

THZ LOW PASS FILTER

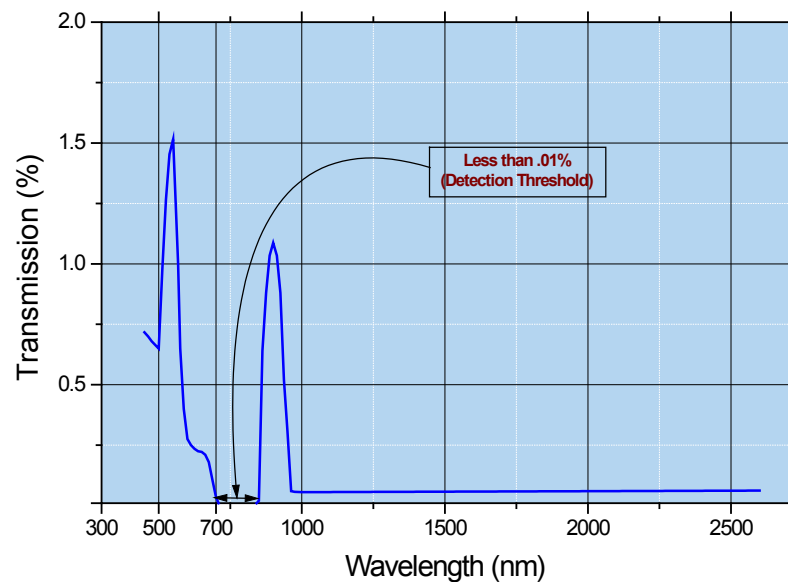
Product description:

Our new terahertz (THz) low pass filter is constructed from a micro-structured material that blocks the visible through mid IR while passing THz beams.

It is an excellent filter for optical THz generation systems such as time domain THz spectroscopy systems. It has optimal characteristics for use in zinc telluride based systems and for typical photo conductive switch systems as well. As can be seen in the figure below, the measured transmission in the 700 to 850 nm range is below .01%. At wavelengths longer than 975 nm the transmission is below .1%. These measurements were done with a laser beam spectrally filtered to the wavelength of interest from a super-continuum white light coherent source.

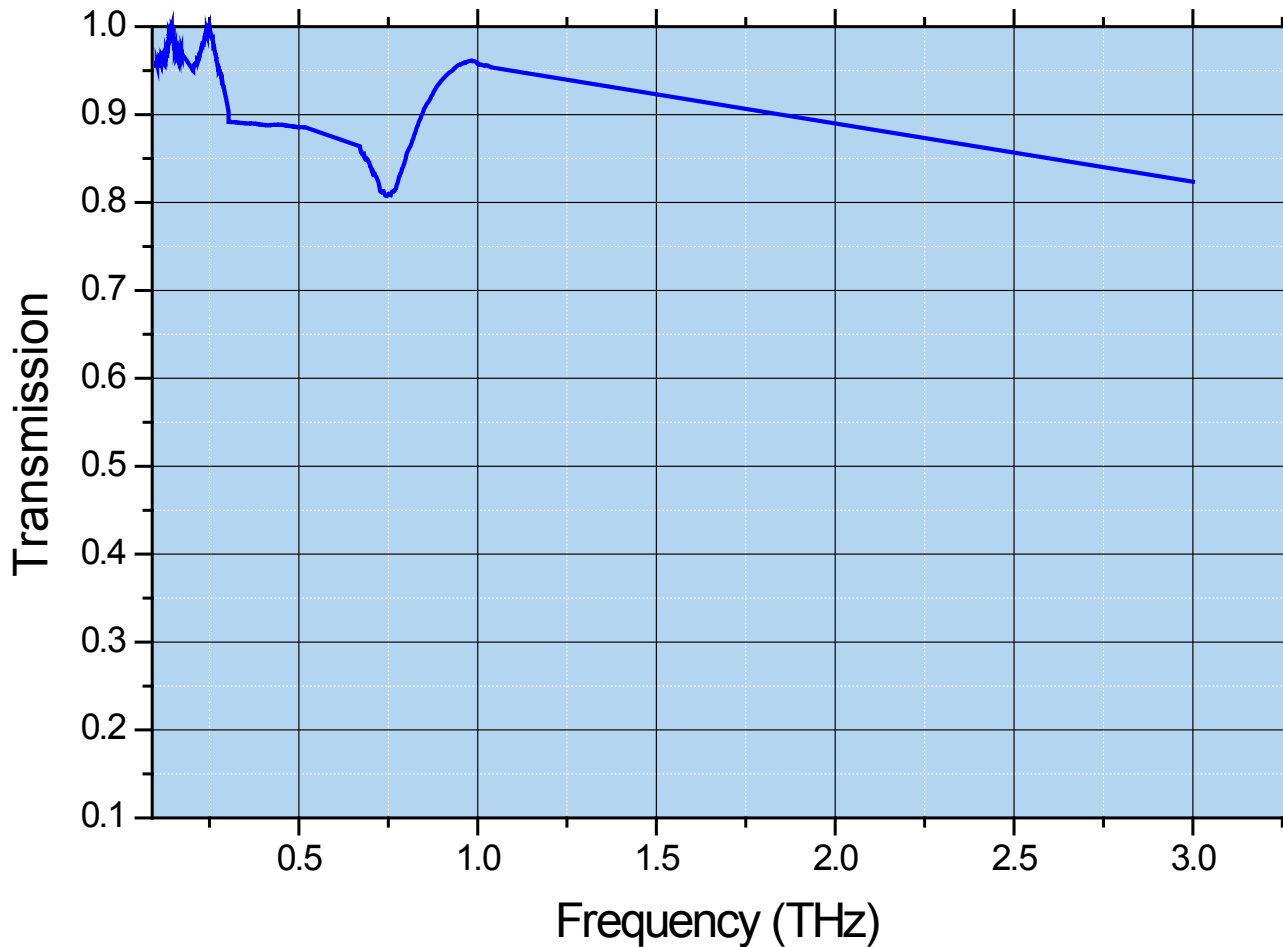


THz Low Pass Filter Visible To Mid IR Transmission Spectrum



The transmission of THz waves is above 80% across the .1 to 3 THz range making this an excellent filter even for broadband THz applications. THz measurements were done up to 1 THz with our compact THz spectrometer (TScan-1000) and with additional optical THz generation for the above 1 THz range. This can be seen in the figure below.

Terahertz Low Pass Filter THz Transmission Spectrum



This filter is sold mounted in a 2" diameter holder as shown in the photo on the opposite page. The clear aperture of the filter is 43 mm.

Pricing information is available on request at sales@mtinstruments.com

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