SIEMENS

Semiconductor Group
Microcontrollers

Errata Sheet

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Device:	**C505L-4E**
Stepping Code / Marking:	**ES-BB**
Package:	**P-MQFP-80**

This Errata Sheet describes the deviations from the current user documentation. The classification and numbering system is module oriented in a continual ascending sequence over several derivatives, as well already solved deviations are included. So gaps inside this enumeration could occur.

The current documentation is: C505L User's Manual Edition 02.98
Instruction Set Manual 04.98

Note: ***Devices marked with EES- or ES are engineering samples which may not be completely tested in all functional and electrical characteristics, therefore they should be used for evaluation only.***

The specific test conditions for EES and ES are documented in a separate Status Sheet.

Functional Problems:

The following malfunctions are known in this step:

RTC.1: When RTINT=00h, IRTC is set even when there is no input at XTAL3

Conditions are RTINT=00h, RTC interrupt enable bit ERTC=1 and RTC is started. Interrupt flag bit IRTC is set even when there is no input at XTAL3.

Workaround:

RTINT should not be set to 00h. Valid input at XTAL3 must be ensured before RTC is enabled.

RTC.2: RTC reset problem

When the RTC is started in the normal operational mode, after some time interval the RTC may reset itself and restart with the reload value. The reset behavior occurs more frequently if the CLREGx (x=0-4) registers are read in a tight loop.

Workaround:

None.

RTC.3: RTC count inaccuracy

The RTC may count inaccurately within the specified range of 4.25<Vcc<5.5 if the capacitors used in XTAL3 clocking circuitry (see user's manual pg11-24) are below 68pF each. This is if the RTC is not resetting itself.

Workaround:

None.

Deviation from Electrical- and Timing Specification:

The following deviations of electrical and timing parameters from the specification are known in this step:

DC.2: V_{IH} minimum on $\overline{EA}$ pin does not meet the specification values

The V_{IH} min voltage on pin $\overline{EA}$ does not meet the specified values:

V_{IH} min for $\overline{EA}$ pin is 0.6 • V_{cc} (instead of 0.2 • V_{CC} + 0.9 V)

The new value will be worked into future documentation.

Workaround:

None.

History List (since last CPU Step ES-BA)

Functional Problems

Functional Problem	Short Description	Remarks
LCD.1	LCD registers LCRx and DIGx (x=0-4) return 00h upon read	Fixed in step ES-BB
LCD.2	LCD using RTC clocking input results in erroneous display during normal operational mode	Fixed in step ES-BB
RTC.1	When RTINT=00h, IRTC is set even when there is no input at XTAL3	
RTC.2	RTC reset problem	
RTC.3	RTC count inaccuracy	

AC/DC Deviations

AC/DC Deviation	Short Description	Remarks
DC.1	$I_{PD1,}$ I_{PD3} > 50µA	Fixed in step ES-BB
DC.2	V_{IH} minimum on EA pin does not meet the specification values	

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