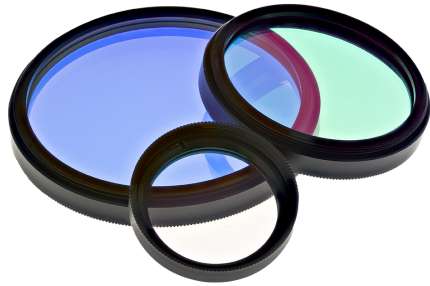


SHORTPASS/NEAR-IR CUT FILTERS



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 |
|----------------------------------|---|-------------------------|-----------------------------------|-----------|---------------------------|-----------------|
| SP SERIES — VIS PASS | | | | | | |
| 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 |
| 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 |
| 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.

