



TECHNICAL DATA SHEET

Long Wavelength Infrared (LWIR) Filters

PRODUCT DESCRIPTION

DSI has had many years of experience making LWIR filters that operate at any temperature between ambient and 10 K. These coatings are durable and robust optical filters, made using physical vapor deposition. The band edge placement can be held with great precision.

APPLICATIONS

- Sensor Filters
- Order Sorting Filters
- Thermal Vision
- FLIR Optics
- Multispectral Filters

TECHNICAL SPECIFICATIONS

Various types of substrates can be used depending on wave length of interest. Operating temperature transmittance measurements can be made in-house. Substrate size can be from a few mm to 100 mm. Coatings can be applied to Ge, Si, ZnS, ZnSe, Quartz, Sapphire, Kapton, Plastics, Polymers, and many other substrate materials.

- Edge placement $\pm 0.25\%$ or better
- Slopes nominal $< 1.5\%$
- In-band transmittance $> 95\%$
- Half Band Widths can be manufactured to customer specifications
- Out of band transmittance can be designed to OD 6 or greater and measured to OD 4 for 2,000 – 50,000 nm and OD 5 from 500 – 2,000 nm
- Multiple filters can be applied to a single substrate using in-house photolithography

DSI engineers work closely with customers to develop filter specifications that deliver the performance required for their systems. Let DSI engineer a solution for you.

