iVu Series Filter Kit

For use with the iVu Series TG Image Sensor

This document describes how to install red, blue, green, or infrared filters in the iVu Series sensor.

Models

Model	Description
FLTMR	Red filter kit
FLTMR-660	Dark red filter kit
FLTMI	Infrared filter kit
FLTMB	Blue filter kit
FLTMG	Green filter kit

Installing a Filter

To install a filter on the iVu Series sensor with Micro Lens, use the illustration as a guide and follow the steps listed below.

CAUTION: Failure to follow these instructions can cause damage to your iVu Series sensor.

CAUTION: Avoid the damage that electrostatic discharge (ESD) can cause to the sensor. Always use a proven method for preventing electrostatic discharge when installing a lens or attaching a cable.

Micro Lens Models

A	Lens
B	Focusing Window
C	Locking Clip
D	Locking Screw
E	Filter Cap
F	Filter

1. Use the 1/16" hex key to remove the Focusing Window locking screw (D).

NOTE: The Locking Clip (C) inserts in a groove near the top of the Focusing Window (B). When removing the window, the Locking Clip will be loose. Be careful not to lose the clip while removing the window.

2. Unscrew the Focusing Window by turning it clockwise approximately 5 complete turns or until the Focusing Window disengages from the light/lens assembly.

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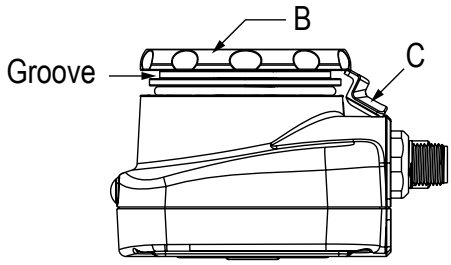
NOTE: The light/lens assembly may include an integrated ring light or a blank disk if an integrated ring light is not used. Be careful that the light/lens assembly does not pull out when removing the Focusing Window. Give a slight tug on the Focusing Window when you think you've unscrewed it far enough. If the lens assembly moves with the window, continue to rotate the window clockwise until the lens assembly does not move.

3. Set the Focusing Window aside. Be careful not to get any debris on the window's O-ring.
4. If present, remove the protective covering on the filter.
5. Place the filter into the Filter Cap and press the cap onto the lens.
6. After the filter is installed, place the Focusing Window back into the housing while inserting the Locking Clip into the groove as shown.



7. Press the Focusing Window onto the housing to make sure that it seats correctly (that is, there is no gap between the window and housing). Rotate the window counter-clockwise at least two turns.
8. Replace the locking tab screw but do not tighten until you have set up and focused the sensor again.

Filter Wavelengths

FLTMR Red Filter

The FLTMR Red Filter improves image quality by helping to reduce unwanted ambient light. It passes red light while blocking infrared and other visible light.

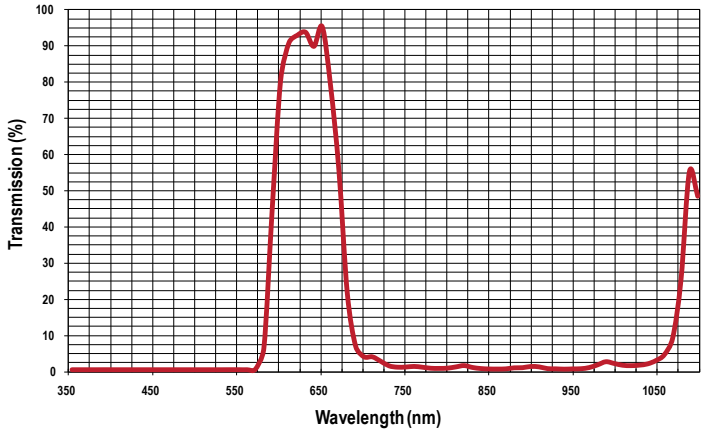


Figure 1. Percent transmission of light wavelengths through the FLTMR red filter

FLTMR-660 Dark Red Filter

The FLTMR-660 Dark Red Filter improves image quality by helping to reduce unwanted ambient light. It passes red (650 to 680 nm) and laser diode lighting while blocking infrared and other visible light.

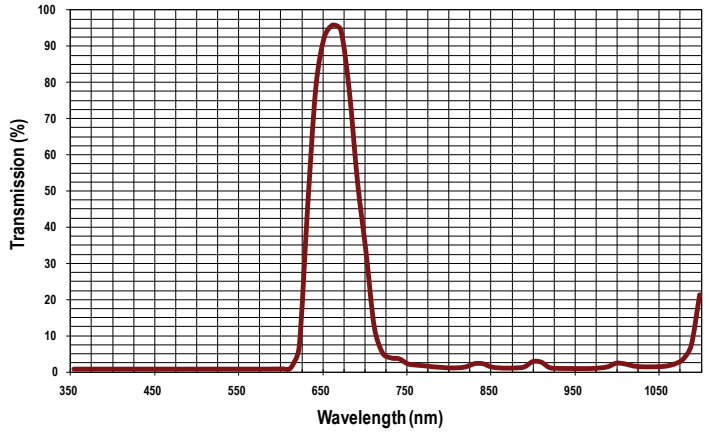


Figure 2. Percent transmission of light wavelengths through the FLTMR-660 red filter

FLTMI Infrared Filter

The FLTMI Infrared Filter blocks visible light and passes infrared light. Use the FLTMI filter only with infrared light sources.

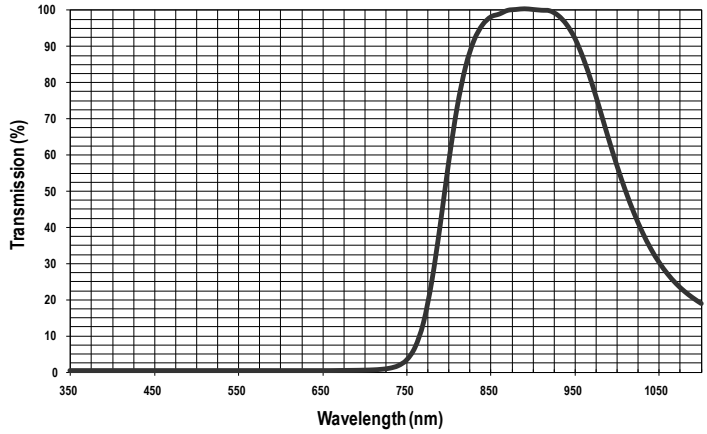


Figure 3. Percent Transmission of light wavelengths through FLTMI infrared filter

FLTMB Blue Filter

The FLTMB Blue Filter improves image quality by helping to reduce unwanted ambient light. It passes blue light while blocking infrared and other visible light.

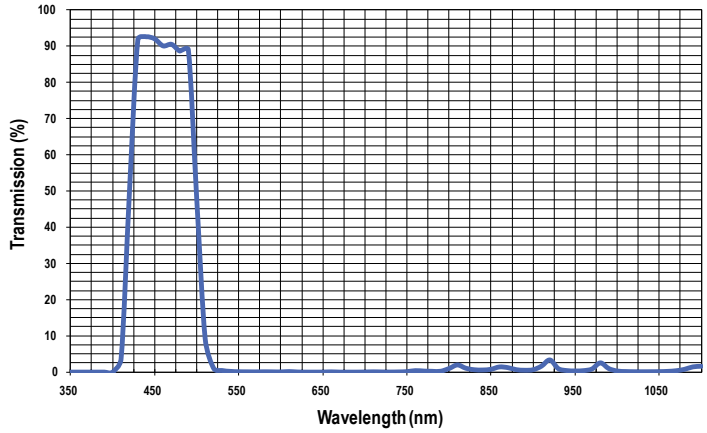


Figure 4. Percent transmission of light wavelengths through the FLTMB blue filter

FLTMG Green Filter

The FLTMG Green Filter improves image quality by helping to reduce unwanted ambient light. It passes green light while blocking infrared and other visible light.

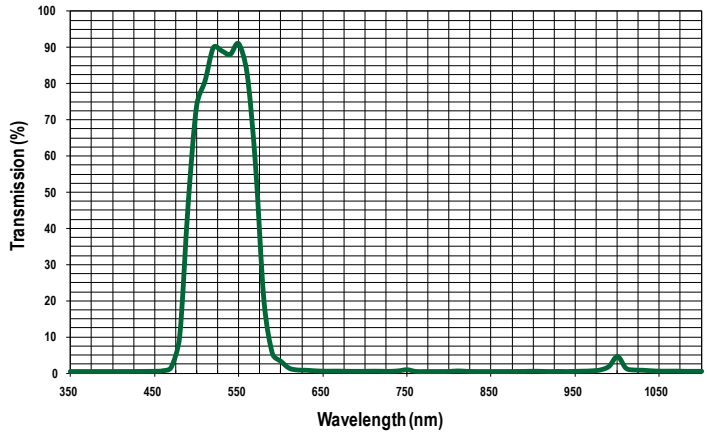


Figure 5. Percent transmission of light wavelengths through the FLTMG green filter

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