MCS-4 — INTEL'S LOWEST COST MICROCOMPUTER. IDEAL FOR PROTOTYPE OR LOW VOLUME PRODUCTION.

The MCS-4 is a microprogrammable computer set designed for applications such as test systems, peripherals, terminals, billing machines, measuring systems, numeric and process control. The 4004 CPU, 4003 SR, and 4002 RAM are standard building blocks.

The 4008 and 4009 are a pair of interface devices which expand the capabilities of Intel's MCS-4 microcomputer set. Now standard Intel PROMs, ROMs and RAMs may be used for the program memory of the MCS-4.

MCS-4 systems interface easily with switches, keyboards, displays, teletype-writers, printers, readers, A-D converters and other popular peripherals.

A system built with the MCS-4 microcomputer set can have up to 4K x 8 bit ROM words, 1280 x 4 bit RAM characters and 128 I/O lines without requiring any interface logic. By adding a few simple gates the MCS-4 can have up to 48 RAM and ROM packages in any combination, and 192 I/O lines.

The MCS-4 has a very powerful instruction set that allows both binary and decimal arithmetic. It includes conditional branching, jump to subroutine, and provides for the efficient use of ROM look-up tables by indirect fetching.

The Intel MCS-4 microcomputer set (4002/3/4/8/9 and 4702A) are fabricated with Silicon Gate Technology. This low threshold technology allows the design and production of higher performance MOS circuits and provides a higher functional density on a monolithic chip than conventional MOS technologies.

- Programmable General Purpose Microcomputer
- 4-Bit Parallel CPU with 46 Instructions
- Instruction Set includes Conditional Branching, Jump to Subroutine and Indirect Fetching
- Binary and Decimal Arithmetic Modes
- Program Storage in 4702A Reprogrammable PROM Simulates 4001 ROM
- 2-Phase Dynamic Operation
- 10.8 Microsecond Instruction Cycle
- CPU Directly Compatible with MCS-4 ROMs and RAMs Using 4008/4009 Standard Memory and I/O Interface Set
- Easy Expansion—One CPU can Directly Drive up to 32,768 Bits of ROM and up to 5120 Bits of RAM
MCS4 KIT A

SYSTEM INTERCONNECT

![Circuit Diagram]

SUGGESTED CLOCK DRIVER, TEST AND RESET CIRCUITRY

![Circuit Diagram]

NOTES:
* CONSULT MCS 4 USER'S MANUAL.
** SEE 4000/4009 DATA SHEET.
*** SEE 4702A DATA SHEET.
**** THESE LINES MAY BE DECODED FOR UP TO 16 PROMS
(Vss = +5V ±5%; Vdd = -10V ±5%)