LASER-LINE POLARIZING CUBE BEAMSPLITTERS

Coated polarizing cube beamsplitters are available for twelve common laser wavelengths, from the ultraviolet to the infrared, providing a polarization purity of 98 percent or better at their design wavelength.

For normal incidence, monochromatic, unpolarized light:

- The incident beam is separated into two polarized beams which emerge through adjacent faces and in directions 90 degrees apart.
- The beam that passes straight through the cube emerges as linearly p-polarized, with the electric field vector parallel to the plane of incidence.
- The beam that emerges from the cube at right angles to the incident beam is linearly s-polarized, with the electric field vector orthogonal to the plane of incidence.

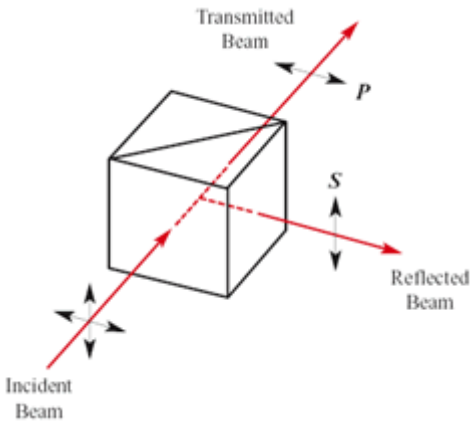
When used with a linearly polarized monochromatic incident beam:

- The incident beam is similarly divided.
- The ratio of the emergent beam irradiances depends on the orientation of the incident beam electric field vector.

For greater extinction, each cube can be replaced by a pair of cubes in identical orientation. The resulting extinction ratio will be the square of a single pair.

Standard Specifications:

Optical Material:	BK7 grade A optical glass
Diameter Tolerance:	±0.2mm
Surface Quality:	40-20 scratch and dig
Surface Flatness:	lambda/4 at 632.8nm
Beam Deviation:	<10 arc minutes
Principal Transmittance:	Tp>95% AND Ts<1%
Principal Reflectance:	Rs>99% AND Rs<5%
Clear Aperture:	>85%
Bevel:	<0.25mm X 45°
Coating:	Broadband antireflection coating on entrance and exit faces.
Available Wavelength:	488, 532, 632.8, 650,780, 808, 850, 980, 1047, 1053, 1064, 1310, 1319, 1342 1550 nm



Standard Laser-line Polarizing Cube Beamsplitters

Dimension(mm)	Shape	Nominal R/T Ratio	Product Number
10.0x10.0x10.0	Square	50/50	UQT-LPB0501
12.7x12.7x12.7	Square	50/50	UQT-LPB0502
15.0x15.0x15.0	Square	50/50	UQT-LPB0503
20.0x20.0x20.0	Square	50/50	UQT-LPB0504
25.4x25.4x25.4	Square	50/50	UQT-LPB0505

Please Contact ultiQuest for other dimensions in prototype and production quantities.

NOTES!

- The transmittance curve is a graph based on actual measurements and may vary from production lot to production lot.
- The surface flatness is the reflected wavefront distortion of the surface before coating.
- Be sure to wear laser safety goggles when checking optical path and adjusting optical axis.