

A filter that transmits IR wavelengths and absorbs the UV and Visible range. It is widely used in IR light selection from visible light and applications include infrared alarm systems, night vision systems.

- Transmission limit wavelength selectable at ranges from 760nm to 985nm.
- It is used for a IR sensing camera by adding an IR transmitting filter onto an image sensor.
- The visible and UV range can be blocked and the sensibility get higher by adding it onto an image sensor.



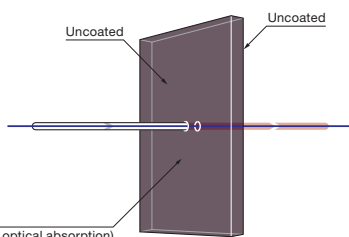
Guide

- ▶ For a reflective type of filter, "cold mirror" we recommend (model CLDM) in our catalog.
- ▶ We can provide similar products to custom specifications which are not mentioned on-line or in our catalog, please contact our Sales Division with your requests.

Attention

- ▶ The absorption wavelength range can not be used with high power laser and high energy pulsed laser.
- ▶ There is no coating on both surfaces of the filter and there is a transmission loss of about 10%.

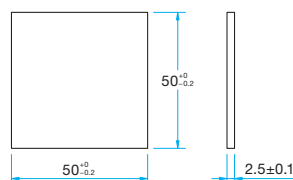
Schematic



Glass
(containing a substance of optical absorption)

Outline Drawing

(in mm)



760 – 985nm

Part Number	Transition wavelength λ_T [nm]	Transition Interval $\Delta\lambda$ [nm]	Color tone
ITF-50S-76IR	760±10	<60	Black
ITF-50S-80IR	800±10	<60	Black
ITF-50S-83IR	830±10	<60	Black
ITF-50S-85IR	850±10	<60	Black
ITF-50S-100RM	985±10	<222	Black

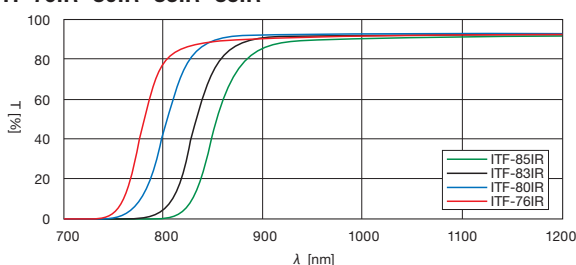
830nm

Part Number	Transition wavelength λ_T [nm]	Transition Interval $\Delta\lambda$ [nm]	Center wavelength [nm]	Transmittance for center wavelength [%]	Absorption limit short wavelength [nm]	Transmittance at short absorption limit [%]	Absorption limit long wavelength [nm]	Transmittance at long absorption limit [%]	Color tone
★ITF-50S-83RT	730±10	<40	790±5	85±3	691	<0.1	1225	<0.2	Black

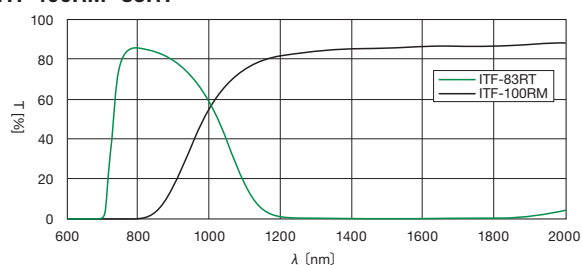
Typical Transmittance Data

T: Transmission

ITF-76IR · 80IR · 83IR · 85IR



ITF-100RM · 83RT



Compatible Optic Mounts

FHS-50 / FH-50

Application Systems

Optics & Optical Coatings

Opto-Mechanics

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Colored Glass Filters

Dielectric Filters

Etalon