Errata Sheet

TS87C51RD2, TS80C51RD2, TS83C51RD2

This errata sheet describes the functional deviations known at the release date of this document.

Errata History

TS87C51RD2

Lot Number	Trouble list	Status
≤Z35184	T01, T02 ,T03, T04, T05, T06	Not Fixed
>Z35184	T02 ,T03, T04, T05, T06	Not Fixed

TS80C51RD2-TS83C51RD2

Lot Number	Trouble list	Status
≤Z36415	T01, T02 ,T03, T04, T05, T06	Not Fixed
>Z36415	T02 ,T03, T04, T05, T06	Not Fixed

Trouble descriptions

T01	UART / Reception in modes 1, 2 and 3 / UART false start bits detection
Description:	When a false start bit occurs on the UART, some UART internal signals are not reset. Than when a real start bit occurs, the sampling is shifted.
Workaround:	No

T02	During UART reception, clearing REN may generate unexpected IT.
Description:	During UART reception, if the REN bit is clear between a 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 just after CLR RI, and to run the Interrupt routine code only if REN is set.

T03	JBC / Double IT when external Interrupt occurs during JBC instruction
Description:	On polling algorithm in ISR on IE1 or IE0 bit, when external IT appears during JBC instruction , flag is not cleared and next JBC sees another IT, then the same IT is seen twice.
Workaround:	Use JB Instruction instead of JBC instruction to test bit and CLR instruction to clear it.

T04	Timer2 / Downcounter mode / Double IT with slow external clock
Description:	Double IT with slow external clock in down-count mode.Timer 2 in 16 bit auto-reload in count down mode with external clock input 2 interrupts are generated successively with low frequency on clock input (typ 10-40KHz).
Workaround:	Reload FFFE into TH2-TL2 in ISR and count down to RCAP-1 (to recover cycle lost in ISR) Caution : does not work if initially RCAP = 0x0000

Errata Sheet

T05	**Input Trigger Consumption / All C51 type I/O ports**
Description:	Some static consumption in input triggers of I/O ports may occur when entries are driven close to the trigger threshold (1mA to 2mA for each I/O at Vin = 2.4V for Vcc = 5V)
Workaround:	No

T06	**Movx / Port0 / Read mode**
Description:	When reading External Ram using Movx instruction, Port0's SFR may contain '0's whereas any access to external memories (data or program) should be by writing '1' into them .
Workaround:	No