Highly Manufacturable Sub-100nm DRAM
Integrated with Full Functionality

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Sub-100nm DRAM is successfully fabricated for the first time with several key technologies, including W/WxN-poly gate, bitline structure having low parasitic capacitance, Ru/Ta2O5/poly-Si capacitor and advanced CVD-Al contact processes. Fully functional working device is obtained with promising cell performance. Each technology also shows its extendibility as a manufacturable module process for further scaled DRAM.