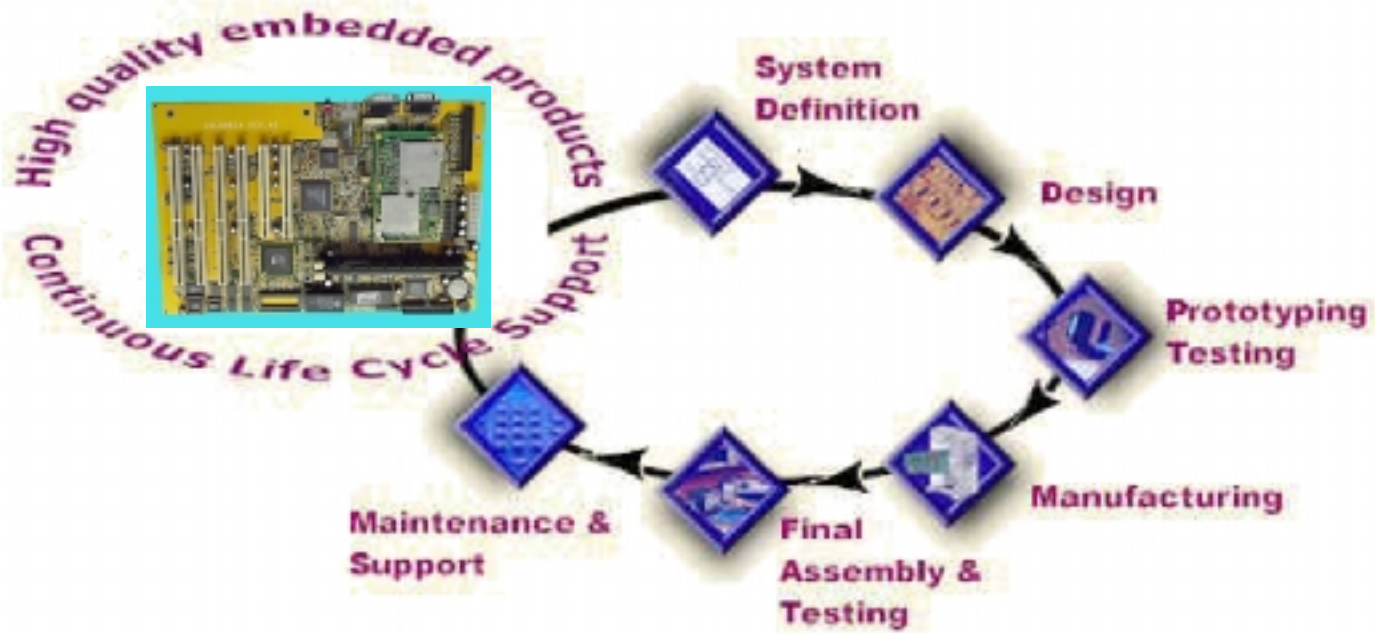# EMC-2 64-bit PCI Controllers

Industrial motherboard with latest Intel low power technology
and the fastest I/O bus available – the 64-bit PCI bus

Benefits

- I/O is no longer a bottleneck, uses the fastest I/O bus – 64-bit PCI

- Use the fastest memory – Supports 100MHz SDRAM

- Give your customer's the latest "cool" technology – Intel® Pentium® EMC-2

- Lower your cost for power supplies – the controller has very low power consumption

- Provide your customer with the most reliable and consistent products – *WIN* Enterprises is ISO-9002 registered

EMC-2 64-bit PCI Controllers

WIN Enterprises has the **first 64bit PCI motherboard in ATX format**. This industrialized motherboard incorporates the latest embedded CPU technology from Intel, the EMC-2 with low power consumption and processing speeds to 450MHz.

Chiman Patel, CEO of WIN Enterprises, says, "this product was requested by customers looking for much higher throughput than was available in present 32bit technology based products. The benefit to WIN's customers is an industrial strength motherboard for embedded applications employing the latest technology and the long product life cycle they need. WIN gives them a durable, reliable and consistent quality product, and a shorter delivery cycle for their own products."

Intel EMC-2

The Embedded Module Connector II (EMC-2) is a small, highly integrated assembly containing an

Intel Pentium II/III processor (266 to 450 MHz) core, the 443BX Northbridge, 512 Kbytes L2 cache, a voltage regulator, and a SMBus thermal sensor. The REMC-2 interfaces to the system via a high-density 400-pin BGA connector.

Interfaces such as the PCI, DRAM, and AGP buses along with some host bridge sideband signals are bonded out through this connector.

The objective of the EMC-2 is to ensure that the temperature of each component is maintained within their specified limits.

Intel 440BX AGPSet

The Intel 440BX AGPset is the first chipset to optoimize Intel Pentium III processor performance with a 100 MHz system bus/SDRAM. The AGPset improves the speed of the system bus from 66 MHz to 100 MHz, while increasing the width and depth of buffers to the system bus, Accelerated Graphics Port (AGP), SDRAM, and the PCI bus. In addition the 440BX AGPset is compatible with ATA/66 HDD. This makes the Intel 440BX AGPset an excellent design solution for "next generation performance" in industrial applications.

DIB and QPA Architecture

The Low-power Pentium II processor's Dual Independent Bus (DIB) architecture offers up to three times the bandwidth performance over single-bus. By combining two independent system buses for simultaneous parallel access to data, the Pentium II processor - low power provides an open road for high-demand applications. Having two separate buses allows simultaneous access to both the L2 cache bus and the system bus. The combination of the L2 cache bus and the processor-to-main-memory system bus can increase peak overall bandwidth availability and performance over single-bus processors.

The Quad Port Acceleration (QPA) of the second generation 440BX AGPset improves the speed of the system bus from 66 MHz to 100MHz. Intel's Quad Port Acceleration combines enhanced bus arbitration, deeper buffers, open page memory architecture and ECC memory control. Improves performance by increasing the bandwidth of the system bus

This new Intel architecture is ideal to display medical diagnostic scans, compute and visualize 3D weather patterns, or be the compute engine for the many new complex applications being asked by customers.

Industrial Motherboards

WIN designs and manufacturers industrial motherboards to serve not only as standalone motherboards but also as core components of an integrated system platform for mission-critical business applications. WIN motherboards are industrial-grade product for use in industrial-level computers and controllers.

WIN industrial motherboards are easy to configure allowing the use of a range of CPUs, controllers, and memory configurations for optimum performance and lowest recurring cost.

WIN industrial motherboards have consistent quality because WIN Enterprises follows the ISO 9002 quality processes. WIN Enterprises is an ISO 9002 registered company.

Need Something Different?

If your product requires a motherboard with different mounting, higher temperatures, additional ports, or anything that is not standard on the EMC-2 64-bit PCI Controller, WIN can do it for you.

Whether you need stock, modified, or custom designs: **Make WIN your production partner**.

WIN Enterprises can provide you with products that include:

- Software Installation and Testing
- Complete Assembly and Packaging
- Complete Unit Testing and Diagnostics
- CE and UL Certifications

Other WIN Enterprises Products

WIN Enterprises has more than industrial motherboards. Other products include industrial-quality single board computers (SBC), LCD and touchscreens and their integration into custom platforms, and industrial chassis for use in harsh environments.

You can have any combination of these products custom configured, tested, software installed to your requirements.

A custom design and development house for embedded systems.

WIN Enterprises provides high quality Embedded products, based on PC architecture, and continuous life-cycle support to OEM customers. We assist customers in designing new products, from board level to complete systems and provide prototyping, testing and complete manufacture of customers' systems. Our customers include manufacturers of medical instruments, telecommunications equipment, factory automation systems, machine control, and robotic systems. WIN products include application specific platforms and industrial-grade motherboards, Slot PCs, Biscuit PCs, PC 104 modules and active and passive backplanes, LCD panels and touchscreens. We help our customers reduce R&D cycles and get products to market faster. WIN Enterprises is ISO 9002 registered.

Improve Your Product - Now

Use the expertise and quick turnaround of WIN Enterprises to make your product better. Turn that new design into the latest state-of-the-art product using the high-speed 64-bit PCI bus and 100 MHz SDRAM found on the EMC-2 64-bit PCI Controller from WIN Enterprises.

Call a WIN Enterprises sales rep to discuss your specific product requirements or send email to sales@win-ent.com asking for a quote.