

## DESCRIPTION

The MCSI IRV-686E Pentium/MMX All-In-One Single Board Computer (SBC) contains all the basic elements found in a high-performance IBM PC/AT compatible desktop computer system plus some unique features which make it ideally suited for industrial applications. The most outstanding features include: an optional 32MB PROMDISK-Chip™ Disk Emulator, dual PCI EIDE hard disk ports to support 4 EIDE drives, a high performance multi-I/O controller, a WatchDog timer, a 1K-bit E<sup>2</sup>Key memory for user data, and a 10/100Mbps Ethernet Port. The board uses the ALI Aladdin 4+ Chipset that is PCI 2.1 compliant, and the Winbond W9970CF VGA controller. The multi-I/O controller includes dual 16C550 UARTs, a floppy port, and an SPP/EPP/ECP multi-mode bi-directional parallel port. The optional PROMDISK-Chip Disk Emulator comes complete with ROM-DOS version 6.22, making it ideal for embedded diskless applications. The 1K-bit E<sup>2</sup>Key memory is a non-volatile memory that is useful for storing user data, such as: critical system parameters, terminal address, etc. The WatchDog timer is ideal for controlling critical processes where unattended operation is essential.

The IRV-686E Pentium SBC was specifically designed to operate in extreme industrial environments, and has an operating temperature range of 0° to 60°C.

## FEATURES

- 100% IBM PC/AT Compatible Computer
- Supports 233MHz Pentium, and 300MHz AMD K6 and Cyrix 6x86 Microprocessors
- ALI Aladdin 4+ Chipset
- SDRAM Expandable to 256MB (2 168-pin DIMM sockets)
- Includes 512KB of Pipeline Burst Mode Cache
- Optional 32MB PROMDISK-Chip™ Disk Emulator
- Winbond W9970CF PCI VGA Controller and 2MB Video RAM
- AT (PS/2) Compatible Keyboard Port (not required for booting)
- Two 16C550 Compatible RS-232 Serial Ports
- PS/2 Compatible Bi-directional Parallel Port
- Dual Floppy Disk Port Supports up to Two 3.5" or 5.25" Drives with Capacities up to 2.88MB
- Two PCI EIDE Hard Disk Ports
- WatchDog Timer and Power Monitor
- 1K-bit E<sup>2</sup>Key Memory for Storing User Data
- USB and Infrared Data Ports
- 10/100Mbps Auto-sensing Ethernet Port Supports IEEE 802.3u 100BASE-TX Standard
- Y2K Compliant

# IRV-686E SBC

## SPECIFICATIONS

<b>CPU:</b>	Supports: Intel Pentium/MMX up to 233MHz, and AMD K6 & Cyrix 6x86MX up to 300MHz
<b>Co-processor:</b>	Internal to the CPU chip
<b>Memory:</b>	System Memory: Expandable to 256MB using (2) 168-pin DIMM sockets which support 8MB, 16MB, 32MB, 64MB, or 128MB SDRAM DIMMs. On-board Cache Memory: 512KB high-speed Pipelined Burst Mode Cache Memory
<b>BIOS:</b>	AMI Plug-N-Play (Flash EPROM) with Internal SETUP and Power Management
<b>I/O Bus:</b>	ISA compatible bus
<b>PCI Bus:</b>	PICMG PCI Standard 2.1
<b>DMA:</b>	7 Channels (4 8-bit and 3 16-bit)
<b>Timers:</b>	3 Programmable
<b>Interrupts:</b>	16
<b>Reset:</b>	Controlled by on-board power detector and optional reset switch
<b>I/O Ports:</b>	2 - RS-232 Serial Ports 1 - Parallel Printer Port 1 - AT (PS/2) Compatible Keyboard Port 1 - PS/2 Compatible Mouse Port 1 - Speaker Port with on-board speaker 1 - 3.5"/5.25" Dual Floppy Disk Port 2 - EIDE Hard Disk Ports 1 - WatchDog Timer: 1, 2, 10, 20, 110, or 220 seconds 1 - Keylock & Power LED Port 2 - USB Ports 1 - Infrared Data Port 1 - E <sup>2</sup> Key 1Kb Non-volatile memory port
<b>PROMDISK®:</b>	1 - 32-pin socket supports MCSI PROMDISK-Chip™
<b>LAN Port:</b>	Chipset: Realtek RTL8139, Standard:IEEE 802.3u 100BASE-TX, Connector: RJ45
<b>VGA Port:</b>	Chipset:Winbond W9970CF Video Controller Bus: PCI Local Bus VRAM: 2MB Resolution: 1024x768 64K colors, 1280x1024 256 colors, 800x600 16M colors CRT Video:15-pin D connector
<b>Speed:</b>	Up to 300MHz
<b>Battery:</b>	Lithium for CMOS RAM & Clock/Calendar
<b>Size:</b>	Full Size AT-type board 13.3" L X 4.8" H
<b>Power:</b>	+5VDC @ 5A, +12VDC@ 0.16A, -12VDC@ 0.06A

## ORDERING INFORMATION

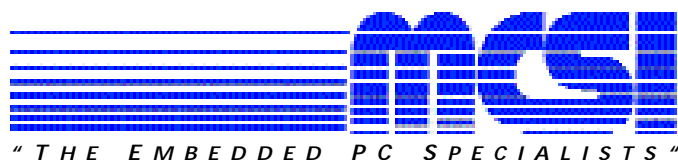
The IRV-686E SBC can be ordered in the following configurations:

Part Number	Description	Part Number	Description
88500	IRV-686E without CPU	88550	IRV-686E/200MHz
88520	IRV-686E/133MHz	88560	IRV-686E/233MHz
88540	IRV-686E/166MHz	88570	IRV-686E/266MHz
		88580	IHV-745E/300MHz

## WARRANTY

All MCSI products carry a two-year unconditional warranty. Contact MCSI headquarters for OEM quantity purchase ordering information.

Specifications Subject to Change without Notice



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