Microcontrollers

Errata Sheet

13 March 2000 / Release 1.2

Device:	**C513AO-L,**
	C513AO-2R,
	C512AO-2R8N
Stepping Code / Marking:	**ES-CA, CA**
Package:	**P-LCC-44, P-MQFP-44**

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: C513AO User's Manual 05.99
C513AO Data Sheet 10.99
C513AO Differences to C513A BB-Step V1.0 07.99
Instruction Set Manual 05.98

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.

Change summary to last Errata Sheet Rel. 1.1:

- Items WDT.1 and DC.2 have been fixed in a redesign.

Functional Deviations:

WDT.2: Setting WDT and SWDT bits in WDCON Register by using Immediate Addressing mode instruction may not refresh the Watchdog Timer

To initiate a refresh of the Watchdog timer, the WDT bit should be set directly before the SWDT bit in WDCON register (WDCON.1 and WDCON.0). However, it is incorrectly described in the UM that bit WDT will be cleared automatically during the third, instead of the second, machine cycle after having been set. This means that setting the SWDT bit must be a one-cycle instruction, otherwise, the Watchdog timer will not be refreshed. Therefore, using immediate addressing mode instruction to set SWDT bit, the Watchdog timer will not be refreshed but continue counting until overflow and reset the device.

For example:

```
MOV   WDCON, #02h
MOV   WDCON, #01h
```

These instructions will not refresh the Watchdog timer.

Workaround:

Use the Bit Manipulation Instruction to set the SWDT bit.

For example:

```
SETB  WDCON.1          or          MOV WDCON, #02h
SETB  WDCON.0                      SETB WDCON.0
```

Deviation from Electrical- and Timing Specification:

None.

History List

Functional Problems/Deviations

Functional Problem	Short Description	Fixed
WDT.1	Watchdog Timer is not halted in idle mode	ES-CA, CA
WDT.2	Setting WDT and SWDT bits in WDCON Register by using Immediate Addressing mode instruction may not refresh the Watchdog Timer	

AC/DC Deviations

AC/DC Deviation	Short Description	Fixed
DC.1	V_{IH} minimum limit of port pins does not meet the specification values	ES-CA (926)
DC.2	I_{TL} maximum limit does not meet the specification values	ES-CA, CA

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