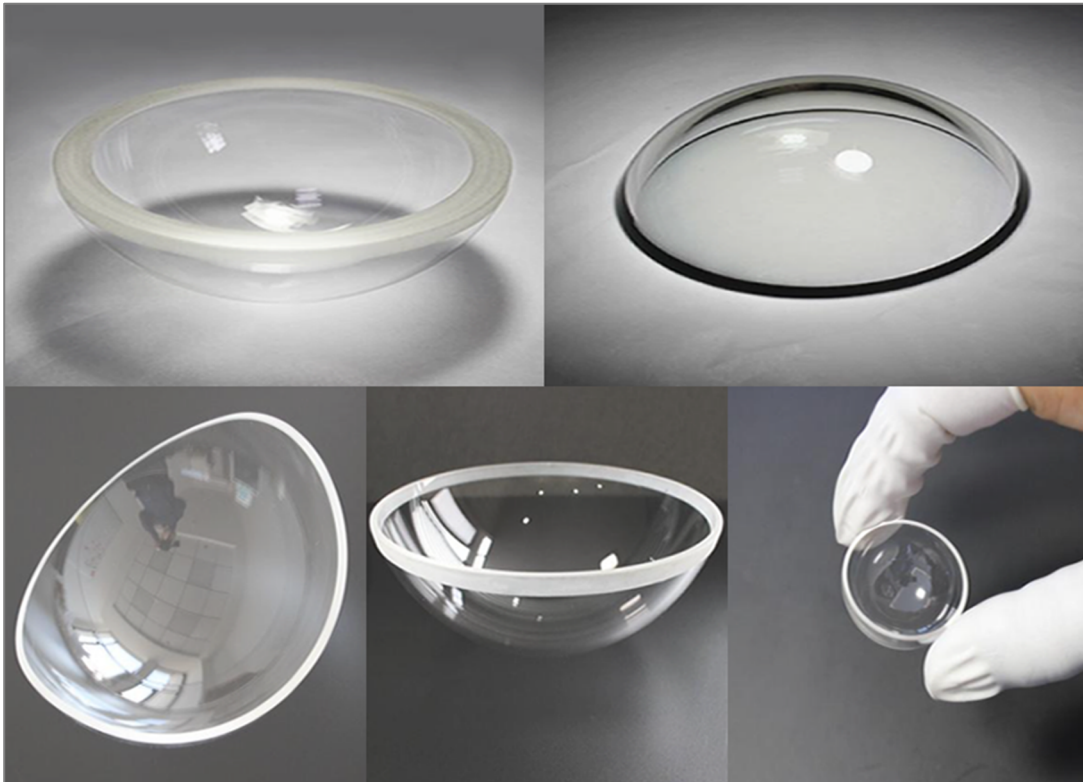


## SZR Series Dome Lenses



### Product description

- High resistance to temperature, shock, wear and scratches
- Maximum diameter can reach 350 mm
- Surface Accuracy can reach  $\lambda/10$
- Suitable for visible, IR or UV range

We provide optical domes made from a variety of substrate materials including BK7, sapphire, fused silica, germanium, zinc selenide etc. with high resistance to temperature, shock, wear and scratches, suitable for range of visible, IR or UV. We persist in seeking technological breakthroughs. A number of our processing technologies have awarded patent certificates. Innovative production techniques and consistent quality have led our optical domes a steady share in the industry.

Material	BK7, fused silica, Ge, ZnSe, etc.
Shape	Hemispheric
Diameter	10 - 350mm +0/-0.2mm
Surface quality	60/40 Scratch and Dig
Flatness	$N < 10(1) @ 632.8 \text{ nm}$
Lens centration	1 arc sec
Coating	AR coating inside of dome

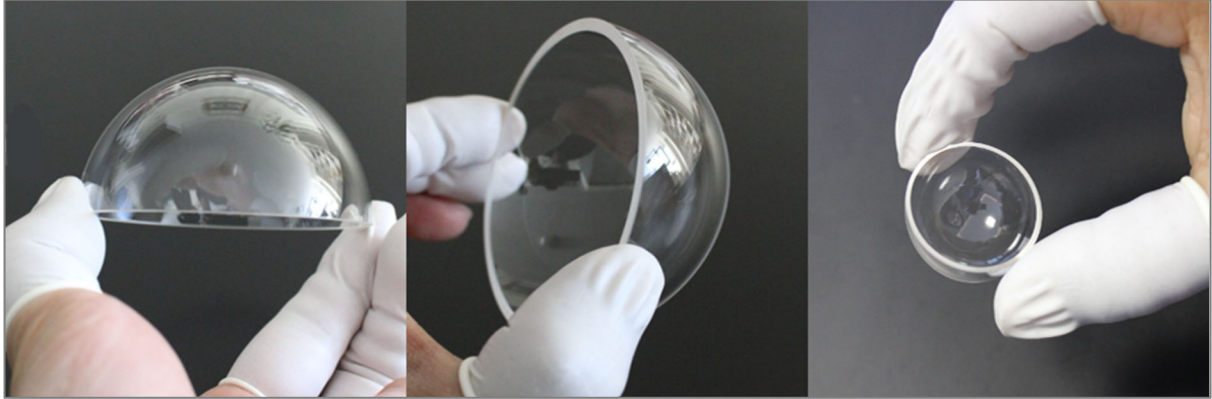
Our custom optical domes including

1. VIS dome lens,
2. IR dome lens
3. UV fused silica dome lens
4. Large diameter optical domes
5. Irregular cutting dome lens and other optical hemispheres upon requirements.

We offer high quality custom designed optical domes in any quantity from testing sample to mass production. Extremely small MOQ helps to reduce your initial project investment.

- Capacities from 10 mm to 350 mm
- A variety of UV, VIS, IR materials and crystals available
- In accordance with RoHS Standard
- Custom upon your unique optical requirements

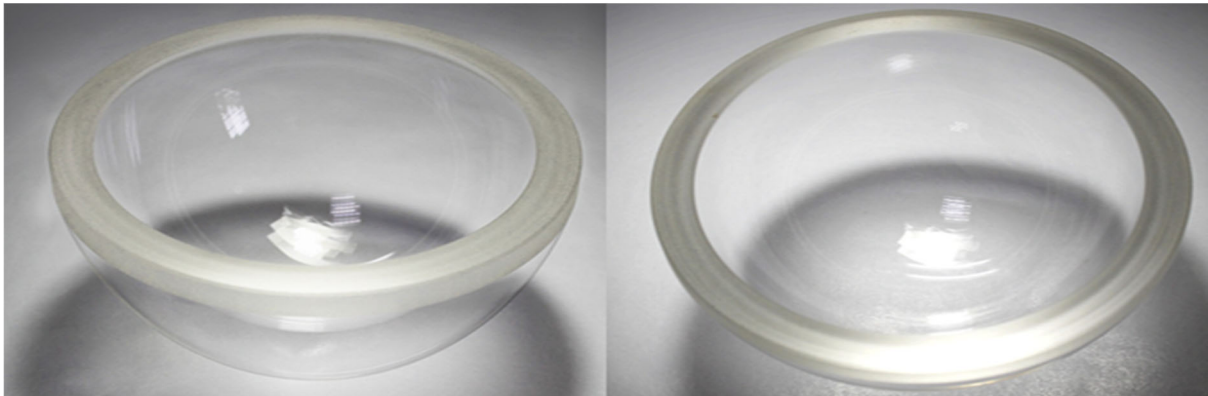
### 1. SZR Series Visible (VIS) Dome Lens



Optical domes can be seen as a kind of optical windows. It has no optical effect on optical path. Optical domes are ideal for split level and underwater work, meteorology and defense applications, aerospace and military application. BK7 is ideal for underwater camera domes, marine domes and any other visible to near infrared lead applications where clarity and strength is essential. We also offer precision domes from infrared material for much longer wavelength

- Maximum Diameter can reach 350 mm
- Surface Accuracy can reach  $\lambda/10$

### 2. SZR Series Infrared (IR) Dome Lens



We offer infrared optical domes from a variety of substrate materials:

- Sapphire
- Fused Silica
- Calcium Fluoride (CaF<sub>2</sub>)
- Magnesium Fluoride (MgF<sub>2</sub>)
- Zinc Sulfide (ZnS), Zinc Selenide (ZnSe)
- Silicon (Si)
- Germanium (Ge)

Sapphire is ideal for both ultra-violet (UV) and MWIR (3-5micro) band, MgF<sub>2</sub> are good for MWIR band, ZnSe and Germanium are good choice for 3 $\mu$ m to 12 $\mu$ m domes covers both MWIR and LWIR region.

### 3. SZR Series Ultraviolet (UV) Dome Lens

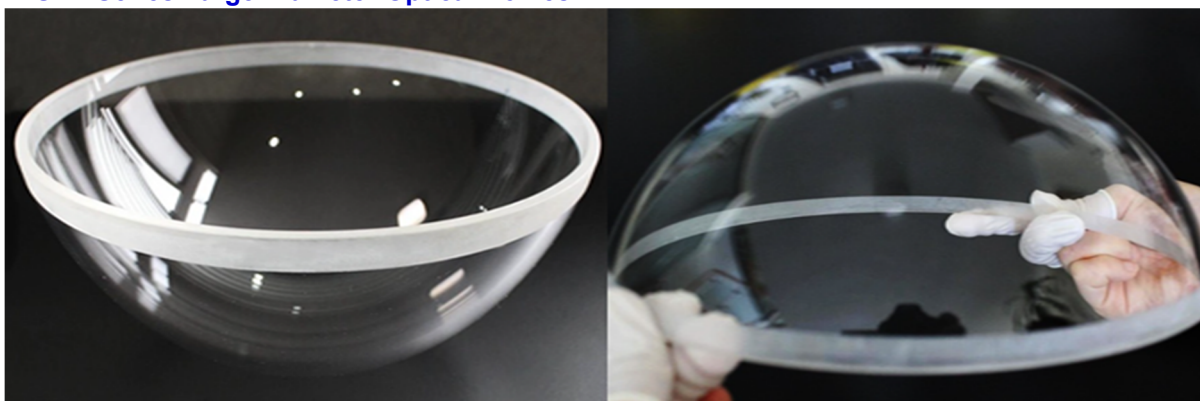


Most optical glasses can effectively transmit visible and near-infrared light. However, in the near ultraviolet region, most glass absorbs light to some extent. If the optical system must transmit ultraviolet light, the most common materials are fused silica and fused silica. Some heavy flint optical glasses have a low transmittance in the dark blue wavelength range and have a slightly yellow appearance.

One of the characteristics of quartz glass is that it has high light transmittance for ultraviolet, visible, and infrared rays. Quartz glass made from ultra-pure silicon dioxide (SiO<sub>2</sub>) as raw material has a total metal element content of only  $1\% \times 10^{-6}$ , therefore the UV transmittance is the highest, especially for shortwave UV; The wavelength of 180nm has a transmittance of up to 80%, and the wavelength of 190nm has a transmittance of up to 90%, making it an ideal ultraviolet material.

- Maximum Diameter can reach 350 mm
- Surface Accuracy can reach  $\lambda/10$

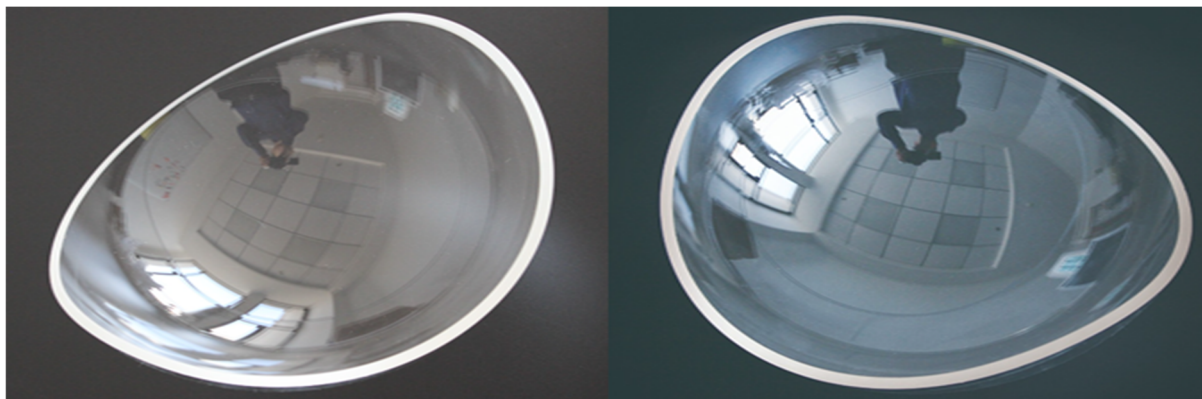
### 4. SZR Series Large Diameter Optical Domes



We focus on the research and development and mass production of large-diameter optical domes. Our company uses leading dome processing technology combined with patented independently developed molds to solve the common problems of deformation and uneven size caused by uneven shrinkage of various parts of the glass dome due to temperature differences between the top and bottom of the glass during the processing. This technology solves the problem of difficulty in forming large size infrared glass, improves the yield rate of large diameter glass dome lens, and expands the application of products. The large diameter infrared glass optical domes produced by our company are currently used in some models of scientific research institutes of aerospace and weapons. The product quality is stable and has received praise and trust from customers.

- Maximum Diameter can reach 350 mm
- Surface Accuracy can reach  $\lambda/10$

## 5. SZR Series Irregular Cut Dome Lens



We process uncommon irregular-shaped optical domes according to customer's requirements. Using precision cutting machines, the edges of the dome can be cut into arcs according to the customer's design to suit your specific optical system. Optical domes can be seen as a kind of optical windows. It has no optical effect on optical path. Optical Domes are ideal for split level and underwater work, meteorology and defense applications, aerospace and military application. N-BK7 is ideal for underwater camera domes, marine domes and any other visible to near infrared lead applications where clarity and strength is essential. We also offer precision domes from infrared material for much longer wavelength.

- Maximum Diameter can reach 350 mm
- Surface Accuracy can reach  $\lambda/10$