

Dual Supply Voltage Clocking for 5GHz 130nm Integer Execution Core

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This paper describes dual- V_{cc} clocking on a 1.2V, 5GHz integer execution core fabricated in 130nm CMOS to achieve up to 71% measured clock power (including 15% active leakage) reduction. A write-port style pass-transistor latch and split-output level-converting local clock buffer are described for robust, DC power free low- V_{cc} clock operation.