
HCS512 Data Sheet Errata

The HCS512 Rev. D parts you have received conform functionally to the Device Data Sheet (DS40151D), except for the anomalies described below.

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

Problems: None

Clarifications/Corrections to the Data Sheet:

In the Device Data Sheet (DS40151D), the following clarifications and corrections should be noted.

1. Features: Description

Page 2 of DS40151D, 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 DS40151D, Table 9-2 AC Characteristics, Symbol TE conditions reads:

3V < VDD < 6V Oscillator components tolerance <10%

The conditions should read:

4.0V < VDD < 6V Oscillator components tolerance <10%

3. Features: Normal Learning (Serial Number Derived)

Page 12 of DS40151D, 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 = **6**₁₆ + 28 bit Serial Number

SourceL = **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_{Upper 28 bits} (with upper 4 bits always zero)

SourceL = Seed_{Lower 32 bits}

The text should read:

For 60-bit seed encoders:

SourceH = Seed_{Upper 28 bits}

SourceL = Seed_{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 = xxxDEF987654321₁₆

28-bit Serial Number: **1234567**₁₆

SourceH = 123DEF9₁₆

SourceL = 87654321₁₆

32-bit Serial Number: **74389012**₁₆

SourceH = 438DEF9₁₆

SourceL = 87654321₁₆

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

HCS512

NOTES:

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.
- Neither Microchip nor any other semiconductor manufacturer can guarantee the security of their code. Code protection does not mean that we are guaranteeing the product as “unbreakable”.
- Code protection is constantly evolving. We at Microchip are committed to continuously improving the code protection features of our product.

If you have any further questions about this matter, please contact the local sales office nearest to you.

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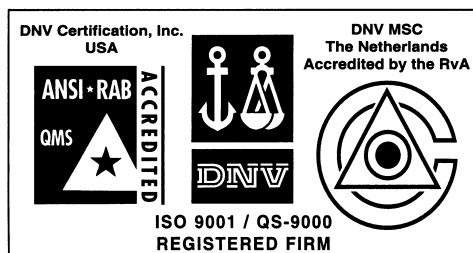
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Microchip received QS-9000 quality system certification for its worldwide headquarters, design and wafer fabrication facilities in Chandler and Tempe, Arizona in July 1999 and Mountain View, California in March 2002. The Company's quality system processes and procedures are QS-9000 compliant for its PICmicro® 8-bit MCUs, KEELOQ® code hopping devices, Serial EEPROMs, microperipherals, non-volatile memory and analog products. In addition, Microchip's quality system for the design and manufacture of development systems is ISO 9001 certified.



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