



## **SB686BX**

*Single Board Computer*



### *Features*

Your choice of Intel Pentium or Celeron processor (See [www.icsadvent.com](http://www.icsadvent.com) for available processor speeds)

### industry applications:

telecom infrastructures

industrial automation

enhanced services

machine control

broadcasting

convergence

IP telephony

call centers

medical

CPE

IVR



formerly Industrial Computer Source

*Mission Critical Applied Computing Solutions*

## features

Intel® Pentium® or Celeron™ processors  
(See [www.icsadvent.com](http://www.icsadvent.com) for available processor speeds.)

Intel 440 BX AGP chipset

82443BX PCI/AGP controller (PAC)

82371EB PCI/ISA/IDE accelerator chip (PIIX4E)

Windows®95, 98, NT, Solaris, SCO, Linux, and QNX

Enhanced EPP and ECP modes

All ICS Advent products are covered by a 2-year warranty

## benefits

Next-generation processors provide superior PC performance for advanced media and communications applications

Proven compatibility and performance

Industry-leading expandability and reliability

Industry-leading 2D and 3D graphics performance

Supports prevalent operating system

Support for emerging technologies

No expansion slot required

Comprehensive service and support for top quality products

## specifications

### Processor Support

Intel Pentium or Celeron (See [www.icsadvent.com](http://www.icsadvent.com) for available processor speeds.)

**CPU Socket:** Intel Pentium II Slot 1 right-angle connector

**Chipset:** Intel 440BX AGP chipset

**Cache:** L2 cache onboard (dependent on Pentium processor)

### Memory

Capacity: 16MB minimum to 256MB (non-ECC) or 512MB (ECC)

Form factor: 168-pin DIMM

DIMM socket: gold contacts

DRAM types: 64/72-bit EDO

DRAM, 64/72-bit SDRAM (PC100, 100MHz)

DRAM data integrity types: BIOS configurable EC, ECC, and non-ECC

DRAM type detection: Autodetection algorithm, serial presence detect mechanism

### Bus Support

ISA-AT Bus: 64 mA IOL with 32mA IOH

PCI: 33MHz PCI 2.1 compliant

GTL+: 100 MHz or 66MHz switch selectable to match the Pentium used (see Processor Support for additional details)

AGP: Accelerated Graphics Port with 100MHz local memory interface

### Graphics Controller

Intel740 AGP SVGA 3D Accelerated Graphics controller

8MB high-speed, 64bit SGRAM with 100MHz interface

DB15 connector at rear panel

Peak data transfers up to 533MB/s

Integrated 24-bit 220MHz RAMDAC

Display resolutions up to 1600x1200

Graphic functionality disabled and all resources free if option not installed

Can be disabled by BIOS

### Dual Serial Ports

16C550 compatible dual serial port controller

16 byte receive and transmit FIFO buffers

Serial 1 RS-232 Port to DB9 at rear panel

Serial 2 RS-232 Port 10-pin shrouded

ESD protected to ±15kV

Can be disabled by BIOS

### Parallel Port

Single parallel port controller with bidirectional capability

Enhanced EPP and ECP modes

Connected to 26-pin shrouded header

Can be disabled by BIOS

### Keyboard Connector

Controller connected to header connector

Power supplied through +5VDC self-healing fuse

Note: You may configure the keyboard as absent or present by system BIOS. If absent, you can boot the system without a keyboard attached.

### EIDE Controller

Integrated enhanced IDE fixed disk controller on PCI local bus

Supports up to four drives: primary master and slave, secondary master and slave

Supports PIO Mode 4 and Ultra DMA/33

Can be disabled by BIOS

### Dual Floppy Drive Controller

Supports 1.44MB, 1.2MB, 720K, and 360K floppy drives  
Can be disabled by BIOS

### Universal Serial Bus

Universal Host Controller Interface (UHCI) configuration  
Dual USB connectors at the chassis rear panel via separate optional cable and bracket assembly

### Watchdog Timer

Forces reset if decoded I/O space is not written to within specified timeout period  
+5VDC monitor: If VCC falls below 4.5VDC, a reset occurs  
Programmable via software to 100ms, 250ms, or 500ms  
Enable and disable by jumper or software  
Note: Prefail detect IRQ signal output can be routed to IRQ10 or IRQ11 via jumper. This option triggers ISA bus IRQ if decoded I/O space is not written to within half of specified timeout period.

### Real-Time Clock

Motorola MC146818A compatible

256 bytes of battery-backed RAM

Up to seven years of battery-backup protection

Clock source at 14.318MHz accurate to ±1720Hz

### CMOS Battery

Onboard lithium 3.0V battery with diode protection circuitry

### AMI Hi Flex BIOS

Plug-n-Play compatible

2MB flash upgradeable with support for BIOS upgrade via software

### Operating Systems, 32 Bit

Windows 95, Windows 98 Second Edition – full support  
Windows NT V4.0 and later, server or workstation – full support

Solaris 2.5.1 and later

QNX V4.24-video support limited to a maximum of 800 x 600 by operating system

Red Hat Linux V5.2 – video support limited to 80 x 25 text mode by operating system

### Operating Environment

Temperature: 0 to 60° C

Humidity: 5 to 95% RHNC

Shock: 2G, any axis

Vibration: 0.5G, 10 to 2000Hz, any axis

Altitude: to 10,000 ft (3,048m) pressure altitude

### MTBF

110,000POH@25 C



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