

# HD40L4808/HD407L4808

## 4-Bit Single Chip Microcomputer Unit

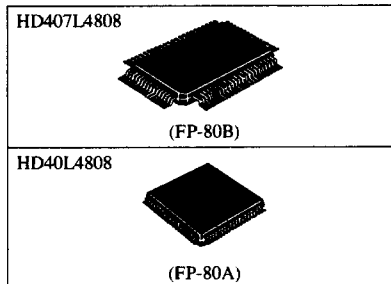
### Description

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.

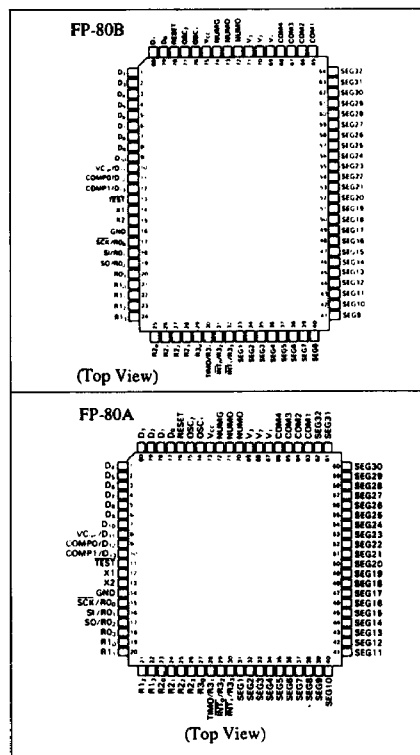
The HD407L4808, incorporating PROM, is a ZTAT microcomputer which can dramatically shorten system development period and smoothly proceed from debugging to mass production.

### 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

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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.

