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## PIC12F683 Rev. A Silicon/Data Sheet Errata

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The PIC12F683 parts you have received conform functionally to the Device Data Sheet (DS41211D), except for the anomalies described below.

Microchip intends to address all issues listed here in future revisions of the PIC12F683 silicon.

### 1. Module: Resets (when WDT times out)

If the OPTION\_REG bits, PS<2:0>, are clear, multiple spurious Resets can occur when the WDT times out. These Resets can occur even when the PSA bit is clear, assigning the prescaler to the Timer0.

#### Work around

If a CLRWDT instruction is issued before the WDT times out and before the OPTION register is modified, this problem is eliminated.

#### Date Codes that pertain to this issue:

All engineering and production devices.

### 2. Module: ECCP with Auto-Shutdown (Silicon Rev. A1 and B1)

The PIC12F683 Rev. A1 silicon for the ECCP Auto-Shutdown is connected to the CMIF flag. See Figure 8-2 on the following page.

Rev. A1's auto-shutdown connection to CMIF causes the auto-shutdown to incorrectly operate synchronously. Additionally, reads of CMCON0 will incorrectly clear an auto-shutdown event.

#### Work around

##### **Rev. A1 Silicon**

- 1) Poll the COUT bit until it is low.
- 2) Read CMCON1 to precondition CMIF.
- 3) If CMCON0 is read while COUT is changing, repeat steps 1 and 2.

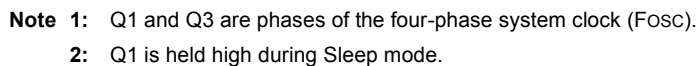
#### Fix

##### **Rev. B1 Silicon**

The Silicon Rev. B1 device (now shipping) has moved the auto-shutdown connection from CxIF to CxOUT. This will eliminate the synchronous shutdown and simplify the use of the comparator for a shutdown event. Figure 1 shows the function of auto-shutdown before and after the device revision.

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## Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS41211D), the following clarifications and corrections should be noted.

None.

## REVISION HISTORY

### Rev A Document (7/2004)

Changes made to CCP1M<1> in the CCP1CON Register. CCP1M<1> changes from 11xx to 111x (inverted mode) and 110x (normal mode).

### Rev B Document (8/2004)

Issue 1 – When OPTION\_REG bits, PS<2:0>, are clear, multiple spurious Resets can occur when the WDT times out.

Clarification/Corrections to the Data Sheet: Issue 2 – Changed to 8-pin MF **saw singulated** packaging.

### Rev. C Document (07/2005)

Data Sheet Clarifications/Corrections Section: Added Module 3: New 4x4 DFN Package added.

### Rev. D Document (10/2005)

Data Sheet Clarifications/Corrections Section: Replaced 8-Lead Plastic Dual Flat No Lead Package 4x4 (DFN).

### Rev E Document (7/2006)

Added Module 2 (ECCP with Auto-Shutdown). Data Sheet Clarifications/Corrections Section: Removed Items 1 through 3, which have been incorporated into the data sheet. Added Item 1, updating the 6x5mm DFN **saw singulated** packaging.

### Rev F Document (4/2007)

Data Sheet Clarifications/Corrections Section: Removed Module 1 per data sheet update.

# PIC12F683

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NOTES:

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