

Highly Manufacturable and Reliable 32Mb FRAM Technology
with Novel BC and Capacitor Cleaning Process

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Highly manufacturable and reliable 32Mb FRAM was fabricated by developing ultrasonic treatment, novel BC technology, and special cleaning technology to improve ferroelectric film quality and eliminate weak bit cells. Therefore, a large sensing window was achieved for the 1T1C 32Mb FRAM after baking test at 150 °C for 100 hrs, which finally demonstrates the feasibility of mega-bit FRAM products as stand-alone applications.