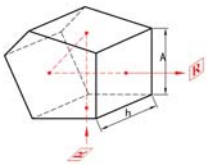
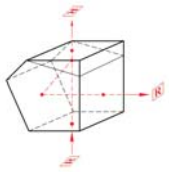
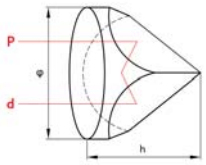
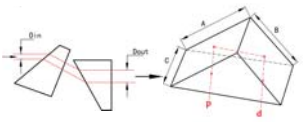
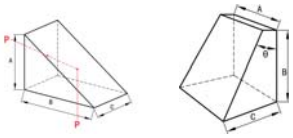
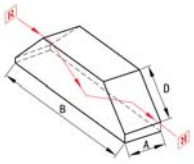
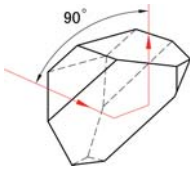
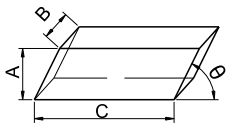
PRISM OVERVIEW

Prism	Illustration	Material	Angle Precision	Application
Penta Prism		BK7	1 Min. Deviation 30 Sec. Deviation 10Sec. Deviation	Plumb Level, Surveying, Alignment, Range Finding and Optical Tooling
Beamsplitter Penta Prism		BK7	1 Min. Deviation 30 Sec. Deviation 10Sec. Deviation Transmission/ Reflection:20/80 ±5 or 50/50±5	Plumb Level, Surveying, Alignment, Range Finding and Optical Tooling
Corner Cube Retroreflectors		BK7	3 Sec. Deviation 5 Sec. Deviation	Plumb Level, Surveying, Alignment, Range Finding and Optical Tooling
Right Angle Prism		BK7 Fused Silica	3 Min. Deviation 1 Min. Deviation 30 Sec. Deviation 10 Sec. Deviation 5 Sec. Deviation	Plumb Level, Surveying, Alignment, Range Finding and Optical Tooling
Anamorphic Prism		SF11	30 Sec. Deviation	For Beam Expansion
Dove Prism		BK7	3 Min. Deviation	Medical Instrument, Optical Tooling and Other Optical Systems
Roof Prism		BK7	3 Sec. Deviation 5 Sec. Deviation	Medical Instrument, Optical Tooling and Other Optical Systems
Rhomboid Prism		BK7	3 Min. Deviation 1 Min. Deviation 30 Sec. Deviation 10 Sec. Deviation 5 Sec. Deviation	Plumb Level, Surveying, Alignment, Range Finding and Optical Tooling

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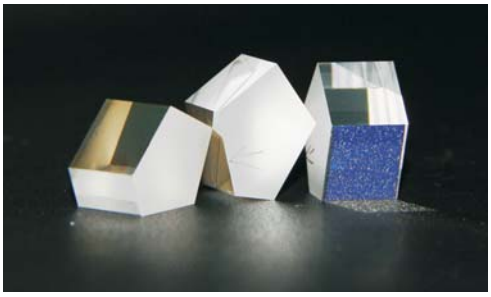
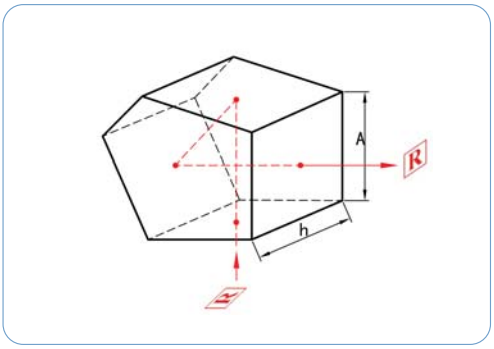
PENTA PRISMS

Penta prism can deviate an incident beam without inverting or reversing 90° .The deviation angle of 90° is independent of any rotation of the prism about an axis parallel to the line of intersection of the two reflecting faces. It is commonly used in plumb level, surveying, alignment, range finding and optical tooling. The reflecting surfaces of this Prism must be coated with a metallic or dielectric coating. The standard Penta Prism reflecting surfaces are coated with aluminum or enhanced aluminum.



Specifications

Material	BK7 Grade A Optical Glass
Dimension Tolerance	±0.2mm
90° Deviation Tolerance	According to the Table
Flatness	λ /2(Standard), λ /4(High Precision)@633nm
Reflectivity	R > 95% per Face @400~700 nm
Surface Quality	60/40 Scratch/Dig
Coating on Input and Output Surface	Uncoated



Size(mm)	1 min. Deviation	30 Sec. Deviation	10Sec. Deviation
A x h	Part No.	Part No.	Part No.
2.5 x 2.5	PTP1101	PTP1201	PTP1301
7 x 5	PTP1102	PTP1202	PTP1302
7 x 6	PTP1103	PTP1203	PTP1303
10 x 10	PTP1104	PTP1204	PTP1304
15 x 15	PTP1105	PTP1205	PTP1305
20 x 20	PTP1106	PTP1206	PTP1306

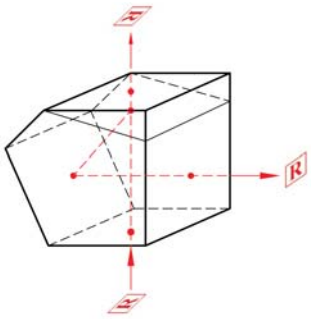
BEAMSPLITTER PENTA PRISMS & CORNER CUBE RETROREFLECTORS

Beamsplitter Penta Prism

By adding a wedge and with partial reflective coating on first reflective surface, Penta Prism can be used as Beamsplitter. We supply Beamsplitter Penta Prism with standard Transmission/reflection (T/R) ratio of 20/80, 50/50. Other T/R ratio is available upon request.

Specifications

Material	BK7 Grade A Optical Glass
Dimension Tolerance	±0.2 mm
90° Deviation Tolerance	According to the Form
Flatness	λ /2(Standard), λ /4(High Precision)@633nm
Reflectivity	R>95% Per Face @400~700nm
Surface Quality	60/40 Scratch/Dig
Beamsplitter Ratio Transmission/Reflection	20/80±5 or 50/50±5
Coating on Input and Output Surface	Uncoated

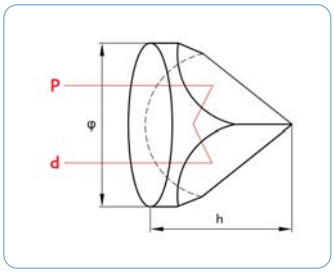


Size(mm)	1 min. Deviation	30 Sec. Deviation	10Sec. Deviation
A x h	Part No.	Part No.	Part No.
7 x 6	PPS1103	PPS1203	PPS1303
10 x 10	PPS1104	PPS1204	PPS1304
15 x 15	PPS1105	PPS1205	PPS1305
20 x 20	PPS1106	PPS1206	PPS1306

Corner Cube Retroreflectors

Specifications

Material	BK7 Grade A Optical Glass
Dimension Tolerance	+0.0, -0.2 mm
Clear Aperture	>80%
Deviation	180° ±3 arc seconds
Flatness	λ /4 on big surface, λ /10 on Other Surfaces
Surface Quality	60/40 Scratch and Dig
Wavefront Distortion	λ /2 @633nm
Bevel	0.2 mm to 0.5 mm
Coating on Input and Output Surface	Uncoated

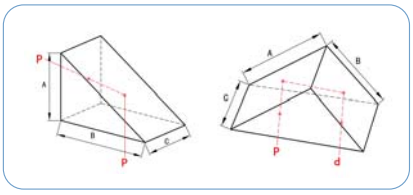


Part No.	ϕ (mm)	f (mm)
CCR1101	15	11.3
CCR1102	25.4	19
CCR1103	38.1	29.2
CCR1104	50.8	38.1

RIGHT ANGLE PRISMS & ANAMORPHIC

Specifications

Material	BK7 Grade A Optical Glass
Dimension Tolerance	+0.0, -0.2 mm
Clear Aperture	>80%
Angle Tolerance	See the Table
Flatness	λ /2 @633 nm
Surface Quality	60/40 Scratch/Dig
Bevel	0.2 mm to 0.5 mm
Coating	Uncoated



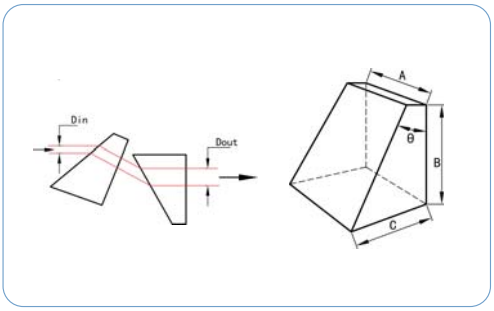
High precision RAP: high angle precision(<5 second), high flatness(<lambda/10), high angle pyramid tolerance (<5 second) are available upon requirement.

Size(mm)	3 min. Deviation	1 min. Deviation	30Sec. Deviation
A,B,C	Part No.	Part No.	Part No.
A=B=C=2.0	RAP1101	RAP1201	RAP1301
A=B=C=3.2	RAP1102	RAP1202	RAP1302
A=B=C=5.0	RAP1103	RAP1203	RAP1303
A=B=C=10.0	RAP1104	RAP1204	RAP1304
A=B=C=12.7	RAP1105	RAP1205	RAP1305
A=B=C=15.0	RAP1106	RAP1206	RAP1306
A=B=C=20.0	RAP1107	RAP1207	RAP1307
A=B=C=25.4	RAP1108	RAP1208	RAP1308
A=B=C=30.0	RAP1109	RAP1209	RAP1309

Anamorphic Prisms

Specifications

Material	SF11 Grade A Optical Glass
Dimension Tolerance	+0.0, -0.2 mm
Clear Aperture	>80%
Flatness	λ /8 @633 nm
Theta	q = 29° 27'±3"
Surface Quality	60/40 Scratch/Dig
Coating	MgF2 Single Layer on Perpendicular Surface

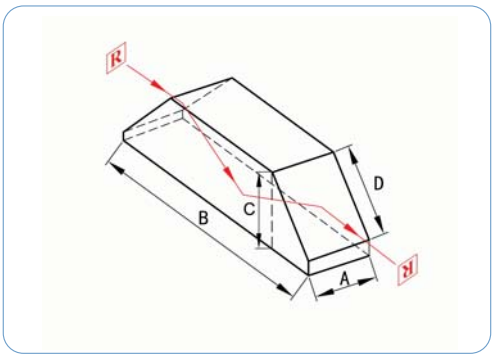


Part No.	A (mm)	B (mm)	C (mm)
ANP0101	12	12	8.5

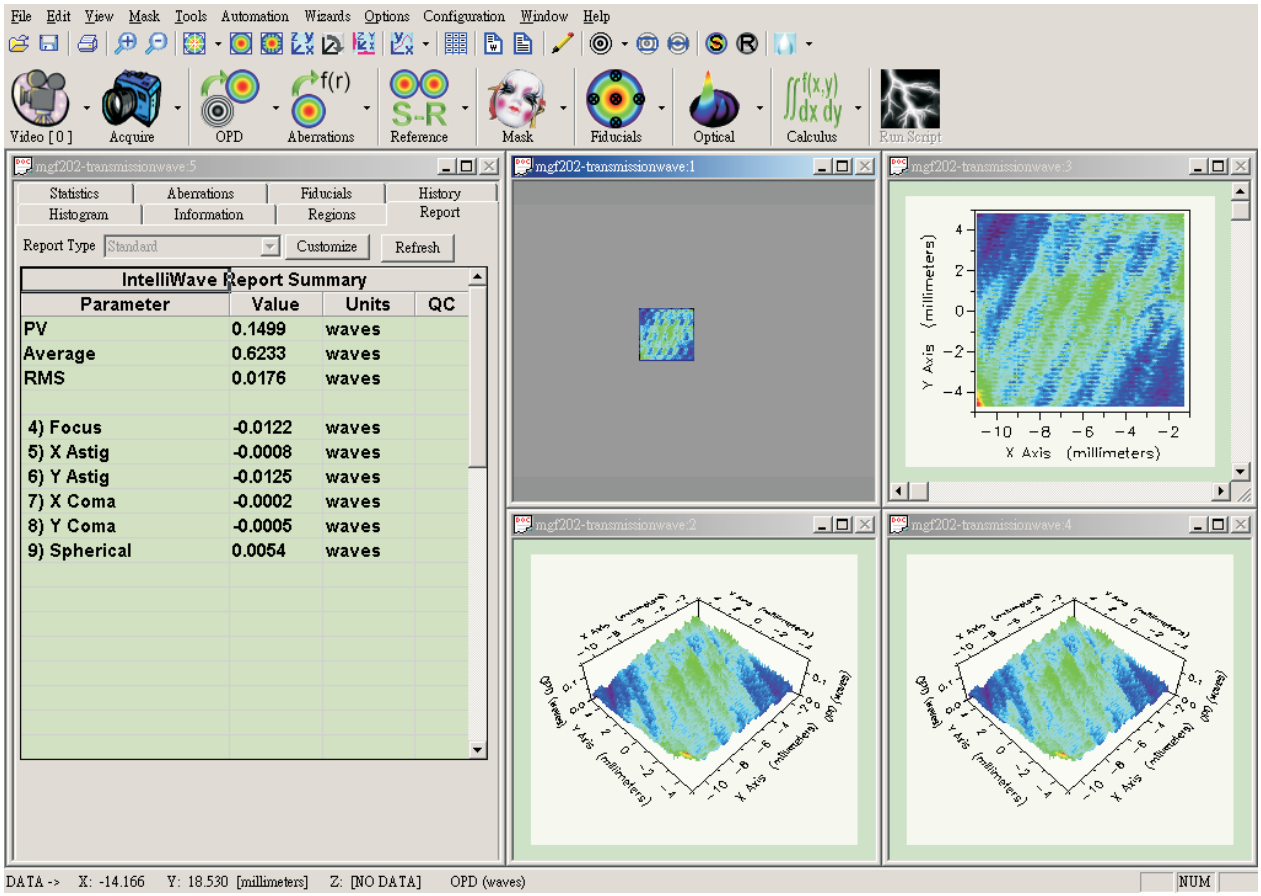
DOVE PRISMS

Specifications

Material	BK7 Grade A Optical Glass
Dimension Tolerance	+0.0, -0.2 mm
Clear Aperture	>80%
Angle Tolerance	± 3 arc minutes
Flatness	λ /2 @633 nm
Surface Quality	60/40 Scratch/Dig
Bevel	0.2 mm to 0.5 mm
Coating	Uncoated



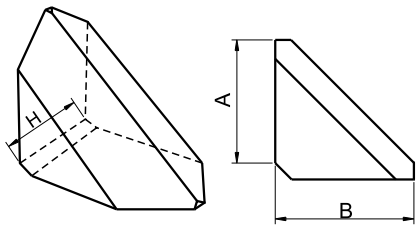
Part No.	A (mm)	B (mm)	C (mm)
DOP1101	5	21.1	5
DOP1102	10	42	10
DOP1103	15	64	15



ROOF PRISMS & RHOMBID PRISMS

Specifications

Material	BK7 or UV Grade Fused Silica
Dimension Tolerance	+/-0.1 mm
Clear Aperture	>80%
Angle Tolerance	± 30 arc sec
Flatness	λ /4 @633 nm
Surface Quality	60/40 Scratch/Dig
Bevel	0.2 mm to 0.5 mm

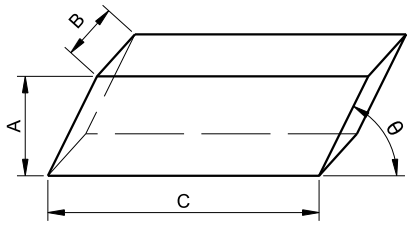


Part No.	A (mm)	B (mm)	H (mm)
RFP1101	15.0	15.0	12.0
RFP1102	23.0	23.0	18.0
RFP1103	31.5	31.5	23.0

Rhombid Prisms

Specifications

Material	BK7 Gade A Optical Glass
Dimension Tolerance	+0.0/-0.2 mm
Clear Aperture	>80%
Angle Tolerance	3' (3" can be available)
Flatness	λ /4 @633 nm
Surface Quality	60/40 Scratch/Dig (20/10 can be available)
Bevel	0.2 mm to 0.5 mm



Part No.	A (mm)	B (mm)	C (mm)	θ
RHP1101	3.5	3.5	6.3	45°
RHP1102	10.0	10.0	14.2	45°
RHP1103	15.0	15.0	21.2	45°