

A Ferroelectric Analog Associative Memory Technology Employing Hetero-gate Floating-Gate-MOS Structure

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An analog associative memory technology has been developed using ferroelectric materials as a means of storing template vector information. In order to accommodate the associative memory cell to a wide voltage range of the input signal, a hetero-gate floating-gate-MOS structure has been introduced. The concept has been experimentally verified using fabricated test devices and circuits.