



**MICROCHIP**

**PIC16F72X/PIC16LF72X**

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**PIC16F72X/PIC16LF72X Rev. A Silicon/Data Sheet Errata**

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The PIC16F72X/PIC16LF72X parts you have received conform functionally to the Device Data Sheet (DS41341A) and the Programming Specification (DS41332A), except for the anomalies described below.

**1. Module: ADC (Analog-to-Digital Converter)**

The ADC module incorrectly fails to power down after a conversion if the device is in Sleep and the ADC interrupt is disabled. The proper operation is to power the ADC off after the conversion is complete if the device is sleeping and the ADC interrupt is disabled.

**Work around**

Use the ADC conversion complete interrupt (ADIF) to wake-up and explicitly shut down the ADC by clearing the ADON bit.

**2. Module: ADC (Analog-to-Digital Converter)**

The offset error incorrectly exceeds the data sheet specifications if time between conversions is longer than 10 ms. If the time between conversions is greater than 10 ms the offset error is 1 LSb typical and 3.3 LSb maximum.

**Work around**

The time dependent error is insignificant when the time between conversions is less than 10 ms. When the time between conversions is greater than 10 ms then take two back-to-back ADC conversions and discard the results of the first.

**3. Module: Timer1**

The Timer1 oscillator does not operate above 90°C.

**Work around**

None.

**4. Module: Internal Oscillator**

The internal oscillator module on the PIC16F72X family of devices may experience a  $\pm 1\%$  frequency shift after a Reset. The frequency shift is not consistent and could cause the oscillator to operate outside of the 2% specification.

**Work around**

To minimize the chances of experiencing the frequency shift, the following steps should be taken:

1. Operate the internal oscillator at 8 MHz or 2 MHz.
2. Use an external pull-up on  $\overline{\text{MCLR}}$  or use internal  $\overline{\text{MCLR}}$  mode.
3. Disable the Power Reset Timer (PWRT).
4. The bypass capacitor and Voltage Regulator Capacitor (VCAP) should be used appropriately to minimize noise in the device.

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## Clarifications/Corrections to the Data Sheet:

None.

## APPENDIX A: REVISION HISTORY

Rev. A Document (07/2008)

First revision of this document.

Rev. B Document (08/2008)

Added Module 4 – Internal Oscillator; Revised Modules 1 and 2.

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