

Sapphire Display Cover Size & Tolerance Specification

1. Purpose

Unify CNC machining tolerance standards for all custom sapphire display cover glass, provide clear dimensional reference for customer drawing design.

2. Standard Thickness Range (Customizable)

0.1mm / 0.3mm / 0.5mm / 0.8mm / 1.0mm / 2.0mm / 3.0mm / 5.0mm

3. Dimensional Tolerance Standard

- Length & Width Tolerance: $\pm 0.005\text{mm}$
- Thickness Uniformity: $\leq 0.003\text{mm}$
- Edge Chipping: $\leq 0.01\text{mm}$ (precision polished edge)
- Hole Diameter Tolerance: $\pm 0.008\text{mm}$
- Surface Flatness: $\lambda/10$ @632.8nm

4. Edge Processing Options

1. Fine polished edge (medical/AR high-precision use)
2. Chamfer $0.1 \times 45^\circ$ (automotive touch screen anti-crack design)
3. Full round edge (household smart equipment)
4. Custom notch, cutout, mounting holes drawing processing

5. Surface Quality Grade

- Grade 1 (Medical / Aerospace): 10-5 scratch & dig standard
- Grade 2 (Automotive / Industrial HMI): 20-10 scratch & dig standard

6. Drawing Submission Requirement

Customers need to provide CAD/DXF drawing with marked thickness, tolerance, coating area, mounting hole position for quotation & sample production.