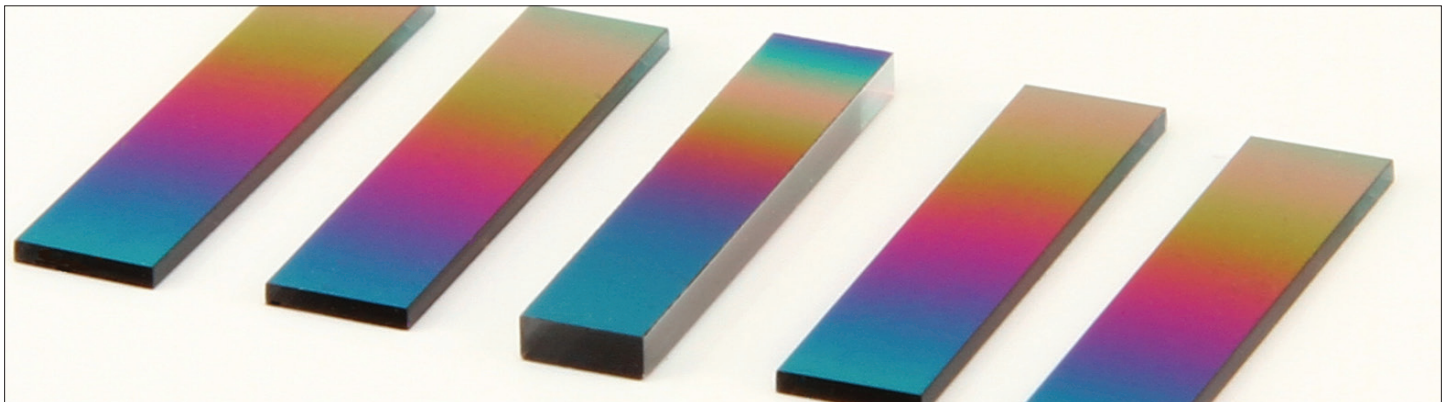
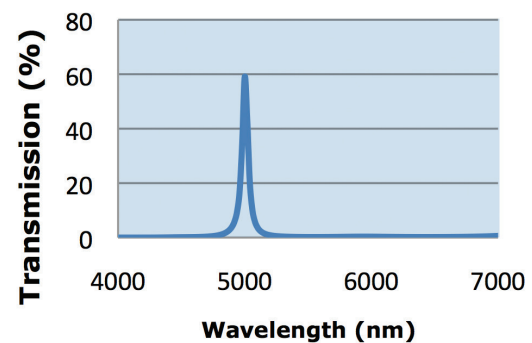
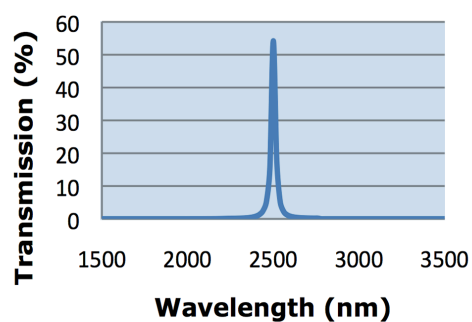
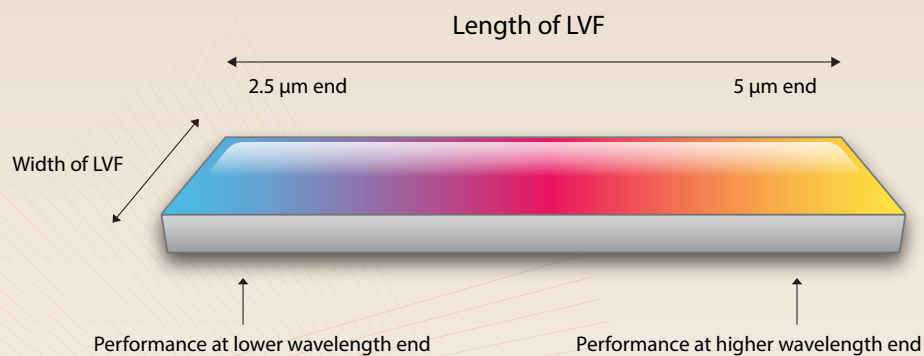


## Infra Red Linear Variable Filters

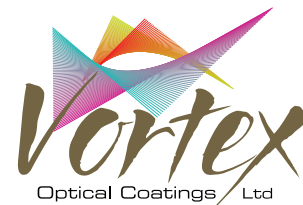


A Linear Variable Filter (LVF) is one where the performance profile shifts from one end of the filter to the other, this is illustrated below. The combination of an LVF and suitable detector can replace a large number of components in a scientific analysis instrument thus saving vast amounts in space, cost, weight and time.

### Example of 2.5 - 5.0 $\mu\text{m}$ LVF



# data sheet



## Infra Red Linear Variable Filters (Cont)

Vortex manufactures three stock LVF filters for use in the infrared:

(i) 2.5 - 5.0  $\mu\text{m}$  (ii) 1.2 - 2.5  $\mu\text{m}$  (iii) 0.9 - 1.7  $\mu\text{m}$ .

### Properties of Vortex LVF's

- Stock filters of 15 mm long x 3.5 mm wide and 0.5 mm thick (tolerance= $\pm$  0.1 mm)
- Durable hard coatings passing Humidity, salt solution, severe abrasion, adhesion as per MIL C 48497
- Width of filter at 50% of peak T (FWHM) = 2.0% of peak wavelength
- T peak, typically >60% across the band, but for 0.9 - 1.7  $\mu\text{m}$  T peak is 40% - 60% across range
- Surface Quality better than 60 - 40 scratch dig
- Blocking - LVF's have blocking to OD3 within the range, however, a supplementary filter in the optical chain will almost certainly be required. We can advise on this based on the detector's sensitivity range

We have the capability to manufacture custom LVF's within this range to suit your needs and welcome the opportunity to discuss specific applications in confidence.

### Applications

LVF's can be used in hand held spectrophotometers, multi gas detectors and many other scanning applications. A range of IR band-pass filters can be replaced with a single LVF!

### Pricing

#### 0.9 to 1.7 $\mu\text{m}$ type

Part No: LVF 0.9 - 1.7 - 3.5 - 15 - 0.5

#### 1.2 to 2.5 $\mu\text{m}$ type

Part No: LVF 1.2 - 2.5 - 3.5 - 15 - 0.5

#### 2.5 to 5 $\mu\text{m}$ type

Part No: LVF 2.5 - 5.0 - 3.5 - 15 - 0.5

OEM/high quantity pricing available upon request, please contact us direct by telephone +44 1455 613029 or e mail Ian Reilly on [ian@vortexopticalcoatings.co.uk](mailto:ian@vortexopticalcoatings.co.uk).

[www.vortexopticalcoatings.co.uk](http://www.vortexopticalcoatings.co.uk)

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