

System 200



WICATsystems

WICAT System 200

WICAT Systems, Inc. introduces a second-generation model of the world's first 68000 computer, the System 200. Unique design improved by years of testing in the field makes the 200 the most powerful and reliable 68000 on the market.

WICAT's proprietary bus structure and intelligent I/O controller provide rapid response and access to memory for up to 32 users. A high-density disk controller supports up to 474MB per disk, four drives per system, and multiple backup subsystems.

The various configurations and options for the 200 are outlined below:

PROCESSOR

- MC68000L8, 8MHz (approx. 1 million instructions per second)
- 16 - Bit Processor (32-bit data operations)
- Memory Management
- 7 Vectored Interrupt Levels
- 8 - Slot Chassis (proprietary bus)

MEMORY

- 512KB/5MB Dynamic Parity RAM (ECC Optional)

COMMUNICATIONS

Bisync 3270
Bisync 2780/3780

PERIPHERALS

- SMD Disk Subsystems:
 - 80/160/474 Disk
- Tape Subsystems:
 - Cipher Tape (9-track, 1600/3200 BPI, 25 ips)
 - DEI Cartridge Tape (6400 BPI, 30/90 ips)
- Interfaces:
 - 8/32 Async Intelligent Ports
 - 4/8 Sync Intelligent Ports
 - Master Control Port
- Options:
 - Hardware Floating Point

SYSTEM SOFTWARE

- Multiuser Control System (MCS) - real time, multiuser, multitasking operating system
- Operating System Options: UNIX*, CP/M Emulator
- Language Support: APL, Assembler, BASIC, C, COBOL, FORTRAN 77, and Pascal
- Major Applications: Office Automation, UltraCalc, WISE (authoring system), Educational Courseware

The WICAT System 200 is simply unparalleled in performance or price. Innovation and experience make the difference.

System 200 Hardware Specifications

ENVIRONMENTAL

Safety:

Designed to meet UL 478 (EDP) and 114 (Office Equipment), and CSA 154 (EDP) and 143 (Office Equipment).

EMI:

Designed to meet US FCC Rules and Regulations, Part 15, Subpart J, Class A

Temperature

Operating: 50 to 95°F 10 to 35°C
 Non-operating: -40 to 140°F -40 to 60°C
 Operating Altitude 10,000 ft. 3,000 m.
 Operating Humidity (non-condensing) 20 to 80%

Rack Mount:

Physical size	Quarter Bay	Half Bay
Height	31"	43"
Width	21"	21"
Depth	33"	33"
Weight	120 lbs	170 lbs

CPU DRAWER

Physical size

Height	10"
Width	19"
Depth	26"
Weight	50 lbs.

Electrical

Frequency (Hz)	50-60
Voltage	110/220
Watts	300

Timing

CPU (MHz)	8
Bus	Proprietary
Serial Ports (RS232)	50-19.2K Baud
Parallel (MB/sec.)	1

84 MB SMD DISK SUBSYSTEMS

Physical size

Height	8.7"
Width	19"
Depth	26"
Weight	40 lbs

Electrical (input power)

Frequency	50-60 Hz
Voltage	110/220
Watts	300

Specifications

Winchester size	8"
Capacity	
Unformatted	84
Formatted	76
Access Time	
Track to Track (ms)	5
Average (ms)	20
Maximum (ms)	40
Transfer Rate (MB/sec.)	1.229
Rotational Speed (RPM)	3600
MTBF	10,000

168 MB SMD DISK SUBSYSTEMS

Physical size

Height	10.4"
Width	17.5"
Depth	29.8"
Weight	128 lbs

Electrical (input power)

Frequency	50-60 Hz
Voltage	110/220
Watts	400

Specifications

Winchester Size	14"
Capacity	
Unformatted	165.9
Formatted	151.7
Access Time	
Track to Track (ms)	10
Average (ms)	30
Maximum (ms)	55
Transfer Rate (MB/sec.)	1.209
Rotational Speed (RPM)	3600
MTBF	9000

474MB SMD DISK SUBSYSTEMS

Physical size

Height	10.5"
Width	19"
Depth	26"
Weight	140 lbs

Electrical (input power)

Frequency	50-60 Hz
Voltage	110/220
Watts	600

Specifications

Winchester size	10½"
Capacity	
Unformatted	474
Formatted	421
Access Time	
Track to Track (ms)	5
Average (ms)	18
Maximum (ms)	35
Transfer Rate (MB/sec.)	1.859
Rotational Speed (RPM)	3961
MTBF	10,000

9 TRACK TAPE DRIVE

Tape

Physical	
Height	8.7"
Width	19"
Depth	25"
Weight	80 lbs

Electrical

Frequency	50-60 Hz
Voltage	110/220 volts
Watts	300
Recording Density	1600/3200 bpi
Tape Speed	25/100 ips
Transfer Rate	160K Bytes/sec
Capacity	
½" Mag tape	(2,400' tape)
Unformatted	46 MB
Formatted	37 MB (4K Bytes/block)
MTBF	5500 hrs

CARTRIDGE TAPE DRIVE

Recording Density	6400 bpi
Tape Speed	30/90 ips
Transfer Rate	192K Bits/sec
Capacity	(450' tape)
¼" Cartridge Tape	
Unformatted	17MB
Formatted	12 MB (4K Byte/block)

System Software

OPERATING SYSTEMS

MCS

WICAT's Multiuser Control System (MCS) is one of the most powerful operating systems available on a microcomputer today. It contains many features rarely found even on larger systems. System features include:

Real Time Operation
 Multiuser, Multitasking
 Command Line Editing
 User Modifiable and Extendable Help Facility
 Hierarchical File Structure
 KSAM
 Sort/Merge
 Screen Oriented Editor

WICAT has succeeded in producing a micro-computer system that is appreciated by both sophisticated implementors and general users.

UNIX (UniPLUS+)

Currently the world's most popular development system, UNIX enjoys wide exposure because of its portability. The WICAT implementation of UNIX is derived from the UniSoft port (UniPLUS+) which includes the standard features of UNIX V7, Berkeley enhancements, such as C Shell, and the Visual Editor and such commercially used functions as record locking and sort/merge.

LANGUAGES

RM/COBOL

RM/COBOL is a high level implementation of the ANSI 74 COBOL standard, designed for the efficient development and execution of COBOL business applications. RM/COBOL has the features commonly required by minicomputer and mainframe applications.

SMC BASIC

SMC BASIC is a *Business BASIC* which has retained the simplicity of the original Dartmouth BASIC, but with added enhancements that make the language particularly simple and easy to apply to business applications.

Pascal

WICAT's Pascal compiler produces an optimized native 68000 code. Extensions to the ISO standard include random file access, UCSD-compatible strings, and liberal set capability.

C

The WICAT C compiler derives from the standard UNIX* C compiler and comes with full standard I/O and math libraries. This low-level language allows easy access to a machine's operating system and hardware, as well as to FORTRAN and Assembler.

FORTAN 77

FORTAN 77 is a GSA-validated, full implementation of the ISO standard. FORTAN 77 has an enhanced I/O and program structure and yet supports the FORTAN 66 standard.

APL.68000*

APL.68000 is the first APL interpreter for the MC68000 microprocessor. It supports a powerful file system, formatter, and IEEE floating point arithmetic.

CIS COBOL

WICAT offers the GSA-approved CIS COBOL with special screen handling features and extensions for interactive debugging. The compiler exceeds the ANSI Level 1 COBOL requirements and handles sequential, relative, and indexed sequential files.

Coherent BASIC*

WICAT's extended dialect of BASIC not only functions as an interactive interpreter, but also produces and executes code like a compiler. BASIC can generate assembly files that can be linked with other files to form an executable image independent of the interpreter.

Assembler

The WICAT 68000 Assembler processes files at 2000 lines per minute and includes two macro preprocessors. The 68000 Assembler supports the standard mnemonics and pseudo-instructions in Motorola's portable cross assembler to transport applications quickly and effectively.

* UNIX is a trademark of Bell Labs

* UniPLUS+, a product of Unisoft

* CP/M is a trademark of Digital Research

* Multibus is a trademark of INTEL Corporation

* APL.68000 is provided by The Computer Company

* Coherent BASIC is a product of Mark Williams Co.