

Closed Form Expressions For The Dispersion Constant Of Weerackody-Kassam Algorithm For Blind Equalization

Abrar, S

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King Fahd University of Petroleum & Minerals

<http://www.kfupm.edu.sa>

Summary

Blind equalization (BE) is a technique for adaptive equalization of a communication channel without the aid of the usual training sequence. Stochastic gradient based BE algorithms equalize the dispersive signals by exploiting the high-order statistics of the transmitted signal using some pre-calculated constants: These constants, usually termed as dispersion constants, contain the information about the size, shape, and energy of the transmitted signal. In this work, closed form expressions are obtained for the dispersion constant used in Weerackody-Kassam hard limited algorithm (WKA) for square and symmetric quadrature amplitude modulation (QAM) signals.

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