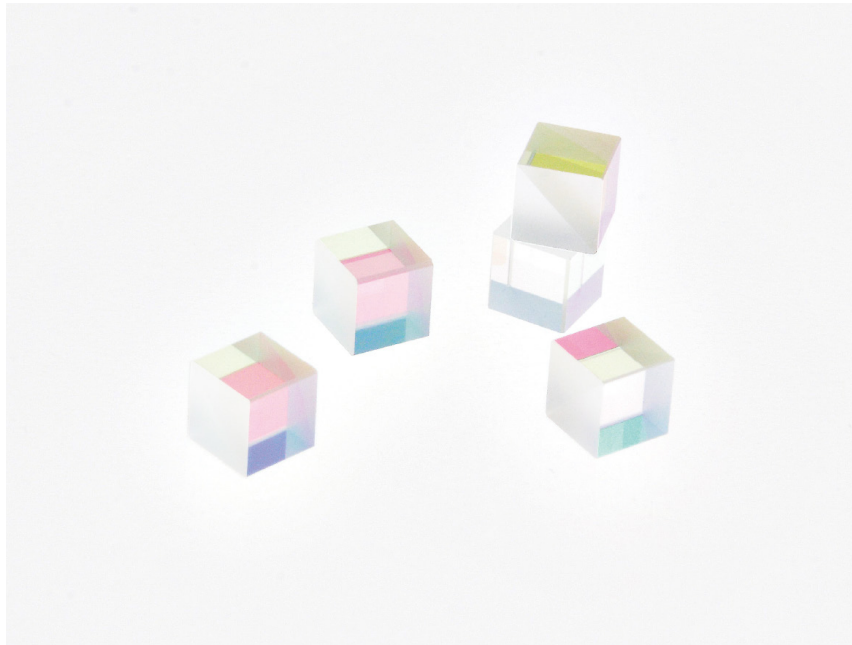


POLARIZING BEAMSPLITTER CUBE

Coherent's polarizing beamsplitter (PBS) cube is composed of a pair of precision high-tolerance right-angle prisms cemented together. One of the prisms has a partially reflective metallic–dielectric coating applied to its hypotenuse. The incident light should enter the prism with the coated hypotenuse in order to minimize power passing through the optical cement. The PBS can split the unpolarized beam into two orthogonal, linearly polarized components. P-polarized light is transmitted, while s-polarized light is reflected, both with negligible absorption. The extinction ratio is better than 1000:1 for beamsplitters made with N-BK7 glass, and better than 100:1 for beamsplitters made with UV fused silica. These cubes are recommended for use in pulsed laser systems and for purifying polarization in multimode high-power lasers.

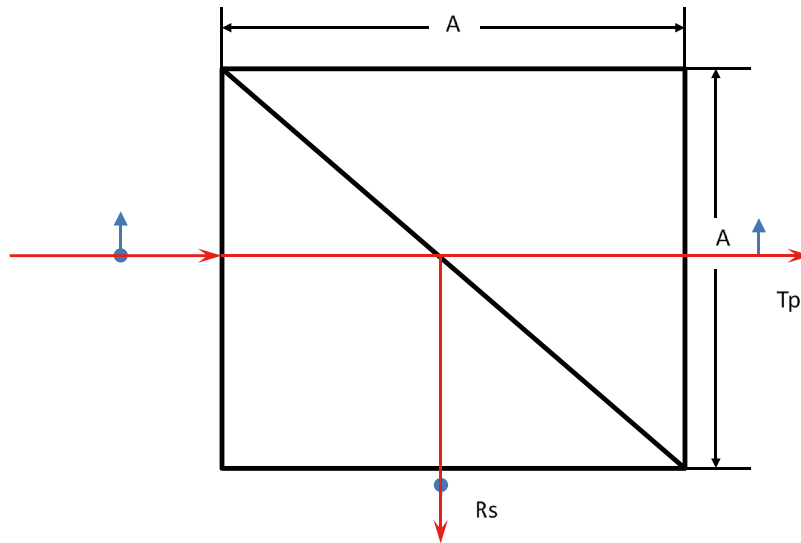


APPLICATIONS

- WSS
- Laser applications
- Fiber optical communication systems
- 40 G / 100 G components

POLARIZING BEAMSPLITTER CUBE

Dimensions



Common Specification

Material	N-BK7 or UV fused silica
Typical Dimension	3 mm x 3 mm x 3 mm, 3.2 mm x 3.2 mm x 3.2 mm
Flatness	$\lambda/4$ @ 632.8 nm
Surface Quality	(scratch/dig) Better than 40-20
Beam Deviation	<3 arc minute
Incidence Angle	0 +/-3
Principal Transmittance	$T_p > 95\%$, $T_s < 1\%$
Principal Reflectance	$R_s > 99\%$, $R_p < 5\%$
Coating	"Polarizing beamsplitter coating on hypotenuse; AR coating on other input and output faces"

Other sizes, wedged angles, diameters, and coatings are also available upon request.