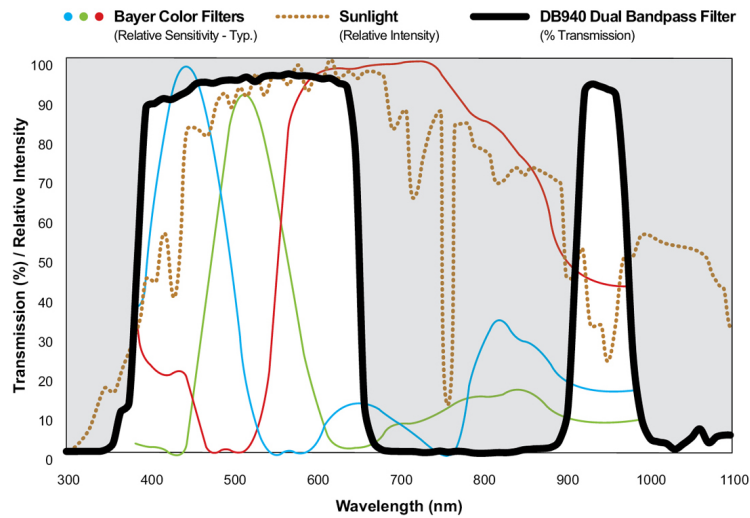




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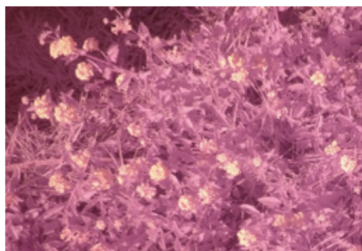
creating optical solutions

DAY/NIGHT IMAGING



Canon 4500 Bayer filter array spectral distribution (blue, green and red channels) with IR blocking filter removed vs. MidOpt DB940 filter transmission and relative spectral intensity of sunlight. Note the reduced intensity and sensitivity at 940nm.

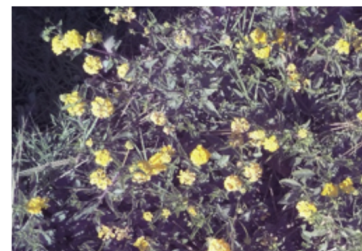
To achieve accurate color rendition for applications that use a color camera during the day and discrete infrared (IR) illumination at night, a Dual Bandpass Filter is an ideal solution. These filters pass visible light and a narrow wavelength range in the near-IR spectrum that corresponds to the emission wavelength of the IR illumination being used. This ensures clear, accurate images under most lighting conditions and, in some cases, eliminates the need for a filter switching mechanism.



No IR Blocking Filter



DB850 Dual Bandpass Filter



DB940 Dual Bandpass Filter

A strong magenta hue often results when the IR filter is removed and an IR-pass filter is employed. The further separation of the visible and IR passband, the better the color rendition.

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MULTI BANDPASS FILTERS



MidOpt Dual Bandpass and Triple Bandpass Filters are most commonly used for security and surveillance, intelligent traffic solutions and Normalized Difference Vegetation Index (NDVI) imaging.

- Pass visible light and a specific portion of the visible (VIS) and near-infrared (NIR) spectrums
- Ideal for color camera applications that utilize daytime sunlight and NIR illumination at night
- Achieve accurate color rendition by blocking interfering wavelengths
- Eliminate the need for dual sensor imaging
- Anti-reflection coated for maximum transmission
- Hard-coated, single-substrate fabrication
- Exceptional surface quality; 40/20 scratch/dig

MOUNT & SIZE OPTIONS: In-stock, ready-to-ship Dual Bandpass Filters are available in Threaded Mounts, sizes M13.25 to M82; 25.4[®] C-Mount; Slip Mounts; or Unmounted. Dual Bandpass Filters can be optically cemented behind a M12 lens if preferred while custom shapes and sizes are also available.

APPLICATIONS: Dual Bandpass Filters are becoming increasingly popular in NDVI aerial drone inspection, allowing for single sensor imaging and reduced operation payload. NDVI, traditionally achieved by satellite imagery, can now be obtained utilizing Dual Bandpass Filters and personal aerial imaging devices.

DB Series - Dual Bandpass

Part #	Description	Useful Range
DB395/...	Dual Bandpass Absorptive Visibl...	375-425nm, 745-970nm
DB475/...	Dual Bandpass Blue + 850nm NIR	460-490nm, 830-870nm
DB550/...	Dual Bandpass Green + 850nm ...	535-565nm, 830-870nm
DB660...	Dual Bandpass Red + 850nm NIR	645-675nm, 830-870nm
DB735	Dual Bandpass Filter Visible + 7...	405-645nm, 725-755nm
DB850	Dual Bandpass Filter Visible + 8...	405-645nm, 835-875nm
DB940	Dual Bandpass Filter Visible + 9...	405-650nm, 925-965nm

TB Series - Triple Bandpass

Part #	Description	Useful Range
TB475/...	Triple Bandpass Blue+Green+85...	468-483nm, 543-558nm, 835-865nm
TB550/...	Triple Bandpass Green+Red+850...	543-558nm, 653-668nm, 835-865nm

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