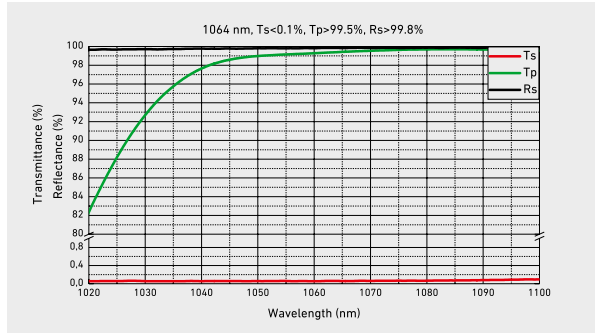


Polarizing cubes



4Lasers unmounted polarizing cubes are fabricated from two identical right-angle prisms with their hypotenuse faces adhered together via optical contact or epoxy glue. Polarized cubes are designed to transmit p-polarized light with minor deviation (<3 arcmin) and deflect s-polarized light by 90° angle. Prior to cementing polarizing dielectric thin-film coating is applied onto one of the prisms hypotenuse face, while input and exit surfaces are antireflective coated for particular

wavelength range. 4Lasers optically contacted polarizing cubes provide higher laser induced damage threshold, therefore are primarily used for high-power applications, while epoxy glued cubes are a cost-effective choice for low and mid-power applications. We recommend to use these elements with collimated laser beams in order to avoid beam aberrations.

Main features

- Optically contacted or epoxy glued configurations available
- Minor transmitted beam deviation (<3 arcmin)
- Antireflective coated input and output faces

Application examples

- Beam separation and combining by polarization
- Polarization separation

Standard specifications

POLARIZING CUBES	
Beam deviation	<3 arcmin
Clear aperture	>85%
Face dimensions tolerance	+0/-0,2 mm
Thickness tolerance	±0,25 mm
Protective chamfers	<0,35 mm at 45°
Coatings	Hypotenuse face: polarization beamsplitting coating Input and output faces: antireflective coatings
Surface quality	40-20 S-D
Surface flatness	<λ/4@632,8 nm
Laser induced damage threshold	>15 J/cm²@1064 nm, 10 ns (for 1025-1080 nm optically contacted cubes) >0,1 J/cm²@532 nm, 10 ns (for 400-700 nm epoxy glued cubes)
Mount	Unmounted, available upon request

Standard products

TYPE	APPLICATION	TRANSMISSION (P-POL)	TRANSMISSION (S-POL)	WAVELENGTH RANGE	DIMENSIONS	SKU	PRICE	
Epoxy glued	Low and mid-power	>92%	<0,2%	400-700 nm	6,35 x 6,35 x 6,35 mm	7442	95 €	
					12,7 x 12,7 x 12,7 mm	7443	115 €	
					25,4 x 25,4 x 25,4 mm	7444	140 €	
					6,35 x 6,35 x 6,35 mm	7439	130 €	
					12,7 x 12,7 x 12,7 mm	7440	245 €	
					25,4 x 25,4 x 25,4 mm	7441	395 €	
Optically contacted	High-power	>92%	<0,15%	345-360 nm	6,35 x 6,35 x 6,35 mm	7445	130 €	
					12,7 x 12,7 x 12,7 mm	7440	245 €	
					25,4 x 25,4 x 25,4 mm	7441	395 €	
					6,35 x 6,35 x 6,35 mm	7445	130 €	
					12,7 x 12,7 x 12,7 mm	7446	245 €	
					25,4 x 25,4 x 25,4 mm	7447	395 €	
				510-535 nm	6,35 x 6,35 x 6,35 mm	7448	150 €	
					12,7 x 12,7 x 12,7 mm	7449	270 €	
					25,4 x 25,4 x 25,4 mm	7450	430 €	
					6,35 x 6,35 x 6,35 mm	7451	130 €	
					1025-1080 nm	12,7 x 12,7 x 12,7 mm	7452	245 €
					25,4 x 25,4 x 25,4 mm	7453	395 €	
1520-1570 nm	6,35 x 6,35 x 6,35 mm	7454	145 €					
	12,7 x 12,7 x 12,7 mm	7455	260 €					
	25,4 x 25,4 x 25,4 mm	7456	410 €					