

PIC16(L)F1773/6 Family Silicon Errata and Data Sheet Clarification

The PIC16(L)F1773/6 family devices that you have received conform functionally to the current Device Data Sheet (DS40001810**A**), 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)F1773/6 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 (A1).

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 website (www.microchip.com).

For example, to identify the silicon revision level using MPLAB IDE in conjunction with a hardware debugger:

- 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 <u>Programmer ></u> Reconnect.
 - b) For MPLAB X IDE, select <u>Window > Dashboard</u> 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)F1773/6 silicon revisions are shown in Table 1.

TABLE 1: SILICON DEVREV VALUES

Part Number	Device ID ⁽¹⁾	Revision ID Silicon Revision ⁽²⁾		
	Device ID(*)	A1		
PIC16F1773	308Ah	2001h		
PIC16LF1773	308Ch	2001h		
PIC16F1776	308Bh	2001h		
PIC16LF1776	308Dh	2001h		

Note 1: The Device ID is located in the configuration memory at address 8006h.

2: Refer to the "PIC16(L)F177X Memory Programming Specification" (DS40001792) for detailed information on Device and Revision IDs for your specific device.

TABLE 2: SILICON ISSUE SUMMARY

Module	Feature	Item Number	Issue Summary	Affected Revisions ⁽¹⁾
		Number		A 1
ECCP	Compare mode	1.1	Compare Toggle mode yields unexpected results.	Х
Programmable Ramp Generator (PRG)	Ramp Capacitor	2.1	Ramp capacitor shorting switch fails to stay closed.	Х

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 (A1).

1. Module: ECCP

1.1 Compare Mode

The ECCP Compare Toggle mode (CCP1M<3:0> bits = 0010) works properly as long as the Timer1 Prescaler value is configured to 1:1. When the Timer1 prescaler value is configured to any other value, the ECCP compare output yields unexpected results.

Work around

Only use the Compare Toggle mode when the Timer1 Prescaler value is set to 1:1.

Affected Silicon Revisions

A 1				
Χ				

2. Module: Programmable Ramp Generator (PRG)

2.1 Ramp Capacitor Shorting Switch Fails to Stay Closed

When the PRG GO bit is zero or when the rising or falling ramp is in the Reset state for an extended period of time, then the ramp capacitor shorting switch will improperly open, causing the PRG output to drift from the reference voltage input level.

Work around

None.

Affected Silicon Revisions

A 1				
Х				

Data Sheet Clarifications

The following typographic corrections and clarifications are to be noted for the latest version of the device data sheet (DS40001810**A**):

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 (02/2016)

Initial release of this document.

NOTES:

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
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- 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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