

ABSTRACT OF THE DISCLOSURE

A dispersion compensation device for compensating chromatic dispersion of optical pulses launched from the exterior is disclosed. The device comprises a waveguide and a photonic crystal part, the waveguide comprising a core part for guiding the optical pulse from an input end to an output end and a clad part consisting of a first clad layer and a second clad layer, the photonic crystal part providing a chromatic dispersion variation of a proper dispersion characteristic to the optical pulses guided through the waveguide, the chromatic dispersion variation having an absolute value of the variation and a positive or negative sign, wherein the photonic crystal part is layered onto the first clad layer, the core part is layered onto the photonic crystal part, and the second clad part is formed so that a portion of which is layered onto the photonic crystal part and a remaining part of which covers the upper surface and side surface of the core part.