Factsheet

SI80MC51

Microcontroller

Silicon Cores™

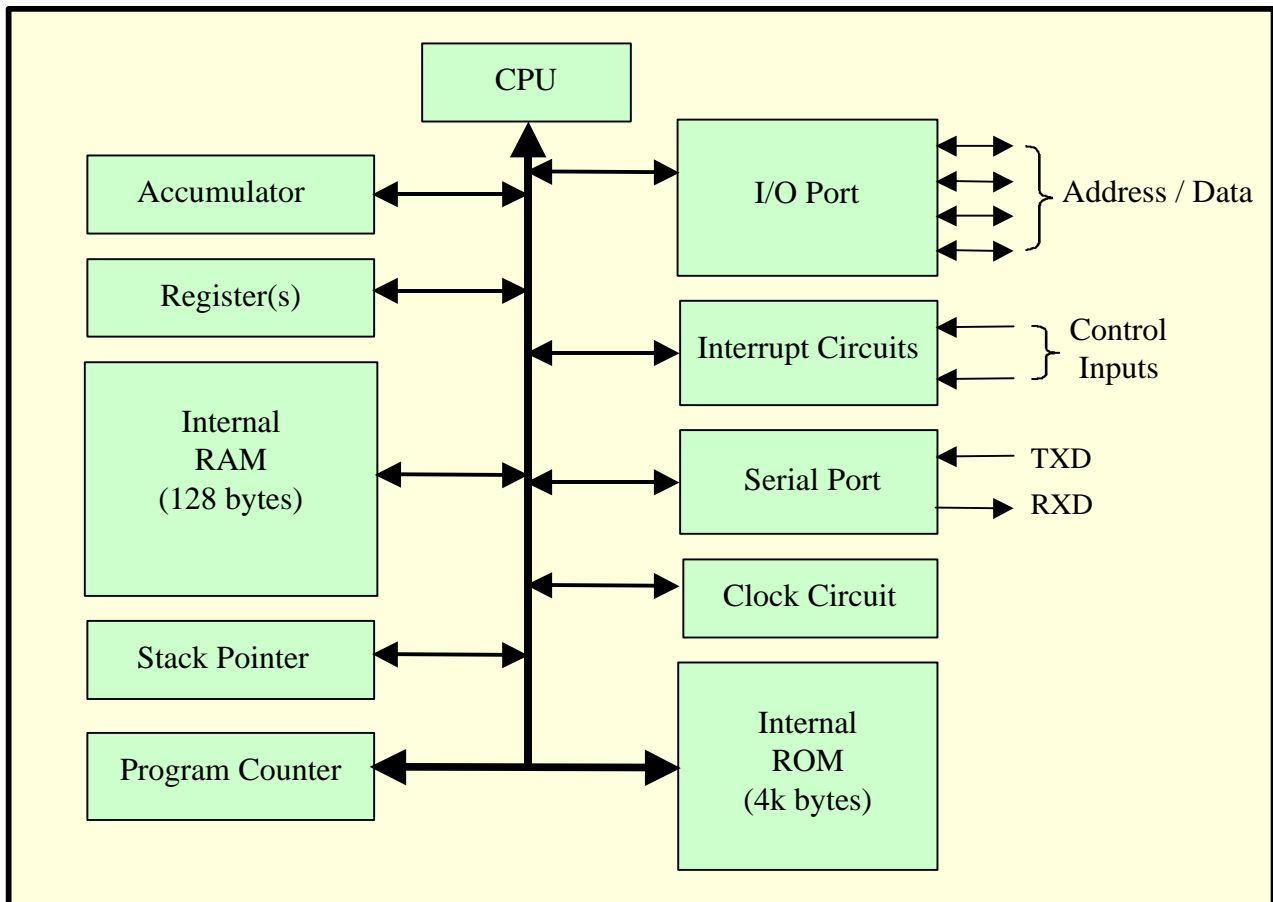**Core to the Intelligent Network™**

Product Features

- Eight-bit CPU.

- Sixteen-bit program counter and data pointer.

- Eight-bit program status word.

- Eight-bit stack pointer.

- Internal ROM of 4k.

- Internal RAM of 128 bytes.

- Four register banks, each containing eight registers.

- Sixteen bytes, which may be addressed at the bit level.

- Eighty bytes of general-purpose data memory.

- Thirty-two input/output pins arranged as four 8-bit ports: P0 - P3.

- Full duplex serial data receiver/transmitter: SBUF.

- Control registers: TCON, TMOD, SCON, PCON, IP, and IE.

- Two external and three internal interrupt sources.

- Five Interrupts are provided.

- Fully synthesizable Register Transfer Level (RTL) VHDL.

The *SI80MC51* is an Intel microcontroller compatible, which is a true computer on chip. The Product incorporates all of the features found in a microprocessor CPU: ALU, Program Counter, Stack Pointer and Registers. It also has added the other features needed to make a complete computer: ROM, RAM, parallel I/O, serial I/O, counters, and a clock circuit. The prime use of a microcontroller is to control the operation does not change over the of a machine using a fixed program that is stored in ROM and that lifetime of the system *SI80MC51* 8-bit microcontroller is optimized .for control-oriented applications that require lower power, higher integration and higher performance.
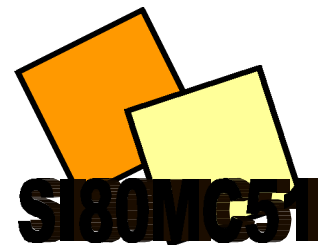
SI80MC51 Block Representative Schematic:

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MC8051
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