

Double Boosting Pump, Hybrid Current Sense Amplifier, and Binary Weighted Temperature Sensor Adjustment Schemes for 1.8V 128Mb Mobile DRAMs

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A 1.8V 128Mb SDRAM is implemented for low current mobile applications with a $0.15\mu\text{m}$ technology. The double boosting pump and hybrid current sense amplifier schemes are optimized for the low voltage regime with high pumping efficiency and stable I-to-V gain, respectively. Temperature sensor together with the binary weighted adjustment technique allows a very accurate implementation without any loss in productivity.