The DN5000k10 is a complete logic emulation system that enables ASIC or IP designers to prototype logic and memory designs for a fraction of the cost of other solutions. The DN5000k10 is also applicable to algorithmic acceleration and reconfigurable computing. The DN5000k10 can be hosted in a 32/64 bit PCI/PCI-X slot, or can be used standalone. A single DN5000k10 configured with five EP1S80s can emulate up to 3–4 million gates of logic as measured by LSI (not including memories, multipliers, and DSP functions). High I/O count, 1508-pin, flip-chip BGA packages are employed providing for abundant, fixed interconnect between the FPGAs. A total of 485 test pins are provided on the top of the PWB for logic analyzer-based debugging, or for pattern generator stimulus. Custom daughter cards can be mounted to these connectors as a means of interfacing the DN5000k10 to application-specific circuits. A reference 32-bit PCI target design and test bench is provided (in Verilog/VHDL) at no additional cost.
Easy Configuration Via SmartMedia

The configuration bit files for the FPGAs are copied onto a SmartMedia FLASH card (provided) and an on-board ATmega128L microprocessor controls the FPGA configuration process. An RS232 port provides detailed information regarding the configuration process. Configuration files are checked to ensure proper configuration of the FPGAs. Quick FPGA configuration occurs at the fastest possible parallel frequency. Eight LEDs provide instant status and operational feedback. Two of these LEDs are connected to the CPLD and are user-configurable.