

Power-Of-Two Quantization In Decision Feedback Equalization

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Acoustics, Speech and Signal Processing, 2006. ICASSP 2006 Proceedings. 2006
IEEE International conference;Publication Date: 14-19 May 2006;Vol: 4,On
page(s): IV-IV;ISBN: 1-4244-0469-X
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Summary

In this work, we propose and efficient structure for decision feedback equalization (DFE). The proposed structure makes use of the power-of-two quantization concept to completely eliminate the real multiplications in the DFE's update equations. The resulting structure is shown to substantially reduce the complexity of the DFE without any loss of performance. The study includes performance analysis of the proposed method and closed form expressions for the mean square errors

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