



MICROCHIP PIC12F609/615/617/PIC12HV609/615

PIC12F609/615/617/PIC12HV609/615 Silicon Errata and Data Sheet Clarification

The PIC12F609/615/617/PIC12HV609/615 family of devices that you have received conform functionally to the current Device Data Sheet (DS41302D), except for the anomalies described in this document.

The silicon issues discussed in the following pages are for silicon revisions with the Device and Revision IDs listed in Table 1. The silicon issues are summarized in Table 2.

The errata described in this document will be addressed in future revisions of the PIC12F609/615/617/PIC12HV609/615 silicon.

Note: This document summarizes all silicon errata issues from all revisions of silicon, previous as well as current. Only the issues indicated in the last column of Table 2 apply to the current silicon revision (A0).

Data Sheet clarifications and corrections start on page 4, following the discussion of silicon issues.

The silicon revision level can be identified using the current version of MPLAB® IDE and Microchip's programmers, debuggers, and emulation tools, which are available at the Microchip corporate web site (www.microchip.com).

For example, to identify the silicon revision level using MPLAB IDE in conjunction with MPLAB ICD 2, MPLAB ICD 3, PICkit™ 2 or PICkit™ 3:

1. Using the appropriate interface, connect the device to the MPLAB ICD 2 programmer/debugger, PICkit™ 2 or PICkit™ 3.
2. From the main menu in MPLAB IDE, select Configure>Select Device, and then select the target part number in the dialog box.
3. Select the MPLAB hardware tool (Programmer>Select Tool).
4. Perform a "Connect" operation to the device (Programmer>Connect). Depending on the development tool used, the part number and Device Revision ID value appear in the **Output** window.

Note: If you are unable to extract the silicon revision level, please contact your local Microchip sales office for assistance.

The Device ID values for the various devices and silicon revisions are shown in Table 1.

TABLE 1: SILICON DEVREV VALUES

Part Number	Device ID ⁽¹⁾	Revision ID for Silicon Revision ⁽²⁾
		A0
PIC12F615	10 0001 100	0
PIC12HV615	10 0001 101	0
PIC12F617	01 0011 011	0
PIC12F609	10 0010 010	0
PIC12HV609	10 0010 100	0

Note 1: The device and revision data is stored in the Device ID located at 2006h in program memory.

2: Refer to the "PIC12F609/12F615/12F617/16F610/16F616 and PIC12HV609/12HV615/16HV610/16HV616 Flash Memory Programming Specification" (DS41396) for detailed information.

PIC12F609/615/617/PIC12HV609/615

TABLE 2: SILICON ISSUE SUMMARY

Module	Feature	Item Number	Issue Summary	Affected Revisions ⁽¹⁾
				A0
Timer1	Shared Oscillator with LP mode	1.	When using LP system oscillator, Timer1 external crystal stops during Sleep.	X

Note 1: Only those issues indicated in the last column apply to the current silicon revision.

Silicon Errata Issues

Note: This document summarizes all silicon errata issues from all revisions of silicon, previous as well as current. Only the issues indicated by the shaded column in the following tables apply to the current silicon revision (**A0**).

1. Module: LP/Timer1 Oscillator Shared Operation

When using LP oscillator as the system clock and enabling Timer1 external oscillator, the shared crystal will clock both the core and Timer1. On execution of the `SLEEP` instruction, the oscillator amplifier will be disabled and Timer1 will not be clocked while the device is in Sleep.

Work around

None.

Affected Silicon Revisions

A0							
X							

PIC12F609/615/617/PIC12HV609/615

Data Sheet Clarifications

The following typographical corrections and clarifications are to be noted for the latest version of the device data sheet (DS41302D):

Note: Corrections are shown in bold . Where possible, the original bold text formatting has been removed for clarity.

None.

APPENDIX A: REVISION HISTORY

Rev. A Document (06/10)

Original release of this document.

PIC12F609/615/617/PIC12HV609/615

NOTES:

Note the following details of the code protection feature on Microchip devices:

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