Active Errata List

- **During UART Reception, Clearing REN May Generate Unexpected IT**
- **Timer 2 – Baud Rate Generator – Long Start Time**
- **C51 Core – Bad Exit of Power-down in X2 Mode**
- **PCA – Incorrect Behavior with CPU X2 Mode Bit of HSB**
- **Timer0/1 – Extra Interrupt**
- **Boot process - Upper 2Kbytes execution with BLJB=0**

Errata History

Lot Number	Errata List
All	1, 2, 3, 4, 5, 6

Errata Descriptions

1. **During UART Reception, Clearing REN May Generate Unexpected IT**

   During UART reception, if the REN bit is cleared between start bit detection and the end of reception, the UART will not discard the data (RI is set).

   Workaround

   Test REN at the beginning of Interrupt routine directly after CLR RI, and run the Interrupt routine code only if REN is set.

2. **Timer 2 – Baud Rate Generator – Long Start Time**

   When Timer 2 is used as a baud rate generator, TH2 is not loaded with RCAP2H at the beginning, then UART is not operational before 10,000 machine cycles.

   Workaround

   Add the initialization of TH2 and TL2 in the initialization of Timer 2.

3. **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 the first instruction run when CPU restarts.

   Workaround

   Set the CPU in X1 mode diretly before entering power-down mode.

4. **PCA – Incorrect behavior with CPU X2 mode bit of HSB**

   When starting the microcontroller in X2 mode upon reset with the X2 fuse bit of the HSB, the PCA may not work properly when configured with Timer 0 in X1 mode as clock input.

   Workaround

   Set the CPU in X2 mode by software by writing CKCON register at the begin of the application.

5. **Timer0/1 – Extra Interrupt**

   When Timer0 is in X1 mode and Timer1 in X2 mode and vice versa, extra interrupt may randomly occur for Timer0 or Timer1.

   Workaround

   Use the same mode for the two timers..

6. Boot Process - Upper 2Kbytes Execution with BLJB = 0

In case of Boot process with BLJB = 0 and BSB = 00, the User Application is executed but the program space located in the upper 2KBytes of the 64KBytes on chip Flash memory cannot be executed. This is due to ENBOOT bit which is set in this Bootloader flow.

Workaround

Clear ENBOOT bit at the beginning of user application software.

Active UART Bootloader Errata List

- **API program Data Byte - Incorrect Return Value**
- **API program Data Page - Incorrect Return Value**

UART Bootloader Errata History

Version Number	Errata List
0.0 (1.0.0 displayed by FLIP)	1,2

UART Bootloader Errata Description

1. **API Program Data Byte - Incorrect Return Value**

   The PROGRAM DATA BYTE API returns the '0xXX' instead of 0x00 in ACC, but the programmnig operation is sucessfully completed.

2. **API Program Data Page- Incorrect Return Value**

   The PROGRAM DATA PAGE API returns the '0xXX' instead of 0x00 in ACC, but the programmnig operation is sucessfully completed.

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4257D–8051–04/04   0M