

Abstract

Moustafa Hussein Aly

A simple and high performance soliton/SPM based pulse compression/reshaping unit

In this study, a simple and high performance pulse compression/reshaping unit is designed and evaluated. This unit is soliton based for compression and self-phase modulation (SPM) based for reshaping using a dispersion compensating fiber (DCF). A remarkable 6 % compression ratio (CR) and more than 30 dB improvement in the extinction ratio (ER) are obtained. Compared to related work, a high and flexible performance is achieved.