Optical Beamsplitters, Wave Plates & Polarizers

Product Catalog

Beijing Hengdingguang Technology Co., Ltd.

PhotonEdge

PhotonEdge offers a comprehensive range of optical components including beamsplitters, wave plates, polarizers, polarizing prisms, and opto-mechanical products. Our products are manufactured to strict quality standards with excellent surface quality and precise tolerances.

We also provide custom optical coating services and optical design support.

Product Categories

- ▸ Optical Beamsplitters (Plates, Cubes, Polarized, Non-Polarized)
- ▸ Optical Wave Plates (Multiple Order, Zero Order, Dual Wavelength)
- ▸ Optical Polarizers (Linear, Circular, IR)
- ▸ Polarizing Prisms (Glan Taylor, Glan Laser, Glan Thompson, Wollaston)
- ▸ Laser Safety Goggles & Beam Expanders
- ▸ Microscope Objectives
- ▸ Optical Coatings & Opto-Mechanical Products

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Beamsplitter Plates

Optical beamsplitter plates split incident light into transmitted and reflected beams in various ratios such as 50/50, 60/40, 80/20, or 90/10 through dielectric coatings. The default configuration is 50/50 beam splitting. Custom splitting ratios are available upon request.

Diameter Tolerance	±0.15mm
Thickness Tolerance	±0.10mm
Surface Quality	40-20
Surface Flatness	λ/4 @ 632.8nm
Parallelism	<1 arc min
T/R Ratio	50/50 ±2%, T=(Ts+Tp)/2, R=(Rs+Rp)/2
Coatings	One side: dielectric partial reflection coating; other side: AR coating

Part Number	Dimension (mm)	Wavelength (nm)
LOBP12.7-450/650	Φ12.7×3.0	450-650
LOBP20.0-450/650	Φ20.0×3.0	450-650
LOBP25.4-450/650	Φ25.4×3.0	450-650
LOBP50.8-450/650	Φ50.8×3.0	450-650
LOBP12.7-650/900	Φ12.7×3.0	650-900
LOBP20.0-650/900	Φ20.0×3.0	650-900
LOBP25.4-650/900	Φ25.4×3.0	650-900
LOBP50.8-650/900	Φ50.8×3.0	650-900
LOBP12.7-900/1200	Φ12.7×3.0	900-1200
LOBP20.0-900/1200	Φ20.0×3.0	900-1200
LOBP25.4-900/1200	Φ25.4×3.0	900-1200
LOBP50.8-900/1200	Φ50.8×3.0	900-1200
LOBPS12.7-450/650	12.7×12.7×3.0	450-650
LOBPS20.0-450/650	20.0×20.0×3.0	450-650
LOBPS25.4-450/650	25.4×25.4×3.0	450-650
LOBPS50.8-450/650	50.8×50.8×3.0	450-650
LOBPS12.7-650/900	12.7×12.7×3.0	650-900
LOBPS20.0-650/900	20.0×20.0×3.0	650-900
LOBPS25.4-650/900	25.4×25.4×3.0	650-900
LOBPS50.8-650/900	50.8×50.8×3.0	650-900
LOBPS12.7-900/1200	12.7×12.7×3.0	900-1200
LOBPS20.0-900/1200	20.0×20.0×3.0	900-1200
LOBPS25.4-900/1200	25.4×25.4×3.0	900-1200

Beamsplitter Plates

Part Number	Dimension (mm)	Wavelength (nm)
LOBPS50.8-900/1200	50.8×50.8×3.0	900-1200

Cube Beamsplitters

Multilayer dielectric cube beamsplitters consist of two right-angle prisms cemented together. The beamsplitter divides incident light into reflected and transmitted beams in a 1:2 or 1:3 ratio. Both entry and exit faces are coated with multilayer anti-reflection coatings. Since dielectric coatings have virtually no absorption, incident light loss is minimal. Unlike plate beamsplitters, cube beamsplitters experience almost no optical axis shift or ghost images.

Diameter Tolerance	±0.15mm
Angle Tolerance	±10 arc sec
Surface Quality	40-20
Surface Flatness	λ/4 @ 632.8nm
Parallelism	<1 arc min
T/R Ratio	50/50 ±2%, T=(Ts+Tp)/2, R=(Rs+Rp)/2
Coatings	Cemented face: dielectric partial reflection coating; entry and exit faces: AR coating

Part Number	Dimension (mm)	Wavelength (nm)
LOCBS5-532	5.0×5.0×5.0	532
LOCBS10-532	10.0×10.0×10.0	532
LOCBS12.7-532	12.7×12.7×12.7	532
LOCBS15-532	15.0×15.0×15.0	532
LOCBS20-532	20.0×20.0×20.0	532
LOCBS25.4-532	25.4×25.4×25.4	532
LOCBS5-633	5.0×5.0×5.0	633
LOCBS10-633	10.0×10.0×10.0	633
LOCBS12.7-633	12.7×12.7×12.7	633
LOCBS15-633	15.0×15.0×15.0	633
LOCBS20-633	20.0×20.0×20.0	633
LOCBS25.4-633	25.4×25.4×25.4	633
LOCBS5-780	5.0×5.0×5.0	780
LOCBS10-780	10.0×10.0×10.0	780
LOCBS12.7-780	12.7×12.7×12.7	780
LOCBS15-780	15.0×15.0×15.0	780
LOCBS20-780	20.0×20.0×20.0	780
LOCBS25.4-780	25.4×25.4×25.4	780
LOCBS5-850	5.0×5.0×5.0	850
LOCBS10-850	10.0×10.0×10.0	850
LOCBS12.7-850	12.7×12.7×12.7	850
LOCBS15-850	15.0×15.0×15.0	850
LOCBS20-850	20.0×20.0×20.0	850
LOCBS25.4-850	25.4×25.4×25.4	850
LOCBS5-1064	5.0×5.0×5.0	1064
LOCBS10-1064	10.0×10.0×10.0	1064
LOCBS12.7-1064	12.7×12.7×12.7	1064
LOCBS15-1064	15.0×15.0×15.0	1064
LOCBS20-1064	20.0×20.0×20.0	1064
LOCBS25.4-1064	25.4×25.4×25.4	1064
LOCBS5-420/680	5.0×5.0×5.0	420-680
LOCBS10-420/680	10.0×10.0×10.0	420-680
LOCBS12.7-420/680	12.7×12.7×12.7	420-680
LOCBS15-420/680	15.0×15.0×15.0	420-680
LOCBS20-420/680	20.0×20.0×20.0	420-680
LOCBS25.4-420/680	25.4×25.4×25.4	420-680

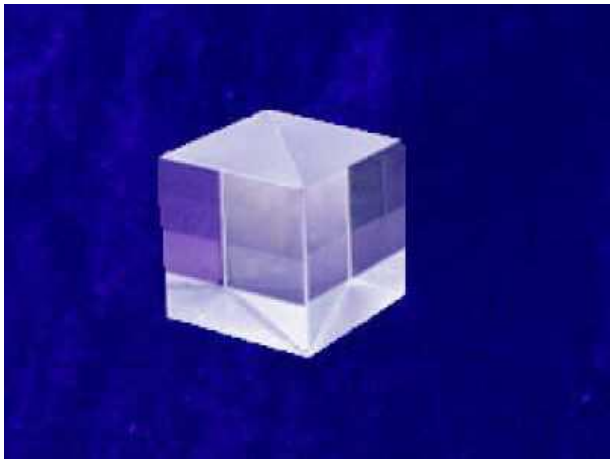
Cube Beamsplitters

Part Number	Dimension (mm)	Wavelength (nm)
LOCBS5-620/1000	5.0×5.0×5.0	620-1000
LOCBS10-620/1000	10.0×10.0×10.0	620-1000
LOCBS12.7-620/1000	12.7×12.7×12.7	620-1000
LOCBS15-620/1000	15.0×15.0×15.0	620-1000
LOCBS20-620/1000	20.0×20.0×20.0	620-1000
LOCBS25.4-620/1000	25.4×25.4×25.4	620-1000
LOCBS5-900/1300	5.0×5.0×5.0	900-1300
LOCBS10-900/1300	10.0×10.0×10.0	900-1300
LOCBS12.7-900/1300	12.7×12.7×12.7	900-1300
LOCBS15-900/1300	15.0×15.0×15.0	900-1300
LOCBS20-900/1300	20.0×20.0×20.0	900-1300
LOCBS25.4-900/1300	25.4×25.4×25.4	900-1300
LOCBS5-1200/1600	5.0×5.0×5.0	1200-1600
LOCBS10-1200/1600	10.0×10.0×10.0	1200-1600
LOCBS12.7-1200/1600	12.7×12.7×12.7	1200-1600
LOCBS15-1200/1600	15.0×15.0×15.0	1200-1600
LOCBS20-1200/1600	20.0×20.0×20.0	1200-1600
LOCBS25.4-1200/1600	25.4×25.4×25.4	1200-1600

Non-Polarized Cube Beamsplitters

Non-polarized cube beamsplitters are composed of two cemented right-angle prisms. The reflected and transmitted beams maintain a 1:1 ratio regardless of the polarization state of the incident light. Unlike standard half-mirrors, the splitting ratio does not vary with polarization components.

Diameter Tolerance	±0.15mm
Angle Tolerance	±10 arc sec
Surface Quality	40-20
Surface Flatness	λ/4 @ 632.8nm
Parallelism	<1 arc min
Transmission T%(P or S)	50±5%
Coatings	Cemented face: non-polarizing beamsplitter coating; entry and exit faces: multilayer dielectric AR coating



Part Number	Dimension (mm)	Wavelength (nm)
LONPBS5-532	5.0×5.0×5.0	532
LONPBS10-532	10.0×10.0×10.0	532
LONPBS12.7-532	12.7×12.7×12.7	532
LONPBS15-532	15.0×15.0×15.0	532
LONPBS20-532	20.0×20.0×20.0	532
LONPBS25.4-532	25.4×25.4×25.4	532
LONPBS5-633	5.0×5.0×5.0	633
LONPBS10-633	10.0×10.0×10.0	633
LONPBS12.7-633	12.7×12.7×12.7	633
LONPBS15-633	15.0×15.0×15.0	633
LONPBS20-633	20.0×20.0×20.0	633
LONPBS25.4-633	25.4×25.4×25.4	633
LONPBS5-780	5.0×5.0×5.0	780
LONPBS10-780	10.0×10.0×10.0	780
LONPBS12.7-780	12.7×12.7×12.7	780
LONPBS15-780	15.0×15.0×15.0	780
LONPBS20-780	20.0×20.0×20.0	780
LONPBS25.4-780	25.4×25.4×25.4	780
LONPBS5-850	5.0×5.0×5.0	850
LONPBS10-850	10.0×10.0×10.0	850
LONPBS12.7-850	12.7×12.7×12.7	850
LONPBS15-850	15.0×15.0×15.0	850
LONPBS20-850	20.0×20.0×20.0	850

Non-Polarized Cube Beamsplitters

Part Number	Dimension (mm)	Wavelength (nm)
LONPBS25.4-850	25.4×25.4×25.4	850
LONPBS5-1064	5.0×5.0×5.0	1064
LONPBS10-1064	10.0×10.0×10.0	1064
LONPBS12.7-1064	12.7×12.7×12.7	1064
LONPBS15-1064	15.0×15.0×15.0	1064
LONPBS20-1064	20.0×20.0×20.0	1064
LONPBS25.4-1064	25.4×25.4×25.4	1064
LONPBS5-420/680	5.0×5.0×5.0	420-680
LONPBS10-420/680	10.0×10.0×10.0	420-680
LONPBS12.7-420/680	12.7×12.7×12.7	420-680
LONPBS15-420/680	15.0×15.0×15.0	420-680
LONPBS20-420/680	20.0×20.0×20.0	420-680
LONPBS25.4-420/680	25.4×25.4×25.4	420-680
LONPBS5-620/1000	5.0×5.0×5.0	620-1000
LONPBS10-620/1000	10.0×10.0×10.0	620-1000
LONPBS12.7-620/1000	12.7×12.7×12.7	620-1000
LONPBS15-620/1000	15.0×15.0×15.0	620-1000
LONPBS20-620/1000	20.0×20.0×20.0	620-1000
LONPBS25.4-620/1000	25.4×25.4×25.4	620-1000
LONPBS5-900/1300	5.0×5.0×5.0	900-1300
LONPBS10-900/1300	10.0×10.0×10.0	900-1300
LONPBS12.7-900/1300	12.7×12.7×12.7	900-1300
LONPBS15-900/1300	15.0×15.0×15.0	900-1300
LONPBS20-900/1300	20.0×20.0×20.0	900-1300
LONPBS25.4-900/1300	25.4×25.4×25.4	900-1300
LONPBS5-1200/1600	5.0×5.0×5.0	1200-1600
LONPBS10-1200/1600	10.0×10.0×10.0	1200-1600
LONPBS12.7-1200/1600	12.7×12.7×12.7	1200-1600
LONPBS15-1200/1600	15.0×15.0×15.0	1200-1600
LONPBS20-1200/1600	20.0×20.0×20.0	1200-1600
LONPBS25.4-1200/1600	25.4×25.4×25.4	1200-1600

Polarized Cube Beamsplitters

Polarized cube beamsplitters consist of two right-angle prisms, with one hypotenuse face coated with dielectric multilayer polarizing coating. When monochromatic light enters perpendicularly, the polarized cube beamsplitter allows P-polarized light to pass through while reflecting S-polarized light in a perpendicular direction. Optical axis shift and ghost images are virtually eliminated.

Diameter Tolerance	±0.15mm
Angle Tolerance	±10 arc sec
Surface Quality	40-20
Surface Flatness	λ/4 @ 632.8nm
Parallelism	<1 arc min
Extinction Ratio Tp/Ts	>500:1
Transmission (P)	Tp>95%, Ts<1%
Reflection (S)	Rs>99%, Rp<5%
Coatings	Cemented face: polarized beamsplitter coating; entry and exit faces: multilayer dielectric AR coating

Part Number	Dimension (mm)	Wavelength (nm)
LOPBS5-397	5.0×5.0×5.0	397
LOPBS10-397	10.0×10.0×10.0	397
LOPBS12.7-397	12.7×12.7×12.7	397
LOPBS15-397	15.0×15.0×15.0	397
LOPBS20-397	20.0×20.0×20.0	397
LOPBS25.4-397	25.4×25.4×25.4	397
LOPBS5-532	5.0×5.0×5.0	532
LOPBS10-532	10.0×10.0×10.0	532
LOPBS12.7-532	12.7×12.7×12.7	532
LOPBS15-532	15.0×15.0×15.0	532
LOPBS20-532	20.0×20.0×20.0	532
LOPBS25.4-532	25.4×25.4×25.4	532
LOPBS5-633	5.0×5.0×5.0	633
LOPBS10-633	10.0×10.0×10.0	633
LOPBS12.7-633	12.7×12.7×12.7	633
LOPBS15-633	15.0×15.0×15.0	633
LOPBS20-633	20.0×20.0×20.0	633
LOPBS25.4-633	25.4×25.4×25.4	633
LOPBS5-780	5.0×5.0×5.0	780

Polarized Cube Beamsplitters

Part Number	Dimension (mm)	Wavelength (nm)
LOPBS10-780	10.0×10.0×10.0	780
LOPBS12.7-780	12.7×12.7×12.7	780
LOPBS15-780	15.0×15.0×15.0	780
LOPBS20-780	20.0×20.0×20.0	780
LOPBS25.4-780	25.4×25.4×25.4	780
LOPBS5-850	5.0×5.0×5.0	850
LOPBS10-850	10.0×10.0×10.0	850
LOPBS12.7-850	12.7×12.7×12.7	850
LOPBS15-850	15.0×15.0×15.0	850
LOPBS20-850	20.0×20.0×20.0	850
LOPBS25.4-850	25.4×25.4×25.4	850
LOPBS5-1064	5.0×5.0×5.0	1064
LOPBS10-1064	10.0×10.0×10.0	1064
LOPBS12.7-1064	12.7×12.7×12.7	1064
LOPBS15-1064	15.0×15.0×15.0	1064
LOPBS20-1064	20.0×20.0×20.0	1064
LOPBS25.4-1064	25.4×25.4×25.4	1064
LOPBS5-420/680	5.0×5.0×5.0	420/680
LOPBS10-420/680	10.0×10.0×10.0	420/680
LOPBS12.7-420/680	12.7×12.7×12.7	420/680
LOPBS15-420/680	15.0×15.0×15.0	420/680
LOPBS20-420/680	20.0×20.0×20.0	420/680
LOPBS25.4-420/680	25.4×25.4×25.4	420/680
LOPBS5-620/1000	5.0×5.0×5.0	620/1000
LOPBS10-620/1000	10.0×10.0×10.0	620/1000
LOPBS12.7-620/1000	12.7×12.7×12.7	620/1000
LOPBS15-620/1000	15.0×15.0×15.0	620/1000
LOPBS20-620/1000	20.0×20.0×20.0	620/1000
LOPBS25.4-620/1000	25.4×25.4×25.4	620/1000
LOPBS5-900/1300	5.0×5.0×5.0	900/1300
LOPBS10-900/1300	10.0×10.0×10.0	900/1300
LOPBS12.7-900/1300	12.7×12.7×12.7	900/1300
LOPBS15-900/1300	15.0×15.0×15.0	900/1300
LOPBS20-900/1300	20.0×20.0×20.0	900/1300
LOPBS25.4-900/1300	25.4×25.4×25.4	900/1300
LOPBS5-1200/1600	5.0×5.0×5.0	1200/1600
LOPBS10-1200/1600	10.0×10.0×10.0	1200/1600
LOPBS12.7-1200/1600	12.7×12.7×12.7	1200/1600
LOPBS15-1200/1600	15.0×15.0×15.0	1200/1600
LOPBS20-1200/1600	20.0×20.0×20.0	1200/1600
LOPBS25.4-1200/1600	25.4×25.4×25.4	1200/1600

Multiple Order Wave Plates

Multiple order wave plates utilize birefringent crystal materials to introduce a phase difference of λ/4 (π/2, 90°) or λ/2 (π, 180°) relative to incident light. Key features include small temperature bandwidth, narrow wavelength bandwidth, high damage threshold, and competitive pricing compared to zero-order wave plates.

Diameter Tolerance	±0.15mm
Thickness Tolerance	±0.10mm
Surface Quality	20-10
Wavefront Aberration	λ/8 @ 632.8nm
Parallelism	<1 arc min
Phase Retardation Accuracy	λ/100
Clear Aperture	>90%
Coatings	Both sides AR coating, R<0.25% at central wavelength

Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPM-10H-400	10.00	400	Half Wave(λ/2)
LOWPM-10Q-400	10.00	400	Quarter Wave(λ/4)
LOWPM-10H-532	10.00	532	Half Wave(λ/2)
LOWPM-10Q-532	10.00	532	Quarter Wave(λ/4)
LOWPM-10H-632.8	10.00	632.8	Half Wave(λ/2)
LOWPM-10Q-632.8	10.00	632.8	Quarter Wave(λ/4)
LOWPM-10H-1064	10.00	1064	Half Wave(λ/2)
LOWPM-10Q-1064	10.00	1064	Quarter Wave(λ/4)
LOWPM-12.7H-400	12.70	400	Half Wave(λ/2)
LOWPM-12.7Q-400	12.70	400	Quarter Wave(λ/4)
LOWPM-12.7H-532	12.70	532	Half Wave(λ/2)
LOWPM-12.7Q-532	12.70	532	Quarter Wave(λ/4)
LOWPM-12.7H-632.8	12.70	632.8	Half Wave(λ/2)
LOWPM-12.7Q-632.8	12.70	632.8	Quarter Wave(λ/4)
LOWPM-12.7H-1064	12.70	1064	Half Wave(λ/2)
LOWPM-12.7Q-1064	12.70	1064	Quarter Wave(λ/4)
LOWPM-15H-400	15.00	400	Half Wave(λ/2)

Multiple Order Wave Plates

Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPM-15Q-400	15.00	400	Quarter Wave(λ/4)
LOWPM-15H-532	15.00	532	Half Wave(λ/2)
LOWPM-15Q-532	15.00	532	Quarter Wave(λ/4)
LOWPM-15H-632.8	15.00	632.8	Half Wave(λ/2)
LOWPM-15Q-632.8	15.00	632.8	Quarter Wave(λ/4)
LOWPM-15H-1064	15.00	1064	Half Wave(λ/2)
LOWPM-15Q-1064	15.00	1064	Quarter Wave(λ/4)
LOWPM-20H-400	20.00	400	Half Wave(λ/2)
LOWPM-20Q-400	20.00	400	Quarter Wave(λ/4)
LOWPM-20H-532	20.00	532	Half Wave(λ/2)
LOWPM-20Q-532	20.00	532	Quarter Wave(λ/4)
LOWPM-20H-632.8	20.00	632.8	Half Wave(λ/2)
LOWPM-20Q-632.8	20.00	632.8	Quarter Wave(λ/4)
LOWPM-20H-1064	20.00	1064	Half Wave(λ/2)
LOWPM-20Q-1064	20.00	1064	Quarter Wave(λ/4)
LOWPM-25.4H-400	25.40	400	Half Wave(λ/2)
LOWPM-25.4Q-400	25.40	400	Quarter Wave(λ/4)
LOWPM-25.4H-532	25.40	532	Half Wave(λ/2)
LOWPM-25.4Q-532	25.40	532	Quarter Wave(λ/4)
LOWPM-25.4H-632.8	25.40	632.8	Half Wave(λ/2)
LOWPM-25.4Q-632.8	25.40	632.8	Quarter Wave(λ/4)
LOWPM-25.4H-1064	25.40	1064	Half Wave(λ/2)
LOWPM-25.4Q-1064	25.40	1064	Quarter Wave(λ/4)
LOWPM-30H-400	30.00	400	Half Wave(λ/2)
LOWPM-30Q-400	30.00	400	Quarter Wave(λ/4)
LOWPM-30H-532	30.00	532	Half Wave(λ/2)
LOWPM-30Q-532	30.00	532	Quarter Wave(λ/4)
LOWPM-30H-632.8	30.00	632.8	Half Wave(λ/2)
LOWPM-30Q-632.8	30.00	632.8	Quarter Wave(λ/4)
LOWPM-30H-1064	30.00	1064	Half Wave(λ/2)
LOWPM-30Q-1064	30.00	1064	Quarter Wave(λ/4)
LOWPM-38.1H-400	38.10	400	Half Wave(λ/2)
LOWPM-38.1Q-400	38.10	400	Quarter Wave(λ/4)
LOWPM-38.1H-532	38.10	532	Half Wave(λ/2)
LOWPM-38.1Q-532	38.10	532	Quarter Wave(λ/4)
LOWPM-38.1H-632.8	38.10	632.8	Half Wave(λ/2)
LOWPM-38.1Q-632.8	38.10	632.8	Quarter Wave(λ/4)
LOWPM-38.1H-1064	38.10	1064	Half Wave(λ/2)

Multiple Order Wave Plates

Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPM-38.1Q-1064	38.10	1064	Quarter Wave(λ/4)

Dual Wavelength Wave Plates

Dual wavelength wave plates are designed to provide specific phase retardation at two different wavelengths simultaneously. They are ideal for applications in laser systems requiring phase control at multiple wavelengths, such as frequency conversion systems.

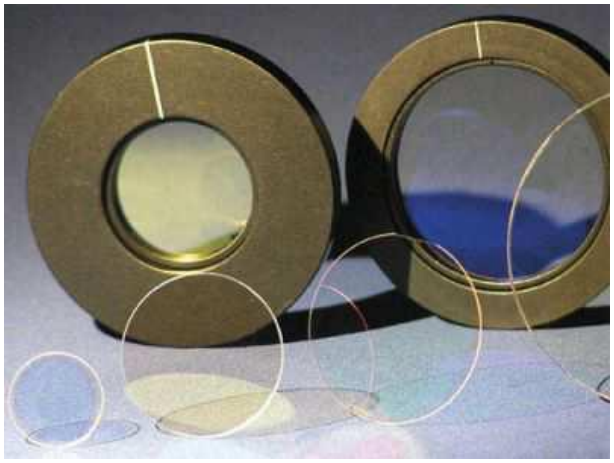
Diameter Tolerance	±0.15mm
Surface Quality	20-10
Wavefront Aberration	λ/8 @ 632.8nm
Parallelism	<1 arc min
Phase Retardation Accuracy	λ/100
Clear Aperture	>90%
Coatings	Both sides AR coating, R<0.5%

Part Number	Diameter (mm)	Phase 1	Phase 2
LOWPDW10-1	10.00	λ/2 @ 1064nm	λ @ 532nm
LOWPDW10-2	10.00	λ @ 1064nm	λ/2 @ 532nm
LOWPDW10-3	10.00	λ/2 @ 1064nm	λ/4 @ 532nm
LOWPDW10-4	10.00	λ/4 @ 1064nm	λ/2 @ 532nm
LOWPDW10-5	10.00	λ/4 @ 1064nm	λ @ 532nm
LOWPDW12.7-1	12.70	λ/2 @ 1064nm	λ @ 532nm
LOWPDW12.7-2	12.70	λ @ 1064nm	λ/2 @ 532nm
LOWPDW12.7-3	12.70	λ/2 @ 1064nm	λ/4 @ 532nm
LOWPDW12.7-4	12.70	λ/4 @ 1064nm	λ/2 @ 532nm
LOWPDW12.7-5	12.70	λ/4 @ 1064nm	λ @ 532nm
LOWPDW15-1	15.00	λ/2 @ 1064nm	λ @ 532nm
LOWPDW15-2	15.00	λ @ 1064nm	λ/2 @ 532nm
LOWPDW15-3	15.00	λ/2 @ 1064nm	λ/4 @ 532nm
LOWPDW15-4	15.00	λ/4 @ 1064nm	λ/2 @ 532nm
LOWPDW15-5	15.00	λ/4 @ 1064nm	λ @ 532nm
LOWPDW20-1	20.00	λ/2 @ 1064nm	λ @ 532nm
LOWPDW20-2	20.00	λ @ 1064nm	λ/2 @ 532nm
LOWPDW20-3	20.00	λ/2 @ 1064nm	λ/4 @ 532nm
LOWPDW20-4	20.00	λ/4 @ 1064nm	λ/2 @ 532nm
LOWPDW20-5	20.00	λ/4 @ 1064nm	λ @ 532nm
LOWPDW25.4-1	25.40	λ/2 @ 1064nm	λ @ 532nm
LOWPDW25.4-2	25.40	λ @ 1064nm	λ/2 @ 532nm
LOWPDW25.4-3	25.40	λ/2 @ 1064nm	λ/4 @ 532nm
LOWPDW25.4-4	25.40	λ/4 @ 1064nm	λ/2 @ 532nm
LOWPDW25.4-5	25.40	λ/4 @ 1064nm	λ @ 532nm

Cemented Zero Order Wave Plates

Cemented zero order wave plates consist of two multiple order wave plates with optical axes oriented perpendicular to each other, cemented together. The phase retardation of one plate is compensated by the other; the resulting phase change is determined by their thickness difference. This design allows production of wave plates for any wavelength and retardation value with improved temperature stability compared to multiple order plates.

Diameter Tolerance	±0.15mm
Surface Quality	20-10
Wavefront Aberration	λ/8 @ 632.8nm
Parallelism	<1 arc min
Phase Retardation Accuracy	λ/100
Clear Aperture	>90%
Coatings	Both sides AR coating, R<0.5%



Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPCZ-10H-400	10.00	400	Half Wave(λ/2)
LOWPCZ-10Q-400	10.00	400	Quarter Wave(λ/4)
LOWPCZ-10H-532	10.00	532	Half Wave(λ/2)
LOWPCZ-10Q-532	10.00	532	Quarter Wave(λ/4)
LOWPCZ-10H-632.8	10.00	632.8	Half Wave(λ/2)
LOWPCZ-10Q-632.8	10.00	632.8	Quarter Wave(λ/4)
LOWPCZ-10H-1064	10.00	1064	Half Wave(λ/2)
LOWPCZ-10Q-1064	10.00	1064	Quarter Wave(λ/4)
LOWPCZ-12.7H-400	12.70	400	Half Wave(λ/2)
LOWPCZ-12.7Q-400	12.70	400	Quarter Wave(λ/4)
LOWPCZ-12.7H-532	12.70	532	Half Wave(λ/2)
LOWPCZ-12.7Q-532	12.70	532	Quarter Wave(λ/4)
LOWPCZ-12.7H-632.8	12.70	632.8	Half Wave(λ/2)
LOWPCZ-12.7Q-632.8	12.70	632.8	Quarter Wave(λ/4)
LOWPCZ-12.7H-1064	12.70	1064	Half Wave(λ/2)

Cemented Zero Order Wave Plates

Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPCZ-12.7Q-1064	12.70	1064	Quarter Wave(λ/4)
LOWPCZ-15H-400	15.00	400	Half Wave(λ/2)
LOWPCZ-15Q-400	15.00	400	Quarter Wave(λ/4)
LOWPCZ-15H-532	15.00	532	Half Wave(λ/2)
LOWPCZ-15Q-532	15.00	532	Quarter Wave(λ/4)
LOWPCZ-15H-632.8	15.00	632.8	Half Wave(λ/2)
LOWPCZ-15Q-632.8	15.00	632.8	Quarter Wave(λ/4)
LOWPCZ-15H-1064	15.00	1064	Half Wave(λ/2)
LOWPCZ-15Q-1064	15.00	1064	Quarter Wave(λ/4)
LOWPCZ-20H-400	20.00	400	Half Wave(λ/2)
LOWPCZ-20Q-400	20.00	400	Quarter Wave(λ/4)
LOWPCZ-20H-532	20.00	532	Half Wave(λ/2)
LOWPCZ-20Q-532	20.00	532	Quarter Wave(λ/4)
LOWPCZ-20H-632.8	20.00	632.8	Half Wave(λ/2)
LOWPCZ-20Q-632.8	20.00	632.8	Quarter Wave(λ/4)
LOWPCZ-20H-1064	20.00	1064	Half Wave(λ/2)
LOWPCZ-20Q-1064	20.00	1064	Quarter Wave(λ/4)
LOWPCZ-25.4H-400	25.40	400	Half Wave(λ/2)
LOWPCZ-25.4Q-400	25.40	400	Quarter Wave(λ/4)
LOWPCZ-25.4H-532	25.40	532	Half Wave(λ/2)
LOWPCZ-25.4Q-532	25.40	532	Quarter Wave(λ/4)
LOWPCZ-25.4H-632.8	25.40	632.8	Half Wave(λ/2)
LOWPCZ-25.4Q-632.8	25.40	632.8	Quarter Wave(λ/4)
LOWPCZ-25.4H-1064	25.40	1064	Half Wave(λ/2)
LOWPCZ-25.4Q-1064	25.40	1064	Quarter Wave(λ/4)
LOWPCZ-30H-400	30.00	400	Half Wave(λ/2)
LOWPCZ-30Q-400	30.00	400	Quarter Wave(λ/4)
LOWPCZ-30H-532	30.00	532	Half Wave(λ/2)
LOWPCZ-30Q-532	30.00	532	Quarter Wave(λ/4)
LOWPCZ-30H-632.8	30.00	632.8	Half Wave(λ/2)
LOWPCZ-30Q-632.8	30.00	632.8	Quarter Wave(λ/4)
LOWPCZ-30H-1064	30.00	1064	Half Wave(λ/2)
LOWPCZ-30Q-1064	30.00	1064	Quarter Wave(λ/4)
LOWPCZ-38.1H-400	38.10	400	Half Wave(λ/2)
LOWPCZ-38.1Q-400	38.10	400	Quarter Wave(λ/4)
LOWPCZ-38.1H-532	38.10	532	Half Wave(λ/2)
LOWPCZ-38.1Q-532	38.10	532	Quarter Wave(λ/4)

Cemented Zero Order Wave Plates

Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPCZ-38.1H-632.8	38.10	632.8	Half Wave(λ/2)
LOWPCZ-38.1Q-632.8	38.10	632.8	Quarter Wave(λ/4)
LOWPCZ-38.1H-1064	38.10	1064	Half Wave(λ/2)
LOWPCZ-38.1Q-1064	38.10	1064	Quarter Wave(λ/4)

Air Spaced Zero Order Wave Plates

Air spaced zero order wave plates consist of two quartz substrates separated by an air gap within a precision metal mount. Since the wave plate uses an air gap design, it can withstand very high laser energy without damage, making it ideal for high-power laser applications.

Diameter Tolerance	±0.15mm
Surface Quality	20-10
Wavefront Aberration	λ/8 @ 632.8nm
Parallelism	<1 arc min
Phase Retardation Accuracy	λ/100
Clear Aperture	>90%
Coatings	Both sides AR coating, R<0.5%
Transmission	>99%

Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPAZ-12.7H-400	12.70	400	Half Wave(λ/2)
LOWPAZ-12.7Q-400	12.70	400	Quarter Wave(λ/4)
LOWPAZ-12.7H-532	12.70	532	Half Wave(λ/2)
LOWPAZ-12.7Q-532	12.70	532	Quarter Wave(λ/4)
LOWPAZ-12.7H-632.8	12.70	632.8	Half Wave(λ/2)
LOWPAZ-12.7Q-632.8	12.70	632.8	Quarter Wave(λ/4)
LOWPAZ-12.7H-1064	12.70	1064	Half Wave(λ/2)
LOWPAZ-12.7Q-1064	12.70	1064	Quarter Wave(λ/4)
LOWPAZ-15H-400	15.00	400	Half Wave(λ/2)
LOWPAZ-15Q-400	15.00	400	Quarter Wave(λ/4)
LOWPAZ-15H-532	15.00	532	Half Wave(λ/2)
LOWPAZ-15Q-532	15.00	532	Quarter Wave(λ/4)
LOWPAZ-15H-632.8	15.00	632.8	Half Wave(λ/2)
LOWPAZ-15Q-632.8	15.00	632.8	Quarter Wave(λ/4)
LOWPAZ-15H-1064	15.00	1064	Half Wave(λ/2)

Air Spaced Zero Order Wave Plates

Part Number	Diameter (mm)	Wavelength (nm)	Phase
LOWPAZ-15Q-1064	15.00	1064	Quarter Wave(λ/4)
LOWPAZ-20H-400	20.00	400	Half Wave(λ/2)
LOWPAZ-20Q-400	20.00	400	Quarter Wave(λ/4)
LOWPAZ-20H-532	20.00	532	Half Wave(λ/2)
LOWPAZ-20Q-532	20.00	532	Quarter Wave(λ/4)
LOWPAZ-20H-632.8	20.00	632.8	Half Wave(λ/2)
LOWPAZ-20Q-632.8	20.00	632.8	Quarter Wave(λ/4)
LOWPAZ-20H-1064	20.00	1064	Half Wave(λ/2)
LOWPAZ-20Q-1064	20.00	1064	Quarter Wave(λ/4)
LOWPAZ-25.4H-400	25.40	400	Half Wave(λ/2)
LOWPAZ-25.4Q-400	25.40	400	Quarter Wave(λ/4)
LOWPAZ-25.4H-532	25.40	532	Half Wave(λ/2)
LOWPAZ-25.4Q-532	25.40	532	Quarter Wave(λ/4)
LOWPAZ-25.4H-632.8	25.40	632.8	Half Wave(λ/2)
LOWPAZ-25.4Q-632.8	25.40	632.8	Quarter Wave(λ/4)
LOWPAZ-25.4H-1064	25.40	1064	Half Wave(λ/2)
LOWPAZ-25.4Q-1064	25.40	1064	Quarter Wave(λ/4)
LOWPAZ-30H-400	30.00	400	Half Wave(λ/2)
LOWPAZ-30Q-400	30.00	400	Quarter Wave(λ/4)
LOWPAZ-30H-532	30.00	532	Half Wave(λ/2)
LOWPAZ-30Q-532	30.00	532	Quarter Wave(λ/4)
LOWPAZ-30H-632.8	30.00	632.8	Half Wave(λ/2)
LOWPAZ-30Q-632.8	30.00	632.8	Quarter Wave(λ/4)
LOWPAZ-30H-1064	30.00	1064	Half Wave(λ/2)
LOWPAZ-30Q-1064	30.00	1064	Quarter Wave(λ/4)
LOWPAZ-38.1H-400	38.10	400	Half Wave(λ/2)
LOWPAZ-38.1Q-400	38.10	400	Quarter Wave(λ/4)
LOWPAZ-38.1H-532	38.10	532	Half Wave(λ/2)
LOWPAZ-38.1Q-532	38.10	532	Quarter Wave(λ/4)
LOWPAZ-38.1H-632.8	38.10	632.8	Half Wave(λ/2)
LOWPAZ-38.1Q-632.8	38.10	632.8	Quarter Wave(λ/4)
LOWPAZ-38.1H-1064	38.10	1064	Half Wave(λ/2)
LOWPAZ-38.1Q-1064	38.10	1064	Quarter Wave(λ/4)

Visible Linear Polarizers

Thin film polarizers consist of a multilayer thin film filter sandwiched between two glass substrates. They can extract linearly polarized light from unpolarized light and also function as neutral density filters for light attenuation. The film is protected between glass substrates, ensuring durability and longevity.

Diameter Tolerance	±0.15mm
Surface Quality	60-40
Parallelism	<1 arc min
Clear Aperture	>90%
Transmission	>50%

Part Number	Size Φ (mm)	Wavelength Range (nm)
LOLP12.7	12.7	400-700
LOLO25.4	25.4	400-700

Visible Circular Polarizers

Circular polarizers consist of a linear polarizer combined with a quarter-wave plate. They convert linearly polarized light into circularly polarized light and are widely used in LCD displays, photography, and optical communication systems.

Diameter Tolerance	±0.15mm
Surface Quality	60-40
Parallelism	<1 arc min
Clear Aperture	>90%
Transmission	>50%

Part Number	Size Φ (mm)	Wavelength Range (nm)
LOCP12.7	12.7	400-700
LOCO25.4	25.4	400-700

IR Polarizers

Infrared polarizers are designed for the near-infrared wavelength range (600-2000nm). They provide high transmission and excellent extinction ratios, making them suitable for IR spectroscopy, laser systems, and thermal imaging applications.

Diameter Tolerance	±0.15mm
Surface Quality	60-40
Parallelism	<1 arc min
Clear Aperture	>90%

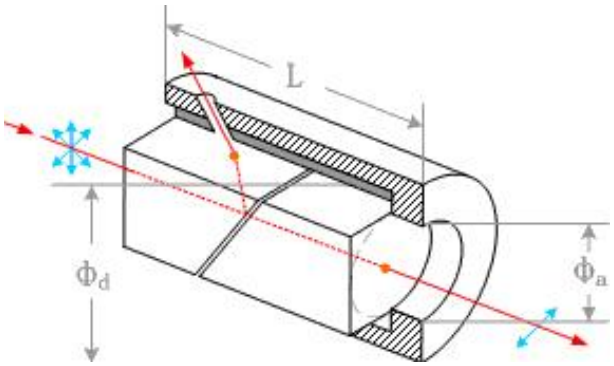
Part Number	Size (mm)	Wavelength Range (nm)	Transmission (%)	Extinction Ratio
LOIRP-600/1000	25.4	600-1000	>84-95	>1000:1
LOIRP-600/1200	25.4	600-1200	>67-84	>1000:1
LOIRP-800/1100	25.4	800-1100	>85-87	>1000:1
LOIRP-900/1200	25.4	900-1200	>85-87	>1000:1
LOIRP-750/1150	25.4	750-1150	>87-93	>1000:1
LOIRP-650/2000	25.4	650-2000	>76-87	>1000:1

Glan Taylor Prisms (Calcite)

Glan Taylor Prisms (α-BBO)

Glan Taylor prisms are birefringent polarizing devices made from natural calcite crystal ($CaCO_3$, rhombohedral structure). When unpolarized light enters, linearly polarized light is output. Compared to other polarizers, Glan Taylor prisms offer higher transmission and better polarization purity with reduced absorption loss. Their compact short design is ideal for low-power laser applications. For high-power lasers, please use Glan Laser prisms. Caution: Calcite crystals are relatively soft and can be easily damaged. The prism uses an air-gap design with an escape window; reflected beams are absorbed.

Surface Quality	20-10
Beam Aberration	<3 arc min
Wavefront Aberration	λ/4 @ 632.8nm
Damage Threshold	>100 MW/cm²
Coating	Single-layer MgF_2
Clear Aperture	>90%
Mount	Hard aluminum, black anodized



Surface Quality	20-10
Beam Aberration	<3 arc min
Wavefront Aberration	λ/4 @ 632.8nm
Damage Threshold	>100 MW/cm²
Coating	Single-layer MgF_2
Clear Aperture	>90%
Mount	Hard aluminum, black anodized
Material	α-BBO (for UV wavelengths 200-300nm)

Part Number	Material	Wavelength (nm)	Acceptance Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOGTPC-06-350/2300	Calcite	350-2300	>7.7	1×10^{-5}	15.0	6.0
LOGTPC-08-350/2300	Calcite	350-2300	>7.7	1×10^{-5}	25.4	8.0
LOGTPC-10-350/2300	Calcite	350-2300	>7.7	1×10^{-5}	25.4	10.0
LOGTPC-12.7-350/2300	Calcite	350-2300	>7.7	1×10^{-5}	25.4	12.7
LOGTPC-15-350/2300	Calcite	350-2300	>7.7	1×10^{-5}	30.0	15.0

Glan Taylor Prisms (Calcite)

Part Number	Material	Wavelength (nm)	Acceptance Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOGTPC-20-350/2300	Calcite	350-2300	>7.7	1×10^{-5}	38.0	20.0

Part Number	Material	Wavelength (nm)	Acceptance Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOGTPA-06-200/270	α-BBO	200-270	>6.0	1×10^{-6}	15.0	6.0
LOGTPA-08-200/270	α-BBO	200-270	>6.0	1×10^{-6}	25.4	8.0
LOGTPA-10-200/270	α-BBO	200-270	>6.0	1×10^{-6}	25.4	10.0
LOGTPA-12.7-200/270	α-BBO	200-270	>6.0	1×10^{-6}	25.4	12.7
LOGTPA-15-200/270	α-BBO	200-270	>6.0	1×10^{-6}	25.4	15.0
LOGTPA-06-300/700	α-BBO	300-700	>6.0	1×10^{-6}	15.0	6.0
LOGTPA-08-300/700	α-BBO	300-700	>6.0	1×10^{-6}	25.4	8.0
LOGTPA-10-300/700	α-BBO	300-700	>6.0	1×10^{-6}	25.4	10.0
LOGTPA-12-300/700	α-BBO	300-700	>6.0	1×10^{-6}	25.4	12.0
LOGTPA-15-300/700	α-BBO	300-700	>6.0	1×10^{-6}	30.0	15.0
LOGTPA-20-300/700	α-BBO	300-700	>6.0	1×10^{-6}	38.0	20.0
LOGTPA-06-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	15.0	6.0
LOGTPA-08-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	25.4	8.0
LOGTPA-10-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	25.4	10.0
LOGTPA-12-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	25.4	12.0
LOGTPA-15-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	30.0	15.0
LOGTPA-20-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	38.0	20.0

Glan Laser Prisms

Glan Laser Prisms (α-BBO)

Glan Laser prisms are birefringent polarizing devices made from natural calcite crystal. With the main component being $CaCO_3$ rhombohedral crystals, these prisms are specifically designed for high-power laser systems. The prisms feature an air-gap structure with escape windows, covering wavelengths from UV through visible to mid-infrared. Compared to Glan Taylor prisms, the escape window design handles higher power levels.

Surface Quality	20-10
Beam Aberration	<3 arc min
Wavefront Aberration	λ/4 @ 632.8nm
Damage Threshold	>500 MW/cm²
Coating	Single-layer MgF_2
Clear Aperture	>90%
Mount	Hard aluminum, black anodized

Surface Quality	20-10
Beam Aberration	<3 arc min
Wavefront Aberration	λ/4 @ 632.8nm
Damage Threshold	>500 MW/cm²
Coating	Single-layer MgF_2
Clear Aperture	>90%
Mount	Hard aluminum, black anodized
Material	α-BBO (for UV to mid-IR wavelengths)

Part Number	Material	Wavelength (nm)	Acceptance Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOGLPC-06	Calcite	350-2300	>7.7	1×10^{-5}	15.0	6.0
LOGLPC-08	Calcite	350-2300	>7.7	1×10^{-5}	25.4	8.0
LOGLPC-10	Calcite	350-2300	>7.7	1×10^{-5}	25.4	10.0
LOGLPC-12.7	Calcite	350-2300	>7.7	1×10^{-5}	25.4	12.7
LOGLPC-15	Calcite	350-2300	>7.7	1×10^{-5}	30.0	15.0
LOGLPC-20	Calcite	350-2300	>7.7	1×10^{-5}	38.0	20.0

Part Number	Material	Wavelength (nm)	Acceptance Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOGLPA-06-200/270	α-BBO	200-300	>6.0	1×10^{-6}	15.0	6.0
LOGLPA-08-200/270	α-BBO	200-300	>6.0	1×10^{-6}	25.4	8.0
LOGLPA-10-200/270	α-BBO	200-300	>6.0	1×10^{-6}	25.4	10.0
LOGLPA-12.7-200/270	α-BBO	200-300	>6.0	1×10^{-6}	25.4	12.7
LOGLPA-15-200/270	α-BBO	200-300	>6.0	1×10^{-6}	25.4	15.0

Glan Laser Prisms

Part Number	Material	Wavelength (nm)	Acceptance Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOGLPA-06-300/700	α-BBO	300-700	>6.0	1×10^{-6}	15.0	6.0
LOGLPA-08-300/700	α-BBO	300-700	>6.0	1×10^{-6}	25.4	8.0
LOGLPA-10-300/700	α-BBO	300-700	>6.0	1×10^{-6}	25.4	10.0
LOGLPA-12-300/700	α-BBO	300-700	>6.0	1×10^{-6}	25.4	12.0
LOGLPA-15-300/700	α-BBO	300-700	>6.0	1×10^{-6}	30.0	15.0
LOGLPA-20-300/700	α-BBO	300-700	>6.0	1×10^{-6}	38.0	20.0
LOGLPA-06-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	15.0	6.0
LOGLPA-08-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	25.4	8.0
LOGLPA-10-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	25.4	10.0
LOGLPA-12-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	25.4	12.0
LOGLPA-15-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	30.0	15.0
LOGLPA-20-700/3000	α-BBO	700-3000	>6.0	1×10^{-6}	38.0	20.0

Glan Thompson Prisms

Glan Thompson prisms are cement-type polarizing devices with a larger acceptance angle and higher degree of polarization. They are not suitable for high-power lasers and cover the visible to mid-infrared wavelength range.

Surface Quality	20-10
Beam Aberration	<3 arc min
Wavefront Aberration	λ/4 @ 632.8nm
Damage Threshold	>100 MW/cm²
Coating	Single-layer MgF_2
Clear Aperture	>90%
Mount	Hard aluminum, black anodized

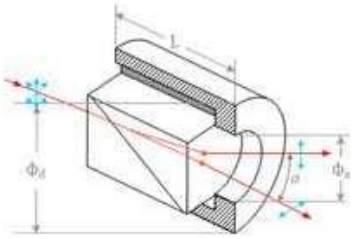
Part Number	Material	Wavelength (nm)	Acceptance Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOGTPPC-06	Calcite	350-2300	14-16	1×10^{-5}	15.0	6.0
LOGTPPC-08	Calcite	350-2300	14-16	1×10^{-5}	25.4	8.0
LOGTPPC-10	Calcite	350-2300	14-16	1×10^{-5}	25.4	10.0
LOGTPPC-12.7	Calcite	350-2300	14-16	1×10^{-5}	25.4	12.7
LOGTPPC-15	Calcite	350-2300	14-16	1×10^{-5}	30.0	15.0
LOGTPPC-20	Calcite	350-2300	14-16	1×10^{-5}	38.0	20.0

Wollaston Prisms

Wollaston prisms consist of two birefringent crystal pieces cemented or optically contacted together. When unpolarized light enters, it splits into two linearly polarized beams with perpendicular polarization directions. The divergence angle of the two beams is symmetrical with respect to the optical axis. We can design prisms with different divergence angles according to customer requirements.

Surface Quality	20-10
Beam Aberration	<3 arc min
Wavefront Aberration	λ/4 @ 632.8nm
Damage Threshold	>500 MW/cm²
Coating	Single-layer MgF_2
Clear Aperture	>90%
Mount	Hard aluminum, black anodized

Part Number	Material	Wavelength (nm)	Divergence Angle (°)	Extinction Ratio	Diameter (mm)	Clear Aperture (mm)
LOWPC-06	Calcite	350-2300	19	1×10^{-5}	15.0	6.0
LOWPC-08	Calcite	350-2300	19	1×10^{-5}	25.4	8.0
LOWPC-10	Calcite	350-2300	19	1×10^{-5}	25.4	10.0
LOWPC-12.7	Calcite	350-2300	19	1×10^{-5}	25.4	12.7
LOWPC-15	Calcite	350-2300	19	1×10^{-5}	30.0	15.0
LOWPC-20	Calcite	350-2300	19	1×10^{-5}	38.0	20.0



Laser Safety Goggles

Laser safety goggles are essential personal protective equipment for laser facilities. Our laser goggles are made with PC lenses featuring metal-oxide multi-layer coatings, providing high optical density (OD≥4) at specified wavelengths. All products comply with EN 207 / IEC 60825 safety standards. Please select appropriate goggles based on your laser wavelength and power. Custom wavelengths available upon request.

Material	PC lens with metal-oxide coating
Optical Density (OD)	≥4 at specified wavelength
Visible Light Transmission	See product table
Compliance	EN 207 / IEC 60825

Part Number	Typical Wavelength (nm)	Laser Type	OD	VLT (%)
LOG-01	532, 1064	Nd:YAG Laser	6	60
LOG-02	1064	Nd:YAG Laser / IR Laser	6	85
LOG-03	10600	CO_2 Laser	6	70
LOG-04	200-540, 800-2000	4th Harmonic Nd:YAG / Excimer / YAG / Diode	6	60
LOG-05	532	Green Laser	4	60
LOG-06	808	Semiconductor Laser	6	60
LOG-07	980, 10600	Semiconductor Laser	4	85
LOG-08	600-700	He-Ne / Red Laser	4	50
LOG-09	200-540	Green Laser	4	55
LOG-10	1064	Nd:YAG / IR Laser	6	85
LOG-11	800-1100	Red / IR Laser	4	75
LOG-12	190-420, 900-2000	4th Harmonic YAG / Excimer / Nd:YAG / Diode	4	60
LOG-13	IPL	IPL Treatment	6	60

Laser Beam Expanders

Laser beam expanders increase the diameter of laser beams by fixed magnification ratios. They are essential components in laser marking, cutting, drilling, and alignment systems. Our beam expanders feature low wavefront distortion, excellent beam quality preservation, and broadband anti-reflection coatings for optimal performance.

Magnification Tolerance	±5%
Input Aperture	See product table
Output Aperture	See product table
Beam Deviation	<1 arc min
Surface Quality	40-20
Coatings	Broadband AR coating

Part Number	Wavelength (nm)	Expansion Ratio	Max Input Spot (mm)	Max Output Spot (mm)
LOBE266-2	266	2×	15	30
LOBE266-3	266	3×	10	30
LOBE266-4	266	4×	9	36
LOBE266-5	266	5×	6	30
LOBE266-10	266	10×	3	30
LOBE355-2	355	2×	15	30
LOBE355-3	355	3×	10	30
LOBE355-4	355	4×	9	36
LOBE355-5	355	5×	6	30
LOBE355-10	355	10×	3	30
LOBE355-15	355	15×	2	30
LOBE532-2	532	2×	15	30
LOBE532-3	532	3×	10	30
LOBE532-5	532	5×	6	30
LOBE532-10	532	10×	3	30
LOBE532-15	532	15×	2	30
LOBE632.8-2	632.8	2×	15	30
LOBE632.8-3	632.8	3×	10	30
LOBE632.8-4	632.8	4×	7.5	30
LOBE780-2	780	2×	15	30
LOBE780-3	780	3×	10	30
LOBE780-5	780	5×	6	30
LOBE830-2	830	2×	15	30
LOBE830-3	830	3×	10	30
LOBE830-5	830	5×	6	30
LOBE830-10	830	10×	3	30
LOBE830-15	830	15×	2	30
LOBE1064-2	1064	2×	15	30
LOBE1064-3	1064	3×	10	30
LOBE1064-5	1064	5×	6	30
LOBE1064-10	1064	10×	3	30
LOBE1064-15	1064	15×	2	30

Microscope Objectives

Achromatic microscope objectives are designed to correct chromatic aberration for two wavelengths, providing sharp, clear images. They feature RMS thread mounts compatible with most standard microscopes. Available in magnifications from 4× to 100× with high numerical apertures for various microscopy applications.

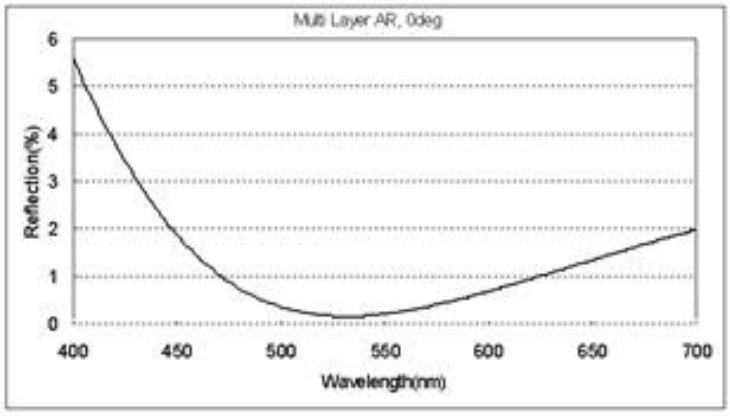
Objective Type	Achromatic
Cover Glass Thickness	0.17 mm
Thread Mount	RMS Standard
Wavelength	546 nm (e-line)

Part Number	Magnification	Numerical Aperture	Working Distance (mm)	Conjugate Focal Dist. (mm)	Parfocal Distance (mm)
LOOL-X4	4×	0.10	15.5	195	45
LOOL-X10	10×	0.25	6.3	195	45
LOOL-X20	20×	0.40	1.2	195	45
LOOL-X40	40×	0.65	0.44	195	45
LOOL-X60	60×	0.85	0.185	195	45
LOOL-X100	100×	1.25	0.198	195	45

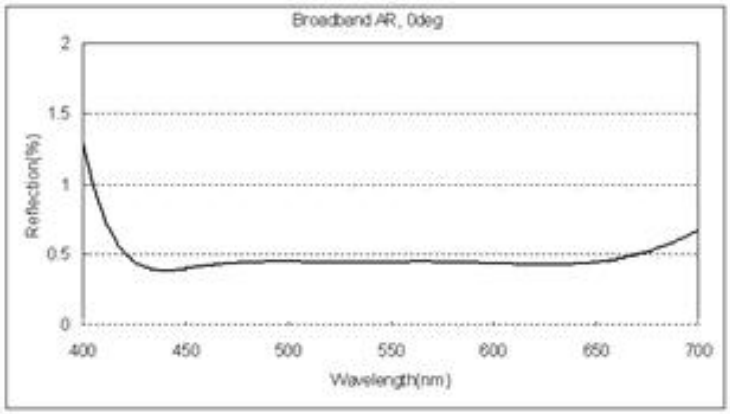
Optical Coatings

PhotonEdge provides a wide range of optical coating services including anti-reflection (AR) coatings, high-reflection (HR) coatings, partial reflection coatings, beamsplitter coatings, and custom designs for various wavelength ranges. Our advanced coating facilities ensure high precision, durability, and consistent performance.

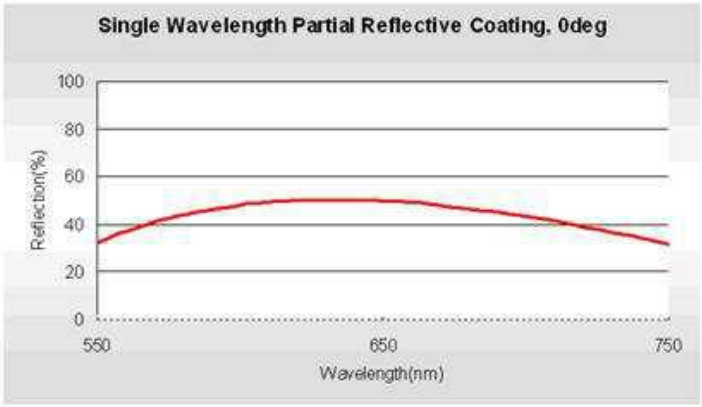
1) Single Wavelength AR Coating



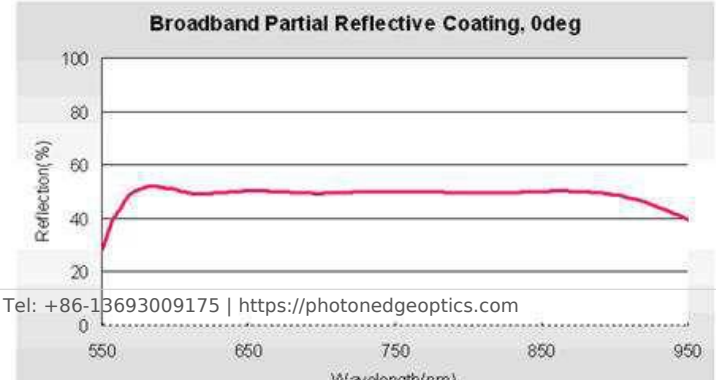
2) Broadband AR Coating



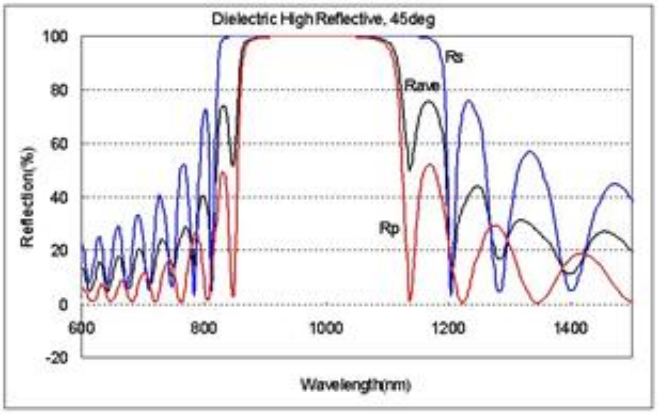
3) Single Wavelength Partial Reflection Coating



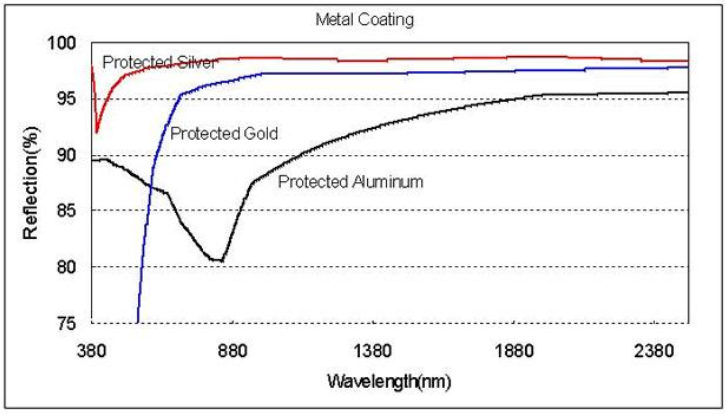
4) Broadband Partial Reflection Coating



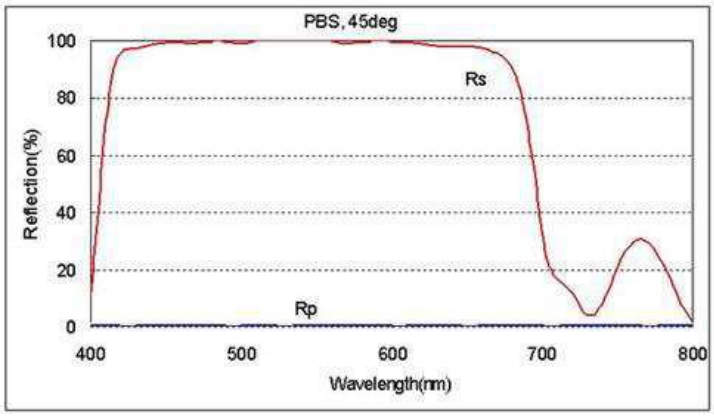
5) Dielectric High-Reflection Coating



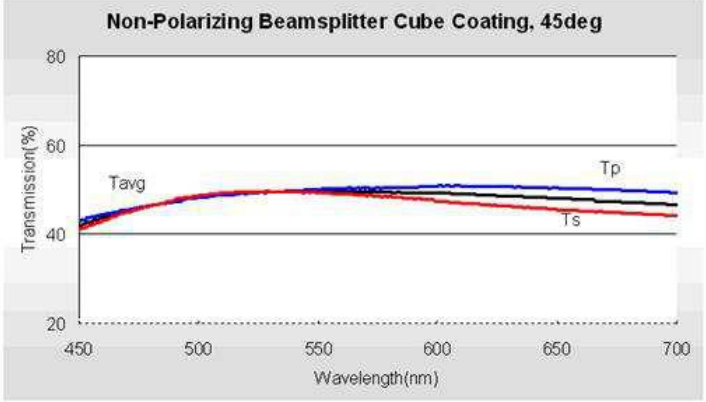
6) Metal Coating



7) Polarizing Beamsplitter Coating



8) Non-Polarizing Beamsplitter Coating



Opto-Mechanical Products

PhotonEdge also offers a comprehensive range of opto-mechanical products including optical mounts, manual translation stages, rotation stages,□□□ (lift stages), support posts, adapters, bases, post holders, optical rails, and optical breadboards. These precision components are designed to work seamlessly with our optical elements. Custom designs and optical system design services are available upon request.

- Magnetic Bases — for secure mounting on optical tables
- Optical Plates — flat platforms for optical setups
- Support Post Holders — adjustable height mounts
- Manual Translation Stages — X, Y, Z linear motion stages
- Optical Mounts — lens, mirror, and polarizer mounts with tilt adjustment
- Lift Stages — vertical positioning stages
- Support Posts — rigid posts for mounting components

Thank You for Your Interest

We look forward to working with you and creating mutual success.

For product inquiries, custom designs, or technical support,
please don't hesitate to contact us.

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