

WDM OPTICAL FILTER AND GLASS SUBSTRATE FOR USE IN THE WDM OPTICAL FILTER

Abstract

A glass substrate is for use in a WDM optical filter which has an optical multilayer coated on the glass substrate and is formed by glass which has a composition related to the optical multilayer so as to assure stable multiplexing/demultiplexing operation in the optical filter. The glass includes SiO_2 as a glass network-former and has an average linear thermal expansion coefficient between $100 \times 10^{-7}/\text{K}$ and $130 \times 10^{-7}/\text{K}$ within a temperature range between -30°C and $+70^\circ\text{C}$. The glass may include TiO_2 , Al_2O_3 , and R_2O (R: alkali metal element) in addition to SiO_2 and may have a hardness suitable for the optical multilayer.

Figure 5

This Sheet Has Been Replaced

