



Data Sheet
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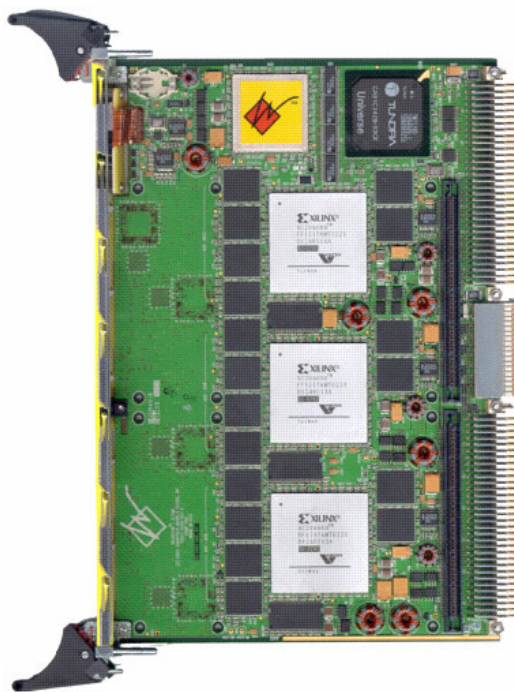
Annapolis Micro Systems, Inc.

WILDSTAR™ II for VME

Virtex™ II Based Processor Board - Up to 24 Million Gates

BENEFITS

- Reduce Risk With Our 8th 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™ II for VME with 2 I/O Cards Fits in Single VME64x Slot
- Training Classes and Application Support



FEATURES

- 1 - 3 Virtex™ II FPGA Processing Elements - XC2V6000 or XC2V8000
- Up to 72 MBytes DDR2 SRAM in 18 Banks
- Up to 384 MBytes DDR SDRAM in 3 Banks
- Programmable FLASH for each Processing Element to Store FPGA Images
- VME64x Backplane
- High Speed DMA Multi-Channel PCI Controller
- Host Software : NT 4.0, Win2000, Linux, VxWorks, Solaris - API and Device Drivers
- Full CoreFire™ Board Support Package for Fast, Easy Application Development
- VHDL Model
- Accepts 1 or 2 COTS Highspeed WILDSTAR™ I/O Cards - 1.5 GHZ A/D, Quad Fibre Channel 2, WSDP™, FPDP, LVDS, Quad Gigabit Ethernet, and More

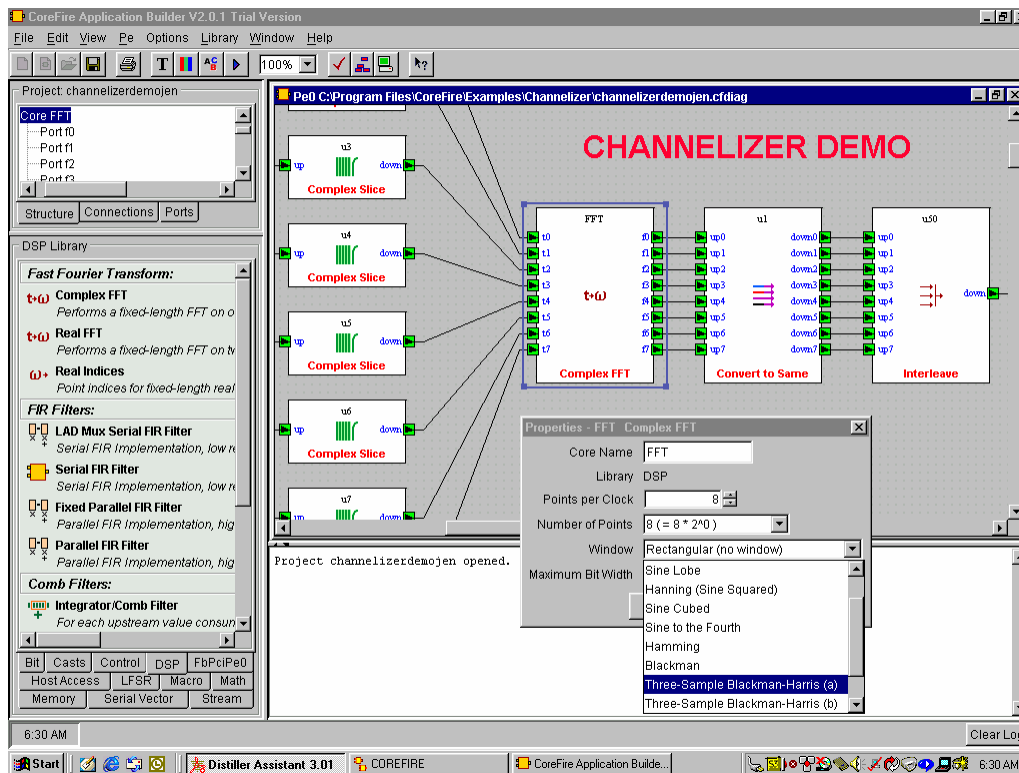


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CoreFire™ Ready – Create and Run Designs on Day 1!



All WILDSTAR™ II 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™ II FPGA boards with upwards of 40 million gates in a single VME slot using Xilinx Virtex™ II, 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.

Thermal and Power Management

To ensure safe and reliable processing, WILDSTAR™ II boards come equipped with a proactive thermal management system. Sensors across the board monitor power and temperature, with automatic shutdown capability to prevent excessive heat buildup. WILDSTAR™ II VME boards are optionally available with combination heat sinks on each FPGA Processing Element.

- Individual FPGA Processing Element Power Supply and Management
- FPGA Processing Element, PCI Controller and Board Sensor Temperature Monitoring through API
- Board Level Current and Voltage Measurements
- Board Level Temperature Monitoring

WILDSTAR™ II for VME Family Board Part Numbers

Sample Part Number: WS2/XC2V8000-5V/72/384		
Board	WS2/ WS21/ WS22/	WILDSTAR™ II Board with 3 PEs (Default) WILDSTAR™ II Board with 1 PE WILDSTAR™ II Board with 2 PEs
Processing Element (PE)	XC2V6000-4,5,6 XC2V8000-4,5,6	Xilinx Virtex™ II XC2V6000 -4, -5, -6 Xilinx Virtex™ II XC2V8000 -4, -5, -6
Backplane	V/	VME64x Only
Memory - DDR2 SRAM	0/, 12/, 24/, 36/, 48/, 72/	0, 12, 24, 36, 48 or 72 MBytes DDR2 SRAM
Memory - DDR SDRAM	0, 64, 128, 192, 256, 384	0, 64, 128, 192, 256, or 384 MBytes DDR SDRAM
PE Designator	-A, -B, -C	For Single or Double PE Boards - A = Populate PE for Top I/O Card B = Populate PE for Bottom I/O Card C = Populate PE for Backplane Connector
P0/P2 Backplane	-D, -E, -F	Backplane Configuration - Default = 38 Differential LVDS Channels on P0, Dual Race++ Ready on P2 D = 89 Single Ended Series Terminated Lines on P0, Dual Race++ Ready on P2 E = 38 Differential LVDS Channels on P0, 76 Single Ended Series Terminated Lines on P2 F = 38 Differential LVDS Channels on P0, 38 Differential LVDS Channels on P2
Clock	-G	Allow Clock from External I/O Card to Drive a Global PE Clock
Heatsink	-H	Default is No Heatsink.
Fits in standard size VME 64x Slot with 0, 1 or 2 I/O Cards attached. 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		Temperature Range: Operating: 0 to 70 degrees C, With Forced Air Cooling Optional Heatsink for Each PE Non-Operating: -40 Deg C to 85 Deg C Environmental Specifications: Power (3.3 Volts) and (5.0 Volts): TBD Altitude, Humidity, Shock, Vibration, MTBF: TBD Weight: 15 ounces

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