



# *FIREBIRD™ for PCI*

## *High Speed Digital Signal Processing Board*

*Data Sheet*  
*Doc # 12733-0000 Rev 1.10*



## **Virtex™ E Based Processing Board**



FIREBIRD™ is part of the WILDSTAR™ Product Family, continuing our tradition of supplying COTS Reconfigurable Computing Boards, based on the Xilinx Virtex™ E FPGAs, with a Balanced Architecture for Processing Speed: FPGA Processor Size and Speed, High Memory Bandwidth, and Flexible I/O Options. The FIREBIRD™ Architecture is also available in PMC format.

### **Features**

- 1 Virtex™ E FPGA Processing Element
  - XCV1000E to XCV2000E
- 9 to 36 MBytes of Synchronous ZBT SRAM in 5 Memory Banks
- PCI Bus - Rev 2.2 Compliant
  - 5V Board - 32/64 Bit, 33 MHz, 5V or 3.3V Slot
  - 3.3V Board - 32/64 Bit, 33/66MHz, 3.3V Slot
  - Automatic 32/64 Bit PCI Bus Recognition
- Host Software: NT 4.0 and 2000, Linux, Solaris
  - API and Device Drivers
- Full CoreFire™ Board support Package, for Easy Application Programming
- VHDL Model Provided
- Accepts COTS Highspeed WILDSTAR™ I/O Cards - WILDSTAR™ Data Port (WSDP™), FPDP, Myrinet™, 80 MHz A/D, 1.5 GHz A/D, FibreChannel 2, with more to follow

### **Benefits**

- 1 to 2 Million System Gates
- Virtex™ E FPGA is larger, faster, and uses less power than Virtex™ FPGA
- 150 MHz Board, FPGA and Memory Speed
- 5.4 GBytes/Sec Memory Band Width
- I/O Band Width
  - 66 MHz PCI - Up to Theoretical Maximum of 528 MBytes/Sec with 64 Bits
  - 33 MHz PCI - 120 MBytes/Sec with 32 Bits
  - FIREBIRD™ PE to I/O Board - 3 GBytes/Sec
- Ability to Program from Flash on Power Up
- Standard WILD™ Development Environment
- Supports Internet Reconfiguration
- Commercial Off The Shelf Product (COTS)
- Training Classes and Application Support



**Annapolis Micro Systems, Inc.**

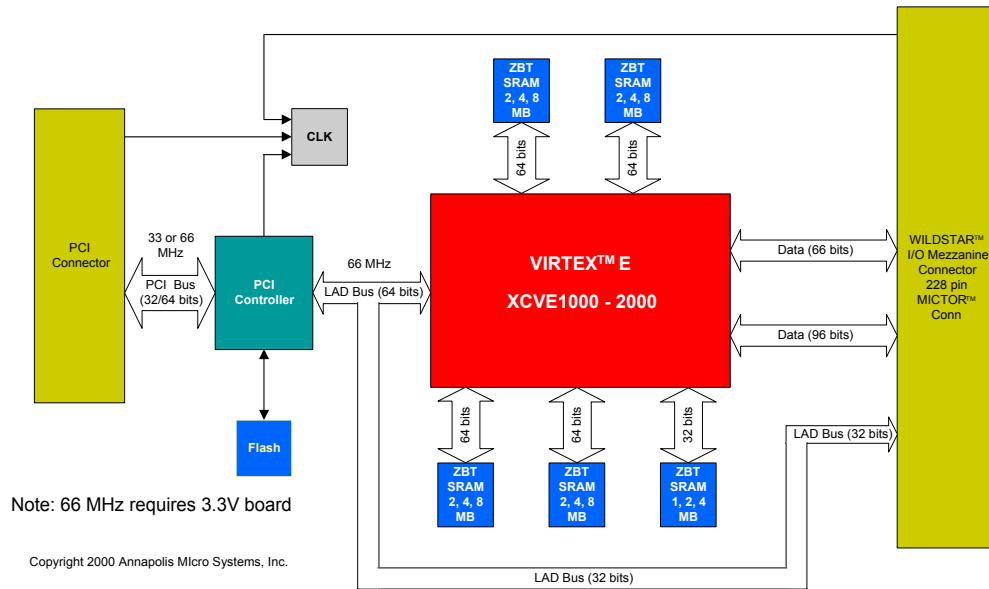


Made in the USA

190 Admiral Cochrane Drive, Suite 130, Annapolis, MD 21401-7386

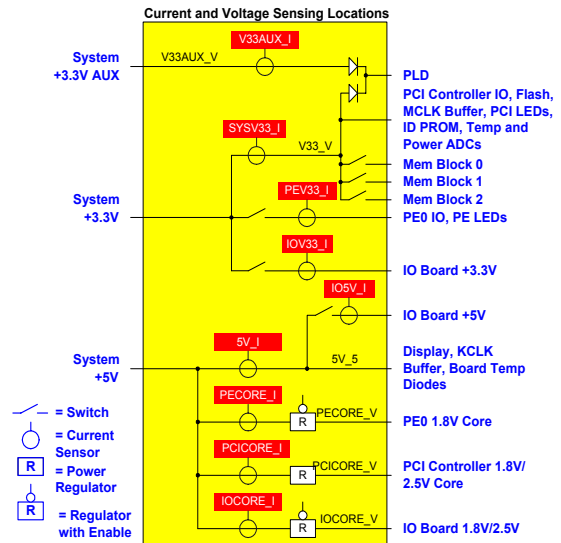
Phone: (410) 841-2514 FAX: (410) 841-2518 Email: [wfinfo@annapmicro.com](mailto:wfinfo@annapmicro.com) Web: <http://www.annapmicro.com>

## FIREBIRD™ - PCI Version (5V or 3.3V)



### Power Aware Application Features

- Voltage, Current, and Temperature Monitoring
- Measure and Control Power Usage through Operating System or Application
  - Main Board Processing Element
  - I/O Connector
  - Memory (all 5 Banks, in 3 Blocks)
- Supports PCI Bus Power Management Interface Specification - Rev 1.1
  - Configure FIREBIRD™ to Conserve Power Under Low Power Conditions
  - Can Program Processing Element from Flash on Resumption of Full Power



### FIREBIRD™ PCI Processor Card Part Number Example and Specifications

WSFB/XCVE1000-6P/9-5V	FIREBIRD™ for PCI, XCVE1000-6, 9 MBytes Memory, 33MHz 5V and/or 3.3V PCI Bus
Physical Dimensions: Length: 312.00 mm / 12.283 in. Width: 106.68 mm / 4.200 in. Thickness: 1.57 mm / .062 in. Weight: TBD	Operating Range: Temperature: 0 to 70 degrees C Environmental Specifications: Power (3.3 Volts): TBD Power (5.0 Volts): TBD
Safety: All Printed Wiring Boards (PWB) are Manufactured with a Flammability Rating of 94V-0 by a UL Recognized Manufacturer.	Electromagnetic Compatibility (EMC): Intended for Use in Systems Meeting the Following Regulations: USA: FCC Part 15, Subpart B, Class B : Canada: ICES-003, Class B

Copyright Annapolis Micro Systems, Inc. 2000-3. WILDSTAR™, CoreFire™ and FIREBIRD™ are trademarks of Annapolis Micro Systems, Inc. Xilinx™ and Virtex™ are trademarks of Xilinx, Inc. All other trademarked names are owned by their respective owners. Data subject to change without notice.



**Annapolis Micro Systems, Inc.**

190 Admiral Cochrane Drive, Suite 130, Annapolis, MD 21401-7386

Phone: (410) 841-2514 FAX: (410) 841-2518 Email: [wfinfo@annapmicro.com](mailto:wfinfo@annapmicro.com) Web: <http://www.annapmicro.com>