



# PIC18F2450/4450

## PIC18F2450/4450 Rev. A1 Silicon Errata

The PIC18F2450/4450 (Rev. A1) parts you have received conform functionally to the Device Data Sheet (DS39760A), except for the anomalies described below. Any data sheet clarification issues related to this device will be reported in a separate data sheet errata. Please check the Microchip web site for any existing issues.

The following silicon errata apply only to PIC18F2450/4450 devices with these Device/Revision IDs:

Part Number	Device ID	Revision ID
PIC18F2450	01 0100 001	00001
PIC18F4450	01 0100 000	00001

The Device IDs (DEVID1 and DEVID2) are located at addresses 3FFFFEh:3FFFFFh in the device's configuration space. They are shown in hexadecimal in the format "DEVID2 DEVID1".

### 1. Module: EUSART

In Asynchronous mode, the reception can get corrupted if any bit of the TXSTA register is modified during a reception.

#### Work around

Maintain CSRC (TXSTA<7>) and SYNC (TXSTA<4>) bits as '0'. Though the CSRC (TXSTA<7>) bit is a don't care in Asynchronous mode, make sure that this bit is not set.

### 2. Module: A/D (Offset)

The A/D offset is greater than the specified limit in Table 21-17 of the Device Data Sheet. The updated conditions and limits are shown in **bold** text in Table 1.

#### Work around

There are three work arounds:

1. Configure the A/D to use the VREF+ and VREF- pins for the voltage references. This is done by setting the VCFG<1:0> bits (ADCON1<5:4>).
2. Perform a conversion on a known voltage reference voltage and adjust the A/D result in software.
3. Increase system clock speed and adjust A/D settings accordingly. Higher system clock frequencies decrease offset error.

TABLE 1: A/D CONVERTER CHARACTERISTICS (PIC18F2450/4450)

Param No.	Symbol	Characteristic	Min	Typ	Max	Units	Conditions
A06A	E <sub>OFF</sub>	Offset Error	—	—	<±1.5	LSb	VREF = VREF+ and VREF-
A06	E <sub>OFF</sub>	Offset Error	—	—	<±3.5	LSb	VREF = VSS and VDD

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## 3. Module: A/D (Channels)

In **Section 16.0 “10-Bit Analog-to-Digital Converter (A/D) Module”** of the Device Data Sheet, it mentions the Analog-to-Digital (A/D) converter module has 10 inputs for the 28-pin devices and 13 for the 40/44-pin devices.

Actually, the PIC18F2450 (28-pin) devices have only 7 channels available instead of 10. The ADC channels, AN10, AN11 and AN12 (RB1, RB4, RB0 pins, respectively) are not available.

## 4. Module: DC Characteristics (BOR)

The values for parameter D005 (VBOR) in **Section 21.1 “DC Characteristics: Supply Voltage”** of the Device Data Sheet are not applicable when the trip point for BORV1:BORV0 = 11, as the device may reset below the minimum operating voltage for the device.

### Work around

None.

## REVISION HISTORY

Rev A Document (03/2006)

Original version of this document. Includes silicon issues 1 (EUSART), 2 (A/D – Offset), 3 (A/D – Channels) and 4 (DC Characteristics – BOR).

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NOTES:

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