

CMOS 8-BIT MICROPROCESSOR

Features

- CMOS microprocessor that is compatible with NMOS 6500 series microprocessors
- Low power consumption (4mA @ 1 MHz) allows battery-powered operation
- Enhanced instruction set: 27 additional op codes encompassing eight new instructions enhance software performance compared to existing NMOS 6500 microprocessor instruction set
 - 65 microprocessors instructions
 - 178 operational codes
 - 15 addressing modes
- 65K-byte addressable memory 1, 2, 3, 4, 5 or 6 MHz operation
- Choice of external or on-board clock generator operation
- On-board clock generator/oscillator can be driven by an external single-phase clock input, an RC network, or a crystal circuit
- 40-pin DIP, 44-pin PLCC

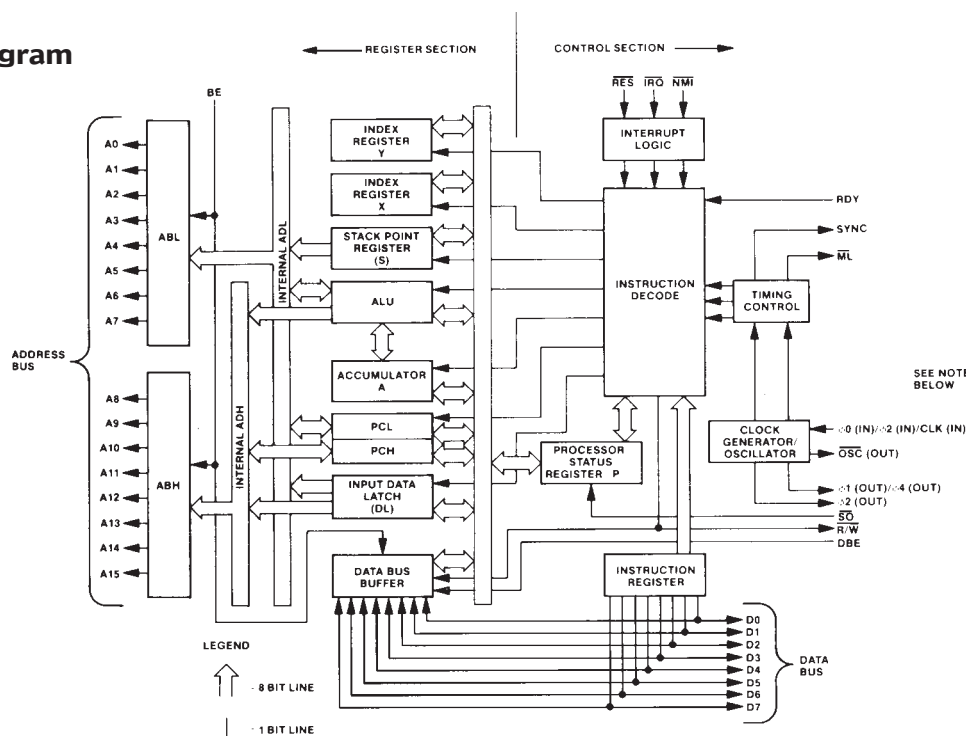
- Advanced memory access timing ($\varnothing 4$) on selected versions
- Uses single +5 volt power supply
- Early address valid allows use with slower memories
- Early write data for dynamic memories
- 8-bit parallel processing
- Decimal and binary arithmetic
- Pipeline architecture
- Programmable stack pointer
- Variable length stack
- Interrupt capability
- Non-maskable interrupt
- 8-bit bidirectional data bus
- "Ready" input (for single cycle execution)
- Direct memory access capability
- Bus compatible with M6800
- Available on selected versions, a memory lock output and bus enable input signals simplify multiprocessor designs

Contact factory for complete data sheet.

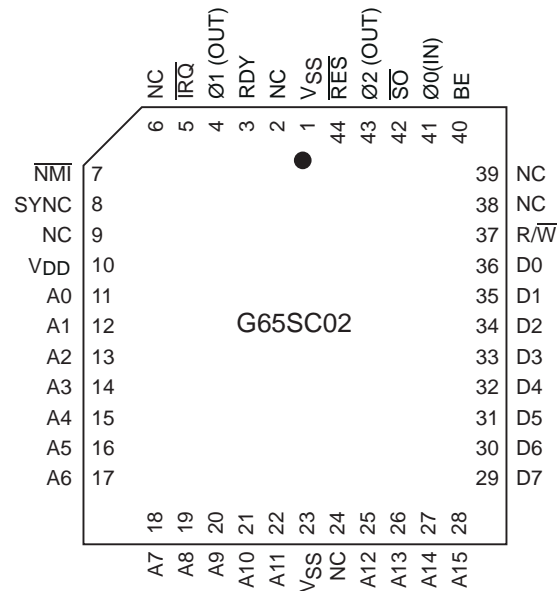
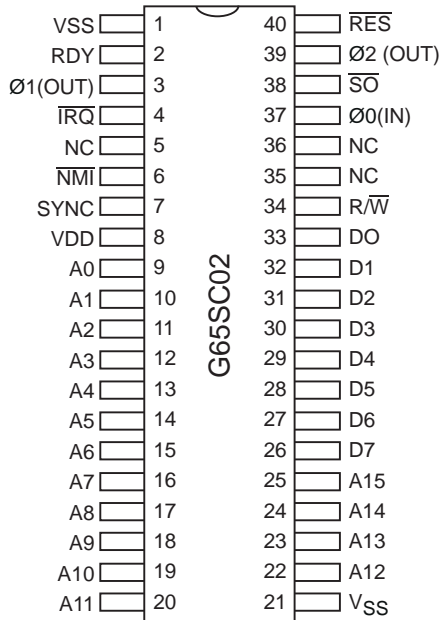
Product Description

The CMD G65SC02 8-bit microprocessor family is manufactured using CMD's state-of-the-art silicon gate CMOS process. The G65SC02 device is pin-to-pin compatible with NMOS versions of the 6500 currently on the market. The microprocessor is software compatible and provides 65K bytes of memory addressing and two interrupt inputs. It is bus compatible with MC6800 products.

Block Diagram



Pin Assignments



Ordering Information

Example:

G65SC02 P I -2

Product Identification Number

Package

P — Plastic PDIP (40)
PE — PLCC (44)

Temperature/Processing

I — -40°C to +85°C, ±5% P.S. Tol.

Performance Designator

Designators selected for speed and power specifications

—1 1MHz —3 3MHz
—2 2MHz —4 4MHz