**Features**

- **PCI Express (PCIe) PWB (1-lane or 4-lane)**
  - Up to 6 VirtexII-Pro in FF1704
  - 2vpm70-5,-6,-7 or 2vpm100-5,-6
  - 2 DDRs connected to FPGAs B, C, D, E, & F
- **10 DDR SDRAM’s (with 2vp100)**
- **DN3k10SD/ DN3k10SD_mictor** for awesome signal integrity
- **2 - 200-pin high-speed expansion connectors**
  - Custom daughter cards
  - Standard Daughter cards:
    - Camera Link/LVDS
    - DNPMC104
    - DN3k10SD/ DN3k10SD_mictor
- **444 18-kbit memory blocks per FPGA (2vp100)**
- **Embedded Memory in FPGA**s
- **Up to 6 VirtexII-Pro in FF1704**
- **PCI Express (PCIe) PWB (1-lane or 4-lane)**
- **USB utilities**
- **Board test(s)**
- **ChipScope, ChipScope PRO**
- **- Fastest possible configuration using SelectMap**
- **- Sanity checking programs for bit files simplify the configuration process**
- **- 2 user-selectable socketed oscillators**
- **- PCie Clock**
- **- 2 CY7B993/4 RoboClockII PLL’s for the best clock distribution**
- **Boatloads of reference stuff included (FREE)**
- **- PowerPC ‘Hello World’**
  - UART’s
  - USB utilities
  - Board test(s)
  - Windows XP, ME, 2000, 98, NT, LINUX, Solaris
- **- Full support for embedded logic analyzers via JTAG interface**
  - - ChipScope, ChipScope PRO
  - - Identify™ from Synplicity

---

**VirtexII™-Pro Based ASIC Prototyping Engine (PCIe)**

**Product Brief**

June 2005

Ver. 1.2

**DN6000K10PCIe-1 / DN6000K10PCIe-4**

The Dini Group
Description

The DN6000K10PCIe is a complete logic emulation system that enables ASIC or IP designers to prototype logic, memory, and embedded systems designs for a fraction of the cost of other solutions. The DN6000K10PCIe is hosted in a 1 or 4-lane PCI Express slot (PCIe) and can be used standalone. This product supports up to 6 FPGAs and each position can be populated by either a 2vp70 or 2vp100. A DN6000K10PCIe stuffed with 6 2vp100s can emulate up to 4.5+ million gates of logic as measured by LSI. In addition, each 2vp100 VirtexII Pro FPGA contains two 300MHz+ 405 PowerPC microprocessors, 444 18x18 multipliers, and 7.992 Mbytes of block RAM memory. Eight serial RocketI/O ports are provided on the corners of the circuit board and can support a variety of serial communication protocols at speeds up to 3.125 GB/s (with -6, -7 speed grade). The DN6000K10PCIe is designed for performance. All external memories run at a frequency of at least 133MHz and the FPGA internal speed is limited only by the logic within. The FPGAs are high I/O count, 1704-pin BGA packages, allowing for maximum chip to chip interconnect. Two 200-pin expansion connectors provide for expansion capability.

Easy Configuration Via SmartMedia

The configuration bit file for the FPGA is copied onto a 32/64/128-megabyte SmartMedia FLASH card (provided) and an on-board microprocessor controls the FPGA configuration process. An RS232 port provides detailed information regarding the configuration process, completely bypassing time-consuming debugging of the configuration process. FPGA configuration occurs at close to the fastest possible parallel frequency -- 48MHz. Eight LED's provide instant status and operational feedback. Two of these LED's are connected to the CPLD and can be user-configured.

Included Accessories:

For technical applications and sales support, call 858.454.3419