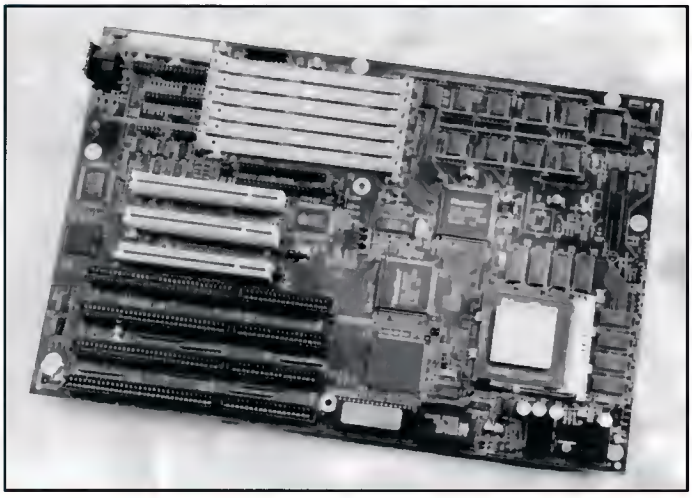
NexGen

NxPCI® Baby-AT Motherboard Fact Sheet

NxPCI BABY - AT MOTHERBOARD ADVANTAGES



■ **FAST**

PCI, integrated bus mastering IDE, and a high-end memory subsystem push 5th generation performance to new heights.

■ **COMPATIBLE**

Fully x86 compatible. Microsoft® Windows™ Compatible; Ready to Run™ with OS/2™; *Yes, It Runs with Netware®. Certified by XXCAL independent testing laboratories.

■ **INTEGRATED**

Fast PCI bus master IDE, on-board floppy controller, 2 serial ports (16550 compatible), 1 enhanced parallel port.

■ **AFFORDABLE**

Priced to make Nx586 processors the price/performance leader.

KEY ENHANCEMENTS OF NxPCI AND TRITON

■ Fast Bus Master IDE

This advanced interface provides a high performance data path between IDE and PCI peripherals. The bus mastering enhancement gives the IDE controller the capability to initiate data transfers without the help of the CPU, thus freeing up the processor for other activities.

■ High Performance Memory Subsystem

NxPCI and NxMC™ support up to 768 MB Main Memory (EDO or fastpage) and utilize a deep write buffer and dual stream read prefetch buffer to improve memory performance.

■ Support for EDO Memory

EDO is the newest form of high-speed RAM which is better than conventional DRAM at keeping up with high speed processors and PCI bus mastering devices, thus reducing wait states - the time a CPU sits idle waiting for data from memory.

Designed for Microsoft Windows 95 | yes *It runs with NetWare | Available and Ready for OS/2 | Platinum XXCAL Inc. Certified

KEY NxPCI/Nx586 ENHANCEMENTS - NOT IN TRITON

■ Supports Parity Checking

Parity checking is essential for catching bit errors in main memory.

■ Enhanced Buffering Scheme

Increased depth of NxPCI buffers provides extended bus bandwidth.

■ 4-Way Set Associative L2 Cache Organization

Triton provides only a direct mapped organization. Nx586 on-board L2 set associativity improves the L2 cache hit rate.

■ Greater DRAM Range and Capacity

NxPCI Capacity: 2-768 MB Triton: 4-128 MB

■ Better IDE Transfer Rate Potential

NxPCI potential: 33 MB/sec Triton: 22 MB/sec

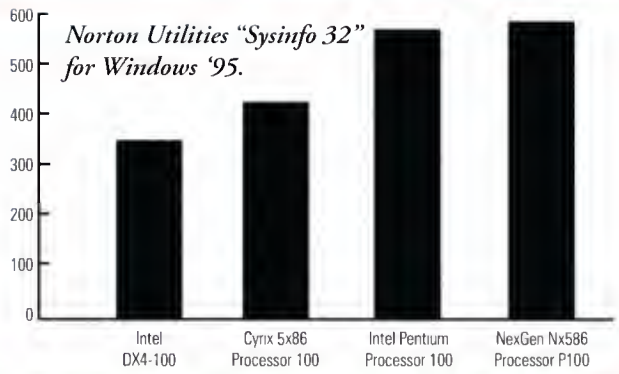
■ Higher L2 Cache SRAM Capacity

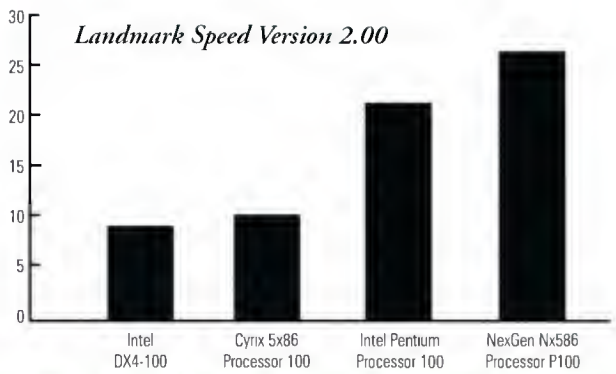
NxPCI: 256K or 1MB Triton: 0K, 256K, or 512K

■ L2 Cache Control on Nx586

Ensures the level two cache will always run at full performance and lowers PC costs by allowing the Nx586 processor to run at full speed with slower - and less expensive - cache memory.

PERFORMANCE DATA





Part number: NxDOC-MC021-03-U October 1995

NxPCI - A STRONG ALTERNATIVE TO TRITON

	TRITON 82430FX PCIset	NxPCI SYSTEM LOGIC
■ INTEGRATED L2 CACHE CONTROLLER	x	Integrated on Nx586
Cache Organization	Direct Mapped ONLY	4-way set associative
Write-Back Cache Policy	x	x
MESI Protocol Support	x	x
SRAM Capacity	0 - 512K	256K - 1MB
SRAM	Sync Pipelined	Async or Sync Flow-Through
■ INTEGRATED DRAM CONTROLLER	x	x
Parity Support		x
64-Bit Data Path to Memory	x	x
DRAM Capacity	4 MB - 128 MB	2 MB - 768 MB
RAS Lines	5	6
Buffer Depth for Write Cycles	4 Qword	8 Qword
DRAM Voltage Support	3V and 5V	5V
EDO Memory Support	x	x
Autodetection of SIMMs	x	x
■ FULLY SYNCHRONOUS 25/30/33 MHZ PCI BUS INTERFACE	x	Sync, Async & Divided Synch
Greater than 100 MB/sec PCI Data Streaming	x	x
CPU-Memory Bandwidth	230 MB/sec	260 MB/sec
Synchronized CPU-to-PCI Interface for High Performance Graphics	x	Sync, Async & Divided Synch
PCI Bus Arbiter: 4 Bus Master Support	x	x
CPU-to-PCI Memory Write Buffer	16 byte	32 byte
Converts Back-to-Back Sequential CPU to PCI Memory Writes to PCI Burst Writes	x	x
PCI-to-DRAM Buffer	48 bytes	128 bytes
Bus Masters Supported	5	5
PCI-to-DRAM Bandwidth	120 MB/sec Utilizes "Snoop Ahead"	120 MB/sec Utilizes "64 byte buffer prefetch"
■ PCI/ISA BRIDGE	x	x
■ PCI/ISA MASTER/SLAVE INTERFACE		
PCI from 25-33 MHz	x	x
ISA from 7.5-8.33 MHz	x	x
ISA Slots	5	5
■ FAST IDE INTERFACE		
PIO and Bus Master IDE	x	x
Mode 4 Timing Support	x	x
Transfer Rate Potential	22 MB/sec	33 MB/sec
Buffer for Bus Master IDE PCI Burst Transfers	32 byte	64 byte
Plug-n-Play Port for Motherboard Devices	x	x
Steerable PCI Interrupts for PCI Device Plug-n-Play	x	x
■ CHIPSET PACKAGES	Triton Sytem Controller Triton Data Path (1) Triton Data Path (2) PCI ISA IDE Xcelerator	NxPCI System Logic NxMC Memory Controller PCI/ISA Bridge Symphony Sonata PCI-IDE Controller