

## Mask Set Errata 2

# 68HC705C8A 8-Bit Microcontroller Unit

### INTRODUCTION

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This errata provides information pertaining to the extra  $I_{DD}$  current draw related to PORTD and is applicable to the following 68HC705C8A MCU mask set devices.

- 1E20T
- 2E20T
- 3E20T
- 2E79R
- 3E79R

### MCU DEVICE MASK SET IDENTIFICATION

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The mask set is identified by a four-character code consisting of a letter, two numerical digits, and a letter (for example, E20T). Slight variations to the mask set identification code may result in an optional numerical digit preceding the standard four-character code (for example, 2E20T).

### MCU DEVICE DATE CODES

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Device markings indicate the week of manufacture and the mask set. The data is coded as four numerical digits where the first two digits indicate the year and the last two digits indicate the work week. The date code "9115" would indicate the 15th week of the year 1991.

### MCU DEVICE PART NUMBER PREFIXES

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Some MCU samples and devices are marked with an "SC" or "XC" prefix. An "SC" prefix denotes special/custom device. An "XC" prefix denotes device is tested but is not fully characterized or qualified over the full range of normal manufacturing process variations. After full characterization and qualification, devices will be marked with the "MC" prefix.

*Whenever contacting a Motorola representative for assistance, please have the MCU device mask set and date code information available.*

Specifications and information herein are subject to change without notice.

## ADDITIONAL I<sub>DD</sub> CURRENT DRAW

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When reading PORTD, a condition exists that causes additional I<sub>DD</sub> current to be drawn. If any pin on PORTD transitions from a logic zero to a logic one, current through V<sub>DD</sub> increases by approximately 300 μA. However, there is no effect on pin leakage. Also, the actual read of PORTD is not affected. This condition cannot be cleared or reset, but powering the part down will return it to its initial condition.

The transition from logic zero to a logic one condition will cause a violation in the stop I<sub>DD</sub> specification and may cause a violation in the wait I<sub>DD</sub> specification depending on the frequency and voltage of operation. The operating I<sub>DD</sub> will remain within specification.

For low-power or current-sensitive applications, it is recommended not to transition PORTD pins.

This condition will be fixed in future mask revisions of the 68HC705C8A. However, to make the MC68HC705C8A compatible with other C Family parts, the new mask revision will require all input pins be tied to either a logic one or logic zero. The input pins should not be left floating.

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