› DUAL BANDPASS FILTERS

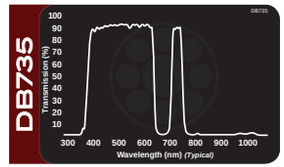
WORK TWICE AS HARD

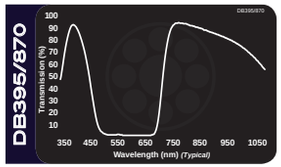
Most commonly used for security and surveillance, intelligent traffic solutions and Normalized Difference Vegetation Index (NDVI) imaging.

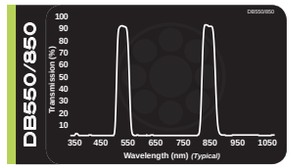
- Pass visible light and a specific portion of the VIS and NIR spectrums
- Ideal for color camera applications that utilize daytime sunlight and NIR illumination at night
- Achieve accurate color rendition by blocking interfering wavelengths
- Eliminate the need for dual sensor imaging
- Anti-reflection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

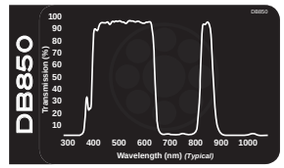
MOUNT & SIZE OPTIONS: In-stock, ready-to-ship Dual Bandpass Filters are available in Threaded Mounts, sizes M13.25 to M82; 25.4™ C-Mount; Slip Mounts; or Unmounted. Dual Bandpass Filters can be optically cemented behind a M12 lens if preferred, while custom shapes and sizes are also available.

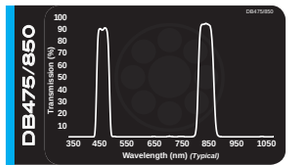
APPLICATIONS: Dual Bandpass Filters are becoming increasingly popular in NDVI aerial drone inspection, allowing for single sensor imaging and reduced operation payload. NDVI, traditionally achieved by satellite imagery, can now be obtained utilizing Dual Bandpass Filters and personal aerial imaging devices.

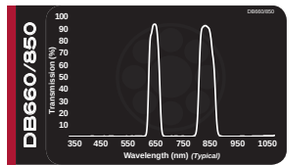


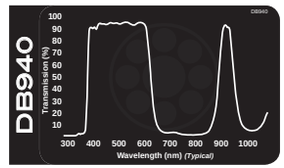












Part #	Description	Useful Range	FWHM (nominal)	Peak Transmission	StablEDGE®
DB395/870	Dual Bandpass Absorptive VIS + NIR	VIS 375-425nm NIR 745-970nm	110nm 375nm	≥90%	•
DB475/850	Dual Bandpass Blue + 850 NIR	VIS 460-490nm NIR 830-870nm	45nm 55nm	≥90%	
DB550/850	Dual Bandpass Green + 850 NIR	VIS 535-565nm NIR 830-870nm	40nm 50nm	≥85%	
DB660/850	Dual Bandpass Red + 850 NIR	VIS 645-675nm NIR 830-870nm	40nm 50nm	≥90%	
DB735	Dual Bandpass Visible + 735nm NIR	VIS 405-645nm NIR 725-755nm	250nm 50nm	≥90%	
DB850	Dual Bandpass Visible + 850nm NIR	VIS 405-645nm NIR 835-875nm	250nm 50nm	≥90%	
DB940	Dual Bandpass Visible + 940nm NIR	VIS 405-650nm, NIR 925-965nm	250nm, 50nm	≥90%	

Due to continuous product improvement, specifications are subject to change without notice.

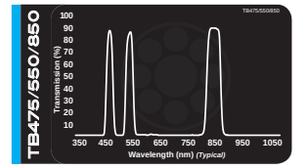
› TRIPLE BANDPASS FILTERS

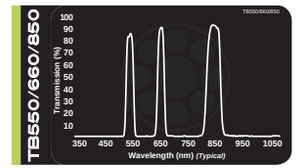
Designed for use with converted consumer cameras and unmanned aerial vehicles. They allow one camera to gather data from three discrete, narrow wavelength bands, creating an affordable, lightweight alternative to aerial surveying applications otherwise requiring three or more cameras or sensors.

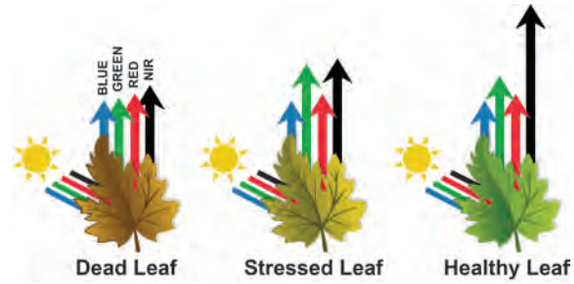
- Pass red or blue visible light, while simultaneously passing green and NIR light
- Ideal when working with indices such as CV, NG and ENDVI to monitor crop health
- Recommended for installation behind the camera lens, requiring exceptional surface quality; 10/5 scratch/dig

MOUNT & SIZE OPTIONS: Offered in various standard threaded mounts and custom mounts or sizes cut to fit the front or back of any lens, or the front of a camera sensor. Standard material thicknesses include 0.5mm, 1.1mm and 2.0mm.

APPLICATIONS: Triple Bandpass Filters are used for NDVI-related aerial drone inspection and can provide much more detailed information than traditional single or Dual Bandpass Filters. Triple Bandpass Filters can help gather data used to analyze plant stress, soil type or topography and can also be used for calculating Enhanced Normalized Difference Vegetation Index (ENDVI), Chlorophyll Vegetation Index (CVI), Normalized Green (NG), and other agricultural health indices.







Plants reflect light at different levels based on their health. A healthy leaf absorbs blue and red light for photosynthesis, while it reflects some green light and strongly reflects (near-infrared) NIR light. A dead leaf reflects similar amounts of red, blue and green light, while also reflecting some NIR light—but not nearly as much as a healthy plant.

Part #	Description	Useful Range	FWHM (nominal)	Peak Transmission
TB475/550/850	Triple Bandpass Blue + Green + 850nm NIR	VIS 468-483nm VIS 543-558nm NIR 835-865nm	20nm 20nm 45nm	≥85%
TB550/660/850	Triple Bandpass Green + Red + 850nm NIR	VIS 543-558nm VIS 653-668nm NIR 835-865nm	20nm 20nm 45nm	≥85%

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A NECESSITY,
NOT AN ACCESSORY.

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