

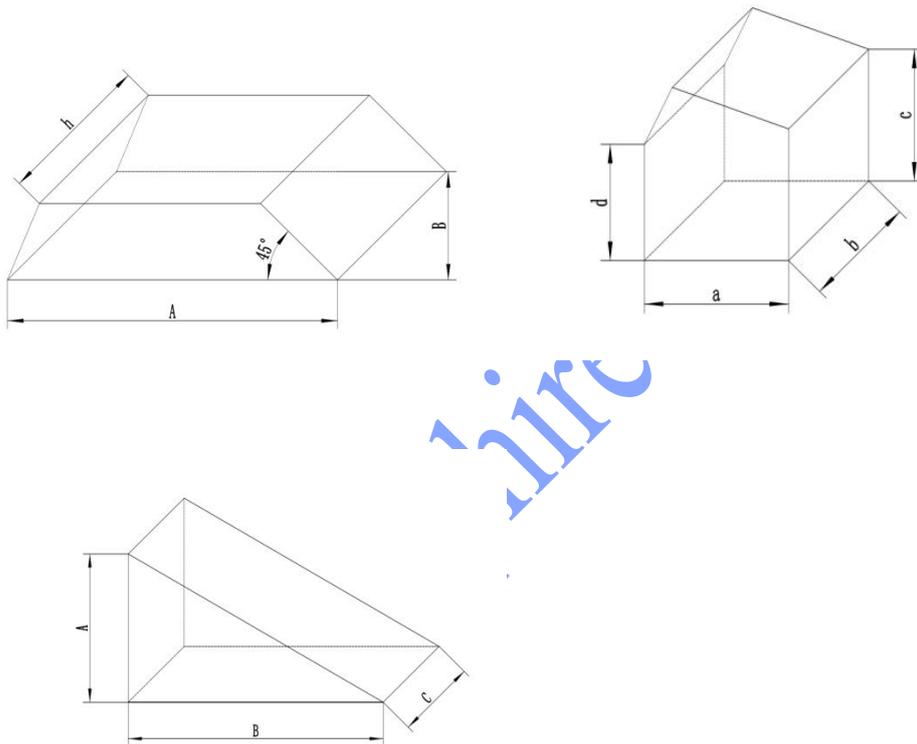
# Sapphire lens&prism

## Sapphire prism

### ■ Introduction

Sapphire has the characteristic of high hardness, thermostability, with excellent thermal conductivity, infrared, anti-chemical corrosion, good chemical stability, thermal performance, perfect electrical specification and dielectric property, widely applied to infrared, far IR, photoelectric and medical equipments.

### ■ Major form



### ■ Technical criteria

Item	Average	Precise	Ultraprecise
Dimension tolerance (mm)	±0.20	±0.10	±0.02
Facial contour (632.8nm) N	5λ	2λ	λ/2
Irregularity degree ΔN	1	1/2	1/4
Surface quality MIL	80/50	40/20	20/10
Surface roughness (nm)	1.5~2.5	0.5~1.5	< 0.5
Crystal orientation	C、A、M optional		
Transmittance	Under 632.8nm wavelength>85%		

## Sapphire lens&prism

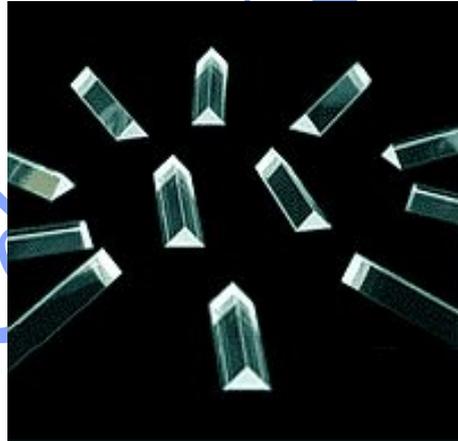
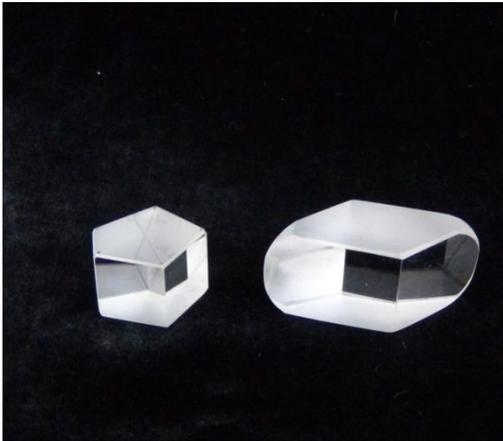
- **Material**

Sapphire, germanium, silicon, quartz, optical glasses and ect.

- **Order Notice:**

Products with different dimension or different precision can be customized according to customer's requirement.

- **Products picture**



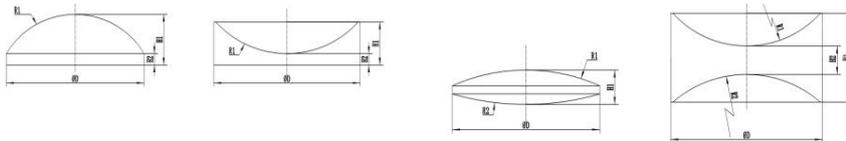
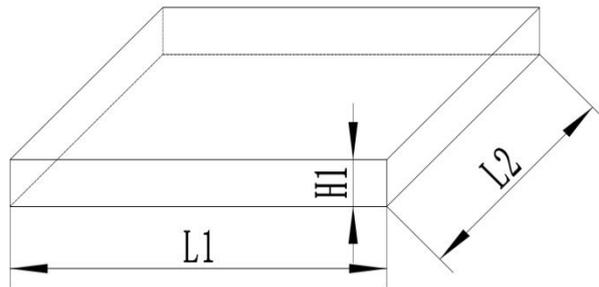
# Sapphire lens&prism

## Sapphire lens

### ■ Introduction

Sapphire has the characteristic of high hardness, Moh's hardness 9. With high light transmittance, excellent mechanical strength and heat resistance, it can take aerodynamic velocity, pressure and heat load, widely applied to ultraviolet, visible light, infrared optical windows, also can be used as the luxury watches table mirror. Major form such as plano-convex, plano-concave, biconvex, biconcave, positive and negative meniscus, cylindrical and etc.

### ■ Major form (R、 $\phi$ )



### ■ Dimensional range, limit deviation (mm)

Item	Radius of curvature SR	Diameter D	Center Thickness H
Dimension range	2 ~ $\infty$	$\phi 1 \sim \phi 300$	1 ~ 150
Tolerance		0.02 ~ 0.10	$\pm 0.02$

# Sapphire lens&prism

## ■ Technical criteria

Item	Average	Precise	Ultraprecise
Facial contour (632.8nm) N	$2\lambda$	$\lambda$	$\lambda/2$
Irregularity degree $\Delta N$	1	1/2	1/4
Surface quality MIL	80/50	40/20	20/10
Surface roughness (nm)	1.5~2.5	0.5~1.5	< 0.5
Crystal orientation deviation	$\leq 5^\circ$	$\leq 2^\circ$	$\leq 0.5^\circ$
Center deviation X	5'~ 2'	2'~ 1'	$\leq 1'$
Crystal orientation	C、A、M optional		
Transmittance	Under 632.8nm wavelength>85%		

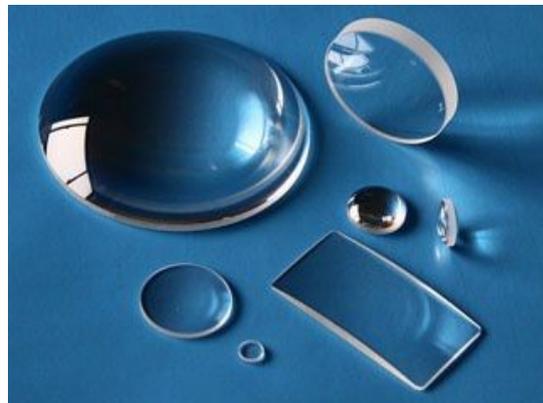
## ■ Material

Sapphire, germanium, silicon, zinc sulfide, optical glasses, ceramics and ect.

## ■ Order Notice:

Products with different dimension or different precision can be customized according to customer's requirement.

## ■ Products picture



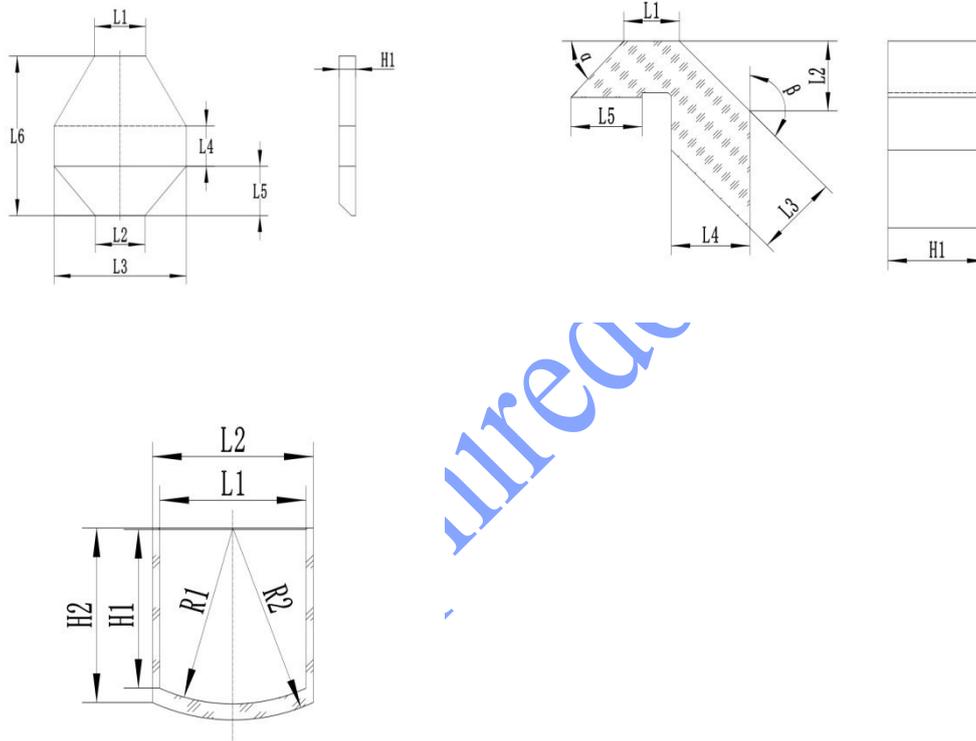
# Sapphire lens&prism

## Sapphire special shaped products

### ■ Introduction

Sapphire has the characteristic of high hardness, thermostability, with excellent thermal conductivity, infrared, anti-chemical corrosion, good chemical stability, thermal performance, perfect electrical specification and dielectric property, widely applied to infrared, far IR, photoelectric and medical equipments, also aerospace navigation special equipments and etc.

### ■ Major form



### ■ Technical criteria

Item	Average	Precise	Ultraprecise
Dimension tolerance (mm)	±0.20	±0.05	±0.02
Angle tolerance	±1°	±0.5°	±0.1°
Facial contour (632.8nm) N	5λ	2λ	λ/2
Irregularity degree ΔN	1	1/2	1/4
Surface quality MIL	80/50	40/20	20/10
Surface roughness (nm)	1.5~2.5	0.5~1.5	< 0.5
Crystal orientation deviation	≤5°	≤2°	≤0.5°
Transmittance	Under 632.8nm wavelength>85%		



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## Sapphire lens&prism

### ■ Material

Sapphire, germanium, silicon, zinc selenide , quartz, optical glasses and ect.

### ■ Order Notice:

Products with different dimension or different precision can be customized according to customer's requirement.

### ■ Products picture

