

Corner Cube Prisms | CCP

RoHS

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FA Parts

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Mirrors

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Multi-Element Optics

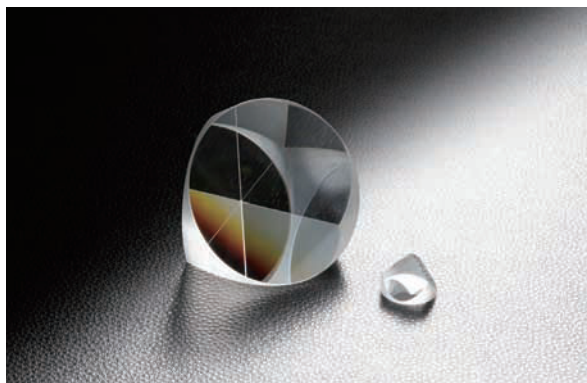
Prisms

Substrates & Windows

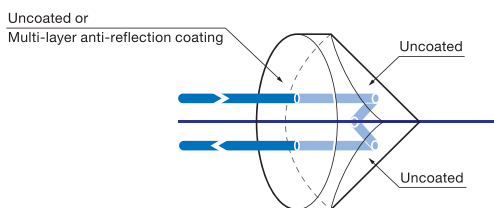
Holder & Vibration isolator

The corner cube can reflect the incident light back its original source. It is used in length measurement system as its reflector. It has been designed for measuring the distance between the moon and the earth, when Apollo spaceship reached the moon, corner cube was set on the surface of the moon for scientific research use.

- The corner cube is fabricated under high precision process; it can assure the reflection of high accuracy light.
- In measurement process, even the corner cube light is slightly inclined; the reflective light inclination stays unchanged and reflects back to the measurement system.
- To assure a low light power lost, we are also offering AR optical coating CCP-M .

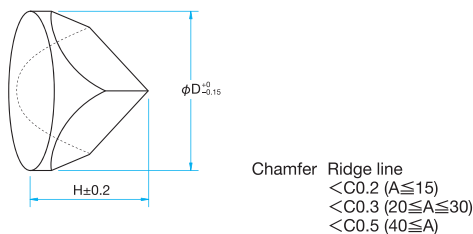


Schematic



Outline Drawing

(in mm)



Uncoated		
Part Number	Diameter φD [mm]	Height H [mm]
CCP-10	10	8.6
CCP-15	15	11.4
CCP-20	20	15.6
CCP-25	25	19.0
CCP-30	30	22.7
CCP-50	50	36.5

Specifications

Material	BK7
Accuracy on the side of the aperture	$\lambda/4$
Angular deviation of beam	<5"
Coating	CCB: Uncoated CCB-M: Broadband multi-layer AR coating for Visible (BMAR)
Incident angle	$\pm 20^\circ$ (Range obtained by Total reflection Critical Angle)
Surface Quality (Scratch-Dig)	40-20
Clear aperture	90% of actual aperture

Guide

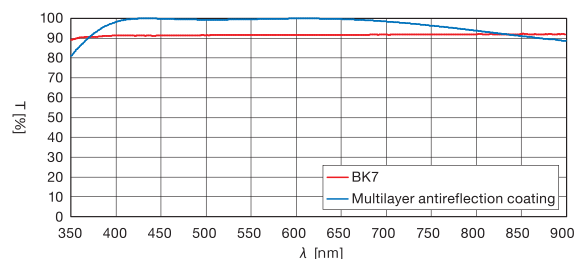
- We are also offering hollow retroreflector (RCCB) which can assure incident angle of 20 degrees without change in reflection light power. [Reference](#) C223

Attention

- The corner cube reflects light back to its source at high precision. If the incident light position is slide from the incident center; the reflected light will also be slide at the similar distance.
- Protect the uncoated surfaces from fingerprint or dirt, it affects the reflection even at the critical angle.
- The phase difference may occur at all reflective surfaces, the polarization characteristic of the reflected light may change. For low polarization characteristic change, we recommend to use hollow retroreflector (RCCB). [Reference](#) C223

The transmittance on the Anti-reflection effect of BK7

T: Transmission



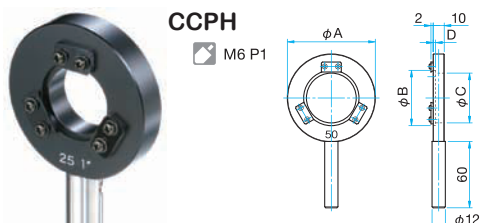
Multi-layer anti-reflection coating

Part Number	Diameter φD [mm]	Height H [mm]	Laser Damage Threshold* [J/cm²]
CCP-10M	10	8.6	4
CCP-15M	15	11.4	4
CCP-20M	20	15.6	4
CCP-25M	25	19.0	4
CCP-30M	30	22.7	4
CCP-50M	50	36.5	4

* Laser pulse width 10ns, repetition frequency 20Hz

Corner Cube Prism Holders | CCPH

We are provide holder made specifically for this corner cube, please ask our International Sales Division.



Specifications

Part Number	Parts of Assembled optics	Diameter φA [mm]	Optics aperture φB [mm]	Clear aperture φC [mm]	D [mm]	Weight [kg]
CCPH-10	CCB-10	42	10	8	1.0	0.07
CCPH-15	CCB-15	42	15	12	1.2	0.08
CCPH-20	CCB-20	52	20	17	1.5	0.09
CCPH-25	CCB-25	52	25	22	1.4	0.10
CCPH-30	CCB-30	62	30	27	2.0	0.12
CCPH-50	CCB-50	82	50	45	2.0	0.14