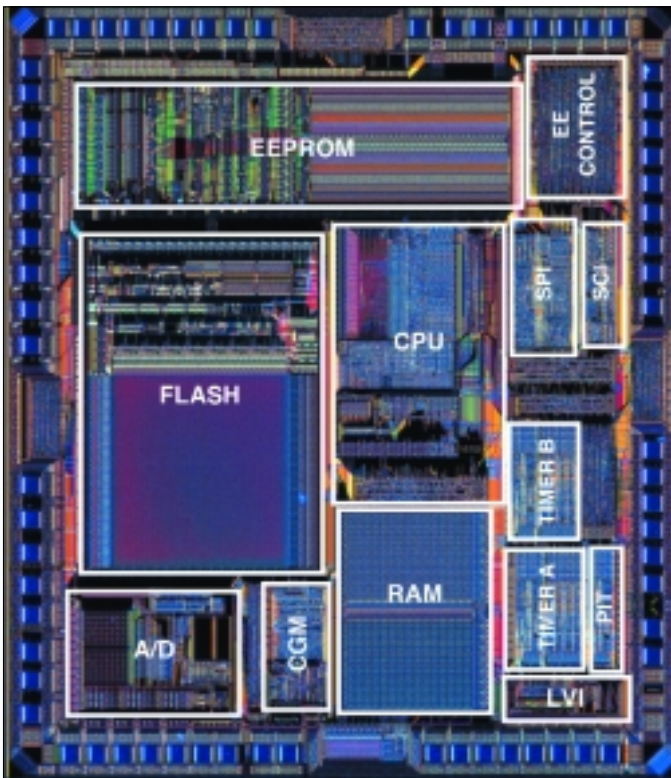


# 68HC908AB32

The Motorola 68HC908AB32 provides designers with a highly integrated 8-bit FLASH microcontroller (MCU) solution. The 68HC908AB32 builds on the success of the 68HC05 family by offering a code compatible migration path to higher performance FLASH MCUs.



## Features

- 32,256 bytes of in-system programmable FLASH memory
  - 68HC08AB16A - 16,384 bytes of ROM
- In-circuit programming without the need of external high voltage
- Selectable FLASH security feature
- 512 bytes of EEPROM
- 1,024 bytes of user RAM
  - 68HC08AB16A - 512 bytes of user RAM
- 5V operating voltage
- High-performance 68HC08 CPU core
  - Code compatible with 68HC05
  - 8 MHz internal operating frequency
- Peripheral modules
  - Computer Operating Properly (COP) watchdog
  - SCI asynchronous serial communications port
    - Full duplex operation
    - 32 programmable baud rates
    - Interrupt driven operations
    - 8-bit or 9-bit character length
  - SPI synchronous serial communications port
    - Full duplex operation with master and slave modes
    - Up to 4 MHz master, and 8 MHz slave mode frequencies
  - Dual 16-bit, 4-channel timers with input capture, output compare, and PWM modes
  - Periodic interrupt timer
  - 8-channel 8-bit analog-to-digital converter with independent supply and reference voltage inputs
- Memory-mapped I/O registers
- 51 bi-directional input/output (I/O) lines, including:
  - 30 shared-function I/O pins
  - Keyboard scan with selectable interrupts on five I/O pins
  - Selectable internal pullups to  $V_{DD}$  on 16 I/O pins
- Multiple clock options
  - Crystal oscillator
  - External clock
  - On-chip PLL (with 4.9152 MHz crystal oscillator)
- Vectored interrupts
  - Selectable sensitivity on external interrupt (edge- and level-sensitive or edge-sensitive only)
  - External interrupt mask bit and acknowledge bit

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- Internal pullups to  $V_{DD}$  on RESET and IRQ pins
- Illegal address reset with optional reset
- Illegal opcode reset with optional reset
- Low Voltage Inhibit with optional reset
- $V_{DD}/V_{SS}$  pins adjacent for easy bypass capacitor
- Power-saving Stop and Wait modes
- Hyper-text linked on-line databook:
  - MC68HC908AB32/D
- Cost effective, full-featured development tools that support programming in-circuit debug, simulation, and in-circuit emulation
- 64-pin QFP package



(actual size)  
0.8 mm pitch  
10mm x 10mm body

## Production Order Numbers

- MC68HC908AB32CFU: 64-pin QFP, -40 to +85°C
- MC68HC908AB32MFU: 64-pin QFP, -40 to +125°C

## Sample Pack Order Number

- KMC908AB32CFU: 64-pin QFP

## Comprehensive Development Support

Broad third party software and hardware support – see our web site at <http://www.mcu.motps.com>

## EASY TO ORDER KITS

		RESALE*
M68ICS08AB	AB Programmer/in-circuit debug kit	\$295
KITMMEVS08AB	Cost-effective real-time in-circuit emulator kit	\$1450
KITMMDS08AB	High performance real-time in-circuit emulator kit	\$3950

## INDIVIDUAL DEVELOPMENT TOOL COMPONENTS

		RESALE*
M68MMDS0508	High performance emulator	\$2950
M68MMPFB0508	MMEVS platform board	\$395
M68EML08AB32	Emulation module daughter board	\$495
M68CBL05C	Low noise flex-cable	\$120
M68TC08AB32FU64	64-pin QFP target head adapter	\$300
M68TQS064SAG1	64-pin TQ socket with guides	\$50
M68TQP064SA1	64-pin TQPACK	\$70

\*All prices are manufacturer's suggested resale.