

HMOS Single-Component 8-Bit Microcomputer

- High Performance HMOS
- Interval Timer/Event Counter
- Two Single Level Interrupts
- Single 5-Volt Supply
- Over 96 Instructions; 90% Single Byte
- Reduced Power Consumption
- Compatible with 8080/8085 Peripherals
- Easily Expandable Memory and I/O
- Up to 1.36 μ s Instruction Cycle
- All Instructions 1 or 2 Cycles

The Intel MCS[®]-48 family are totally self-sufficient, 8-bit parallel computers fabricated on single silicon chips using Intel's advanced N-channel silicon gate HMOS process.

The family contains 27 I/O lines, an 8-bit timer/counter and on-board oscillator/clock circuits. For systems that require extra capability, the family can be expanded using MCS[®]-80/MCS[®]-85 peripherals.

To minimize development problems and provide maximum flexibility, a logically and functionally pin-compatible version of the ROM devices with UV-erasable user-programmable EPROM program memory is available with minor differences.

These microcomputers are designed to be efficient controllers as well as arithmetic processors. They have extensive bit handling capability as well as facilities for both binary and BCD arithmetic. Efficient use of program memory results from an instruction set consisting mostly of single byte instructions and no instructions over 2 bytes in length.

Device	Internal Memory		RAM Standby
8050AH	4K x 8 ROM	256 x 8 RAM	yes
8049H	2K x 8 ROM	128 x 8 RAM	yes
8048H	1K x 8 ROM	64 x 8 RAM	yes
8040AHL	none	256 x 8 RAM	yes
8039HL	none	128 x 8 RAM	yes
8035HL	none	64 x 8 RAM	yes
8749H	2K x 8 EPROM	128 x 8 RAM	yes
8748H	1K x 8 EPROM	64 x 8 RAM	yes

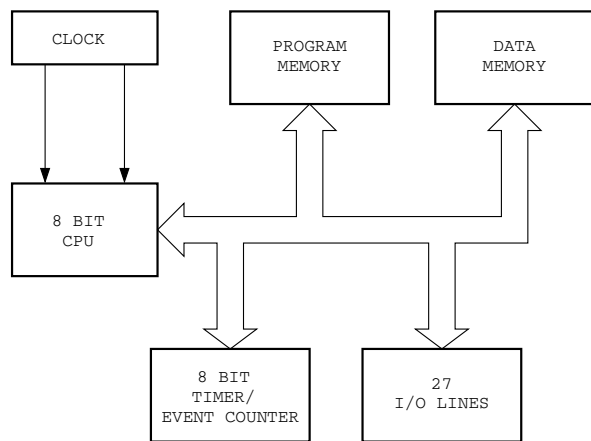


Figure 1.
Block Diagram

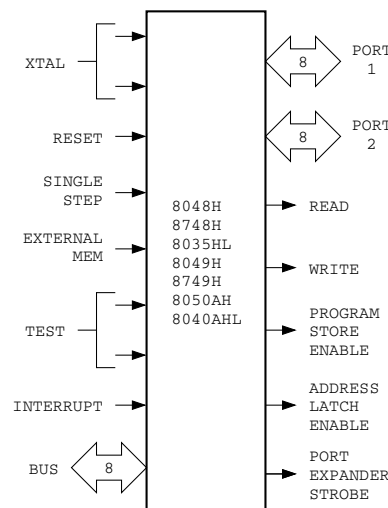


Figure 2.
Logic Symbol

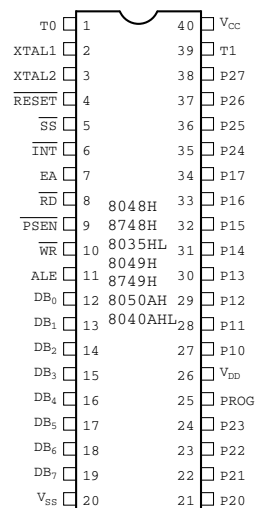


Figure 3.
Pin Configuration