

## PowerPC The Hot New PC Heart

RISC microprocessors are the future heart of the PC platform. They can deliver advanced performance at lower price points. They are better suited to meeting the needs of future 32-bit advanced operating environments. They will enable power-hungry applications and tools to move down into affordable desktop designs. And, PowerPC is the hot new RISC microprocessor family that will drive RISC performance into the PC.

The PowerPC microprocessor price/performance advantage will enable advanced 32-bit client and server applications to be delivered to mainstream business users today, affordably.

The PowerPC family of microprocessors is a complete line of Reduced Instruction Set Computing (RISC) CPUs designed to meet the needs of a variety of platforms; from notebooks to file servers. They are small in size, consume less power, are affordable, and are very, very fast. They feature high performance superscalar designs, advanced floating-point performance, and support for multi-processor architectures. Most importantly, PowerPC microprocessors are used and supported by industry leaders such as IBM, Motorola, Canon, and FirePower Systems.

### **Powerized<sup>™</sup>** **ES 380**

#### **32-bit Operating Systems The Hot New PC Environment**

32-bit operating systems are the future environment for the PC platform. They can deliver greater system reliability and enhanced security. They can enable more powerful applications to make maximum use of the performance gains RISC microprocessors can provide. They can deliver advanced support for running multiple applications and working with new media types. And, Windows NT and OS/2 for PowerPC are the hot new 32-bit operating systems that will drive 32-bit operating system benefits into the PC.

After more than a decade of first 8- and then 32-bit PC operating systems the move is on to 32-bit advanced operating environments. Microsoft Windows NT, IBM OS/2 for PowerPC, and later 'Cairo' will lead the way.

Full 32-bit advanced operating environments, like Windows NT, provide advanced functionality without sacrificing compatibility or ease of use. They run all of your customers' older 16-bit Windows applications while newer 32-bit Windows applications will run at screamingly fast RISC speed. They provide advanced performance over older 16-bit operating systems with multi-threading, multi-tasking, and support for symmetric multi-processing hardware designs. Yet, they are easy to setup, use, and support.

## Powerized ES Line Hot New PowerPC Entry System

The Powerized ES line delivers tremendous value and compatibility. An unparalleled balance of RISC performance, full feature integration, and affordability will allow more mainstream customers to move their PC applications up to hot RISC power and 32-bit operating system functionality.



A PowerPC 603 microprocessor combined with the incredible Powerized Logic Set, IEEE 1275 Open FirmWare ROM, 64-bit wide CPU bus, 72-bit wide Parity protected memory bus with up to 128 MB of DRAM, Powerized Windows NT HAL and drivers. An optional 256K second-level cache. The ES line delivers more of the performance that PC customers want.

Built-in 64-bit wide memory bus. Powerized Graphics with up to 2 MB of graphics frame buffer VRAM delivering 24-bit color at 800x600 (16-bit on 1024x768 and 8-bit at 1280x1024). PCI-based 10base-T Ethernet, PCI-based SCSI-2, CD-quality audio with four audio ports. Enhanced parallel, Serial, Keyboard and mouse, 3-bays and 3 slots (1 PCI, 1 shared PCI and ISA, 1 ISA). The ES line delivers more of the functionality that PC customers need.

16- and 32-bit Windows applications, PCI and ISA slots, standard Ethernet networking, standard SCSI drives and peripherals, standard displays, standard parallel and serial devices, standard keyboards and mice. Unplug an old PC and plug in a new generation 32-bit OS RISC PC and it works. The ES line delivers more of the compatibility that PC customers require.

## The PowerPC Reference Platform The Hot New PC Foundation

PC standards that allow innovation to progress without sacrificing application and operating system compatibility are the future foundation of the PC platform. New standards can allow compliant products to be designed to deliver valued-added functionality and move advanced technologies onto desktop PCs faster than ever before. They can allow exciting new product architectures to address varying customer needs without risking mainstream software availability. And, the PowerPC Reference Platform is the hot new PC Standard that will enable compliant systems to deliver both increased RISC innovation and increased Windows compatibility.

The PowerPC Reference Platform is the industry standard for PowerPC-designed systems. It brings together the hot new PowerPC microprocessor family with the hot new 32-bit advanced operating environments.



## Powerized Technologies The Hot New PowerPC Architecture

FirePower Systems has developed a wide variety of advanced value-added technologies to enable OEM customers to bring to market exciting new PC products based on the hottest new RISC microprocessor and the hottest new 32-bit advanced operating environments.

- PowerPC 603 and 604-based designs
- Uni- and Symmetric Multi-Processing Logic Sets
- IEEE 1275 Open FirmWare
- 64-bit CPU buses to 66 MHz
- Custom L2 cache cards
- 72- and 144-bit wide memory buses with Parity and ECC protection
- 72- and 144-bit wide memory bus graphics display and video input
- Highly integrated I/O on standard LPX-size logic boards
- PCI and ISA slot riser cards
- Custom enclosure and bezel designs
- High performance Windows NT HAL and drivers

The PowerPC Reference Platform is based on the latest technology standards: PCI, SCSI-2, PCMCIA, Open FirmWare. It specifies designs for all personal system platforms from notebooks to servers. It defines a high minimum level of functionality to ensure system completeness: networking, graphics, audio, SCSI expansion, and more. It defines a Hardware Access Layer (HAL) which allows for system providers to deliver Reference Platform-compliant, yet unique value-added, hardware designs while maintaining complete compatibility with all Reference Platform-compliant operating systems. It will run the leading 32-bit advanced operating systems: Microsoft Windows NT, IBM OS/2 and AIX, Sunsoft Solaris, and Taligent. Most importantly, the PowerPC Reference Platform is supported by industry leaders such as IBM, Motorola, Canon, and FirePower Systems.



## Powerized MX Line Hot New PowerPC Symmetric Multi-Processing System

The Powerized MX line delivers advanced dual processor performance. A breakthrough in PC system performance combined with all the latest features power-hungry customers desire to move their PC desktop and server applications up to red hot SMP RISC power and 32-bit operating system functionality.



Dual Symmetric Multi-Processing PowerPC 604 microprocessors combined with the amazing Powerized SMP Logic Set, IEEE 1275 Open Firmware ROM, 64-bit wide CPU bus, 144-bit wide ECC protected memory bus with up to 256 MB of DRAM, Powerized Windows NT HAL and drivers. An optional 512K second-level cache. The MX line delivers a level performance that PC customers have never seen before.

Built-in 144-bit wide memory bus Powerized Graphics with up to 4 MB of graphics frame buffer VRAM delivering 24-bit color at 1024x768 (16-bit on 1280x1024). 64-bit wide memory bus Powerized Video input with up to 2 MB of video frame store. PCI-based 10base-T Ethernet, PCI-based SCSI-2, CD-quality audio with four audio ports. Enhanced parallel, Serial, Keyboard and mouse, 3-bays and 3 slots (1 PCI, 1 shared PCI and ISA, 1 ISA). The MX line delivers more capability than most PC customers would believe possible.

16- and 32-bit Windows applications, PCI and ISA slots, standard Ethernet networking, standard SCSI drives and peripherals, standard displays, standard NTSC and PAL video, standard parallel and serial devices, standard keyboards and mice. Unplug an old PC and plug in a new generation 32-bit OS SMP RISC PC and it works. The MX line delivers more compatibility than many PC customers could hope for.

**FirePOWER**  
**FirePower Systems, Inc.**

190 Independence Drive

Menlo Park, CA 94025

415.462.3000

415.462.3051 Fax

Marketing Part Number  
PMX9408b

Copyright 1994 FirePower Systems, Inc. All rights reserved.  
FirePower and Powerized are trademarks of FirePower Systems, Inc. PowerPC is a registered trademark and The PowerPC Reference Platform and AIX are trademarks of International Business Machines Corporation. Windows NT is a registered trademark of Microsoft Corporation. Solaris is a trademark of SunSoft, a Sun Inc. Corporation. Taligent is a trademark of Taligent Inc.

**FirePOWER**

**The Premier OEM Provider Of PowerPC  
Reference Platform-Compliant Systems  
Hot Logic Boards To TurnKey Systems**

FirePower Systems is dedicated to providing the hottest PowerPC Reference Platform-Compliant products to OEM customers. FirePower Systems is completely focused, organized, and deployed to meet the needs of its PowerPC OEM customers. From Powerized Logic Boards to complete TurnKey solutions FirePower Systems is able to meet OEM customer needs with flexible products, manufacturing, service, and support.