
This errata sheet is applicable to the following device:

- AT89C2051

Problem

In Rev. "E" of the AT89C2051 device, whenever the power-down mode is invoked, the I_{CC} current can suddenly and permanently exceed values above the maximum specified in the datasheet. The actual amount of current displayed in an application which invokes the power-down mode is dependent on the specific location(s) in the firmware where the power-down instruction is located. This problem affects Rev. "E" only.

Suggested Workaround

The customer may attempt to change the firmware code in the AT89C2051 in such a way that the instruction which invokes the power-down instruction (MOV PCON,#02H) is located in the address locations just prior to a program memory address ending in 0s but containing as few number of binary 1s as possible (e.g., 100H, 200H, 400H). This may be easier when looking at the listing (.LST) file.

For example:

```
.ORG 0FDH  
MOV PCON,#02H
```

The listing (.LST) file would look like:

```
00FD 758202
```

Locations different from the above can be attempted to see if one of them would solve the problem.

Solution

Use Rev. "F" or later of the AT89C2051 device. If the suggested workaround does not solve the high power-down current problem, the customer is encouraged to contact the appropriate Atmel reseller and request delivery of Rev. "F" of the AT89C2051. Production of this new version is expected in January 2001, and is identified by the string "19654F" in the back-side marking of the device package.



Microcontrollers

AT89C2051

Rev. E

Errata Sheet





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