



MOTOROLA

M68SAC1

STAND-ALONE COMPUTER

The M68SAC1 is a complete computer system that fits on a single printed circuit board, thus providing significant benefits in cost and size over multiboard systems.

The crystal controlled clock circuit provides the Stand-Alone Computer with the capability of working with dynamic memories and slow memories. The clock circuit also generates the basic timing signal used by the module's baud rate generator.

By setting jumpers, the user can tailor the module to work in different configurations to economically suit his needs.

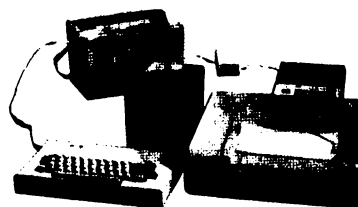
- Four 8-bit parallel Input/Output Ports and Control Lines for Peripheral Interfacing
- Two asynchronous Input/Output Ports with one RS232 C/TTL/-TTY Current Loop interface.
- 384 bytes of RAM
- Three MCM68708 or equivalent AROM/ROM Sockets.
- One MCM6830 ROM Socket
- 921.6 KHz on-board crystal controlled clock generator
- No restriction on Interrupt capability
- On board real-time clock capability
- Four jumper selectable vectors addresses.
- Fully buffered Three-State Bus Connector
- Fully compatible with all EXORciser modules

By adding options, the Stand-Alone Computer can be upgraded to an Autonomous Development System.

POLYVALENT DEVELOPMENT SYSTEM

STAND-ALONE COMPUTER

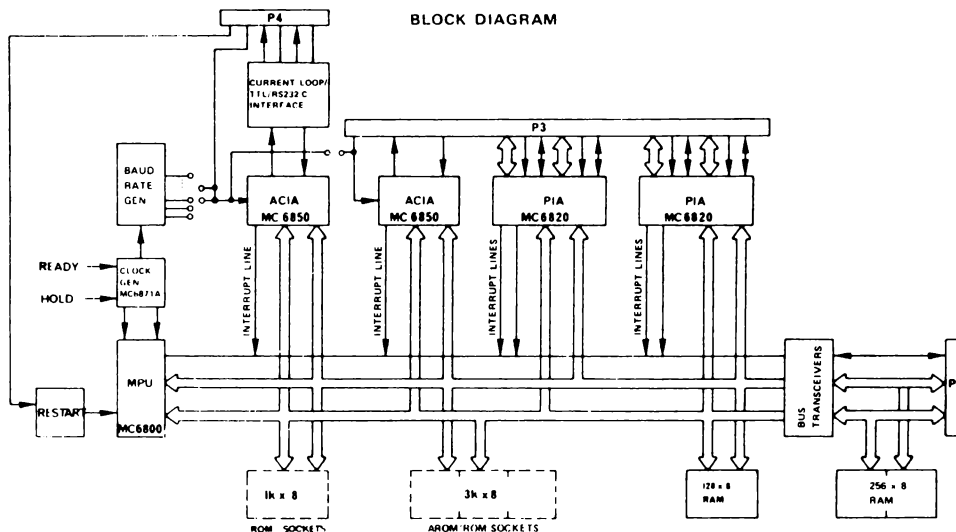
PDS



SAC



BLOCK DIAGRAM



M68SAC1

MODULE SPECIFICATIONS

Specification		Value
Memory Size Capability		65, 536 bytes maximum.
On-Board Memory Size		384 bytes of RAM 3 x 1 K-byte MCM68708 compatible AROM/ROM Sockets 1 x 1 K-byte MCM6830 compatible ROM socket
Memory locations available for external expansion		44 K-byte: 0000 to 7FFF 9000 to 9FFF B000 to CFFF
Word Size	Data Address Instruction	8 bits 16 bits 8, 16, or 24 bits
Instruction Set		72 variable length instructions
Interrupts		Maskable and non-maskable real-time interrupts; Software interrupt
Clock Signal		921.6 KHz
Address Bus		Three-state TTL voltage compatible
Data Bus		Three-state TTL voltage compatible
Control Bus		TTL voltage compatible
MC6820 Peripheral Interface Adapter Lines		TTL voltage compatible*
MC6850 Asynchronous Communication Interface Adapter		TTL voltage compatible*
Serial Transfer Rate		110, 134.5, 150, 200, 300, 600, 1200, 1800, 2400, 3600, 4800, 7200, 9600 baud
Terminal interface		RS232-C, TTL or 20 mA Current-Loop
Power requirements		+ 5 Vdc at 1.5 A + 12 Vdc at 200 mA - 12 Vdc at 200 mA - 5 Vdc on board converter
Operating temperature		0° to 70 °C
Dimensions		
Width		248 mm 9.75 in.
Height		165 mm 6.5 in.
Thickness		13 mm 0.5 in.
PC Board Thickness		1.6 mm 0.062 in.

*See MC6820 and MC6850 data sheets for specifications on these signals



MOTOROLA Semiconductor Products Inc.