



SHORTPASS/NEAR-IR CUT FILTERS



Shortpass filters are useful for improving contrast, resolution and separating colors in black and white or color applications.

MidOpt Shortpass Filters are divided into two series:

SP Series – VIS Pass

- Designed to have a sharp transition between shorter wavelengths (which are passed) and longer wavelengths (which are blocked)
- Improve contrast and resolution
- Separate colors in black/white or color applications

SP Series – NIR Block/VIS Pass

- Block IR light for accurate color rendition in digital cameras
- Commonly placed over the camera's image sensor

Shortpass Filters transmit wavelengths shorter than the specified cut-off wavelength while blocking longer wavelengths. The best example of this is the infrared blocking filter that is typically found in a color camera. In order to achieve accurate color rendition, this filter blocks longer wavelength infrared light and passes shorter wavelength visible light.

FEATURES

- For VIS/Near-IR wavelengths
- Pass shorter wavelengths and block longer wavelengths
- Improve contrast and resolution

MOUNT & SIZE OPTIONS

- Threaded Mount, C/CS Mount, Slip Mount, Unmounted
- Threaded Mount Sizes: M13.25-M105

VISIBLE IMAGING

Shortpass filters usually transition sharply from shorter wavelength transmission to reflecting longer wavelengths of light

INFRARED IMAGING

Several Shortpass filter types are offered which block varying amounts of visible and near-infrared light above and below 700nm. Choosing the best filter for any application is often based on the spectral characteristics of the camera sensor.

Part #	Description	Useful Range	Cut-off WL 50% T	Tolerance	Minimum Peak Transmission	Surface Quality
SP SERIES — VIS PASS						
SP510	Blue Shortpass	340-500nm	510nm	+/- 10nm	90%	40/20
SP570	Blue-Green Shortpass	410-560nm	570nm	+/- 10nm	90%	40/20
SP585	Cyan Shortpass	395-575nm	585nm	+/- 10nm	90%	40/20
NF550	Magenta Dichroic (Green Block)	395-475nm, 605-700nm	480 / 590nm (cut-off / cut-on)	+/- 10nm	90%	40/20
SP SERIES — NEAR-IR BLOCK						
SP625	Blue-Orange Shortpass	425-620nm	625nm	+/- 10nm	90%	40/20
SP645	Near-IR/Mid-Red Dichroic Block	400-640nm	645nm	+/- 10nm	90%	40/20
SP650	Near-IR/Mid-Red Dichroic Block	400-640nm	650nm	+/- 10nm	90%	40/20
SP675	Near-IR/Deep Red Dichroic Block	420-660nm	675nm	+/- 10nm	90%	40/20
SP700	Near-IR/UV Block-Visible Shortpass	410-690nm	400 / 700nm (cut-on / cut-off)	+/- 10nm	90%	40/20
SP701	Extended Hot Mirror / Reflects up to 1550nm	410-690nm	400 / 705nm (cut-on / cut-off)	+/- 10nm	85%	40/20
SP705	Near-IR/Deep Red Absorp. Block	370-630nm	705nm	+/- 10nm	88%	40/20
SP730	Near-IR/Colorless Dichroic Block	400-710nm	730nm	+/- 10nm	90%	40/20
SP785	Modified Near-IR Dichroic Block	425-770nm	785nm	+/- 10nm	90%	40/20

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

