

Specification Summary: AM-7000 Computer System

The Alpha Microsystems AM-7000 is a high-performance computer designed for a wide range of applications. The AM-7000 can be configured in three different enclosures: the desktside chassis, the AM-990, and the AM-990 Jumbo, providing for different input/output processing needs.

The AM-7000 uses a two-board combination, the AM-319-20 and AM-176-10 boards. The latter has an MC68060 processor running at 75MHz . The AM-7000 provides serial and parallel I/O, a high performance wide SCSI controller, 10 / 100 Base-T Ethernet support, UPS monitoring, two paddle card busses for connecting up to 32 I/O cards, battery-backed CMOS, 128K external instruction / data cache, and four SIMM expansion slots.



The following specifications are subject to change without notice.

GENERAL SPECIFICATIONS (DESKSIDE CHASSIS)

Temperature/Humidity	60 to 90 degrees F (15.6 to 32.2 degrees C); 10 degrees C per hour maximum fluctuation; 20% to 80% humidity non-condensing
Power Requirements	United States: 115 VAC (90 to 132 VAC), 47 to 63Hz International: 230 VAC (180 to 264 VAC), 47 to 63Hz
Maximum Power Consumption	115 volts at 4 amps or 230 volts at 2 amps
Electromagnetic Interference	Complies with US FCC rules and regulations, Class A
System Dimensions	Height: 17.75" (45 cm) Width: 9" (22.8 cm) Depth: 16.5" (42 cm) Weight: Up to 26 lbs. (12 kg)
Enclosure Composition	Sheet metal and plastic

General Specifications—Deskside Chassis (Continued)

Additional Features	<ul style="list-style-type: none"> Clock/calendar with battery backup Front panel with status and diagnostic display Programmable interval timer AC power failure detect Remote reset Security lock CMOS setup feature UPS interface.
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GENERAL SPECIFICATIONS (AM-990 AND AM-990 JUMBO)

Temperature/Humidity	60 to 90 degrees F (15.6 to 32.2 degrees C); 10 degrees C per hour maximum fluctuation; 20% to 80% humidity non-condensing	
Power Requirements	United States: 115 VAC (90 to 132 VAC), 47 to 63Hz International: 230 VAC (180 to 264 VAC), 47 to 63Hz	
Maximum Power Consumption	115 volts at 4 amps or 230 volts at 2 amps	
Electromagnetic Interference	Complies with US FCC rules and regulations, Class A	
System Dimensions	AM-990	AM-990 Jumbo
	Height: 28" (71.2 cm)	28" (71.2 cm)
	Width: 9" (22.9 cm)	18" (45.8 cm)
	Depth: 30.5" (77.5 cm)	30.5 (77.5 cm)
	Weight: Up to 120 lbs. (55 kg)	Up to 140 lbs. (65 kg)
Enclosure Composition	Sheet metal	
Additional Features	<ul style="list-style-type: none"> Clock/calendar with battery backup Front panel with status and diagnostic display Programmable interval timer AC power failure detect Remote reset Security lock CMOS setup feature UPS interface. 	

AM-176-10 CENTRAL PROCESSING UNIT

Processor	MC68060 CPU chip
CPU Speed	75MHz
Data Path	32-bit bi-directional data path
Address Path	32-bit address path
Internal Cache	8K instruction cache 8K data cache
External Cache	128K unified instruction and data cache with burst support
Memory Expansion	From 32MB to 512MB
Interrupt Capabilities	Seven interrupt levels with vector capability
Direct Memory Access	Bus mastering capability, supports multiple masters

AM-359 EIGHT-PORT SERIAL I/O BOARD

Number of ports	Eight RS-232 ports maximum
Characteristics	All asynchronous serial communication ports configurable for RS-232 only
Interface	RJ-45 8-wire connectors. For pinout signals, see <i>AM-7000 Computer Owner's Manual</i>
Supported Baud Rates:	50, 75, 110, 134.5, 150, 300, 600, 1200, 1800, 2000, 2400, 3600, 4800, 7200, 9600, 19200, 38400, 57600.
Stop Bit	Programmable
Word Length	Programmable
Parity	Programmable

PARALLEL PORTS

Number of Ports	Four high speed, FIFO buffered
Characteristics	Centronics compatible
Interface	DB-25 connector: for DB-25 connector signals, see Appendix A in the <i>AM-7000 Computer Owner's Manual</i> .
Cable Length	Parallel printer cable should not exceed six feet

SCSI (SMALL COMPUTER SYSTEM INTERFACE) PORT

Physical Interface	68-pin connector
Maximum Bus Length	3 feet external cable length without SCSI Bus Repeater, depending upon peripheral device configurations.
Maximum Number of Devices	Five internal SCSI devices, sixteen total devices including the host controller.
Protocol Supported	Full SCSI-1 and SCSI-2 supported, including support for connect and disconnect protocols.
Implementation	Single host only. Multiple host architecture not supported.

STORAGE AND BACKUP

Hard Disk Drive

Consult the *SCSI Hard Disk Installation Guide* for specifications appropriate to your installation.

Maximum Number	Six half-height or three full height (deskside chassis) 12 half-height or six full height (AM-990 chassis)
Physical Size	3.5" or 5.25"
Interface	Wide-SCSI

3.5" Diskette Drive

Physical Size	3.5"
Data Capacity	1.44MB
Diskettes	3.5", 18 sectors/track, 80 tracks/side, double-sided, double-density
Interface	Either SCSI (PDB-00212-20) or using the AM-219 floppy controller interface board.
Transfer Rate	500K bits/second
Latency (Average)	100 msec
Access Time Track-to-track	3 msec
Average Access Time	94 msec
Track Density	135 TPI
Recording Density	17434 bits/inch
MTBF	10000 power on hours or more, normal duty cycle
Soft Read Error Rate	1×10^{-9}
Hard Read Error Rate	1×10^{-12}
Seek Error Rate	1×10^{-6}

Streaming Tape Drive

Physical Size	5.24" half-high
Data Capacity	525MB to 32GB
Tape Cartridge	See <i>AM-7000 Computer Owner's Manual</i>
Interface	SCSI
Tape Format	See <i>AM-7000 Computer Owner's Manual</i>
Soft Error Rate	1×10^{-8}
Hard Error Rate	1×10^{-10}

SOFTWARE

Standard AMOS Software Release contains:

- Operating System, AMOS: A multi-user, multi-tasking, timesharing monitor
- Multiple printer spoolers
- AlphaTCP TCP/IP networking software for Internet/intranet connectivity
- Parameterized command file processor
- Multi-pass macro assembler, M68
- Linkage editor, LNKLIT
- Symbolic debugger, AlphaFIX
- Object file librarian, LIBLIT
- Background task manager
- Object file patching utility, PATCH
- Indexed sequential access method data access package, ISAM
- Over 150 other utility programs
- AlphaBASIC and AlphaBASIC PLUS programming languages
- Screen oriented text editor, AlphaVUE
- Text formatter, TXTFMT

Other software packages are available from your dealer.