

# DEPOSITION SCIENCES, INC.

A LOCKHEED MARTIN COMPANY

## BANDPASS FILTERS

Technical Data Sheet



## PROCESS/PRODUCT DESCRIPTION

DSI has 40+ years of experience producing bandpass filters for use in the VIS, NIR, SWIR and MWIR. The bandpass filters are produced in our proprietary MicroDyn™ sputtering machines which deposit durable coatings that can be used in a broad range of operating environments.

## APPLICATIONS

- Missile Targeting Pods
- Focal Plane Array Assemblies
- Intelligence, Surveillance, and Reconnaissance (ISR)
- Search and Track
- Countermeasure Systems
- Payload Sensors

## BENEFITS/ADVANTAGES

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

## TECHNICAL SPECIFICATIONS

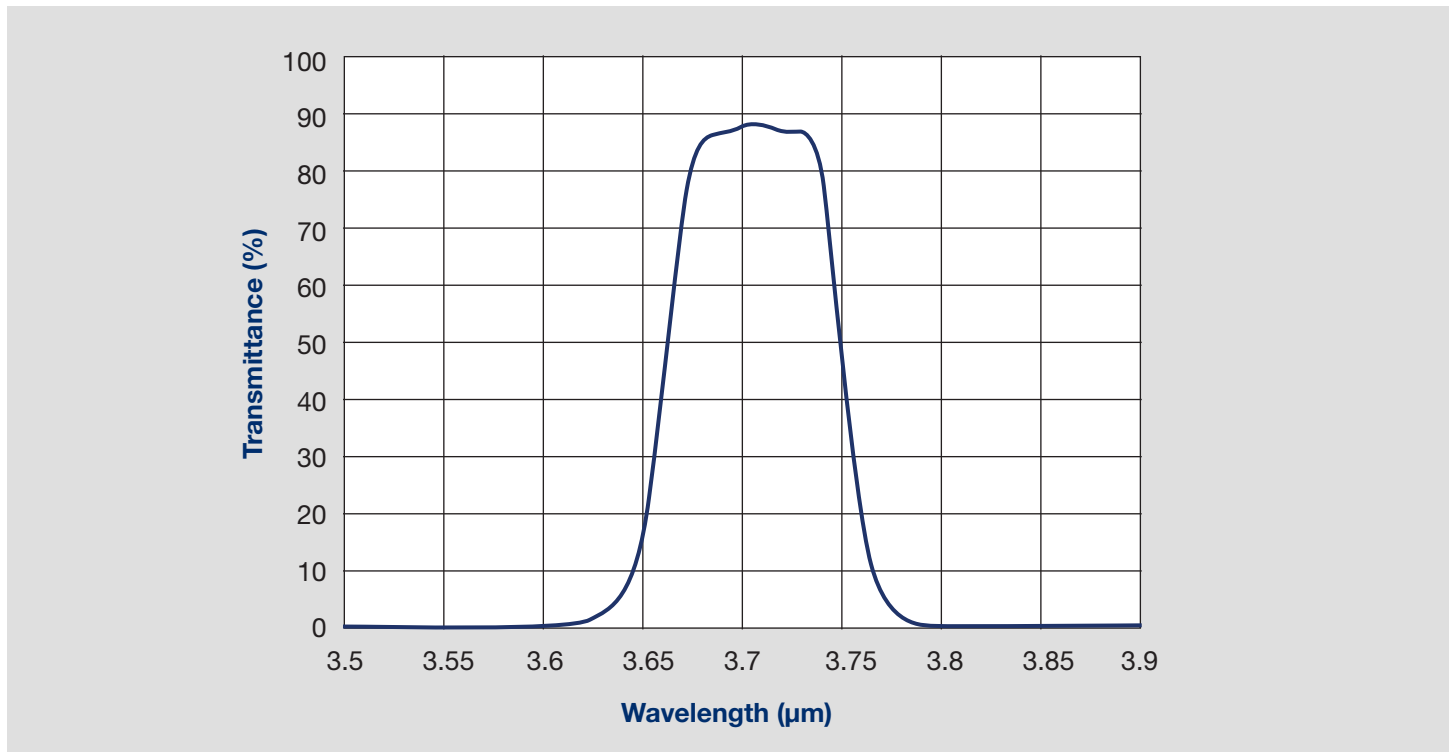
Coatings can be applied to Silicon, Quartz, Sapphire, BK7, as well as other substrates, depending on the wavelength of interest. Substrate sizes typically range from a few mm to 100 mm. Operating temperature transmittance measurements can be made in-house.

- 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.
- Out of band blocking of 0.1% absolute, 0.01% average is typical.

## CUSTOMIZATION

Patterning of apertures available upon request.

## SAMPLE PERFORMANCE



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.