

Active AT83C51SND1C Errata List

- SPI Controller – Bad Transfer in Slave Mode with CPHA = 0
- C51 Core – Bad Exit of Power-down in X2 Mode
- MP3 Decoder – Extra Power Consumption after Reset

AT83C51SND1C Errata History

Lot Number	Errata List
All lot numbers	1, 2, 3

AT83C51SND1C Errata Description

1. SPI Controller – Bad Transfer in Slave Mode with CPHA = 0

SPI controller used in slave mode with CPHA = 0 leads to erratic data reception and transmission.

Workaround

Use slave mode only with CPHA = 1.

2. C51 Core – Bad Exit of Power-down in X2 Mode

When exiting Power-down mode by interrupt while CPU is in X2 mode, it leads to bad execution of first instruction executed when CPU restarts.

Workaround

Put the CPU in X1 mode just before entering power-down mode.

3. MP3 Decoder – Extra Power Consumption after Reset

Under certain power-up conditions, MP3 decoder may not be well reset leading to an extra power consumption. This extra consumption disappears after playing one MP3 song.

Workaround

The software workaround consists of enabling and disabling the MP3 macrocell while PLL is running. This starts internal decoder reset process and removes the extra power consumption.

Implemented in latest firmware packages.



**MP3
Microcontrollers**

AT83C51SND1C

Errata Sheet





Atmel Corporation

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 487-2600

Regional Headquarters

Europe

Atmel Sarl
Route des Arsenaux 41
Case Postale 80
CH-1705 Fribourg
Switzerland
Tel: (41) 26-426-5555
Fax: (41) 26-426-5500

Asia

Room 1219
Chinachem Golden Plaza
77 Mody Road Tsimshatsui
East Kowloon
Hong Kong
Tel: (852) 2721-9778
Fax: (852) 2722-1369

Japan

9F, Tonetsu Shinkawa Bldg.
1-24-8 Shinkawa
Chuo-ku, Tokyo 104-0033
Japan
Tel: (81) 3-3523-3551
Fax: (81) 3-3523-7581

Atmel Operations

Memory

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

Microcontrollers

2325 Orchard Parkway
San Jose, CA 95131, USA
Tel: 1(408) 441-0311
Fax: 1(408) 436-4314

La Chantrerie
BP 70602
44306 Nantes Cedex 3, France
Tel: (33) 2-40-18-18-18
Fax: (33) 2-40-18-19-60

ASIC/ASSP/Smart Cards

Zone Industrielle
13106 Rousset Cedex, France
Tel: (33) 4-42-53-60-00
Fax: (33) 4-42-53-60-01

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Scottish Enterprise Technology Park
Maxwell Building
East Kilbride G75 0QR, Scotland
Tel: (44) 1355-803-000
Fax: (44) 1355-242-743

RF/Automotive

Theresienstrasse 2
Postfach 3535
74025 Heilbronn, Germany
Tel: (49) 71-31-67-0
Fax: (49) 71-31-67-2340

1150 East Cheyenne Mtn. Blvd.
Colorado Springs, CO 80906, USA
Tel: 1(719) 576-3300
Fax: 1(719) 540-1759

Biometrics/Imaging/Hi-Rel MPU/ High Speed Converters/RF Datacom

Avenue de Rochepleine
BP 123
38521 Saint-Egreve Cedex, France
Tel: (33) 4-76-58-30-00
Fax: (33) 4-76-58-34-80

Literature Requests

www.atmel.com/literature

Disclaimer: Atmel Corporation makes no warranty for the use of its products, other than those expressly contained in the Company's standard warranty which is detailed in Atmel's Terms and Conditions located on the Company's web site. The Company assumes no responsibility for any errors which may appear in this document, reserves the right to change devices or specifications detailed herein at any time without notice, and does not make any commitment to update the information contained herein. No licenses to patents or other intellectual property of Atmel are granted by the Company in connection with the sale of Atmel products, expressly or by implication. Atmel's products are not authorized for use as critical components in life support devices or systems.

© **Atmel Corporation 2003. All rights reserved.** Atmel® and combinations thereof are the registered trademarks of Atmel Corporation or its subsidiaries. Other terms and product names may be the trademarks of others.



Printed on recycled paper.