

# Freescalé In-Circuit Emulator for HC908 MCUs

The Freescale in-circuit emulator (FSICE) is a high-performance emulator system for HC908 microcontroller (MCU) families. This system reduces the critical time to market cycle by allowing the engineer or designer to access all internal MCU resources. With the real-time bus analyzer, the FSICE can even help debug the surrounding support circuitry in the target system.

The FSICE is a popular Modular Development Systems (MMDS) and Modular Evaluation Systems (MMEVS), but maintains the functionality of its predecessors. For example, if you are currently using a HC908 emulator module, you will be pleased to hear that a FSICE is backward-compatible with most HC908 emulator modules. Therefore, if you currently own a HC908 emulator module (M68EML08xxx<sup>1</sup> or M68EM08xxx<sup>1</sup>), sometimes called a daughter card, you can upgrade by ordering the FSICE basestation (FSICE).

**FSICE features include:**

- > Real-time, nonintrusive, in-circuit emulation
- > Four complex data or instruction breakpoints
- > 128 KB real-time variables
- > 128 KB of emulation memory
- > Real-time bus state analyzer:
  - 1.33 MB x 92-bit real-time trace buffer
  - Nine trigger modes
  - Four hardware triggers
- 32-bit time tag
- 1.33 MB pre- or post-trigger points
- Custom time tag clock from 4,100 Hz to 40 MHz
- 24 general-purpose logic inputs
- > USB and Ethernet interfaces to PC
- > Built-in USBMULTILINK08 cable
- > Real-time memory readout
- > CodeWarrior™ debugging interface



The FSICE and FSICE kits replace the following MMDS and MMEVS items:

- > FSICE basestation (FSICEBASE) replaces the MMEVS platform (M68MMPFB0508)
- > FSICE basestation (FSICEBASE) replaces the MMDS platform (M68MMDS0508)
- > FSICE kits (FSICEKITxxxx<sup>1</sup>) replace the MMEVS kits (KITMMEVS08xxxx)
- > FSICE kits (FSICEKITxxxx<sup>1</sup>) replace the MMDS kits (KITMMDS08xxxx)

The FSICE system is an advanced development platform due to key features typically not present on other emulator systems. For example, the FSICE has a built-in USBMULTILINK08 cable for in-circuit Flash programming, Ethernet interface for remote debugging and real-time bus analyzer with 24 general-purpose logic inputs for debugging MCU support circuitry. The FSICE system also interfaces with the popular CodeWarrior integrated development environment (IDE). Based on these features, the FSICE system can handle all phases of the development cycle.

Since the FSICE maintains the module approach of the MMDS and MMEVS systems, the FSICE system is designed to support present and future HC908 MCU families. Here is a summary of an FSICE system:

- > FSICE basestation: FSICEBASE
- > HC908 emulator module: M68EML08xxxx<sup>1</sup>, M68EM08xxxx<sup>1</sup>, EML08xxxx<sup>1</sup> or EM08xxxx<sup>1</sup>
- > Target cables: M68CBLxxxx<sup>1</sup> or EMCBLxxxx<sup>1</sup>
- > Target head adapters: M68TA08xxxx<sup>1</sup>, M68TB08xxxx<sup>1</sup>, M68TC08xxxx<sup>1</sup> or M68TE08xxxx<sup>1</sup>
- > HC908 programming adapter: M68CPA08xxxx<sup>1</sup>

**FSICE kits include:**

- > FSICE basestation (Part Number: FSICEBASE)
- > Device-specific emulation module
- > Device-specific target cable
- > Device-specific target head adapters
- > Package-specific programming adapters (M68CPA08xxxx<sup>1</sup>)
- > CodeWarrior™ Development Studio for HC(S)08, Special Edition



**ORDERING INFORMATION**

To simplify the ordering process, Freescale offers device specific HC908 FSICE kits. These kits contain everything needed to begin developing for a HC908 MCU family.

Order Number	Price
FSICEKITxxxxx <sup>1</sup>	Starting at \$1,495*

<sup>1</sup>Refer to the Software and Development Tool Selector Guide (Order Number: SG1011), product fact sheets or [www.freescale.com/mcu](http://www.freescale.com/mcu) for ordering information.

\*All prices are manufacturer's suggested resale for North America.

**Learn More:** For more information about Freescale products, please visit [www.freescale.com](http://www.freescale.com).