Abstract

In this paper, a new carrier synchronization loop for high-order QAM signals has been proposed in which a blind source separation algorithm for carrier phase tracking is used as phase estimator in feed-back configuration. When used for large constellation schemes, simulations show that the proposed solution achieves better phase tracking and improves performance of the carrier phase tracking loop in terms of bit error rate versus energy per bit to noise ratio (BER vs Eb/N0) comparing to the descent algorithm and to Decision Directed synchronizer