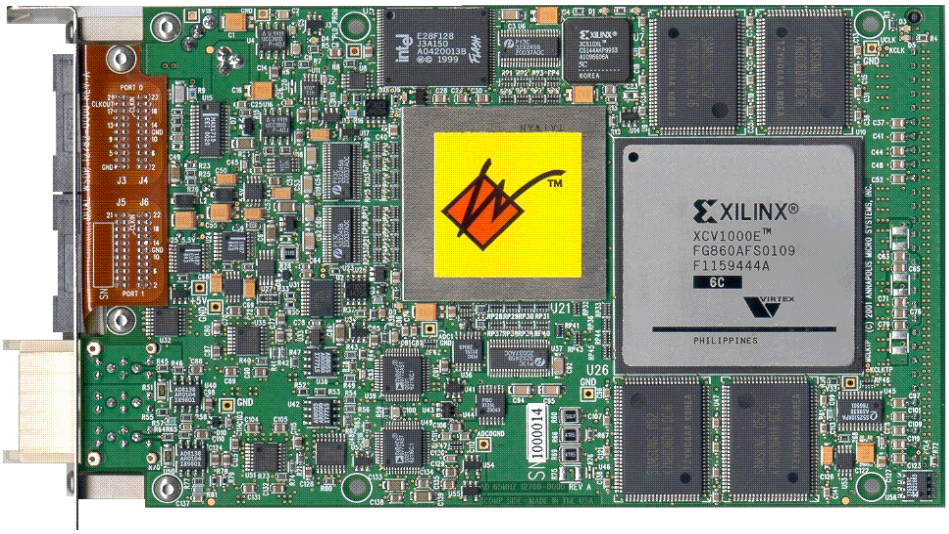
Data Sheet
Doc # 12935-0000 Rev1.1

Annapolis Micro Systems, Inc.
105 MHz I/O Card

Input Up to 105 MegaSamples/Second with FFT Processing in Real Time



Two 14-bit ADC Channels at 105 MHz and Two 14-bit DAC Channels at 150 MHz

The WILDSTAR™ 105 MHz A/D I/O card combines rapid analog-to-digital and digital-to-analog signal conversion with FPGA processing power and memory bandwidth. With a fully user programmable Virtex™ E FPGA, this I/O card enables customized signal filtering and processing before the data is passed to the main board. The 105 MHz I/O card is fully supported by the CoreFire™ Design Suite for accelerated application programming.

FEATURES

- 14 Bit A/D Conversion w/AD6645 at 105MHz
- 14 Bit D/A Conversion w/AD9772A at 150 MHz
- Full CoreFire™ Board Support Package, for Easy Application Programming
- Fully Programmable Virtex™ 1000E or 2000E FPGA
- 4, 8, or 16 MBytes ZBT SRAM in 4 Banks
- 6 Pin Harting Coax Connector
  - 105 MHz Max Input Sample Rate
  - External Trigger Input, LVTTL, 50 Ohm
- VHDL Model Provided
- Optional Race™, Single Race++, and Dual Race++ I/F Across the VME P2 Backplane

BENEFITS

- Save Time To Market - Full CoreFire™ Support
- Highly Adaptive - User Programmable FPGAs
- Fast I/O Bandwidth to Main Board - 4.0 Gbytes/Sec
- Two WSDP™ I/O Ports - Multiple I/O Standards Including LVDS up to 1.2 GBytes/Sec per Port
- Main Board with I/O Card(s) Installed Occupies Only a Single VME or PCI Slot
- Board and FPGA Systems Speeds of Up To 150 MHz, Depending on Main Board
- OpAmp or Transformer Options for A/D and D/A
- Compatible with WILDSTAR™ VME, FIREBIRD™ and our Virtex™ II Main Boards

Annapolis Micro Systems, Inc.

Made in the USA

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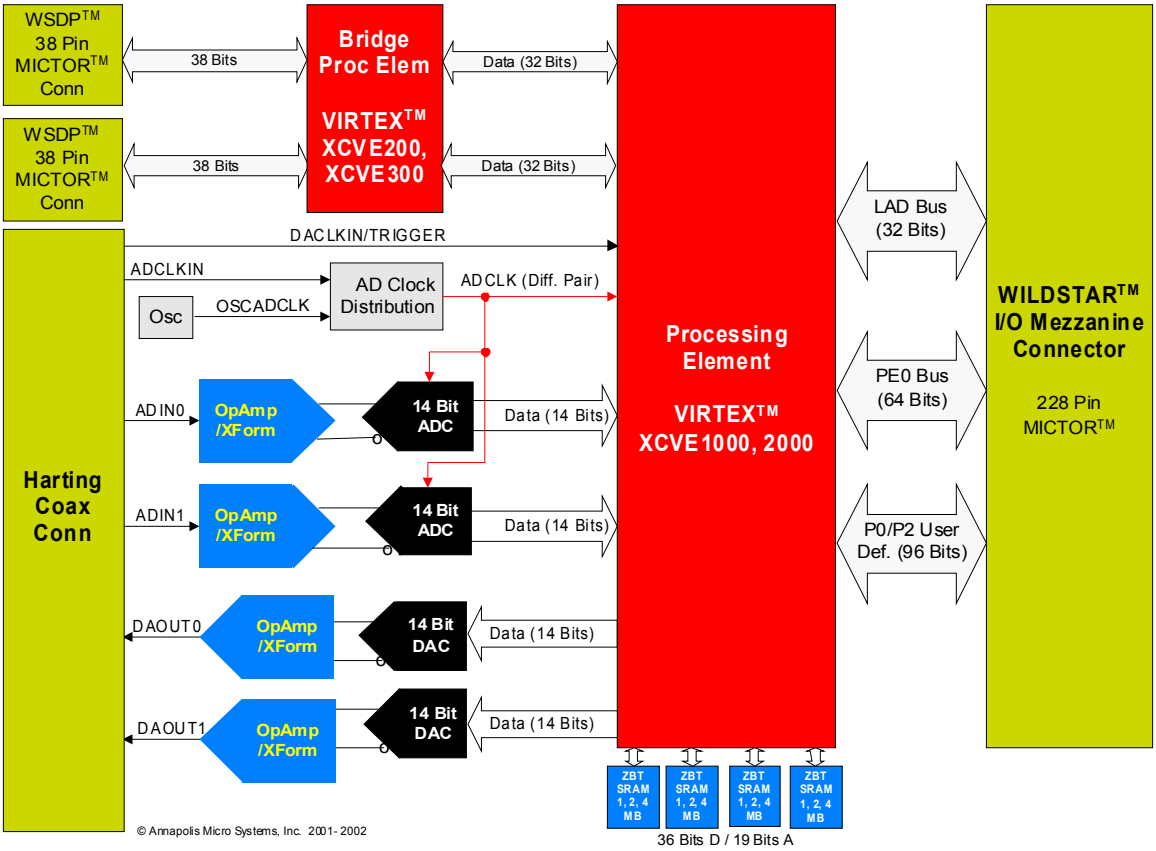
WILDSTAR™ 105 MHz A to D I/O Card



ADC Performance Characteristics Sampled at 100 MHz	
Single Tone Frequency	19.5 MHz
Clock (Encode) Frequency	100 MHz
Spur Free Dynamic Range (SFDR)	78.2 dB
Effective Number of Bits (ENOB)	11 bits
SlNAD Ratio	68.1 dB
Signal to Noise Ratio (SNR)	69.1 dB
Noise Floor	-120.4 dB

Plot for 16K Sample FFT using Hanning Window