486CPU-66MHz
MSM486SL

Features

- AMD Elan™SC400, 3.3V, 66MHz
- Video: LCD (CGA, ¼ VGA) STN 8bit
- DRAM: 2, 8, (16)MB (soldered)
- 1st Level Cache: 8kBytes
- SSD: DIL Socket for DOC2000
- IDE (ISA): Hard Drive, Flash
- Floppy Disk Interface (3.5")
- COM1, COM2, COM3
- LPT1 bi-directional
- LCD Character Interface
- Key Matrix Scanner
- RTC with Back-up Li-Battery
- Watchdog with Power Failure Detection
- Power Management (Suspend)
- Form Factor: PC/104
- BUS PC/104
- EEPROM for Setup Values
- Operating Temperature: -25°C to +70°C
- Extend. Temp.: -40°C to +85°C (33MHz) available

Description

The low power, low cost 486 CPU MSM486SL integrates all functions of a standard PC on one board, except CRT, though a STN flat panel (monochrome) can be connected — the adjustable LCD-BIAS voltage generator is on-board. Most remarkable is its low power consumption (5V only) and wide operating temperature range — no cooling needed. Power management and a programmable watchdog timer are standard. The operating system and the application program can be booted from floppy disk, hard disk, or an optional SSD (DOC) with up to 144MB flash memory, which can be programmed on-board. In addition, an IDE flash disk 16MB (no FFS needed) can be connected to the IDE port and directly mounted onto the board. Besides a AT/PS2 keyboard controller, a key matrix scanner (8 x 16) is on-board. The CPU runs on operating systems such as MS-DOS, Windows, Windows NT, Windows CE (min. DRAM 8MB), and real time systems such as QNX or Linux, to name a few. Min. quantities of 50 units per order are required for extended temperature range and coating.

Ordering Information

Item codes	Part #	Desription
MSM486SL2	801102	486 CPU, 2MB DRAM, CGA-1/4VGA, no CRT/LCD
MSM486SL8	801108	486 CPU, 8MB DRAM, CGA-1/4VGA, no CRT/LCD
MSM486SL16	801116	486 CPU, 16MB DRAM, CGA-1/4VGA, no CRT/LCD

Options

MSM486SVPC	801088	Board mounted, dual slot PCMCIA adapter
Solid State Flash Disk (32 pin DIL) - DiskOnChip		
MD-2800-D08		DiskOnChip "Millenium", 8MB
MD-2202-D16		DiskOnChip 2000, 16MB
MD-2200-D24		DiskOnChip 2000, 24MB
MD-2202-D32		DiskOnChip 2000, 32MB
MD-2202-D48		DiskOnChip 2000, 48MB
MD-2202-D72		DiskOnChip 2000, 72MB
MD-2202-D96		DiskOnChip 2000, 96MB
MD-2203-D144		DiskOnChip 2000, 144MB
MD-2203-D192		DiskOnChip 2000, 192MB
MD-2203-D224		DiskOnChip 2000, 224MB
MD-2203-D288		DiskOnChip 2000, 288MB
IDE Flash Modules		
MSFLASH16	080509	IDE Flash Disk 16MB (2" x 1.2" x 0.5")
MSFLASH32	808532	IDE Flash Disk 32MB (2" x 1.2" x 0.5")
MSFLASH64	808564	IDE Flash Disk 64MB (2" x 1.2" x 0.5")
Cables		
MSM-CK	802605	Cable kit, including cable for 1.8"/2.5" Hard Drive

ADVANCED DIGITAL-LOGIC INC
Embedded Industrial Computer Solutions

MSM486SL

Technical Specifications

Features	Functions	Remarks	Options
General			
CPU	AMD ElanSC400		
Clock Frequency	66MHz		33MHz (selectable)
Math. Co-processor	none	no floating point	
DRAM	2, 8, (16) MB	soldered	
Solid State Disk	32-pin DIL-Socket for DOC	2 to 144MB	
DMA/IRQ Available	1 DMA (8bit); 2 IRQ (programmable)	customer	
Cache (Level 1)	8kB Write-back	no 2nd Level	
Counters/Timers	3 programmable		
Zero Wait State Signal	not available		
Watchdog Timer	Enable/disable (softw.); power fail indication	Strobe 800ms	
Setup Saves	EEPROM 2kB (1kB for user)		
BUS System	PC/104	104 pins	
PC-Interfaces			
Video Controller	CGA, ¼ VGA (monochrome)		
Mode	Flat Panel, 8bit STN	5V or 3.3V	
Resolution	320 x 240 monochrome		640 x 200 mono
Video Memory	UMA		
Bias-Voltage LCD	On-board (-18V to -30V)	adjustable	
LCD-Character Interface	8 bit (bi-directional)		
Hard Disk Controller	IDE, AT-Type (1.3"/1.8"/2.5" Hard Disk)	44 pins (RM2)	IDE Flash 16MB
Floppy Disk Controller	3.5", micro floppy	26 pins (FCC)	Adapt. for reg. floppy
Serial Ports	COM1: RS485	2 pins	
	COM2/3: RS232C	10 pins	
Parallel Port	LPT1 (SPP, EPP bi-directional)	1x26 pins	
Keyboard Controller	AT or PS2		
KB-Matrix Controller	8 x 16 keys		
Mouse	PS/2		
Electrical			
Power Requirement	5V/510mA (typical)	2MB	
Power Management	Suspend: 5V/350mA	2MB	
RTC Back-up Battery	Lithium 220mAh on-board	Approx. 5 years	external
Physical Characteristics			
Dimensions	3.8" x 3.6" x 0.5" (96x90x11mm)	from Surface	
Weight	2.3 oz. (65g)		
MTBF	200,000 hours		
Operating Environment			
Operating Temperature	-25°C to 70°C	Burn-in; no cooling	
Extended Temperature	-40°C to +85°C (33MHz) available	min. qty.	
Storage Temperature	-55°C to +85°C		
Relative Humidity	5 - 90% non-condensing		
Vibration	5 to 2000Hz		
Shock	10 G		

Manufacturer	USA Distributor & Support Center	Representative
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