

PIC16F505 Rev. A Silicon/Data Sheet Errata

The PIC16F505 parts you have received conform functionally to the Device Data Sheet (DS41236D), except for the anomalies described below.

Microchip intends to address all issues listed here in future revisions of the **PIC16F505 silicon** or development tools software. Where noted, issues apply to listed revision only.

1. Module: MPLAB® IDE, Revision 6.61 and Earlier

MPLAB IDE 6.61 does not look for or set the Configuration Word in the hex file at the conventional logical location of 0xFFFF.

Work around:

The CONFIG data must be assigned in two locations within the assembly code to ensure proper Configuration Word placement in the hex file. This is only required for MPLAB IDE version 6.61 and earlier.

Fixed Code

```
org      0x07FF
data     _CP_OFF & _WDT_ON & etc.
__CONFIG _CP_OFF & _WDT_ON & etc.
```

Re-locatable Code

```
.config   code 0x07FF
data      data _CP_OFF & _WDT_ON &
           etc.
__CONFIG  data _CP_OFF & _WDT_ON &
           etc.
```

2. Module: Invalid FSR Power-up Initialization on PIC16F505 ICD Devices

When using the ICD to debug software with the PIC16F505, bits 5 and 6 in the FSR register must be cleared to '0'. The power-up defaults are 1's which causes the device to attempt to access bank 3. This bank is not available on the PIC16F505 devices so the results are invalid.

The power-up defaults are correct on the non-ICD version of the PIC16F505.

Work around:

Add the following two lines of code early in your initialization.

```
BCF  FSR, 5
BCF  FSR, 6
```

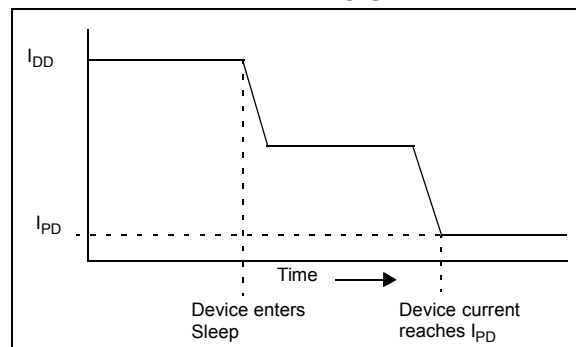
This will have no affect on a non-ICD device, but will correct the initialization errata on ICD devices.

3. Module: I_{PD}, Power-Down Base current

On the PIC16F505 silicon, revisions earlier than A3, the power-down base current may remain higher than the specification for a short time when entering Sleep.

Figure 1 illustrates the device current upon entering Sleep.

FIGURE 1: DEVICE CURRENT WHEN ENTERING SLEEP



The length of time between the device entering Sleep mode and the device current reaching I_{PD} increases as both temperature and voltage decrease.

Work around

This issue is fixed in Revisions A3 and later.

PIC16F505

Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS41236D), the following clarifications and corrections should be noted.

N/A.

APPENDIX A: REVISION HISTORY

Rev A Document (9/2004)

First revision of this document.

Rev B Document (2/2006)

Added Module 1: "Electrical Characteristics" to the Clarifications/Corrections to the Data Sheet.

Rev C Document (5/2006)

Added Module 2: Invalid FSR Power-up Initialization on PIC16F505 ICD Devices.

Rev D Document (12/2007)

Added Module 3: I_{PD} Power-Down Base current.

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