

Errata Sheet for Rev. A PIC16C72 Silicon

The PIC16C72 (Rev. A) parts you have received conform functionally to the PIC16C7X data sheet (DS30390C), except for the anomalies described below.

All the problems listed here will be addressed in future revisions of PIC16C72 silicon.

1. Module: CCP

The special event trigger of the Compare mode may not occur if both of the following conditions exist:

- An instruction one cycle (Tcy) prior to a Timer1/ Compare register match has literal data equal to the address of a CCP register being used.*
- An instruction in the same cycle as a Timer1/ Compare register match has an MSb of '0'.

The interrupt for the compare event will still be generated, but no special event trigger will occur.

* 15h(CCPR1L), 16h(CCPR1H) or 17h(CCPR1CON) for CCP1; 1Bh(CCPR2L), 1Ch(CCPR2H) or 1Dh(CCPR2CON) for CCP2.

Work Around

Use the interrupt service routine instead of using the special event trigger to reset Timer1 (and start an A/D conversion, if applicable).

2. Module: Timer1

The Timer1 value may unexpectedly increment if either the TMR1H or the TMR1L register is written.

If Timer1 is ON, then turned OFF, performing any write instruction with TMR1H as the destination may cause TMR1L to increment.

Example 1:

```
BSF T1CON, TMR1ON
:
BCF T1CON, TMR1ON
MOVF TMR1H, 1
```

TMR1 value before MOVF instruction:
TMR1H:TMR1L = 3F:00
TMR1 value after MOVF instruction:
TMR1H:TMR1L = 3F:01

Example 2:

```
BSF T1CON, TMR1ON
:
BCF T1CON, TMR1ON
MOVF TMR1H, 1
TMR1 value before MOVF instruction:
TMR1H:TMR1L = FF:FF
TMR1 value after MOVF instruction:
TMR1H:TMR1L = FF:00
```

If Timer1 is ON, then turned OFF when TMR1H:TMR1L = xx:FF, performing any write instruction with TMR1L as the destination may cause TMR1H to increment.

Example 1:

```
BSF T1CON, TMR1ON
:
BCF T1CON, TMR1ON
CLRF TMR1L
TMR1 value before CLRF instruction:
TMR1H:TMR1L = FF:FF
TMR1 value after CLRF instruction:
TMR1H:TMR1L = 00:00
(TMR1IF is not set.)
```

Work Around

To preserve Timer1 register values:

Read Timer1 register values into "shadow" registers. Perform any write instruction(s) on the shadow registers. Write the shadow register values back into the Timer1 registers.

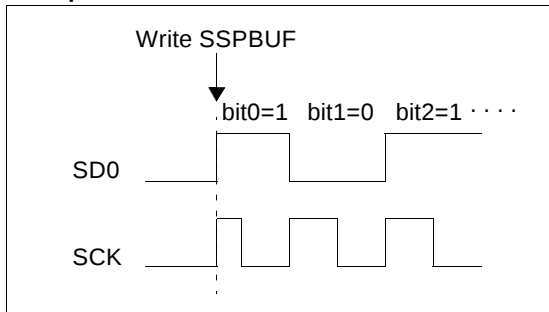
Note: As with any windowed EPROM device, please cover the window at all times, except when erasing.

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3. Module: SSP

When the SPI is using Timer2/2 as the clock source, a shorter-than-expected SCK pulse may occur on the first bit of the transmitted/received data.

Example:



Work Around

To avoid producing the short pulse, turn off Timer2 and clear the TMR2 register, load the SSPBUF with the data to transmit, and then turn Timer2 back on.

Example Code:

```
BSF STATUS, RP0 ;Bank 1
LOOP BTFSS SSPSTAT, BF ;Data received?
    ;(Xmit complete?)
    GOTO LOOP ;No
BCF STATUS, RP0 ;Bank 0
MOVF SSPBUF, W ;W = SSPBUF
MOVWF RXDATA ;Save in user RAM
MOVF TXDATA, W ;W = TXDATA
BCF T2CON, TMR2ON ;Timer2 off
CLR TMR2 ;Clear Timer2
MOVWF SSPBUF ;Xmit New data
BSF T2CON, TMR2ON ;Timer2 on
```

Clarifications/Corrections to the Data Sheet:

In the PIC16C7X Data Sheet (DS30390C), the following clarifications and corrections should be noted.

NONE

WORLDWIDE SALES & SERVICE

AMERICAS

Corporate Office

Microchip Technology Inc.
2355 West Chandler Blvd.
Chandler, AZ 85224-6199
Tel: 602 786-7200 Fax: 602 786-7277
Technical Support: 602 786-7627
Web: <http://www.microchip.com>

Atlanta

Microchip Technology Inc.
500 Sugar Mill Road, Suite 200B
Atlanta, GA 30350
Tel: 770 640-0034 Fax: 770 640-0307

Boston

Microchip Technology Inc.
5 Mount Royal Avenue
Marlborough, MA 01752
Tel: 508 480-9990 Fax: 508 480-8575

Chicago

Microchip Technology Inc.
333 Pierce Road, Suite 180
Itasca, IL 60143
Tel: 708 285-0071 Fax: 708 285-0075

Dallas

Microchip Technology Inc.
14651 Dallas Parkway, Suite 816
Dallas, TX 75240-8809
Tel: 972 991-7177 Fax: 972 991-8588

Dayton

Microchip Technology Inc.
Suite 150
Two Prestige Place
Miamisburg, OH 45342
Tel: 513 291-1654 Fax: 513 291-9175

Los Angeles

Microchip Technology Inc.
18201 Von Karman, Suite 1090
Irvine, CA 92612
Tel: 714 263-1888 Fax: 714 263-1338

New York

Microchip Technmgy Inc.
150 Motor Parkway, Suite 416
Hauppauge, NY 11788
Tel: 516 273-5305 Fax: 516 273-5335

San Jose

Microchip Technology Inc.
2107 North First Street, Suite 590
San Jose, CA 95131
Tel: 408 436-7950 Fax: 408 436-7955

Toronto

Microchip Technology Inc.
5925 Airport Road, Suite 200
Mississauga, Ontario L4V 1W1, Canada
Tel: 905 405-6279 Fax: 905 405-6253

ASIA/PACIFIC

China

Microchip Technology
Unit 406 of Shanghai Golden Bridge
Bldg.
2077 Yan'an Road West, Hongiao Dis-
trict
Shanghai, Peoples Republic of China
Tel: 86 21 6275 5700
Fax: 011 86 21 6275 5060

Hong Kong

Microchip Technology
RM 3801B, Tower Two
Metroplaza
223 Hing Fong Road
Kwai Fong, N.T. Hong Kong
Tel: 852 2 401 1200 Fax: 852 2 401 3431

India

Microchip Technology
No. 6, Legacy, Convent Road
Bangalore 560 025 India
Tel: 91 80 526 3148 Fax: 91 80 559 9840

Korea

Microchip Technology
168-1, Youngbo Bldg. 3 Floor
Samsung-Dong, Kangnam-Ku,
Seoul, Korea
Tel: 82 2 554 7200 Fax: 82 2 558 5934

Singapore

Microchip Technology
200 Middle Road
#10-03 Prime Centre
Singapore 188980
Tel: 65 334 8870 Fax: 65 334 8850

Taiwan, R.O.C

Microchip Technology
10F-1C 207
Tung Hua North Road
Taipei, Taiwan, ROC
Tel: 886 2 717 7175 Fax: 886 2 545 0139

EUROPE

United Kingdom

Arizona Microchip Technology Ltd.
Unit 6, The Courtyard
Meadow Bank, Furlong Road
Bourne End, Buckinghamshire SL8 5AJ
Tel: 44 1628 850303 Fax: 44 1628 850178

France

Arizona Microchip Technology SARL
Zone Industrielle de la Bonde
2 Rue du Buisson aux Fraises
91300 Massy - France
Tel: 33 1 69 53 63 20 Fax: 33 1 69 30 90 79

Germany

Arizona Microchip Technology GmbH
Gustav-Heinemann-Ring 125
D-81739 Muenchen, Germany
Tel: 49 89 627 144 0 Fax: 49 89 627 144 44

Italy

Arizona Microchip Technology SRL
Centro Direzionale Colleone Pas Taurus 1
Viale Colleoni 1
20041 Agrate Brianza
Milan Italy
Tel: 39 39 6899939 Fax: 39 39 689 9883

JAPAN

Microchip Technology Intl. Inc.
Benex S-1 6F
3-18-20, Shin Yokohama
Kohoku-Ku, Yokohama
Kanagawa 222 Japan
Tel: 81 45 471 6166 Fax: 81 45 471 6122

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