



MCF5202/03

Errata to **MCF5202/03** **Device (Mask Set H75D and 0K96B)**

February 10, 2000

This document and other information on this product is maintained on the World Wide Web at <http://www.mot.com/coldfire>.

MCF5202/03 Errata for mask set 0H75D and 0K96B (5202) and 1H75D (5203)

Specification Changes (These anomalies will NOT be changed in future mask sets)

Background Debug Mode

SBDM1 - When a BDM command is serially shifted into a ColdFire microprocessor, the debug module requests the use of the KBus to perform the required operation. Under certain conditions, the processor may never grant the KBus to the debug module causing the BDM command to never be performed.

Specifically, the KBus grant may be withheld from the debug module if the processor is executing a tight loop where the entire loop is contained within one aligned longword.

Examples include:

```
align 4
label1: nop
bra.b label1
```

```
align 4
label2: bra.w label2
```

Workaround:

The workaround is to force the loop to be aligned across two longwords. Given this alignment, the processor will correctly grant the KBUS to the debug module.

SB1 - Double bus faults will not halt the processor. Instead, the processor will loop on the exception stacking and address fetch.

Workaround:

Implement a counter in the access error handler and execute the HALT instruction after multiple access errors to the same address.

Timing

T1 - Specs 11 and 14 (clk to output hold times) must be relaxed from 5 ns to 3 ns.

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MCF5202/03 Errata Change History:

- Rev 1.0: H75D Errata with SBDM1, SB1 and T1. 9/12/97
- Rev 1.1: Added mask set 0K96B 2/10/00

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