HCS512

HCS512 Data Sheet Errata

The HCS512 Rev. D parts you have received conform functionally to the Device Data Sheet (DS40151**D**), except for the anomalies described below.

All the problems listed here will be addressed in future revisions of the HCS512 silicon.

Problems: None

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Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS40151**D**), the following clarifications and corrections should be noted.

1. Features: Description

Page 2 of DS40151**D**, 1st paragraph, 2nd sentence reads:

3.0 volts to 6.0 volts

It should read:

4.0 volts to 6.0 volts

2. Features: Electrical Characteristics for HCS512

Page 16 of DS40151**D**, Table 9-2 AC Characteristics, Symbol T_E conditions reads:

3V < V_{DD} < 6V Oscillator components tolerance <10%

The conditions should read:

4.0V < V_{DD} <6V Oscillator components tolerance <10%

3. Features: Normal Learning (Serial Number Derived)

Page 12 of DS40151**D**, Section 7.1 reads:

For 28-bit serial number encoders (66/67-bit transmissions):

SourceH = 6H + 28 bit Serial Number

SourceL = 2H + 28 bit Serial Number

The text should read:

For 28-bit serial number encoders (66/67-bit transmissions):

SourceH = $\mathbf{6_{16}}$ + 28 bit Serial Number

SourceL = $\mathbf{6_{16}}$ + 28 bit Serial Number

4. Features: Secure Learning (Seed Derived)

Page 12 of DS40151, Section 7.2 reads:

For 60-bit seed encoders:

SourceH = Seed $_{\text{Upper 28 bits}}$ (with upper 4 bits always zero)

SourceL = Seed $_{\text{Lower 32 bits}}$

The text should read:

For 60-bit seed encoders:

SourceH = Seed $_{\text{Upper 28 bits}}$

SourceL = Seed $_{\text{Lower 32 bits}}$

Note:	The upper 12 bits of the SourceH are always the upper 12 bits of a 28-bit serial number. If a 32-bit serial number is used, the Most Significant nibble is ignored (see example).

Example:

Seed = xxxDEF987654321$_{16}$

28-bit Serial Number: **123**4567$_{16}$
SourceH = 123DEF9$_{16}$
SourceL = 87654321$_{16}$

32-bit Serial Number: 7**438**9012$_{16}$
SourceH = 438DEF9$_{16}$
SourceL = 87654321$_{16}$

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APPENDIX A: REVISION HISTORY

Rev A Document (2/2002)

Under Clarifications/Corrections to the Data Sheet, corrections have been made to the following:

Section 7.1 - Normal Learning (Serial Number Derived), page 12

Section 7.2 - Secure Learning (Seed Derived), page 12

Rev B Document (10/2002)

Under Clarifications/Corrections to the Data Sheet, corrections have been made to the following:

Features - Description, page 2

Table 9-2 - AC Characteristics, page 16

NOTES:

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Note the following details of the code protection feature on PICmicro® MCUs.

- The PICmicro family meets the specifications contained in the Microchip Data Sheet.
- Microchip believes that its family of PICmicro microcontrollers is one of the most secure products of its kind on the market today, when used in the intended manner and under normal conditions.
- There are dishonest and possibly illegal methods used to breach the code protection feature. All of these methods, to our knowledge, require using the PICmicro microcontroller in a manner outside the operating specifications contained in the data sheet. The person doing so may be engaged in theft of intellectual property.
- Microchip is willing to work with the customer who is concerned about the integrity of their code.
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- Code protection is constantly evolving. We at Microchip are committed to continuously improving the code protection features of our product.

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