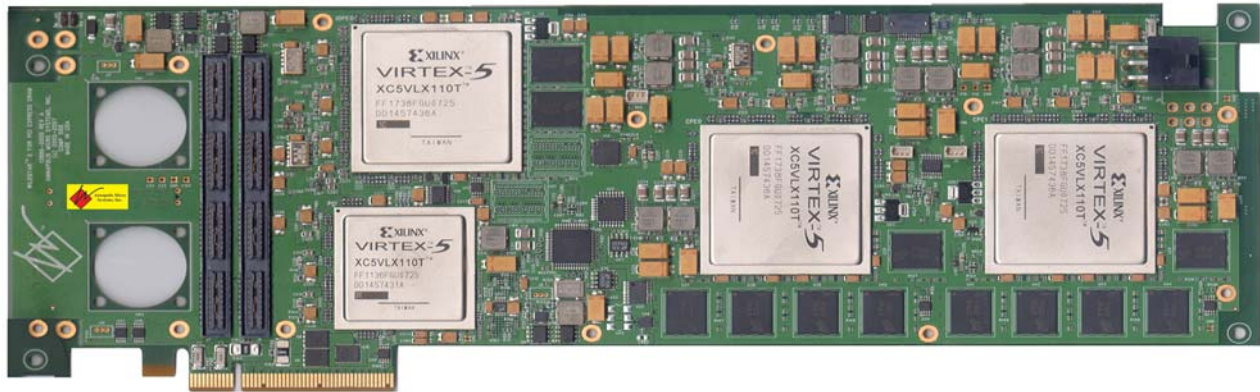




Data Sheet
Doc # 14045-0000 Rev 1.1

Annapolis Micro Systems, Inc. WILDSTAR™ 5 for PCI-Express

Virtex™ 5 Based Processor Board



BENEFITS

- Reduce Risk With Our 12th Generation of COTS (Commercial Off the Shelf) FPGA Based Processing Boards
- Save Time and Effort - Develop Your Application Very Quickly and Easily with CoreFire™
- CoreFire™ Provides Proven, Reusable, High Performance IP Modules, Including Some of the World's Fastest FFTs and Filters
- Standardize and Control Your Team's Development
- Achieve World Class Performance
- WILD™ Solutions Outperform the Competition
- WILDSTAR™ 5 for PCI-E with 1 I/O Card Fits in Single PCI Slot - 2nd I/O Card Uses 2nd Slot
- Accepts 1 or 2 COTS Highspeed WILDSTAR™ 4 / 5 I/O Cards
- Training Classes and Application Support
- Also available in Industrial Temperature Grades
- Integrated Heat Sink with Fans

FEATURES

- Up to 3 Virtex™ 5 FPGA Processing Elements
 - XC5VLX110T, LX220T, LX330T, SX240T, FX100T, FX130T, FX200T
- Up to 7 GBytes DDRII DRAM in 12 Memory Banks per Board or
- Up to 2 GBytes DDRII DRAM in 2 Memory Banks & Up to 160 MB DDRII or QDRII SRAM in 10 Banks per Board or
- Up to 2 GBytes DDRII DRAM in 2 Memory Banks & Up to 1.4GB Common or Separate RLDRAM in 10 Banks per Board
- Programmable FLASH for each FPGA to Store FPGA Images
- 8X PCI Express Bus
- Supports PCI Express Standard External Power Connector
- High Speed DMA Multi-Channel PCI Controller
- Host Software : Windows, Linux - API & Device Drivers
- Full CoreFire™ Board Support Package for Fast, Easy Application Development
- WILD™ Model including Source Code for Hardware



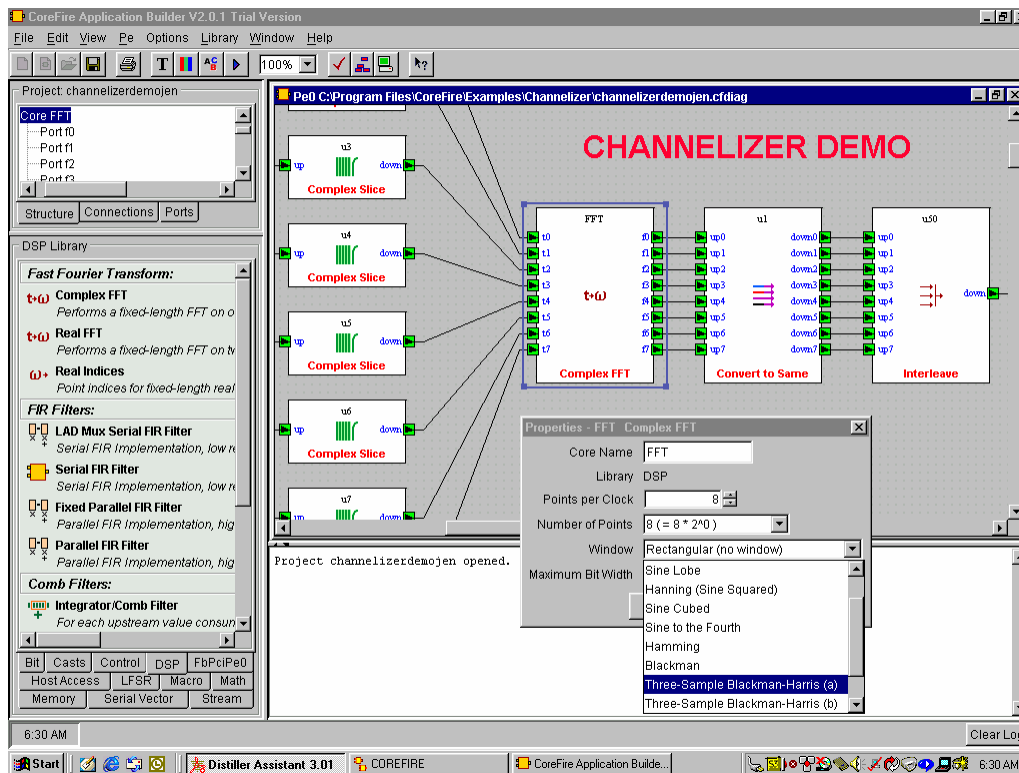
Annapolis Micro Systems, Inc.



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

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

CoreFire™ Ready – Create and Run Designs on Day 1!



All WILDSTAR™ 4 / 5 boards are fully compatible with the CoreFire™ Design Suite, an FPGA design application tool developed by Annapolis Micro Systems, Inc.

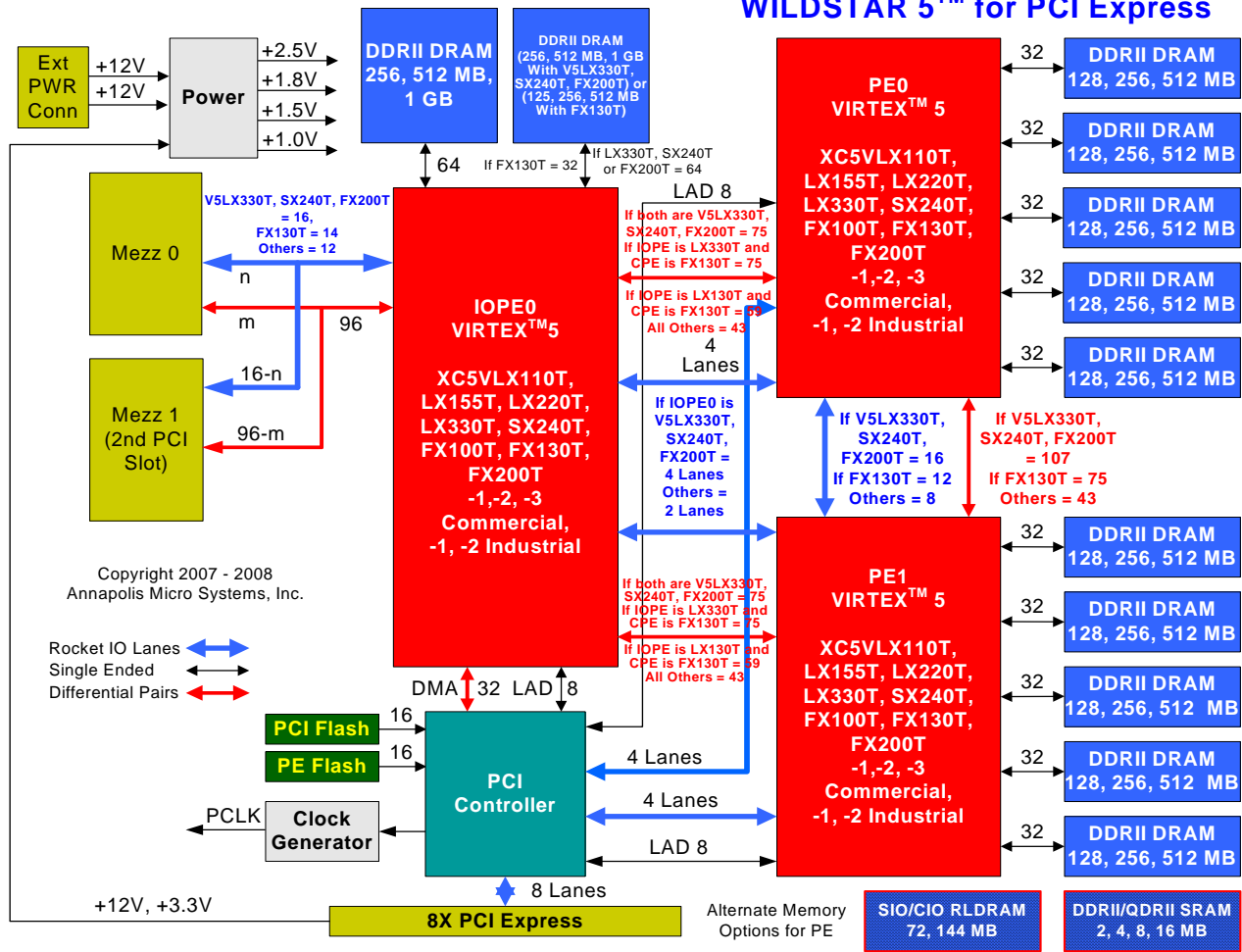
The CoreFire™ Design Suite is a Graphical User Interface (GUI) tool using Data Flow Methodology which combines Annapolis's extensive systems and application development experience with their large collection of tightly crafted high performance Intellectual Property (IP) Cores, the automatic generation of the logic necessary to control the interfaces between the modules, and Hardware in the Loop Debugging to provide an exceedingly convenient and fast methodology for developing FPGA application files. With CoreFire™ it is possible to completely implement an algorithm on our WILD™ Family of Field Programmable Gate Array (FPGA) boards without ever descending to the lower level hardware details, saving months of development time and money.

FPGA designers who have struggled for months to develop applications using VHDL are finding that CoreFire™ enables them to achieve better FPGA performance in a fraction of the time.

Combined with the Annapolis COTS WILDSTAR™ 4 / 5 FPGA boards with many million gates in each slot, using Xilinx Virtex™ 4 and Virtex™ 5, the power of CoreFire™ can automatically and quickly provide correct, reconfigurable and reliable FPGA designs for these boards. Real world application experience has shown CoreFire™ to be the critical tool that enables the timely development of highly specialized FPGA designs, ensuring each program's success.

Gone are the days when an Application Developer had to learn hardware design methodologies, such as VHDL, Verilog, or low level schematic entry. CoreFire™'s "drag and drop" approach keeps the User operating on the conceptual, data flow level of his problem throughout the whole development process so he can concentrate on solving problems, not on designing hardware.

WILDSTAR 5™ for PCI Express

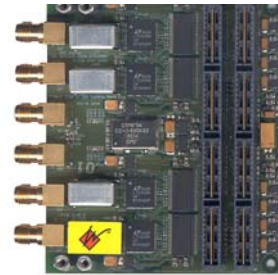


Sample I/O Daughter Cards for WILDSTAR™ 4 / 5 Family



Universal 3 Gbit I/O

Rocket I/O, 10 G Ethernet, Infiniband



Quad 130 MHz A/D I/O

Annapolis is famous for the high quality of our products
and for our unparalleled dedication
to ensuring that the customers' applications succeed.

We offer training classes and
exceptional special application development support

Thermal and Power Management

To ensure safe and reliable processing,
WILDSTAR™ 5 boards come equipped with a Proactive Thermal Management System.

- WILDSTAR™ 5 boards include combination heat sink/fans
- Sensors across the board monitor current, voltage and temperature, with automatic warning/shutdown capability to prevent excessive heat buildup
- Individual Power Supply and Management for each I/O Slot and each FPGA Processing Element
- All monitoring and control through host software via API
- Replaceable Fans have a Monitor Sense Line

WILDSTAR™ 5 for PCI Express Family Board Part Numbers

Sample Part Number: WS5/XC5LX110T-1E/XC5LX110T-1/5.12GD/1G

WS5 or WS5	WILDSTAR 5 Board
IND/	Industrial Temperature Range
XC5xxxx	Xilinx Virtex 5 FPGA Computational Processing Element: LX110T, LX220T, LX330T, SX240T, FX100T, FX130T or FX200T
-x	Speed Grade: Virtex 5 -1, -2, -3, -1I, -2I
E/	PCI Express
XC5xxxx	Xilinx Virtex 5 FPGA Computational I/O Element: LX110T, LX220T, LX330T, SX240T, FX100T, FX130T, FX200T.
-x/	Speed Grade: Virtex 5 -1, -2, -3, -1I, -2I
xxxxxx/	0, 1.3GD, 2.6GD, 5.1GD, 20D2, 40D2, 80D2, 160D2, 20Q2, 40Q2, 80Q2, 160Q2, 720CR, 1.4GCR, 720SR, 1.4GSR where D = DDRII DRAM, D2 = DDRII SRAM, Q2 = QDRII SRAM, CR = Common RLD RAM, SR = Separate RLD RAM
xxxx	0, 256M, 364M, 512M, 768M, 1G, 1.5G, 2G DDRII DRAM

<p>Physical Dimensions: Length: TBD Width: TBD Thickness: TBD Weight: TBD Fits in standard size PCI Express Slot with 0 or 1 I/O Card attached. If 2nd I/O Card is attached, it takes the space of the next slot. Safety: All Printed Wiring Boards (PWB) are Manufactured with a Flammability Rating of 94V-0 by a UL Recognized Manufacturer.</p>	<p>Temperature Range: Operating: 0 to 70 degrees C, With Forced Air Cooling Combination Heatsink/Fan Standard for Each Board Non-Operating: -40 Deg C to 85 Deg C Environmental Specifications: Power (3.3 Volts) and (5.0 Volts): TBD Altitude, Humidity, Shock, Vibration, Mean Time Between Failures: TBD Electromagnetic Compatibility (EMC): Intended for Use in Systems Meeting the Following Regulations: USA: FCC Part 15, Subpart B, Class B and Canada: ICES-003, Class B</p>
---	--

Copyright Annapolis Micro Systems, Inc. 2001-7. All Rights Reserved. WILDSTAR™, FIREBIRD™, and CoreFire™ are trademarks of Annapolis Micro Systems, Inc. Xilinx™, Virtex™, Virtex™ 5 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.



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 Web: <http://www.annapmicro.com>