CBI SINGLE BOARD COMPUTER

System Hardware Monitor
SDRAM Memory up to 512MB
Floppy Drive Interface
PCI Ultra WIde SCSI Interface
Dual PCI EIDE Ultra DMA/33
Serial Ports (16C550)
Universal Serial Bus
Enhanced Bi-Directional Parallel Interface
PS/2 Mouse
Keyboard Interface
AGP SVGA Interface
PCI 10/100Base-T Ethernet Interface

Pentium® III or Celeron® Processor
PICMG® Connector
ISA Bus
AMI Flash BIOS
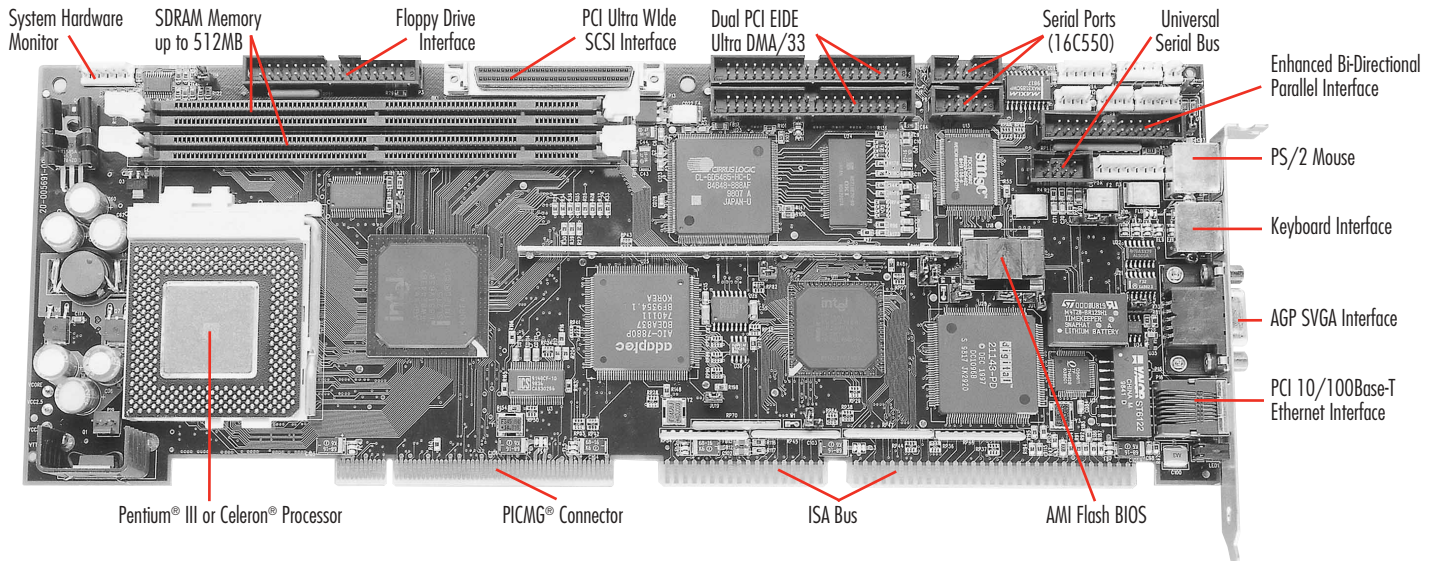
The CBI provides you with an extended life cycle and long-term support, maximizing your equipment investment. The CBI gives you precise performance, too. No more than you need - no less than you want. With the CBI you have a choice of an Intel® Pentium® III or Celeron® processor - whichever fits your needs.

PROCESSOR:

Intel® Pentium® III processor (FC-PGA) at 600MHz to 1.0GHz*
Intel Celeron® processor (FC-PGA) at 566MHz to 850MHz*

Higher speeds as available

CHIPSET:

Intel 440BX AGPset with the Accelerated Graphics Port (AGP) interface

CACHE MEMORY (L2):

Pentium III - A 256K integrated on-die Advanced Transfer Cache. The cache is 256-bit wide, 8-way set associative level two (L2) cache running at full processor core frequency.

Celeron - A 128K integrated on-die 64-bit wide, non-blocking cache.

SYSTEM/MEMORY BUS:

Intel 440BX AGPset supports the system/memory buses at both 66MHz and 100MHz speeds. The 100MHz system/memory buses provide a higher bandwidth path for transferring data between main memory/chipset and the processor.

PCI ULTRA WIDE SCSI INTERFACE:

The SCSI interface is a PCI Bus Master device using the Adaptec AIC-7880 chip. Supports Ultra Wide SCSI operation up to 40MB per second and bursts data to the host at full PCI speeds. Enable/disable active termination is provided with terminator voltage protected by self-resetting fuses. Software drivers are available for most popular operating systems.

PCI 10/100BASE-T ETHERNET INTERFACE:

The PCI Ethernet interface (Intel 82559) supports 10/100Base-T via an RJ-45 connector on the board's I/O bracket. The interface is compliant with IEEE 802.3 and PCI Local Bus 2.1 Specifications. Link status and activity LEDs are on the I/O bracket. Software drivers are available for most popular operating systems.

PCI EIDE ULTRA DMA/33 INTERFACE (DUAL):

Dual high performance PCI Bus Master EIDE interfaces are capable of supporting two IDE disk drives each in a master/slave configuration. Supports ULTRA DMA/33 with synchronous DMA mode transfers up to 33MB per second.

SDRAM MEMORY:

The DRAM interface consists of two dual in-line memory module (DIMM) sockets and supports auto detection of memory up to 512MB of Synchronous DRAM (SDRAM) memory. Minimum memory size is 8MB. The DIMM memory is PC-100 compliant for all speeds, which means that it complies with Intel's PC SDRAM specifications. Uses industry standard 64-bit (non-ECC) or 72-bit (ECC) wide gold finger DIMM DRAM in two 168-pin DIMM sockets.

ERROR CHECKING AND CORRECTION:

The memory interface supports ECC modes via BIOS setting for multiple-bit error detection and correction of all errors confined to a single nibble.

BUS SPEEDS:

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ISA	- 16-bit/8MHz
PCI	- 32-bit/33MHz
System/FSB	- 66MHz or 100MHz

BIOS (FLASH):

AMI Hi-Flex BIOS with built-in advanced CMOS setup for system parameters, peripheral management for configuring on-board peripherals, PCI-to-PCI bridge support and PCI interrupt steering. Supports flash devices for BIOS upgrading via floppy interface. Custom BIOSs available.

PCI LOCAL BUS INTERFACE:

The CBI is fully compliant with the PCI Local Bus 2.1 Specification. This board has optimized the PCI interface to allow the processor to sustain the highest possible bandwidth (greater than 100MB/sec sustained) and supports PCI-to-PCI bridge technology.

TRENTON

Dependable, always.
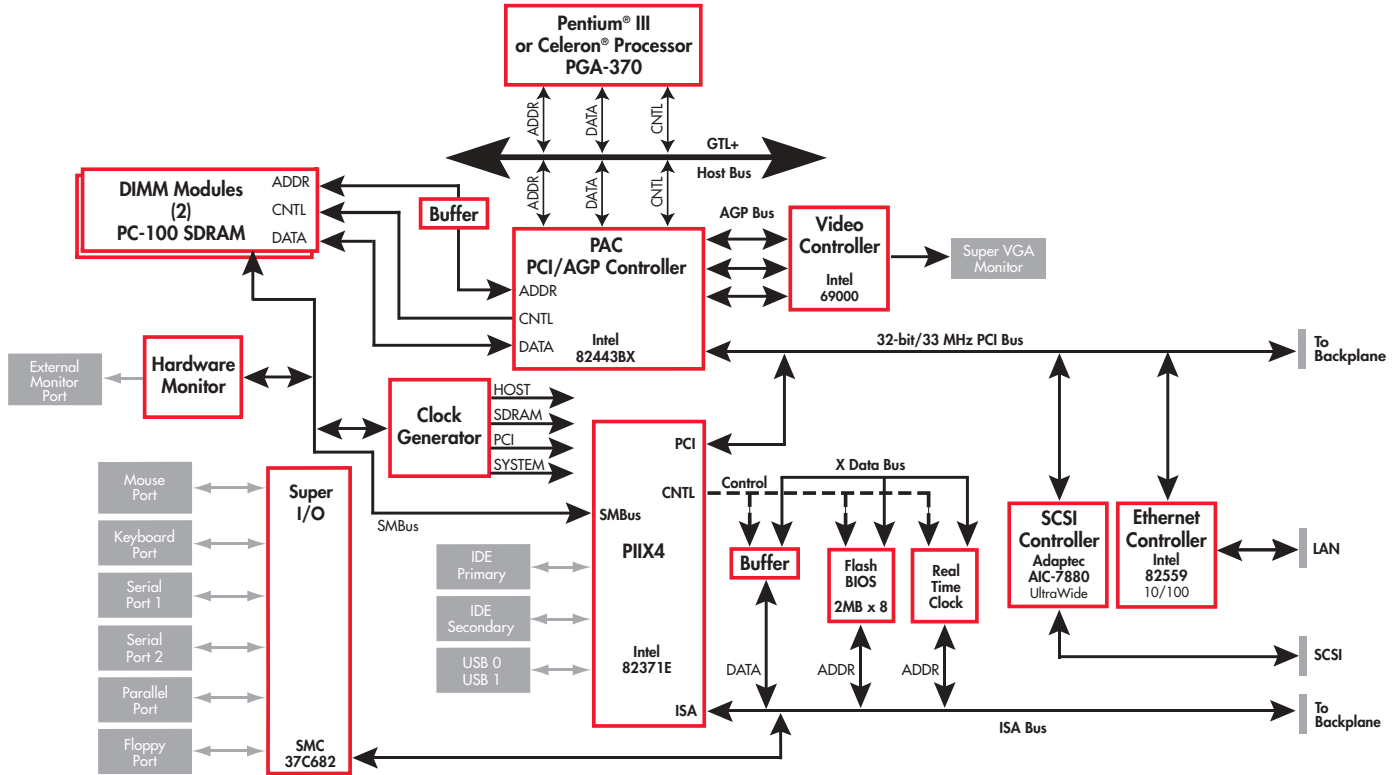
CONCURRENT PCI:

Maximizes system performance with simultaneous processor, PCI and AGP bus activities. It includes multi-transaction timing, enhanced write performance, a passive release mechanism and support for PCI 2.1 compliant delayed transactions.

AGP SUPER VGA INTERFACE:

The 69000 video interface is an Accelerated Graphics Port (AGP) device with 2MB of on-chip memory. AGP is designed to off-load the PCI Bus by allowing graphics data to move directly from system memory. The interface supports up to 1280 x 1024 pixel resolutions. Software drivers are available for most popular operating systems.

ADDITIONAL CBI FEATURES:

System Hardware Monitor:
- Provides monitoring of system voltages, temperature and fan speed.

Watchdog Timer:
- The software controlled watchdog timer monitors system activity and generates a reset pulse in the event of a timeout.

I/O Features:
- Two high-speed serial ports
- Enhanced bi-directional parallel interface
- Dual Universal Serial Bus (USB, Rev. 1.0)
- PS/2 mouse/keyboard interface
- Floppy drive interface

MEAN TIME BETWEEN FAILURES (MTBF):

66,000 POH (Power-On-Hours) at 40° C., per MIL-HDBK-217F

CBI APPLICATION CONSIDERATIONS:

Power Requirements:
+5V Typical
Pentium III - 100MHz FSB:

9.5 Amps	1.0 GHz
7.6 Amps	850MHz

Celeron - 66MHz FSB:

6.5 Amps	733MHz
4.9 Amps	566MHz

+12V @ 300 mAmps (Pentium III - 1.0GHz)
+12V @ 100 mAmps (all other speeds)
−12V @ < 100 mAmps

Temperature/Environment:
Operating Temperature: 0° to 60° C.
(0º - 55º C. for 700MHz Pentium III and above)

Storage Temperature: −40° to 70° C.
Humidity: 5% to 90% non-condensing

Mechanical:
A low profile (1.38" height) active cooling system is used on the CBI to ensure reliable processor operation at elevated temperatures. Overall dimensions for the CBI, including the active cooling system, are 9.185" L (233.3mm) x 6.3" H (160mm) x 1.69" W (42.9mm).

STANDARDS:

- IEEE P996, Personal Computer Bus Standard
- PCI Local Bus Specification 2.1
- PICMG® 1.0 Specification

AGENCY APPROVALS:

- Designed for UL1950, CAN/CSA C22.22 No. 950-95, EN55022: 1994/A2;1997, Class A, EN50082-2: 1995

ORDERING INFORMATION:

Model Name: CBI

Model #	CPU Speed
Pentium® III	
5721-110-xM	1.0GHz
5721-108-xM	850MHz
5721-105-xM	700MHz
5721-103-xM	600MHz
Celeron®	
5721-204-xM	850MHz
5721-014-xM	733MHz
5721-009-xM	566MHz

(xM = Memory)

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PICMG INDUSTRIAL COMPUTERS

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