ARTISAN®
TECHNOLOGY GROUP

Your **definitive** source for quality pre-owned equipment.

Artisan Technology Group
(217) 352-9330 | sales@artisantg.com | artisantg.com

Full-service, independent repair center
with experienced engineers and technicians on staff.

We buy your excess, underutilized, and idle equipment
along with credit for buybacks and trade-ins.

Custom engineering
so your equipment works exactly as you specify.

- Critical and expedited services
- In stock / Ready-to-ship
- Leasing / Rentals / Demos
- ITAR-certified secure asset solutions

Expert team | Trust guarantee | 100% satisfaction

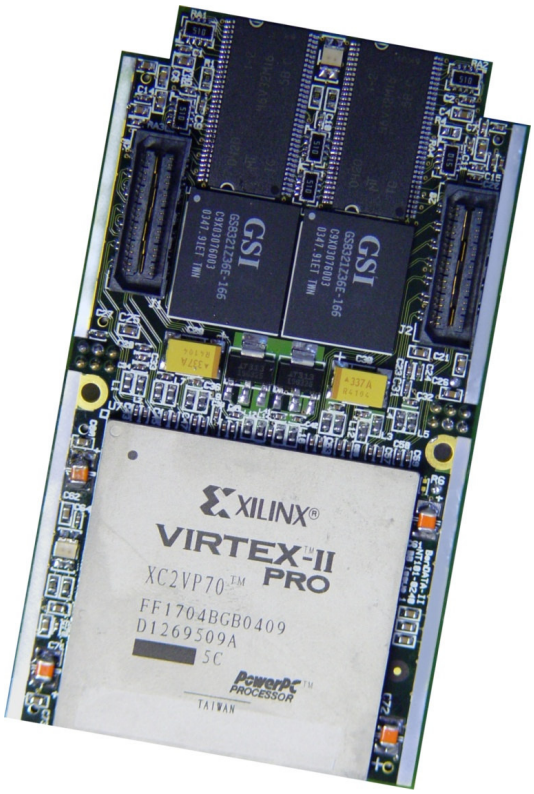
All trademarks, brand names, and brands appearing herein are the property of their respective owners.

Find the *Nallatech BenDATA-II* at our website: ***Click HERE***

BenDATA-II

Virtex-II Pro, SRAM and DDR SDRAM Module

FPGA/Memory Module



Overview

For processing applications requiring the combination of different memory types and high-density FPGA, the BenDATA-II is the perfect solution.

Combining a Virtex-II Pro FPGA, 2 banks of SRAM and 2 banks of DDR SDRAM, the module provides processing and memory expansion capability for Nallatech cPCI, VME, PCI and PC/104plus COTS FPGA computing systems. The combination of high-density DDR SDRAM and rapid, random access ZBT SRAM offers maximum flexibility for application implementation.

This functionality is combined in a proven COTS solution, designed for ease of use, low risk and straightforward system integration/in-field deployment.

FPGA and memory expansion module for Nallatech cPCI, VME, PCI and PCI-104 FPGA Computing systems

Key Features

» DIME-II Expansion Module

» On-board Xilinx Virtex-II Pro FPGA User FPGA

» 256 Mbytes DDR SDRAM – 2 independent banks

» 16 Mbytes ZBT® SRAM – 2 independent banks

» Off-module Rocket IO serial communications channels

» SRAM and SDRAM FPGA IP Cores

» Includes FUSE system software

» Compatible Nallatech motherboards available for cPCI, VME, PCI and PCI-104

Benefits

» Combination of DDR SDRAM and SRAM

Memory flexibility to fit application requirements

» Supported in FUSE and DIMEtalk software

Easier application development, enhanced functionality

» Compatible with multiple FPGA design flows

Easier application development, enhanced functionality

» Ready to use solution for high performance processing

Shortens development times and reduces risk

NALLATECH
The High Performance FPGA Solutions Company

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

BenDATA-II

Virtex-II Pro, SRAM and DDR SDRAM Module

Technical Specification

User FPGA

- Xilinx Virtex-II Pro FPGA
- Standard options – XC2VP70-6 or XC2VP100-6
- Additional Special Order options available on request

FPGA Specifications

	2VP70	2VP100	-
Logic Cells	66,176	99,216	-
Embedded Multipliers	328	444	-
kbits Block RAM	5,904	7,992	-
PowerPC™ Blocks	2	2	-

SRAM Memory

- 16 Mbytes ZBT® SRAM
- ZBT SRAM controller IP core included
- 2 independent 8 Mbyte banks
- 64 bit data bus per bank
- Max clock frequency: 166MHz
- Max bandwidth per bank: 1.33Gbytes/sec

DDR SDRAM Memory

- 256Mbytes DDR200 SDRAM
- DDR SDRAM controller IP core included
- 2 independent 128Mbyte banks
- 32 bit data bus per bank
- Max clock frequency: 166MHz (-5 FPGA), 200MHz (-6 FPGA)
- Max data rate: 333MHz (-5 FPGA), 400MHz (-6 FPGA)
- Max bandwidth per bank: 1.33Gbytes/sec (-5 FPGA), 1.6Gbytes/sec (-6 FPGA)

I/O

- Up to 385 motherboard-module user I/O lines – motherboard dependant
- 8 off-module Rocket I/O links
- Rocket I/O data rates: 2.0Gbytes/sec (-5 FPGA), 2.5Gbytes/sec (-6 FPGA)
- The performance of some RocketIO channels may be affected adversely, depending on utilization of the FPGA resources. If you require further information, please contact Nallatech.
- 4 tri-color user status LEDs

Clocking

- 3 programmable clock domains driven from DIME-II motherboard
- Dedicated oscillator for SDRAM

Cooling

- FPGA cooling fan provided
- Fan: Air Volume(per fan): 0.5CFM
- Heatsink option available upon request

Environmental

- Cooling: Air/Convection
- Operating Temp: 0°C to 50°C
- Storage Temp: -20°C to 80°C
- Relative Humidity: 10 to 95% (non-condensing)

Quality

- Manufactured to IPC610 Class III (standard options)
- Designed and supplied to ISO9001:2000 certification

Power

- Four power supplies from DIME-II motherboard to module
- Up to 15 Amps per supply (motherboard dependant).
- One supply dedicated to each FPGA core voltage.

Software

- Fully compatible with Nallatech FUSE software for runtime FPGA programming, hardware control and communication

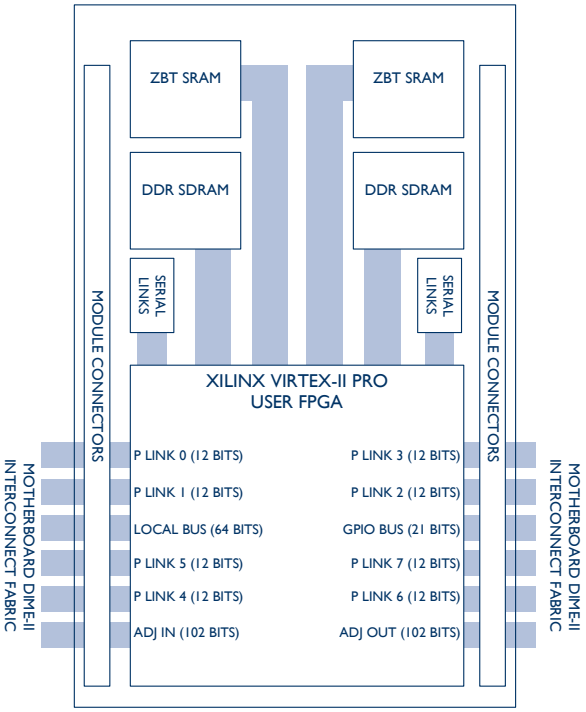
FPGA Programming

- Embedded JTAG programming via FUSE software functions

Application Development Software

- Supported in Nallatech DIMEtalk software for FPGA communications network design and implementation
- Supports multiple design flows including VHDL, Verilog®, System Generator and other high-level flows
- Compatible with all major synthesis design flows
- Compatible with Xilinx ISE Implementation software

Functional Diagram



Ordering Information

Deliverables

- BenDATA-II Module, Software and Documentation CD
- SRAM and DDR SDRAM FPGA IP Cores
- 90 days Product Maintenance (technical support, support lounge access)

Standard Order Code

- BenDATA-II-2VP70-6 – BenDATA-II with XC2VP70-6 User FPGA*
- BenDATA-II-2VP100-6 – BenDATA-II with XC2VP70-6 User FPGA**
- Additional Special Order options available on request

*Available on Express Leadtime. **Available on Standard Leadtime.

Contact us today for more information:

North America

Phone: +1(877) 44-NALLA (Toll free)
Email: contact@nallatech.com

EMEA, APAC & ROW

Phone: +44 (0)1236 789500
Email: contact@nallatech.com

Visit www.nallatech.com/sales for further sales contacts

NALLATECH
The High Performance FPGA Solutions Company

Document: NT190-0240/Version 2.0/June 2005. Intellectual Property: The contents of this document are the copyright of Nallatech Limited – © Nallatech Limited 2005. All rights reserved. BenDATA-II, Nallatech, the Nallatech logo, "The High Performance FPGA Solutions Company", DIMEtalk, DIMEscript, DIME-II and FUSE are all trade marks of Nallatech Limited. All names, images and logos identifying Nallatech Limited or third parties and their products and services are subject to copyright, design rights and trade marks of Nallatech Limited and/or third parties. Nothing contained in these terms shall be construed as conferring by implication, estoppel or otherwise any licence or right to use any trademark, patent, design right or copyright of Nallatech Limited, or any other third party. Microsoft and Windows are either registered trade marks or trade marks of Microsoft Corporation in the United States and/or other countries. Disclaimer: This document is for general information purposes only and is not tailored for any specific situations or circumstances. Although Nallatech Limited believes the contents to be true and accurate as at the date of writing, Nallatech Limited makes no assurances or warranty regarding the accuracy of any content or its fitness for specific situations and particular circumstances. As such, the content should not be relied upon and readers should not act on this information without further consultation with Nallatech Limited. Nallatech Limited accepts no responsibility for loss which may arise as a result of relying on the information in this document alone.

Artisan Technology Group - Quality Instrumentation ... Guaranteed | (888) 88-SOURCE | www.artisantg.com

Artisan Technology Group is an independent supplier of quality pre-owned equipment

Gold-standard solutions

Extend the life of your critical industrial, commercial, and military systems with our superior service and support.

We buy equipment

Planning to upgrade your current equipment? Have surplus equipment taking up shelf space? We'll give it a new home.

Learn more!

Visit us at **artisantg.com** for more info on price quotes, drivers, technical specifications, manuals, and documentation.

Artisan Scientific Corporation dba Artisan Technology Group is not an affiliate, representative, or authorized distributor for any manufacturer listed herein.

We're here to make your life easier. How can we help you today?

(217) 352-9330 | sales@artisantg.com | artisantg.com

ARTISAN® TECHNOLOGY GROUP