

G4ADSP

Quad Freescale MPC7448 VME multiprocessor with PCI on P0

The G4ADSP rugged 6U VME card is designed to offer a form, fit and function replacement for our first generation quad 7400/7410 G4DSP multiprocessor that has been in production since 2003.

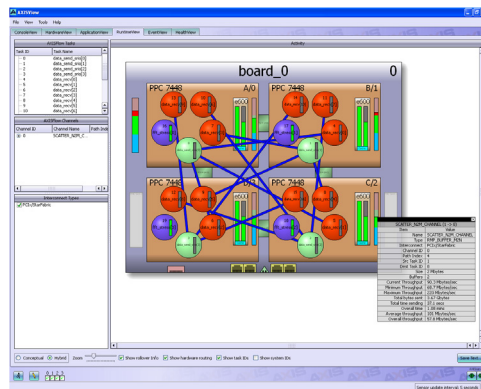
Based on our market leading G4DSPXD3 quad 7448 processor, G4ADSP offers a proven platform available in both air and conduction cooled build levels for deployed systems requiring wide temperature operation and resistance to extended levels of shock and vibration.

G4ADSP benefits from several generations of continued product development and testing as well as on-going software support for COTS real-time operating systems including several versions of VxWorks from Wind River Systems Inc.

AXIS Advanced Multiprocessor Integrated Software provides a suite of fully integrated modules for system development, visualization and deployment including example applications such as a distributed corner turn and stress tests providing a quick start for application development and system evaluation.

AXISView provides an intuitive GUI for system visualization and productivity tools

that greatly reduce development time and time to market. The screen shot below shows a run-time view of one of our stress tests designed to illustrate the performance of the platform.



AXISView Screen

AXISLib VSIPL and RSPL optimized DSP, math and function libraries provide a wide range of optimized functions for the PowerPC e600/Altivec platform.

AXISFlow supports high throughput, low latency, inter-processor communication (IPC) across all system nodes to maximize system performance, and increase flexibility in the design of the most demanding signal and data processing applications.

FEATURES:

- Four Freescale MPC7448 processors
- Four banks PC266DDR SDRAM, up to 2 GBytes total
- One PCI port to P0
- PCI-X to all nodes, and both PMC sites
- 4x Gigabit Ethernet ports
- Four Serial ports
- Two PMC-X sites
- Node management controller
- Rugged 6U VME form factor for air and conduction cooled systems
- Software
- AXIS Advanced Multiprocessor Integrated Software
- Abaco Built-In-Test (BIT) for PowerPC®
- BSPs for VxWorks® 5.5 and 6.x

G4ADSP Quad Freescale MPC7448 VME multiprocessor with PCI on P0

Specifications

Form factor

- 6U VME

Processors

- Four MPC7448 @ 1 GHz

Memory

- Four banks PC266 DDR SDRAM
 - 256 MBytes per node (standard)
 - 512 MBytes per node (optional)
- 64 MBytes FLASH per node (256 MBytes total)

Bridged Fabric Architecture

- PCI on P0
 - One 32-Bit/33 MHz port bridged to the internal PCI-X ring

Network

- 4 Gigabit Ethernet ports to P2
 - One port to each Disco3 bridge

Node management controller

- Inter-node and inter-board
 - Time stamp, synchronization
 - Mail boxes, semaphores

Serial

- Four RS232 ports to P2 connector

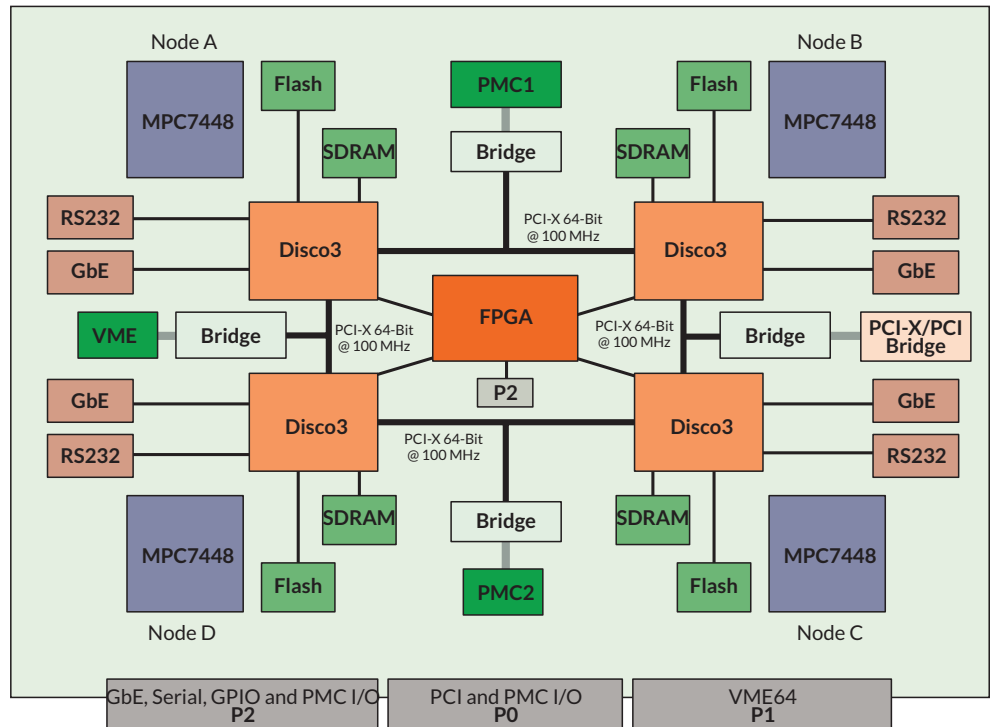
Ruggedization

- Build levels 1 to 5

Software

- Abaco BIT
- BSPs for VxWorks
- AXIS Advanced Multiprocessor Integrated Software support:
 - AXISFlow IPC middleware
 - AXISLib VSIPL & RSPL DSP & math functions
 - AXIS example applications and bench marks are available

Block diagram



Ordering information

G4ADSP - 1 1 B 4

- 4 = BIT & VxWorks 5.5 BootROM
- 8 = BIT & VxWorks 6.x BootROM
- B = Type B P0 connector fitted
- 1 = Quad MPC7448 @ 1 GHz & 1 GByte SDRAM
- Build level 1, 2, or 3 convection cooled
- Build level 4 or 5 conduction cooled

AXIS Multicomputer

Open Architecture, COTS Multiprocessor Solutions

Customer Application
AXIS Advanced Multiprocessor Integrated Software
Universal Interface Layer (UIL)
Board Support Package (BSP)
Built-in-Test (Configurable POST)
I/O, SBCs, Multiprocessors, Fabric Switches

WE INNOVATE. WE DELIVER. YOU SUCCEED.

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