

# HD40L4808/HD407L4808

## 4-Bit Single Chip Microcomputer Unit

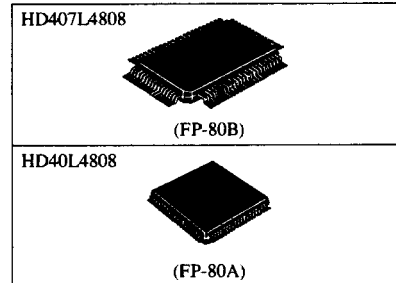
### Description

The MCU is a 4-bit single chip HMCS400 series microcomputer providing high program productivity. It incorporates large size memory, LCD driver/controller, voltage comparator, and 32 kHz watch oscillator circuit.

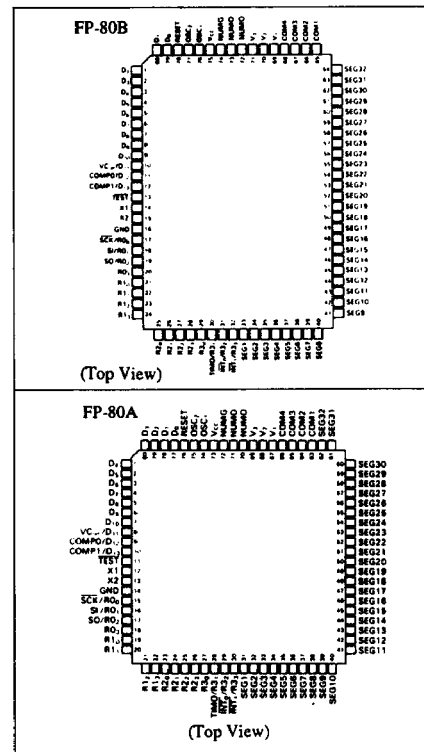
The HD407L4808, incorporating PROM, is a ZTAT microcomputer which can dramatically shorten system development period and smoothly proceed from debugging to mass production.

### Features

- 8192 words of 10-bit ROM
- 1184 digits of 4-bit RAM
- 30 I/O pins:
  - Including 10 high-current output pins.
  - I/O pin circuit configuration
  - Input/output pull-up MOS can be selected by software
- 16-digit LCD driver
- Three timers/counters
- Clock synchronous 8-bit serial interface
- Six interrupt sources
  - External: 2
  - Internal: 4
- Subroutine stack
  - Up to 16 levels including interrupts
- Instruction cycle time:
  - 5  $\mu$ s ( $f_{osc} = 800$  kHz for HD40L4808/HD407L4808)
- Four low power dissipation modes
  - Standby mode
  - Stop mode
  - Watch mode
  - Subactive mode (Functional Option)
- Internal oscillator:
  - Crystal or ceramic filter
  - External clock is available
- Voltage comparator (2 channels)
- Operation modes:
  - MCU mode
  - PROM mode (HD4074808/HD407L4808)
- Package
  - 80-pin flat plastic package (FP-80B) (FP-80A)



### Pin Arrangement



### Ordering Information

#### Mask ROM type

Part No.	Clock Freq. (MHz)	Package
HD40L4808FS	0.8	FP-80B
HD40L4808H		FP-80A

#### ZTAT type

Part No.	Clock Freq. (MHz)	Package
HD407L4808FS	0.8	FP-80B
HD407L4808H		FP-80A

The absolute maximum ratings are limiting values, to be applied individually, beyond which the device may be permanently damaged. Functional operation under any of these conditions is not guaranteed. Exposing a circuit to its absolute maximum rating for extended periods of time may affect the device's reliability.

