



DS80C400 Networked Microcontroller

www.maxim-ic.com

REVISION B1 ERRATA

The errata listed below describe situations where DS80C400 revision B1 components perform differently than expected or differently than described in the data sheet. Dallas Semiconductor intends to correct these errata in subsequent die revisions.

This errata sheet only applies to DS80C400 revision B1 components. Revision B1 components are branded on the topside of the package with a six-digit code in the form yywwB1, where yy and ww are two-digit numbers representing the year and workweek of manufacture, respectively. To obtain an errata sheet on another DS80C400 die revision, visit the website at www.maxim-ic.com/errata.

1. RESTRICTIONS ON DIV AB INSTRUCTION

Description:

The DIV AB instruction may return erroneous results if the following instructions access the A register immediately before the DIV AB instruction. Affected are:

RL A	MOVX A, @Ri
RLC A	MOVX A, @DPTR
RR A	XCH A, Rn
RRC A	XCH A, direct
SWAP A	XCH A, @Ri
MOVC A, @A+DPTR	XCHD A, @Ri
MOVC A, @A+PC	

Work Around:

It is common programming practice to load both the A and B registers right before executing the DIV AB. Shown are correct and incorrect examples. These examples show the MOV A,#data instruction, but apply to any of the above instructions that write to the A register.

MOV B, #data	MOV A, #data	MOV B, #data
MOV A, #data	MOV B, #data	MOV A, #data
DIV AB ; *INCORRECT*	DIV AB ; CORRECT	NOP
		DIV AB ; CORRECT

DOCUMENTATION ADVISORIES:

The following alerts users to important updates in the documentation for this device. These are not errata because they may reflect permanent changes to the devices. Refer to the respective document(s) for more information.

High-Speed Microcontroller User's Guide: Network Microcontroller Supplement

The following clarification has been added to *Section 20: Arithmetic Accelerator* under the paragraph *Normalize*:

"Software must ensure that the input value for the normalize operation is not zero or the function will not complete. Compilers such as the one from Keil Software have updated their libraries and compensate for this condition."