Abstract

With the advent of optical CDMA system conventional multiple access techniques such as TDMA and WDMA is losing its interest area of research. This is due to the fact that OCDMA system is more secure and flexible and also provides simplified network management. In this paper the OCDMA simulation model is used to analyze the effect of multiple access interference and wavelength spacing. A detailed analysis of multiple access interference (MAI) which
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causes a severe degradation in the link performance such as BER and Q factor for a temporal OCDMA system is done in this paper. It also reveals that for a good quality of transmission for a temporal OCDMA model shown in this paper, the wavelength spacing should be 0.4 nm.

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