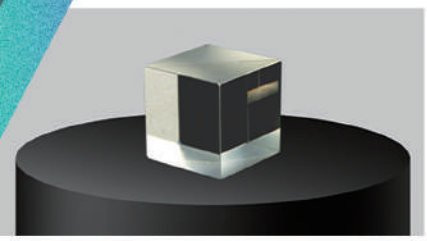
Polarization Beamsplitter Cube (PBS)

Product Introduction



Polarization beamsplitter cube split randomly polarized beams into two orthog-onal，linearly，polarized components-S-polarized ligh is reflected at a 90°. Angle while P-polarized light is transmitted. Each beamsplitter consists of a pair of precision high tolerance right angleprism cemented together with a dielectric coating on the hypotenuse of one of prism.

The coatings have been designed to hold both the S-and P-polarization components to the same ratio of reflection-to-transmission over aspecific laser wavelength region. This means that they will not change the state of polarization of the incident beam. The low polarization dependence of the metallic-dielec-tric coating allows the transmission and reflection for S-and P-polarization states to be within 6% of each other. All entrance and exit surfaces are coated with a high efficiency, narrowband, anti-reflection coating. We offer both broadband and single wavelength.

Standard Coating wavelength:
Narrow Band:-----488,532,632.8,650,808,850, 980,1064,1310,1550nm
Broadband:------450-650,650-850, 900-1200, 1200-1550,1500-1610nm

Specification

Item	Commercial	High-Precision
Material	N-BK7; Fused Silica; etc.	
Dimension	1x1mm-50 x 50mm	
Dimension tolerance	±0.1mm	±0.03mm
Parallelism	<20 seconds	<5 seconds
Clear Aperture	>85% of dimension	
Surface Quality	MIL60-40	MIL20-10
Flatness	λ/4@632.8nm	λ/10@632.8nm
T/R(for random porlarization) T=(Ts+Tp)/2 R=(Rs+Rp)/2	λ50/50±5%	50/50±2%
Bevel	Protective bevel 0.05mm-0.25mm FW45°	
Coating	Upon customers' request	