The Flexible Processor - Dynamically Reconfigurable Logic Array for Personal-use Emulation System

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A dynamically reconfigurable logic array, i.e., the Flexible Processor, suitable for single chip emulation system is developed. It demonstrates the sequential execution of sub-circuits divided from original circuit, by newly developed Temporal Communication Module (TCM). In order to accelerate emulation speed, a logic element, which can reduce configuration data by 30% as compared to conventional Look-Up-Table, is implemented. The chip (3.9x3.9mm^2) fabricated with 0.6μm CMOS technology operates at 33MHz with 5.0V power supply.