



Laser Line Polarizing Cube Beamsplitters

Polarizing beamsplitter cubes are used to split a laser beam into two orthogonally polarized components; *p*-polarization is transmitted straight through while *s*-polarization is reflected at 90°. PBS polarizer cubes utilize a durable all-dielectric coating at the internal cemented interface, and all external surfaces are antireflection coated for the wavelength specified. For best spectral performance and transmitted wavefront, cube beamsplitters should be used with collimated or near-collimated input light. The PBS and other cemented beamsplitter cubes are easy to mount, mechanically durable and ideal for use up to 1 J/cm² at 1064 nm.

- Projection systems, signal monitoring, color separation and recombination, optical coupling
- Fewer ghost images than plate beamsplitters
- Optical isolation (in combination with waveplate)
- Continuously variable beamsplitter (In combination with waveplate)
- 1000:1 extinction ratio

Laser-Line Polarizing Cube Beamsplitters

Wavelength (nm)	PART NUMBER					
	5 mm	10.0 mm	0.50 in.	1.00 in.	1.50 in.	2.00 in.
488	PBS-488-020	PBS-488-040	PBS-488-050	PBS-488-100	PBS-488-150	PBS-488-200
500	PBS-500-020	PBS-500-040	PBS-500-050	PBS-500-100	PBS-500-150	PBS-500-200
515	PBS-515-020	PBS-515-040	PBS-515-050	PBS-515-100	PBS-515-150	PBS-515-200
532	PBS-532-020	PBS-532-040	PBS-532-050	PBS-532-100	PBS-532-150	PBS-532-200
633	PBS-633-020	PBS-633-040	PBS-633-050	PBS-633-100	PBS-633-150	PBS-633-200
670	PBS-670-020	PBS-670-040	PBS-670-050	PBS-670-100	PBS-670-150	PBS-670-200
780	PBS-780-020	PBS-780-040	PBS-780-050	PBS-780-100	PBS-780-150	PBS-780-200
800	PBS-800-020	PBS-800-040	PBS-800-050	PBS-800-100	PBS-800-150	PBS-800-200
810	PBS-810-020	PBS-810-040	PBS-810-050	PBS-810-100	PBS-810-150	PBS-810-200
830	PBS-830-020	PBS-830-040	PBS-830-050	PBS-830-100	PBS-830-150	PBS-830-200
850	PBS-850-020	PBS-850-040	PBS-850-050	PBS-850-100	PBS-850-150	PBS-850-200
930	PBS-930-020	PBS-930-040	PBS-930-050	PBS-930-100	PBS-930-150	PBS-930-200
1030	PBS-1030-020	PBS-1030-040	PBS-1030-050	PBS-1030-100	PBS-1030-150	PBS-1030-200
1047	PBS-1047-020	PBS-1047-040	PBS-1047-050	PBS-1047-100	PBS-1047-150	PBS-1047-200
1053	PBS-1053-020	PBS-1053-040	PBS-1053-050	PBS-1053-100	PBS-1053-150	PBS-1053-200
1064	PBS-1064-020	PBS-1064-040	PBS-1064-050	PBS-1064-100	PBS-1064-150	PBS-1064-200
1319	PBS-1319-020	PBS-1319-040	PBS-1319-050	PBS-1319-100	PBS-1319-150	PBS-1319-200
1550	PBS-1550-020	PBS-1550-040	PBS-1550-050	PBS-1550-100	PBS-1550-150	PBS-1550-200

SPECIFICATIONS:

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Optical Material	N-BK7 glass
Surface Quality	20-10 scratch and dig
Antireflection Coating	$R \leq 0.25\%$ per surface
Extinction Ratio	$T_p/T_s > 1000:1$
Reflection	$R_s > 99.9\%$
Transmission	$T_p > 95\%$
Transmitted Wavefront Error	$A \leq 1.0$ in.: $\lambda/4$ @ 633 nm $A > 1.0$ in.: $\lambda/2$ @ 633 nm
Field of View	$\pm 3^\circ$
Clear Aperture	$\geq 85\%$ of central dimension
Damage Threshold	Pulsed 1 J/cm ² , 20 ns, 20 Hz @ 1064 nm cw 100 W/cm ² @ 515 nm

Windows and Optical Flats

Prisms and Retroreflectors

Spherical Lenses

Cylindrical Lenses

Multielement Lenses

Mirrors

Beamsplitters

Waveplates

Polarization Components

Ultrafast Components

Filters and Etalons