MSC-251

Pentium Half-Sized ISA SBC with VGA/LCD Interface

- FDD Interface
- General Purpose Flat Panel Connector
- Enhanced SPP/EPP/ECP Parallel Port
- 2 PCI Bus EDIDE
- COM2 RS-232/422/485
- SIMM Sockets for up to 128 MB DRAM
- COM1 RS-232/422/485
- Pentium P54C/P55C
- PS/2 Mouse Connector
- VGA Connector
- PS/2 Keyboard Connector
- AMI Flash BIOS
- PCI Bus VGA/LCD
- Flash Disk(Option)
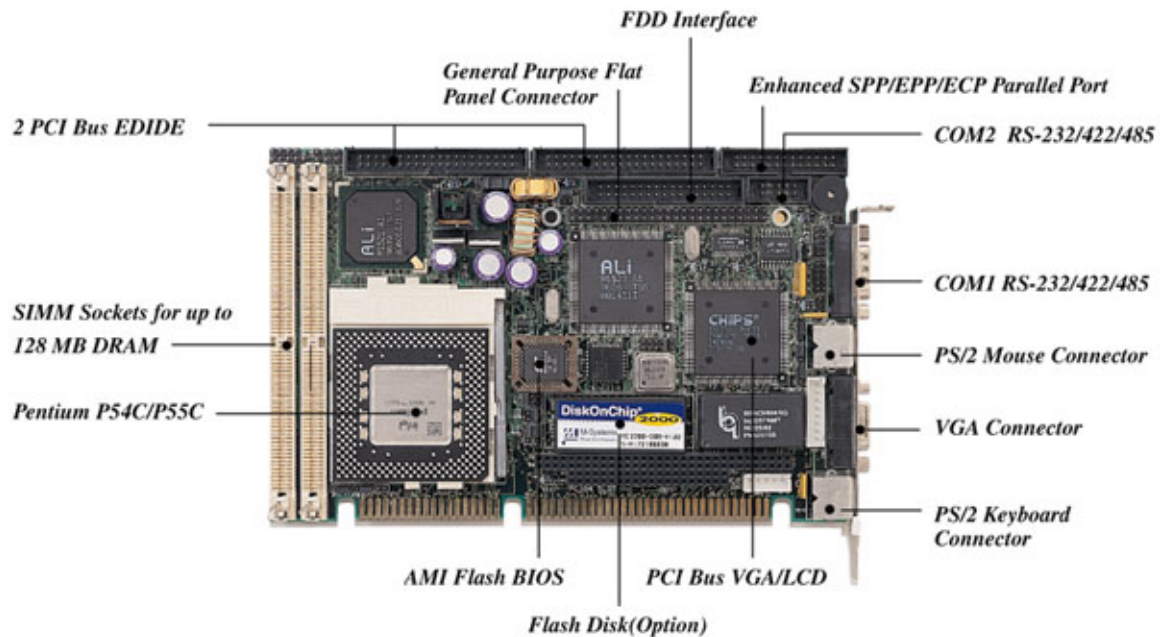
Introduction

The MSC-251AR/MSC-251AL is a full function half-sized Pentium ISA bus CPU card. It features a ZIF Socket 7 that supports various processors – Intel (P54C, P55C/MMX), Cyrix (M1, M2) and AMD (K5, K6) with speed up to 233MHz.

Based on ISA bus architecture that allows upgrading 486 ISA system to Pentium environment with no need to change the backplane. Two onboard 72-pin SIMM sockets offer a maximum configuration of 128MB memory using Fast Page Mode (FPM), Extended Data Output (EDO) or Bust EDO (BEDO) SIMMs.

An integrated Flat Panel/CRT SVGA controller with up to 2MB video memory can support a wide range of flat panel display up to 800x600 resolution and CRT display up to 1024x768 resolution. Optional Disk-On-Chip SSD from M-System with capacity of 2MB and up to 72MB provides excellent storage for vital data.

Features

- Supports Intel (P54C, P55C/MMX), Cyrix (M1, M2) and AMD (K5, K6) from speed 90 – 233MHz.
- AMI PnP BIOS in single Flash ROM with VGA BIOS.
- ISA bus and PC/104 bus interfaces.
- Onboard 256K to 512KB of pipeline Burst cache memory.
- Two 72-pin SIMM sockets supports up to 128MB of either FPM or EDO SIMMs.
- External RTC BQ3287A for 10-years data retention.
- 16-bit I/O decoding feature and non-loss CMOS setup.
- Supports up to four IDE disk drives in Master/Slave configuration with PIO mode 5.
- One integrated floppy diskette drive controller.
- Two serial ports that are jumper selectable for RS-232/422/485 data transmission and one multi-mode parallel port.
- Built-in VGA port and panel interface for up to 1024x768 resolution.
- Supports up to 72MB Disk-On-Chip flash disk (optional).
- 3-stage watchdog timer.
- On-board switching voltage regulator.

Specifications

Main Processor	Intel P54C/P55C, Cyrix M1/M2, AMD K5/K6 from speed 90 – 233MHz
Main Memory	Two 72-pin SIMM Sockets support up to 128MB by using FPM/ EDO/ BEDO SIMMs
Cache Memory	On-board 256KB to 512KB Pipeline Burst SRAM
BUS Interface	PC/104 and ISA bus
System BIOS	AMI PnP Flash BIOS
VGA/LCD Features	C&T 65550 Chipset with up to 2MB video memory (PCI Bus, supports LCD/CRT displays) 15-pin connector for 1024x768 resolution SVGA monitor 50-pin connector for 800x600 resolution LCD Panel
AT Compatible Controllers	16-level interrupts 7 DMA channels
Watch-dog Timer	3 stage of watchdog timer port 1s/10s/30s
Real-time Clock/Calendar	BQ3287A 10-year data retention 128 byte RAM locations CMOS RAM memory can be cleared
Built-in Connectors	Reset switch and key-lock switch Hard disk LED External speaker
All-in-one Features	Two EIDE interface ports. Two RS-232/422/285 serial ports One parallel port (EPP/ECP) One FDC PS/2 mouse connector
Special on-board Connectors	PC/104 expansion slot M-System DiskOnChip supports from 2MB to 72MB
Keyboard Connectors	PS/2 connector and 5-pin shrouded external keyboard connector
Power Consumption	+5V @3.27A typ. (2-pc of SIMMs) +12V @25mA typ.
PCB layer	6-layer PCB design

Note: Specification is subject to change without notice.

Dimensions (L x H)	7.283 x 4.783 inch
Operating Temperature	0 to 60°C (32 to 140°F)
Storage Temperature	-20 to +85°C (-4 to 185°F)
Humidity	5% to 95%, Non-condensing
MTBF	50,000 hours

Ordering Guide

MSC-251-AR-BS2   Pentium ISA bus SBC, w/256KB cache and 1MB V-DRAM (PC/104 Pin-1 at right)

MSC-251-AR-BS5   Pentium ISA bus SBC, w/512KB cache and 2MB V-DRAM (PC/104 Pin-1 at right)

MSC-251-AL-BS2   Pentium ISA bus SBC, w/256KB cache and 1MB V-DRAM (PC/104 Pin-1 at left)

MSC-251-AL-BS5   Pentium ISA bus SBC, w/512KB cache and 2MB V-DRAM (PC/104 Pin-1 at left)

M-System Flash Disk-On-Chip Options: please call for details.