

PIC16(L)F1703/1707 Family Silicon Errata and Data Sheet Clarification

The PIC16(L)F1703/1707 family devices that you have received conform functionally to the current Device Data Sheet (DS40001722A), 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 PIC16(L)F1703/1707 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 (**A2**).

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 a hardware debugger:

1. Using the appropriate interface, connect the device to the hardware debugger.
2. Open an MPLAB IDE project.
3. Configure the MPLAB IDE project for the appropriate device and hardware debugger.
4. Based on the version of MPLAB IDE you are using, do one of the following:
 - a) For MPLAB IDE 8, select Programmer > Reconnect.
 - b) For MPLAB X IDE, select Window > Dashboard and click the **Refresh Debug Tool Status** icon ().
5. 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 DEVREV values for the various PIC16(L)F1703/1707 silicon revisions are shown in [Table 1](#).

TABLE 1: SILICON DEVREV VALUES

Part Number	Device ID ⁽¹⁾	Revision ID (Silicon Revision) ⁽²⁾	
		A1	A2
PIC16F1703	3062h	2001h	2002h
PIC16LF1703	3063h	2001h	2002h
PIC16F1707	3060h	2001h	2002h
PIC16LF1707	3061h	2001h	2002h

- Note 1:** The Revision ID and Device ID are located in the Configuration memory at addresses 8005h and 8006h, respectively.
- 2:** Refer to the “*PIC16(L)F170X Memory Programming Specification*” (DS40001683) for detailed information on Device and Revision IDs for your specific device.

PIC16(L)F1703/1707

TABLE 2: SILICON ISSUE SUMMARY

Module	Feature	Item Number	Issue Summary	Affected Revision ⁽¹⁾	
				A1	A2
Power-Down Mode	Sleep Current	1.1	PIC16(L)F1703 Sleep current higher at cold.	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 (**A2**).

1. Module: Power-Down Mode

1.1 Sleep Current

On the PIC16(L)F1703 device, the Sleep currents may increase at temperatures below -20°C.

Work around

Enable the global weak pull-up bit ($\overline{\text{WPUEN}}$) in the OPTION register (OPTION_REG) and disable the weak pull-ups that are not needed in the WPUA and WPUC registers.

Affected Silicon Revisions

A1	A2						
X							

PIC16(L)F1703/1707

Data Sheet Clarifications

The following typographic corrections and clarifications are to be noted for the latest version of the device data sheet (DS40001722A):

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

None.

APPENDIX A: DOCUMENT REVISION HISTORY

Rev A Document (11/2013)

Initial release of this document.

Rev B Document (06/2014)

Added silicon revision A2.

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

- Microchip products meet the specification contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is one of the most secure families of its kind on the market today, when used in the intended manner and under normal conditions.
- There are dishonest and possibly illegal methods used to breach the code protection feature. All of these methods, to our knowledge, require using the Microchip products in a manner outside the operating specifications contained in Microchip's Data Sheets. Most likely, the person doing so is engaged in theft of intellectual property.
- Microchip is willing to work with the customer who is concerned about the integrity of their code.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of their code. Code protection does not mean that we are guaranteeing the product as "unbreakable."

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