Defense & Security

Triple Notch Filter for Head-up Display

Our state-of-the-art coating technology has enabled triple notch filter to be achieved with large substrate.

It reflects RGB color with arbitrary ratio and keeps high transmittance over the visible wavelength.

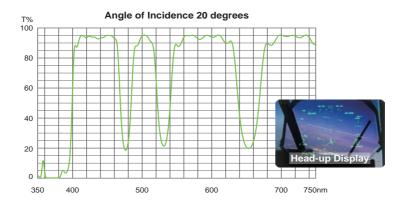
We can supply approximate 420mm diameter triple notch filter with excellent coating uniformity over the clear aperture for large screen of head-up display.

Features

- Any RGB wavelength / reflectance ratio are available
- Large size of filter

(Approximate 800mm diameter filter may be available by this summer)

- Excellent coating uniformity
Actual performance of uniformity: Wavelength x 0.3% over 420mm diameter (e.g. 500nm x 0.003 = 1.5nm variation / pv)

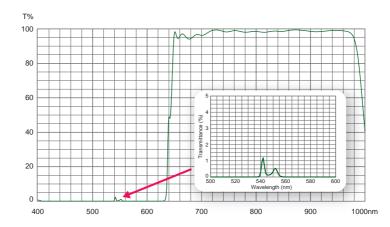


Leaky Green Filter

Our long experience to produce many kinds of filters by ion assisted deposition as well as sputtering has enabled the complicated film design to be achieved. Leaky green filter realizes the excellent transmission in NIR wavelength, good attenuation in visible wavelength and optimized green leak simultaneously. Asahi can supply suitable size of filter for binocular from small to large.

Features

- High transmission in NIR wavelength There are few ripples in passband
- Flexibility of interference film design Perfectly controlled the green leak
- Excellent environmental durability
 MIL-specifications compliant
 Interference film coated by ion assisted deposition has excellent durability against harsh environment.



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Laser Protection Filter

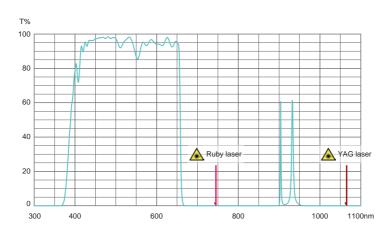
Asahi has launched to supply our filters for military application. Laser protection filter can block both Ruby (694nm) and YAG (1064nm) laser deeply, and transmit the visible wavelength effectively.

We can supply the filter with suitable size for binocular or against the other kinds of laser.

Features

- Deep laser blocking / High transmission in VIS wavelength OD > 5 at both Ruby (694nm) and YAG (1064nm) laser
- Pinhole free over the clear aperture
 Pinhole can be never acceptable, especially for military purpose such as usage in square.
- Excellent environmental durability

 MIL-specifications compliant
 Interference film coated by ion assisted deposition has excellent durability against harsh environment.

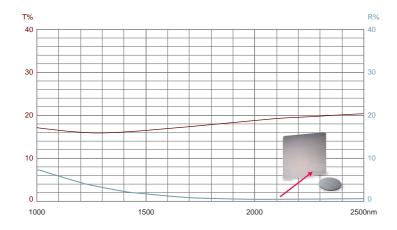


■Low Reflective NIR-ND Filter

Neutral density (ND) filter is convenient to attenuate the light flatly, and often used for many kinds of applications such as light adjustment on the monitor. Low reflective NIR-ND filter supplied by Asahi can achieve both flat transmission over the wide NIR wavelength and low reflection on the surface simultaneously. We can supply this kind of promising ND filter for NIR as well as visible wavelength.

Features

- Flat transmission over the wide NIR wavelength Colored ND glass is not available in NIR wavelength.
- Reflection on the surface is low and helpful to avoid the ghost issue Conventional reflective ND filter has high reflection on the surface like mirror.
- Excellent environmental durability
 MIL-specifications compliant
 Stable spectral performance even in cryogenic temperature



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Wide Band NIR-AR

Unlike conventional AR coating, Asahi wide band NIR-AR can cover unprecedented wide range, from 0.9 to 2.5 microns.

It can be applied for various kinds of IR substrates such as fused silica, silicon, sapphire or other materials.

Wide band NIR-AR is available from large to small size of plate as well as lens.

Features

- Cover wide NIR wavelength with low reflection $R(average) < 1.5\% \, 0.9 2.5 \, um$
- It can be applied for fused silica, silicon, sapphire, or other IR substrates
- Excellent environmental durability

MIL-specifications compliant

AR film coated by ion assisted deposition has excellent durability against harsh environment.

