

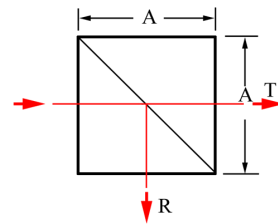
Beam splitter

- Cube Beam splitter

Non-Polarizing Cube Beam splitter

Polarizing Beam Splitter consists of 2 right angle prisms. One of them is coated with dielectric multi-layer polarizing coating on the hypotenuse face. The polarizing beam splitters split monochromatic beam entering at zero degree into p-polarization as transmitted and s-polarization as reflected. For the surface of the cube are coated with narrowband multi-layer antireflection coatings. Since there is no absorption of dielectric coating the losses of input beam of these products are minimized.

Specifications	
Dimension Tolerance	±0.2mm
Surface figure	$\lambda/4@632.8\text{nm}$
Surface Quality	60-40 scratch and dig
Beam Deviation	<3 arc minutes
Transmittance	45% ± 5%
Absorption	<10%
Polarization	6%



Part No.	Dimension (inch)	Wavelength (nm)
BSC-0.5-1064NP	0.5	1064
BSC-1-1064NP	1.0	1064

Polarizing Cube Beam splitter

Non-polarizing Cube Beam splitter consists of a pair of precision high tolerance right angle prisms cemented together with a metallic-dielectric coating on the hypotenuse of one of the prisms. The low polarization dependence of the metallic-dielectric coating allows the transmission and reflection for S and P-polarization states to be within 5% of each other. They will not change the state of polarization of the incident beam.

Specifications	
Dimension Tolerance	±0.2mm
Flatness	$\lambda/4@632.8\text{nm}$
Surface Quality	60-40 scratch and dig
Beam Deviation	<3arc minutes
Extinction ratio	>100:1
Principal Transmittance	$T_p > 95\%$ and $T_s < 1\%$
Principal Reflectance	$R_s > 99\%$ and $R_p < 5\%$

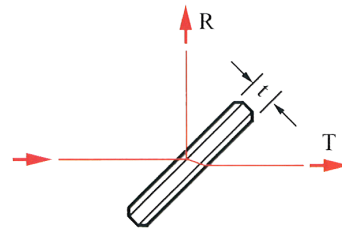
Coating:
Hypotenuse Face: Polarization Beam splitter
All input & output Faces: AR

Part No.	Dimension (inch)	Wavelength (nm)
BSC-0.5-1064P	0.5	1064
BSC-1-1064P	1.0	1064

- Beam splitter Plate –10.6µm

The common Beam Splitters are used to split or combine laser beam. However Polarization Beam Splitters are used to split or combine two perpendicular polarization laser beam. The performance of Beam Splitters is mainly dependent on the coating specifications.

Specifications	
Diameter Tolerance:	+0/-0.13 mm
Thickness Tolerance:	±0.25 mm
Flatness	$\lambda/2$ per 1" Dia at 632.8 nm
Parallelism:	3 arc minute
Surface Quality:	60/40 scratch and dig



Part No.	Material	Diameter (mm)	Thickness (mm)	Side 1 Reflectivity (%R)	Polarization
BSZ1.0-3-27%R-S	ZnSe	25.4	3.0	27%	S-Pol
BSZ1.0-3-50%R-S	ZnSe	25.4	3.0	50%	S-Pol
BSZ1.0-3-50%R-P	ZnSe	25.4	3.0	50%	P-Pol
BSZ1.0-3-50%R-PIS	ZnSe	25.4	3.0	50%	Insensitive
BSZ1.1-3-27%R-S	ZnSe	27.9	3.0	27%	S-Pol
BSZ1.1-3-50%R-S	ZnSe	27.9	3.0	50%	S-Pol
BSZ1.1-3-50%R-P	ZnSe	27.9	3.0	50%	P-Pol
BSZ1.1-3-50%R-PIS	ZnSe	27.9	3.0	50%	Insensitive
BSZ1.5-3-27%R-S	ZnSe	38.1	3.0	27%	S-Pol
BSZ1.5-3-50%R-S	ZnSe	38.1	3.0	50%	S-Pol
BSZ1.5-3-50%R-P	ZnSe	38.1	3.0	50%	P-Pol
BSZ1.5-3-50%R-PIS	ZnSe	38.1	3.0	50%	Insensitive

