

Mask Set Errata

MSE908AS60\_4H62A 12/2002

Mask Set Errata for 908AS60, Mask 4H62A





## Introduction

This mask set errata applies to this 908AS60 MCU mask set:

4H62A

## MCU Device Mask Set Identification

The mask set is identified by a 5-character code consisting of a version number, a letter, two numerical digits, and a letter, for example 4H62A. All standard devices are marked with a mask set number and a date code.

### **MCU Device Date Codes**

Device markings indicate the week of manufacture and the mask set used. The date is coded as four numerical digits where the first two digits indicate the year and the last two digits indicate the work week. For instance, the date code "0201" indicates the first week of the year 2002.

### **MCU Device Part Number Prefixes**

Some MCU samples and devices are marked with an SC, PC, or XC prefix. An SC prefix denotes special/custom device. A PC prefix indicates a prototype device which has undergone basic testing only. An XC prefix denotes that the device is tested but is not fully characterized or qualified over the full range of normal manufacturing process variations. After full characterization and qualification, devices will be marked with the MC or SC prefix.



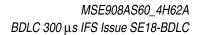
# BDLC 300 µs IFS Issue

SE18-BDLC

If two messages are received at 300  $\mu$ s interframe separation (IFS) (+/–  $\mu$ s, as measured at the RX pin), the second message's start-of-frame (SOF) symbol generates an invalid symbol interrupt. This invalid symbol interrupt results in the second message being lost and, therefore, unavailable to the application software. This is the result of a race condition within the BDLC where it is changing states in its receive state machine at the same time a transition occurs on the RX pin (beginning of the SOF symbol of the second message).

### **Workarounds**

- Ensure that no nodes on the J1850 network will transmit a message at 300  $\mu s$  IFS separation from another message. Be certain that physical layer error is taken into account when calculating this case, as temperature changes and ground shifts can shift the timing seen at the RX pin of the microcontroller. Motorola silicon implementations of J1850 have not been shown to retransmit any faster than 320  $\mu s$ , and are, therefore, not likely to cause this behavior.
- Design messaging and application software to properly handle loss of messages in the system. This is safe programming practice in any case and will protect the integrity of the system in the event of a lost message.







#### **HOW TO REACH US:**

#### **USA/EUROPE/LOCATIONS NOT LISTED:**

Motorola Literature Distribution; P.O. Box 5405, Denver, Colorado 80217 1-303-675-2140 or 1-800-441-2447

#### JAPAN:

Motorola Japan Ltd.; SPS, Technical Information Center, 3-20-1, Minami-Azabu Minato-ku, Tokyo 106-8573 Japan 81-3-3440-3569

### ASIA/PACIFIC:

Motorola Semiconductors H.K. Ltd.; Silicon Harbour Centre, 2 Dai King Street, Tai Po Industrial Estate, Tai Po, N.T., Hong Kong 852-26668334

### **TECHNICAL INFORMATION CENTER:**

1-800-521-6274

HOME PAGE:

http://www.motorola.com/semiconductors

Information in this document is provided solely to enable system and software implementers to use Motorola products. There are no express or implied copyright licenses granted hereunder to design or fabricate any integrated circuits or integrated circuits based on the information in this document.

Motorola reserves the right to make changes without further notice to any products herein. Motorola makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Motorola assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters which may be provided in Motorola data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Motorola does not convey any license under its patent rights nor the rights of others. Motorola products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Motorola product could create a situation where personal injury or death may occur. Should Buyer purchase or use Motorola products for any such unintended or unauthorized application, Buyer shall indemnify and hold Motorola and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Motorola was negligent regarding the design or manufacture of the part.



Motorola and the Stylized M Logo are registered in the U.S. Patent and Trademark Office. digital dna is a trademark of Motorola, Inc. All other product or service names are the property of their respective owners. Motorola, Inc. is an Equal Opportunity/Affirmative Action Employer.

© Motorola, Inc. 2002