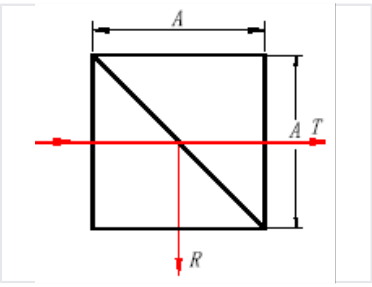
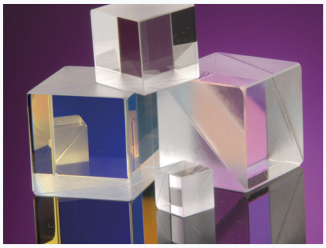
Optical Beam Splitter Cube

This optical beam splitter cube divides a beam of light into two separate beams. The coating minimizes absorption loss, achieving approximately 50% transmission and 50% reflection.



ADDITIONAL IMAGES



Overview

High-Precision Optical Beam Splitter Cube

This beam splitter cube is engineered for professional optical systems, offering identical path lengths for both reflected and transmitted beams. Unlike standard plates, this compact cube ensures the transmitted beam is neither displaced nor deflected, making it exceptionally easy to mount and align. It is an ideal solution for interferometers, laser systems, and high-accuracy optical instruments.

Key Advantages

Key Benefits

- Identical path lengths for reflected and transmitted beams
- Zero beam displacement or deflection
- Stable and compact design
- Simplified operation and alignment
- Easy to mount in optical setups

Optical Performance

Splitting Ratio (T/R)

50 %	50 %
Transmission	Reflection

Angle Tolerance	3 arc minutes
Surface Flatness	lambda/4 per 25mm @632.8nm
Natural Light Calculation	T=(Ts+Tp)/2, R=(Rs+Rp)/2

Material & Quality

Substrate Material

BK7 Grade A Optical Glass

Surface Quality	60-40 scratch and dig
Dimension Tolerance	+/-0.2mm

Coatings

Coating Specifications

Surface	Coating Type
Hypotenuse Face	Broadband partial reflectance
Input/Output Faces	BBAR-coatings (Broadband Anti-Reflection)