

P-boosted Source Followers: A Robust Energy-efficient Bus Driver Technique

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Abstract

This paper describes a PMOS-boosted source follower bus driver technique for robust, full-swing, on-chip busses. 10% performance improvement on a 128-bit L1 cache bus is achieved on a 0.18 μ m production 64-bit processor. A regional clock grid driver scheme with 14% energy reduction is also described.