



PIC16C642

PIC16C642 Rev. A Silicon Errata Sheet

The PIC16C642 (Rev. A) parts you have received conform functionally to the Device Data Sheet (DS30559A), except for the anomalies described below.

All the problems listed here will be addressed in future revisions of the PIC16C642 silicon.

1. Module: Timer0

The TMR0 register may increment when the WDT postscaler is switched to the Timer0 prescaler. If TMR0 = FFh, this will cause TMR0 to overflow (setting TOIF).

Work Around

Follow the following sequence:

- a) Read the 8-bit TMR0 register into the W register
- b) Clear the TMR0 register
- c) Assign WDT postscaler to Timer0
- d) Write W register to TMR0

2. Programming: Code Protect Bits

The user could see the following error messages when using PROMATE to program the devices. The messages are for the configuration bits only.

Work Around

- a) After a program or verify, there could be an indication that there was a config. bit error. If the error box shows all configuration bits as correct but does not show the code protect bits (CP), then the device was properly programmed but code protect will not operate.
- b) When reading in a part, you may get an error that indicates that the code protect bits are invalid and the device is unusable. Again, the device was properly programmed but code protect will not operate.

In both cases, the part was programmed correctly but code protect will not operate.

Note: As with any windowed EPROM device, please cover the window at all times, except when erasing.

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Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS30559A), the following clarifications and corrections should be noted.

3. Module: I/O Ports

The specification for the High Voltage Open Drain I/O (The RA4 pin on most devices) cannot be met without possible long term reliability issues on that I/O pin. If a high voltage drive is required, use an external transistor that can support the required voltage.

TABLE 1: DC SPECIFICATION CHANGES FROM DATA SHEET

Param No.	Sym.	Characteristic	New Specification			Data Sheet Specification			Units
			Min	Typ	Max	Min	Typ	Max	
D150	VOD	Open-drain High Voltage	—	—	10	—	—	14	V

Note the following details of the code protection feature on PICmicro® MCUs.

- The PICmicro family meets the specifications contained in the Microchip Data Sheet.
- Microchip believes that its family of PICmicro microcontrollers is one of the most secure products 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 PICmicro microcontroller in a manner outside the operating specifications contained in the data sheet. The person doing so may be 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”.
- Code protection is constantly evolving. We at Microchip are committed to continuously improving the code protection features of our product.

If you have any further questions about this matter, please contact the local sales office nearest to you.

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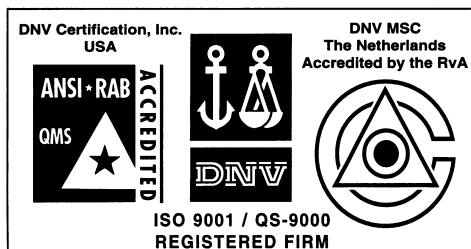
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