

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





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