Infrared Filters & Coatings

- Useful for isolating narrow spectral regions
- Constructed of hard, durable first-surface coatings
- Available in standard and custom wavelengths up to 14µm

Standard IR Bandpass Filters

Bandpass filters isolate specific regions of the spectrum, simultaneously providing high transmission of desired energy, and deep rejection of unwanted energy. Available in wide or narrow bandwidths, they can be tailored to suit your specific requirements.

Constructed of hard, durable first-surface dielectric coatings on optical-quality IR-transmitting substrates, these filters will withstand normal cleaning and handling associated with any high-quality optical component.

For your convenience and economy, we offer the filters in 25mm dia. However, we can produce custom sizes and shapes, as well as custom optical characteristics. Contact our technical sales department for a quotation.

GENERAL SPECIFICATIONS

Diameter Tolerance	+0/-.1mm
Min. Clear Aperture	21mm Dia.
Transmission (Typ.):	60 - 80%
Blocking:	T < 0. 1% Average to 30 µm
24-hour humidity	per MIL-C-48497A
Moderate Abrasion	per MIL-C-48497A
Adhesion	per MIL-C-48497A

Optional: Mounted in threaded ring - see pg 57 for thread sizes

Applications

- Environmental Monitoring
- Security Systems
- FLIR Systems
- Avionics

STANDARD IR GAS ANALYSIS BANDPASS FILTERS

Gas	Center W/L	Bandwidth	Part Number
Water Vapor	2.70 ±.03 µm	120 ±30nm	2.70GA05-25
	2.95 ±.03 µm	130 ±30nm	2.95GA05-25
Methane and Ethanol	3.46 ±.04 µm	140 ±30nm	3.46GA05-25
Formaldehyde	3.60 ±.04 µm	140 ±30nm	3.60GA05-25
CO2	4.26 ±.04 µm	120 ±30nm	4.26GA05-25
CO	4.67 ±.05 µm	150 ±30nm	4.70GA05-25
NO	5.30 ±.05 µm	420 ±50nm	5.30GA05-25

Custom Infrared Bandpass Filters

Andover can design and fabricate custom bandpass filters to suit your particular requirements. Every phase of the process is performed in-house, including thin-film coating design, mechanical design, substrate fabrication and polishing, coating, inspection, and environmental testing.

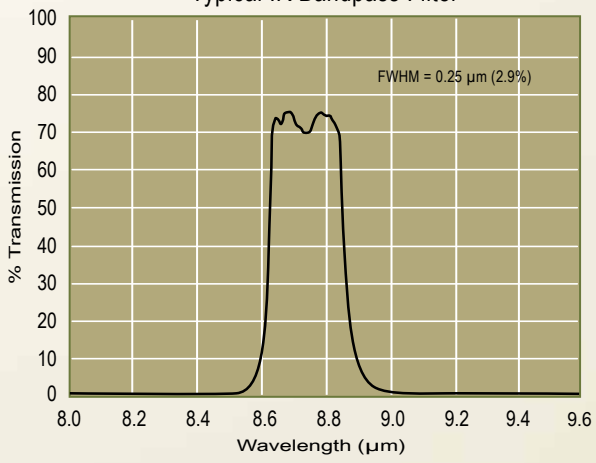
We can coat a variety of substrate materials, including Germanium, Sapphire, Silicon, Calcium Fluoride, Zinc Sulfide, and Zinc Selenide. Contact us for a quotation, whether it is for prototype quantities, or production quantities.

CUSTOM IR BANDPASS FILTER SPECIFICATIONS

Bandwidth (% of CW/L)	W/L Range	Transmission (Typ.)	Blocking	Part Numbers
>10%	2.4 µm - 5.0 µm	70 - 80%	0.3 to 40 µm	IRFC10-25
	5.1 µm - 6.5 µm	70 - 80%	0.3 to 15 µm	IRFC12-25
	6.6 µm - 8.5 µm	60 - 70%	0.3 to 15 µm	IRFC14-25
	8.6 µm - 10.3 µm	60 - 70%	0.3 to 15 µm	IRFC16-25
	10.4 µm - 14.0 µm	50 - 60%	0.3 to 15 µm	IRFC18-25
1.6 - 10.0%	2.4 µm - 5.0 µm	70 - 80%	0.3 to 40 µm	IRFC20-25
	5.1 µm - 6.5 µm	70 - 80%	0.3 to 15 µm	IRFC22-25
	6.6 µm - 8.5 µm	60 - 70%	0.3 to 15 µm	IRFC24-25
	8.6 µm - 10.3 µm	50 - 60%	0.3 to 15 µm	IRFC26-25
	10.4 µm - 14.0 µm	40 - 60%	0.3 to 15 µm	IRFC28-25
1.0 - 1.5%	2.4 µm - 5.0 µm	50 - 80%	0.3 to 40 µm	IRFC30-25
	5.1 µm - 6.5 µm	50 - 80%	0.3 to 15 µm	IRFC32-25
	6.6 µm - 8.5 µm	40 - 70%	0.3 to 15 µm	IRFC34-25
	8.6 µm - 10.3 µm	40 - 60%	0.3 to 15 µm	IRFC36-25
	10.4 µm - 14.0 µm	30 - 60%	0.3 to 15 µm	IRFC38-25

Custom spectral and physical properties available upon request

Typical IR Bandpass Filter



Typical Out-of-Band Blocking