

DSI • DEPOSITION SCIENCES, INC.

A LOCKHEED MARTIN COMPANY

INFRARED NARROW BANDPASS FILTERS

Technical Data Sheet



PROCESS/PRODUCT DESCRIPTION

DSI has many years of experience producing narrow bandpass filters for use in the MWIR through LWIR. The coatings are produced by either sputtering or evaporation. They are durable and can be used in a broad range of operating environments.

APPLICATIONS

- Gas Detection
- Atmospheric Sensing
- Medical Monitoring
- Search and Track
- Environmental Analysis

BENEFITS - ADVANTAGES

- High in-band transmission
- Sharp cut-on and cut-off slopes
- Excellent out-of-band blocking
- No wet/dry wavelength shift

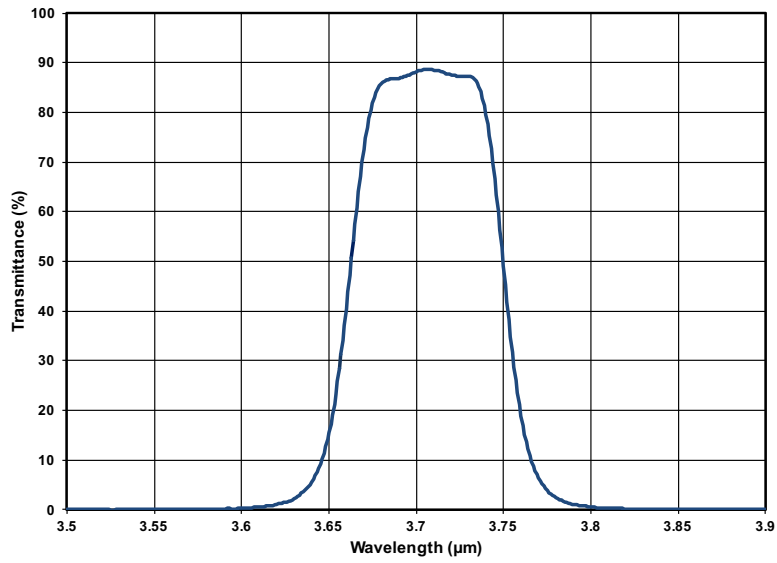
TECHNICAL SPECIFICATIONS

Coatings can be applied to Ge, Si, ZnS, ZnSe, Quartz, Sapphire, as well as other IR substrates, depending on the wavelength of interest. Substrate sizes typically range from a few mm to 100 mm. Operating temperature transmittance measurements can be made in-house.

- Operating temperature 10K to 325K
- Edge placement $\pm 0.5\%$ or better
- Slopes nominally $< 1\%$
- Peak transmittance typically $> 80-90\%$,
- Bandwidths are manufactured to customer specifications, typically 1% to 10% FWHM.

MEASURED TYPICAL PERFORMANCE

2.4% FWHM @ 3.7 μ m



3.5% FWHM @ 8.9 μ m

