

TCN75A

TCN75A Rev. A Silicon/Data Sheet Errata

The TCN75A parts you have received conform functionally to the TCN75A Data Sheet (DS21935A), except for the anomalies described below.

All of the issues listed here will be addressed in future revisions of the TCN75A silicon.

Contact Microchip for the latest Silicon fix.

1. Module: Device Internal latch up at higher temperature

The TCN75A devices may latchup during I²C communication at high temperature. This is caused by the internal I²C interface slew control circuit.

At temperatures > 80°C (typically), High-to-Low transition < 500 ns on the SDA or SCL lines causes the slew control circuit to latchup.

Work around

Connect a capacitor accross the SDA and SCL pull-up resistors so that the SDA and SCL fall time is > 500 ns. For example, use 5 k Ω /0.01 μ f.

Date Codes that pertain to this issue:

Not all production devices have these issues. Contact the Microchip Regional Sales Office for the fixed version.

2. Module: POR active during oneshot mode

At high temperature the TCN75A may reset while waking up from the oneshot Mode. All registers may be set the power up default states.

Work around

Shutdown and wake the device using the Shutdown bit in the configuration register.

Date Codes that pertain to this issue:

Not all production devices have these issues. Contact the Microchip Regional Sales Office for the fixed version.

Clarification/Corrections to the Data Sheet:

In the TCN75A Data Sheet (DS21935A), the following clarifications and corrections should be noted:

Work around

none

TCN75A

APPENDIX A: REVISION HISTORY

Revision A (July 2007)

- Device Internal latch up at higher temperature
- POR active during oneshot mode

Note the following details of the code protection feature on Microchip devices:

- Microchip products meet the specification contained in their particular Microchip Data Sheet.
- Microchip believes that its family of products is one of the most secure families 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 Microchip products in a manner outside the operating specifications contained in Microchip's Data Sheets. Most likely, the person doing so is 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 products. Attempts to break Microchip's code protection feature may be a violation of the Digital Millennium Copyright Act. If such acts allow unauthorized access to your software or other copyrighted work, you may have a right to sue for relief under that Act.

Information contained in this publication regarding device applications and the like is provided only for your convenience and may be superseded by updates. It is your responsibility to ensure that your application meets with your specifications. MICROCHIP MAKES NO REPRESENTATIONS OR WARRANTIES OF ANY KIND WHETHER EXPRESS OR IMPLIED, WRITTEN OR ORAL, STATUTORY OR OTHERWISE, RELATED TO THE INFORMATION, INCLUDING BUT NOT LIMITED TO ITS CONDITION, QUALITY, PERFORMANCE, MERCHANTABILITY OR FITNESS FOR PURPOSE. Microchip disclaims all liability arising from this information and its use. Use of Microchip devices in life support and/or safety applications is entirely at the buyer's risk, and the buyer agrees to defend, indemnify and hold harmless Microchip from any and all damages, claims, suits, or expenses resulting from such use. No licenses are conveyed, implicitly or otherwise, under any Microchip intellectual property rights.

Trademarks

The Microchip name and logo, the Microchip logo, Accuron, dsPIC, KEELOQ, KEELOQ logo, microID, MPLAB, PIC, PICmicro, PICSTART, PRO MATE, rfPIC and SmartShunt are registered trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

AmpLab, FilterLab, Linear Active Thermistor, Migratable Memory, MXDEV, MXLAB, SEEVAL, SmartSensor and The Embedded Control Solutions Company are registered trademarks of Microchip Technology Incorporated in the U.S.A.

Analog-for-the-Digital Age, Application Maestro, CodeGuard, dsPICDEM, dsPICDEM.net, dsPICworks, ECAN, ECONOMONITOR, FanSense, FlexROM, fuzzyLAB, In-Circuit Serial Programming, ICSP, ICEPIC, Mindi, MiWi, MPASM, MPLAB Certified logo, MPLIB, MPLINK, PICkit, PICDEM, PICDEM.net, PICLAB, PICtail, PowerCal, PowerInfo, PowerMate, PowerTool, REAL ICE, rfLAB, Select Mode, Smart Serial, SmartTel, Total Endurance, UNI/O, WiperLock and ZENA are trademarks of Microchip Technology Incorporated in the U.S.A. and other countries.

SQTP is a service mark of Microchip Technology Incorporated in the U.S.A.

All other trademarks mentioned herein are property of their respective companies.

© 2007, Microchip Technology Incorporated, Printed in the U.S.A., All Rights Reserved.

Printed on recycled paper.

QUALITY MANAGEMENT SYSTEM

CERTIFIED BY DNV

ISO/TS 16949:2002

Microchip received ISO/TS-16949:2002 certification for its worldwide headquarters, design and wafer fabrication facilities in Chandler and Tempe, Arizona; Gresham, Oregon and design centers in California and India. The Company's quality system processes and procedures are for its PIC® MCUs and dsPIC® DSCs, KEELOQ® code hopping devices, Serial EEPROMs, microperipherals, nonvolatile memory and analog products. In addition, Microchip's quality system for the design and manufacture of development systems is ISO 9001:2000 certified.



WORLDWIDE SALES AND SERVICE

AMERICAS

Corporate Office 2355 West Chandler Blvd.

Chandler, AZ 85224-6199 Tel: 480-792-7200 Fax: 480-792-7277 Technical Support:

http://support.microchip.com

Web Address: www.microchip.com

Atlanta

Duluth, GA Tel: 678-957-9614 Fax: 678-957-1455

Roston

Westborough, MA Tel: 774-760-0087 Fax: 774-760-0088

Chicago

Itasca, IL Tel: 630-285-0071 Fax: 630-285-0075

Dallas

Addison, TX Tel: 972-818-7423 Fax: 972-818-2924

Detroit Farmington Hills, MI

Tel: 248-538-2250

Fax: 248-538-2260

Kokomo Kokomo, IN

Tel: 765-864-8360 Fax: 765-864-8387

Los Angeles

Mission Viejo, CA Tel: 949-462-9523 Fax: 949-462-9608

Santa Clara

Santa Clara, CA Tel: 408-961-6444 Fax: 408-961-6445

Toronto

Mississauga, Ontario, Canada

Tel: 905-673-0699 Fax: 905-673-6509

ASIA/PACIFIC

Asia Pacific Office

Suites 3707-14, 37th Floor Tower 6. The Gateway Harbour City, Kowloon Hong Kong

Tel: 852-2401-1200 Fax: 852-2401-3431

Australia - Sydney Tel: 61-2-9868-6733 Fax: 61-2-9868-6755

China - Beijing

Tel: 86-10-8528-2100 Fax: 86-10-8528-2104

China - Chengdu

Tel: 86-28-8665-5511 Fax: 86-28-8665-7889

China - Fuzhou

Tel: 86-591-8750-3506 Fax: 86-591-8750-3521

China - Hong Kong SAR Tel: 852-2401-1200 Fax: 852-2401-3431

China - Qingdao Tel: 86-532-8502-7355

Fax: 86-532-8502-7205

China - Shanghai

Tel: 86-21-5407-5533 Fax: 86-21-5407-5066

China - Shenyang

Tel: 86-24-2334-2829 Fax: 86-24-2334-2393

China - Shenzhen

Tel: 86-755-8203-2660 Fax: 86-755-8203-1760

China - Shunde

Tel: 86-757-2839-5507 Fax: 86-757-2839-5571

China - Wuhan

Tel: 86-27-5980-5300 Fax: 86-27-5980-5118

China - Xian

Tel: 86-29-8833-7252 Fax: 86-29-8833-7256

ASIA/PACIFIC

India - Bangalore

Tel: 91-80-4182-8400 Fax: 91-80-4182-8422

India - New Delhi

Tel: 91-11-4160-8631 Fax: 91-11-4160-8632

India - Pune

Tel: 91-20-2566-1512 Fax: 91-20-2566-1513

Japan - Yokohama

Tel: 81-45-471- 6166

Fax: 81-45-471-6122

Korea - Daegu Tel: 82-53-744-4301

Fax: 82-53-744-4302

Korea - Seoul Tel: 82-2-554-7200

Fax: 82-2-558-5932 or

82-2-558-5934

Malaysia - Penang

Tel: 60-4-646-8870

Fax: 60-4-646-5086

Philippines - Manila

Tel: 63-2-634-9065 Fax: 63-2-634-9069

Singapore

Tel: 65-6334-8870 Fax: 65-6334-8850

Taiwan - Hsin Chu

Tel: 886-3-572-9526 Fax: 886-3-572-6459

Taiwan - Kaohsiung

Tel: 886-7-536-4818 Fax: 886-7-536-4803

Taiwan - Taipei

Tel: 886-2-2500-6610 Fax: 886-2-2508-0102

Thailand - Bangkok

Tel: 66-2-694-1351 Fax: 66-2-694-1350

EUROPE

Austria - Wels

Tel: 43-7242-2244-39 Fax: 43-7242-2244-393

Denmark - Copenhagen

Tel: 45-4450-2828 Fax: 45-4485-2829

France - Paris

Tel: 33-1-69-53-63-20 Fax: 33-1-69-30-90-79

Germany - Munich

Tel: 49-89-627-144-0 Fax: 49-89-627-144-44

Italy - Milan

Tel: 39-0331-742611 Fax: 39-0331-466781

Netherlands - Drunen Tel: 31-416-690399

Fax: 31-416-690340

Spain - Madrid

Tel: 34-91-708-08-90 Fax: 34-91-708-08-91

UK - Wokingham Tel: 44-118-921-5869 Fax: 44-118-921-5820

06/25/07