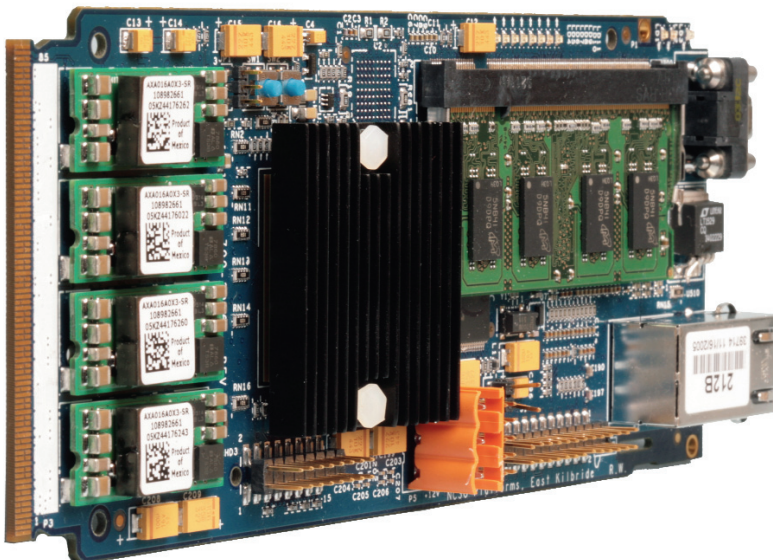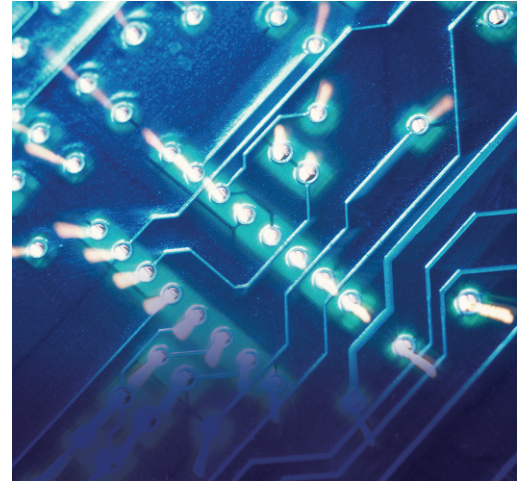# CodeWarrior™ MPC8548 QUICCstart System

Overview

At the heart of this board is the Freescale MPC8548 PowerQUICC III processor. The MPC8548 is a highly integrated system-on-chip (SoC) platform that includes an e500 PowerPC core, integrated security engine, PCI Express, Serial RapidIO, and Gigabit Ethernet controllers, as well as an integrated DDR2 memory interface. The highly integrated SoC architecture improves system performance, simplifies board design, lowers power consumption, and reduces cost. The 8548 QUICCstart System is a single-width, full-height AMC processor board with a low power, high-performance Freescale MPC8548 processor operating at 1.0GHz. In addition to its AMC configuration, this system can also operate as a standalone module and boot from the onboard flash, thereby allowing for rapid application development outside of the integrated ATCA or MicroTCA environment. With the provided CodeWarrior CDs and Linux support, the 8548 QUICCstart is built for development of a broad range of applications such as in wireless base stations, media gateways, enterprise network access systems, test and measurement systems, and server blades. For fabric connectivity, this system is compliant with the AMC.4 specification for Serial RapidIO fabric interfaces. With flexibility in mind, PCI Express and Gigabit Ethernet connections are also routed to the AMC connector to simplify testing and integration of additional SERDES interfaces. The QUICCstart MPC8548 Evaluation System comes complete with the AMC processor board, power supply, auxiliary fan, CodeWarrior™ USB TAP run control device, cables, and evaluation copies of CodeWarrior™ tools for PowerPC and Linux. A Linux board support package is also supplied on CD and flashed to the board. This evaluation system has been packaged so that you can be productive within 30 minutes of unpacking the kit.

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CodeWarrior MPC8548 QUICCstart System

Features:

> Processor: Freescale PowerQUICC III MPC8548.

> RAM: Single SODIMM slot with 128MB DDR2 interface memory for high-bandwidth performance

> FLASH: 16MB soldered on main-board

> Ethernet: Single Gigabit Ethernet to front and three Gigabit Ethernet to rear AMC connector

> PCI Express: Configurable x4 and x8 PCI Express signals to AMC connector

> RapidIO: AMC.4 Compliant design for Serial RapidIO fabric connections

> Serial Ports: RS-232 on front panel for console management

> Power Supply: provided with standalone supply that provides 12V and 3.3V supply or via AMC backplane connector

> Form Factor: Single Width, Full Height AMC.0 compliant.

> Debug: JTAG connector for software debug

Benefits

CodeWarrior Tools integration: a trial copy of Freescale's CodeWarrior development tools provides a single development environment that includes CodeWarrior compilers, high-performance hardware debug capability via the included USB TAP with support for conditional breakpoints, data watchpoints and expression evaluation, a comprehensive Project Manager and Build System with an easy-to-use GUI and graphical flash memory programming capability.

Free Schematics: a PDF of this board's schematics are available. These schematics can give an engineer a solid starting point when considering the use of this processor in their own boards.

Experienced Support: as a supplier of evaluation systems, reference designs and hardware-assisted debugging tools for an array of microprocessors, Freescale has the experience necessary to provide knowledgeable, responsive application and technical support for development projects.
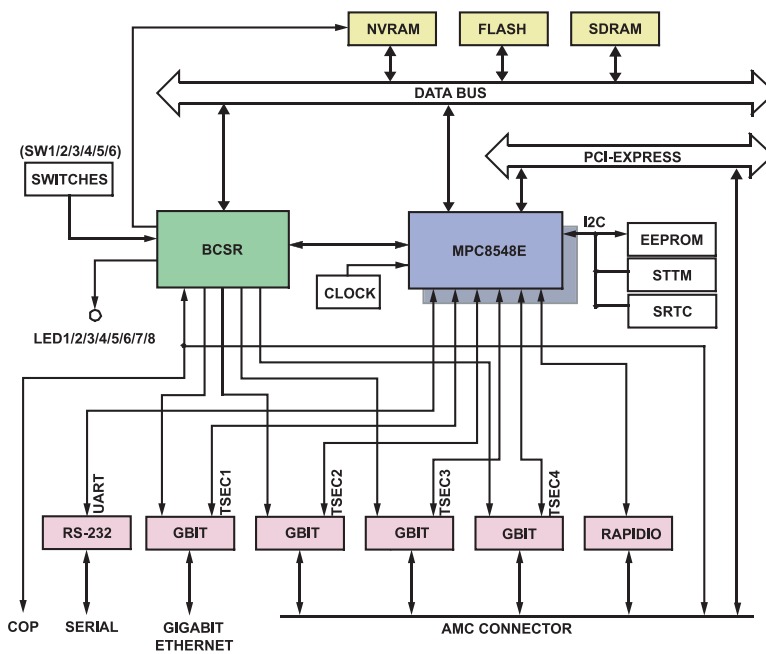
Linux Board Support Package: Freescale provides the source code for a board support package available for use with our Linux Platform Edition product. Developers can fully utilize and modify the source code for current and future projects.

Accelerated Early Development: firmware, hardware and production test engineers can each take advantage of Freescale evaluation systems and reference designs. Firmware and hardware engineers can adapt Freescale evaluation systems to their own, enabling them to reduce development time. Production test engineers can use the board and included CodeWarrior Tools and USB TAP to design and prototype complex and efficient production algorithms before the custom hardware is prototyped.

Ordering Info:

Part # CWH-PPC-8548N-VX or CWH-PPC-8548N-VE (RoHS compliant)

Learn More: For more information about Freescale products, please visit **www.freescale.com/codewarrior**

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