

IR Spectral Performance Test Report

Test Object: ZnSe / ZnS / Germanium Infrared Optics

Test Equipment: FTIR Spectrometer & Laser Interferometer

1. CVD ZnSe Test Data

Working wavelength: 10.6 μm CO₂ laser

Uncoated transmittance: $\geq 97.0\%$

AR coated transmittance: $\geq 99.2\%$

Absorption loss: Ultra-low, suitable for high-power continuous laser

2. CVD ZnS Test Data

Transmission band: 0.4 – 14 μm

Average transmittance: $\geq 95\%$

Imaging uniformity: Excellent for multispectral observation

Mechanical stability: No deformation under vibration & temperature cycling

3. Germanium Ge Test Data

LWIR band: 8 – 14 μm

Stable transmittance for uncooled thermal detectors

DLC+AR coating improves surface durability without affecting infrared performance

4. Test Conclusion

All batch products meet industrial infrared optical standards.

Full test data can be provided for customer project audit.