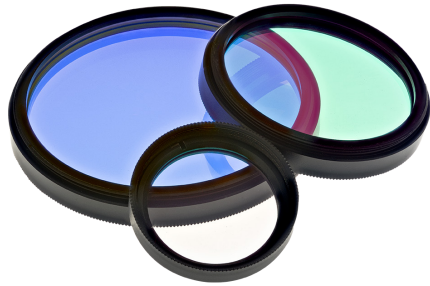


# SHORTPASS/NEAR-IR CUT FILTERS



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

### DEFINITION

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

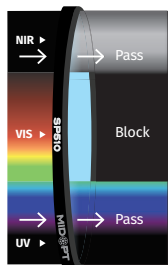
Shortpass filters usually transition sharply from shorter wavelength transmission to reflecting longer wavelengths of light

## INFRARED IMAGING

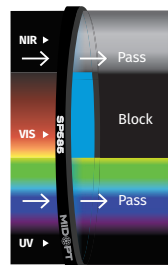
Several Shortpass filter types are offered which block varying amounts of visible and near-infrared light above and below 700nm. Choosing the best filter for any application is often based on the spectral characteristics of the camera sensor.

Part #	Description	Useful Range	Cut-off WL 50% T	Tolerance	Minimum Peak Transmission	Surface Quality
<b>SP SERIES — VIS PASS</b>						
SP510	Blue Shortpass	340-500nm	510nm	+/- 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
<b>SP SERIES — NEAR-IR BLOCK</b>						
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
SP675	Near-IR/Deep Red Dichroic Block	420-660nm	675nm	+/- 10nm	90%	40/20
SP700	Near-IR/UV Block-Visible Bandpass	410-690nm	400 / 700nm (cut-on / cut-off)	+/- 10nm	90%	40/20
SP701	Extended Hot Mirror / Reflects up to 1550nm	410-690nm	400 / 700nm (cut-on / cut-off)	+/- 10nm	85%	40/20
SP705	Near-IR/Deep Red Absorp. Block	370-630nm	705nm	+/- 10nm	90%	40/20
SP730	Near-IR/Colorless Dichroic Block	400-720nm	730nm	+/- 10nm	90%	40/20
SP785	Modified Near-IR Dichroic Block	425-770nm	785nm	+/- 10nm	90%	40/20

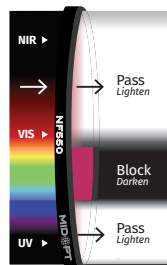
\*Due to continuous product improvement, specifications are subject to change without notice.



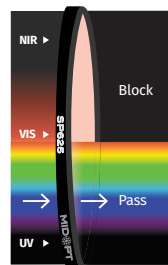
SP510



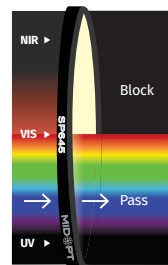
SP585



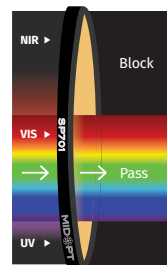
NF550



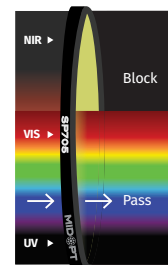
SP625



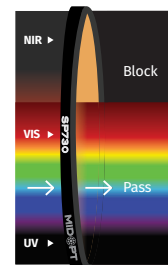
SP645



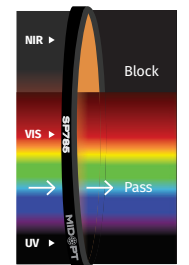
SP700



SP705



SP730



SP785