

Sapphire Optical Components Industry Application Case Manual

Felix Glass

Brand Intro & Document ID

Felix Glass specializes in custom precision optical components for machine vision, laser systems, medical optics, spectroscopy and industrial imaging. OEM & ODM manufacturing services are available worldwide. Document No. : FG-CUSL-001 | Rev. 1.0 | Issue Date:2026

Real Application Cases

Case 1 Aerospace Infrared Systems: Sapphire hemispherical domes for aircraft target tracking and missile guidance optical windows
Case 2 High-Temperature Industrial Furnace: Sapphire observation windows for molten metal and high-pressure reaction chamber monitoring
Case 3 Medical Minimally Invasive Endoscopy: Ultra-thin scratch-resistant sapphire lens at probe tip
Case 4 Solid-State Laser Equipment: Sapphire laser rods as light guide and gain medium carrier
Case 5 Semiconductor Wafer Inspection: Corrosion-resistant sapphire protective windows for plasma etching equipment

Main Applicable High-Value Industries

- Aerospace & Defense Infrared Tracking Optical Systems
- High-Temperature Furnace, High-Pressure Industrial Detection Equipment
- Medical Endoscopy & Minimally Invasive Diagnostic Devices
- Solid-State Laser & High Power Laser Processing Equipment
- Semiconductor Manufacturing Plasma & Wafer Inspection Tools
- Deep Sea & Corrosive Environment Optical Sensing Instruments
- Laboratory High-Temperature Spectroscopy Research Instruments

Service Summary

Hong Kong Felix Glass Co., Limited supplies full series of precision sapphire optical components, supporting custom crystal orientation, special curved shape machining and wavelength-matched anti-reflection coating, with professional material engineering support for global aerospace, medical and laser equipment manufacturers.

The information contained in this document is provided for reference only. Final specifications are subject to mutually approved engineering drawings, production capability review, and customer project requirements.

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