX3815	38.0	150.0	146.1	69.02	5.7	3.0
LFX3850	38.0	500.0	497.4	230.1	3.8	3.0
UV Grade Fused Silica Double-Convex Lenses						
DFX1203	12.7	30.0	28.8	27.04	3.5	2.0
DFX1204	12.7	40.0	38.9	36.31	3.1	2.0
DFX2510	25.4	100.0	98.7	91.41	3.8	2.0
DFX2525	25.4	250.0	249.1	229.6	2.7	2.0
DFX3850	38.0	50.0	45.9	44.098	11.6	3.0
DFX3820	38.0	200.0	198.3	183.12	5.0	3.0

☞ Fused Silica Plano-Concave Product List

Product No.	Diameter (mm)	Focal length (f)	Fb (mm)	R (mm)	Center Thickness Tc (mm)	Edge Thickness Te(mm)
LFV1202	12.7	-20.0	-21.4	9.20	2.0	4.5
LFV1203	12.7	-30.0	-31.4	13.804	2.0	3.5
LFV2503	25.4	-35.0	-36.4	16.106	2.0	8.2
LFV2505	25.4	-50.0	-51.4	23.00	2.0	5.8
LFV2507	25.4	-75.0	-76.4	34.51	2.0	4.4
LFV2515	25.4	-150.0	-151.4	69.02	2.0	3.2
LFV2525	25.4	-250.0	-251.4	115.0	2.0	2.7
LFV2530	25.4	-301.4	-298.2	138.04	2.0	2.6
LFV2550	25.4	-500.0	-501.4	230.1	2.0	2.4
LFV3805	38.0	-50.0	-52.1	23.00	3.0	13.0
LFV3815	38.0	-150.0	-152.1	69.02	3.0	5.7
LFV3850	38.0	-500.0	-502.1	230.1	3.0	3.8
UV Grade Fused Silica Double-Concave Lenses						
DFV1220	12.7	-20.0	-20.7	18.707	2.0	4.2
DFV1225	12.7	-25.0	-25.7	23.32	2.0	3.7
DFV1230	12.7	-30.0	-30.7	27.92	2.0	3.5
DFV2525	25.4	-25.0	-25.7	23.32	2.0	9.5
DFV2550	25.4	-50.0	-50.7-	46.32	2.0	5.6
DFV25250	25.4	-250.0	-250.7	230.35	2.0	2.7
DFV25100	25.4	-1000.0	-1000.7	920.4	2.0	2.2

Note: 1. Check website www.yoptics.com for more and update product List.

2.. Welcome custom

BEAMSPLITTERS

Narrow Band Wavelength: (nm)

488	514.5	532	632.8	635	670	780	850	980	1064	1300	1550
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Broadband Wavelength: (nm)

450 - 650	650 - 900	900 - 1200	1200 - 1560
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Specifications

Dimensions Tolerance	0.0/ - 0.15 mm
Surface Flatness	/4 @ 632.8 nm
Surface Quality	20/10 scratch & dig
Beam Deviation	$< 3_i(T), \dot{A}5^- ($
T/R	50/50; $\dot{A}5$ T=(Ts+Tp)/2, R=(Rs+Rp)/2
Coating	Upon request



Product List

Product No.	Dimension (mm)
BS-12	12.7 x 12.7 x 12.7
BS-20	20.0 x 20.0 x 20.0
BS-25	25.4 x 25.4 x 25.4
BS-30	30.0 x 30.0 x 30.0
BS-38	38.0 x 38.0 x 38.0

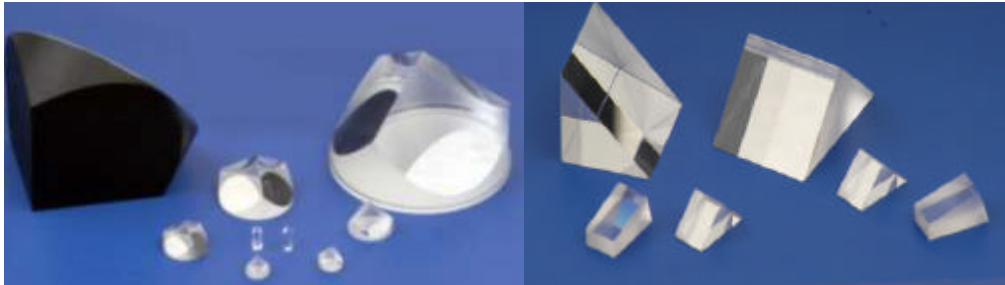
Note:

1. Visit our website www.yoptics.com for update product list. Other T/R ratio is available.
2. Welcome custom.

PRISMS

Standard Right Angle Prisms, Laser Right Angle Prism, Dove Prism, Roof Prism, Corner Cube Retroreflector, Half Penta Prism, Penta Prism, Equilateral Prism.

Specifications	
Material	BK7 (fine annealed), Fused Silica
Dimensions Tolerance	0.0 / - 0.15 mm
Surface Flatness	λ/4 at reflecting surface λ/8 at other surface
Angular Tolerance	±2', ±5', ±30', ±1', ±
Surface Quality	40/20 scratch & dig
Clear Aperture	90% of the dimension
Chamfers	0.1- 0.25 mm x 45° 50
Coating	Upon Request

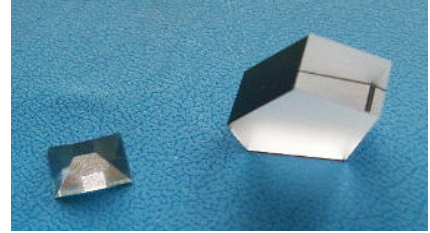


Right Angle Product List

Product No.	Dimension (mm)	Angular Accurate
PSR-101	1.0 x 1.0 x 1.0	2', 3', 5', 10', 20', 30', 1', 2', 5', 10', 20', 30'. Upon customer's request.
PSR-102	2.0 x 2.0 x 2.0	
PSR-105	5.0 x 5.0 x 5.0	
PSR-112	12.7 x 12.7 x 12.7	
PSR-220	20.0 x 20.0 x 20.0	
PSR-225	25.4 x 25.4 x 25.4	
PSR-230	30.0 x 30.0 x 30.0	
PSR_238	38.0 x 38.0 x 38.0	

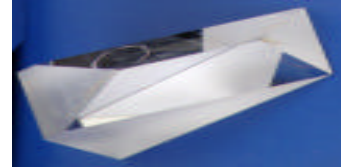
✍ Penta Prism Product List

Product No.	Dimension	Angular Accurate
PPT - 05	5 x 5 x 5 x 5.45	30 _i , 1 _i , 3 _i , 5 _i , 10 _i
PPT - 10	10 x 10 x 10 x 10.8	
PPT - 20	20 x 20 x 20 x 21.6	
PPT - 30	30 x 30 x 30 x 32.47	
PPT - 40	40 x 40 x 40 x 43.3	



✍ Roof Prism Product List

Product No.	Dimension	Roof Angular Tolerance
PRF-218	18 x 24.5	5 _i , 15 _i
PRF-220	20 x 27.4	Upon customer's request
PRF-232	32 x 41.0	



✍ Corner Cube Retroreflector Product List

Product No.	Diameter (mm)	Height (mm)	Angular Tolerance
PCC-012	12.7	9.50	2 _i , 3 _i , 5 _i , 10 _i
PCC-015	15.0	11.3	
PCC-025	25.4	19.0	
PCC-038	38.0	28.5	Upon customer's request.
PCC-050	50.8	37.5	
PCC-060	60.0	40.0	
PCC-065	65.0	39.12	
PCC-072	72.5	52.35	

Note: Visit www.yoptics.com for update product list. Welcome custom.

WAVEPLATES

/4 waveplate, /2 waveplate, waveplate, /8 waveplate.

Multiple " Order Waveplates
Zero Order Quartz Waveplates
Cemented and Air Space Zero Order Waveplates
Achromatic Zero " order Waveplates
Dual Wavelength Waveplates

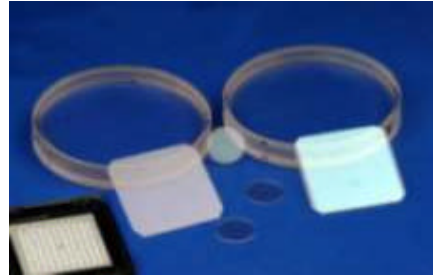
Standard waveplate with wavelengths (nm):

355	532	632.8	808	850	980	1064	1310	1480	1550	1590
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Specifications	
Material	Mica, Crystal quartz
Dimension Tolerance	0.0/0.15 mm
Retardation	$\lambda/2$; $\lambda/4$; $\lambda/8$; $\lambda/16$
Retardation Tolerance	$\pm 1\%$ to $\pm 5\%$ at 20°C
Wavefront distortion	$\lambda/2$, $\lambda/4$, $\lambda/10$ @ 632.8 nm
Wavelength Range	200 -2100 nm
Surface Quality	20/10 scratch and dig
Surface Flatness	$\lambda/2$; $\lambda/4$; $\lambda/10$
Parallelism	$<1\mu$; $<2\mu$; $<5\mu$
Antireflecting Coating	R<0.25% @ central wavelength
Damage Threshold	6J/cm ² , 8nsec Pulses
Clear Aperture	80% of dimension
Coating	Upon request

Waveplate Product List:

Product No.	Diameter(mm)
WPL01	1.0
WPL05	5.0
WPL10	10.0
WPL12	12.7
WPL15	15.0
WPL20	20.0
WPL25	25.4
WPL30	30.0
WPL40	40.0
WPL50	50.8
WPL60	60.0
WPL80	80.0
WPL90	90.0
WPL100	100.0
WPL130	130.0



Note:

1. Visit our website www.yoptics.com for update product list.
2. Welcome custom.

POLARIZERS

Dichroic Sheet Polarizers, Polarization Beamsplitter, Non - Polarization Beamsplitter.

Dichroic Sheet Polarizers

Specifications	
Material	Bk7, Fused Silica
Dimension	0.0/ - 0.15 mm
Transmittance of a single polarizer	>50%
Field Angle	> 45°
Surface Quality	40/20 scratch & dig
Beam Deviation	<1 arc minute
Temperature Range	-50°C to 50°C
Extinction Ratio	>1000
Damage Threshold	1W/cm ² , 0.2J/cm ² with 20 nsec pulses, visible, typical
Coating	Antireflection coated for maximum transmission

Prism Polarizer

Glan-Taylor	Glan-Thomson	Wollaston	Marple-Hess	Rochon
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Specifications	
Material	Calcite, BBO, Quartz
Dimension	0.0/0.15 mm
Wavelength Range	200 nm ~ 2500 nm
Surface Flatness	λ/4 @ 632.8 nm
Transmission	>85% @ 632.8 nm
Extinction Ratio	> 0.00005
Feature	Air-spaced, for low to media power
Wavefront Distortion	< λ/4
Deviation Angle	3 arc minutes



We also can provide huge amount of raw Calcite material.

LASER CRYSTAL

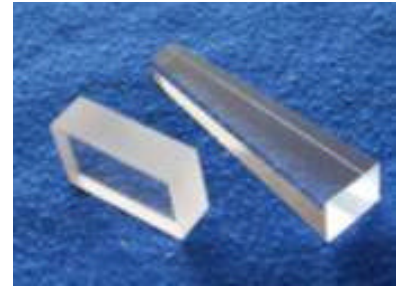
KTP crystal, LBO crystal, BBO crystal, DKDP crystal, LiIO3 crystal, Nd:YAG crystal, Nd: YVO4/YVO4 crystal

Specifications	
Dimension Tolerance	± 0.1mm
Wavefront Distortion	< λ/4 @ 633 nm
Surface Flatness	< λ/8 @ 633 nm
Surface Quality	10/5 or 20/10 scratch & dig
Parallelism	<20 arc seconds
Perpendicularity	5 arc minutes
Angle Tolerance	< ± 0.5°



WEDGES

Specifications	
Material	Bk7, Fused Silica
Shape	Round, Square, Rectangular wedge
Dimension Tolerance	0.0/ - 0.15 mm
Surface Flatness	/4- @ 632.8 nm
Surface Quality	40/20 or 20/10 scratch & dig
Clear Aperture	90% of dimension
Wedge Angle	upon request



Note: 1. Check www.yoptics.com for updated product list.

2. Welcome custom.

MIRRORS

Broadband dielectric HR mirrors, dual wavelength dielectric HR mirrors, protected aluminum mirrors, enhanced aluminum mirrors, protected silver mirrors, broadband dielectric partial reflectors, laser line dielectric partial reflectors

Specifications	
Material	BK7, fine annealed, Fused Silica
Shape	Plano mirrors, elliptical mirrors, rectangular mirrors
Dimension Tolerance	0.0/ - 0.15 mm
Fringe	λ/8 @ 632.8 nm
Fringe irregularity	λ/20
Surface Quality	20/10 scratch & dig
Parallelism	Less than 1μ
Coating	Metallic or dielectric coating

Mirror Product List

Product No.	Diameter (mm)	Thickness (mm)
MIR-110	10.0	2.0
MIR-112	12.7	2.0
MIR-120	20.0	2.0
MIR-125	25.4	3.0
MIR-135	38.0	4.0
MIR-150	50.8	5.5

Note: 1. Please check website www.yoptics.com for updated product list.

2. Welcome custom.

WINDOWS

Specifications	
Material	Bk7, Fused Silica, Germanium, Silicon, Sapphire, CaF2, MgF2
Dimension Tolerance	0.0/ - 0.15 mm
Surface Flatness	/10 " @ 632.8 nm
Surface Quality	20/10 scratch & dig
Shape	round, square, triangle, rectangularity
Parallelism	< 2 arc minutes
Chamfers	0.1 - 0.2 mm x 45°



Product No.	Diameter (mm)	Wedge Deviation
WG 105	5.0	2 _i , 5 _i , 10 _i , 30 _i , 1 _i , 2 _i , 5 _i , 10 _i , 30 _i , 10, 20, 50
WG 112	12.7	
WG 125	25.4	
WG 138	38.1	
WG 151	50.8	

Note: 1. Check www.yoptics.com for updated product list.

2. Welcome custom.

ASPHERICAL LENSES

Surfaces of the second order: include paraboloid, hyperboloid and ellipsoid.

Rotation surfaces of the second and higher orders.

Specifications	
Material	BK7(fine annealed), Fused Silica, Germanium, Silicon, Sapphire
Dimension	20mm ~ 300 mm
Dimension Tolerance	0.0/ - 0.15 mm
Surface Quality	40/20 scratch & dig
Steepness	10mm
Clear Aperture	> 90% of the dimension
Chamfers	0.1 - 0.25 x 45°

Note: All aspherical lenses are custom.

FILTERS

Color Glass Filters, Interference Filters, Neutral Density Filters

Color Glass Filters

Material	Schott optical glass or equivalent
Surface Figure	Commercial Polish
Thickness	1.0mm, 1.5mm, 2.0mm, 2.5mm and 3.0mm
Surface Quality	60-40 scratch & dig
Clear Aperture	90% of dimension

Visible and IR laser Interference Filters

Specifications	
Dimension Tolerance	+0.0 / - 0.15 mm
CWL Tolerance	± 20 % of FWHM
Bandwidth Tolerance	± 20 % of FWHM
Minimum Peak Transmission	410 - 515nm 50%; 520 - 1550 nm 60%
Out of Band Blocking	<0.01% (X-ray to Far IR)
Temperature Range	-50 to +80°C
Thickness	<6 mm
Surface Quality	60-40 scratch and dig
Clear Aperture	> 90 % of dimension

UV Interference Filters

Specifications	
CWL Tolerance	20% of FWHM
Bandwidth Tolerance	20% of FWHM
Out of Band Blocking	<0.1 % (X-ray to 700nm)
Clear Aperture	90% of dimension

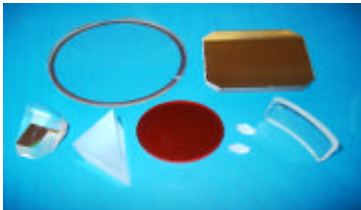
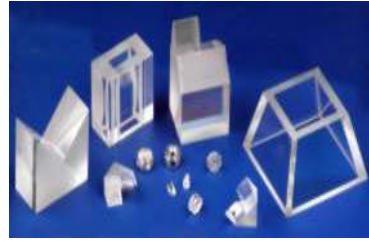
Neutral Density Filters

Neutral Density Filters, Metallic Linearly Variable Neutral Density Filter, Metallic Circularly Variable Neutral Density Filter.

- Note: 1. Visit our website www.yoptics.com for updated product information.
 2. Welcome custom.

Company Introduction:

Sunny Precision Optics is a professional supplier of optical products for the commercial and research area in laser, semiconductor, biomedical, aerospace and telecommunication industry. We are located in Sunnyvale, California, the center of Silicon Valley. With manufacturing facilities located in China and engineering support in the U.S., we offer our customers assistance in engineering, cost reduction, reliable delivery and quality control.



Our technical staff and engineers have more than 10 years experiences in optical manufacturing area, providing the highest quality products and in-depth technical support with lowest market price. Optical glass, Fused Silica, Silicon, CaF₂, MgF₂, Germanium, Crystal Quartz, BBO and etc are all used in our product.

We accept quote and order to your specification, from a single proto-typing design unit to volume production with huge discount. We can also provide optical system design and coating service upon your request. Welcome every opportunity to provide you with our quote on your regular and custom optical component needs.



About payment: We accept wire transfer or check. Please contact us for the payment method while ordering.

Welcome custom: We offer catalog components and customer designed elements.

Quick Response

High Quality

Low price