

Block-windowed burst OFDM: a high-efficiency multicarrier technique

Abstract

A block-windowed burst orthogonal frequency division multiplexing (OFDM) technique which is a multicarrier technique with power spectral density similar to the filtered OFDM approach, since it also employs smoother, non-rectangular windows, is presented. However, it does not need a cyclic prefix, which means the overall power and spectral efficiencies are higher. An appropriate receiver for typical time-dispersive channels, allowing 2 dB of gain relatively conventional OFDM schemes is also presented.

Keywords: Orthogonal frequency division multiplexing (OFDM) Multicarrier technique