

## *Mask Set Errata 4*

# **68HC705P6 8-Bit Microcontroller Unit**

## **INTRODUCTION**

---

---

This errata provides information pertaining to the SIOP applicable to the following 68HC705P6 MCU mask set device:

- E20Y

## **MCU DEVICE MASK SET IDENTIFICATION**

---

---

The mask set is identified by a four-character code consisting of a letter, two numerical digits, and a letter (e.g., E20Y). Slight variations to the mask set identification code may result in an optional numerical digit preceding the standard four-character code (e.g., 0E20Y).

## **MCU DEVICE DATE CODES**

---

---

Device markings indicate the week of manufacture and the mask set used. 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**

---

---

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.



## SIOPI

---

The SPIF bit in the serial status register (SSR) should be cleared by reading the SSR with SPIF set and then accessing the serial data register. When the SIOPI is configured for slave mode only, a race condition can occur between the last rising edge of SCK and an access of the SSR, such that SPIF is not cleared with the previously mentioned sequence. The race condition depends on the relationship between the rising edge of SCK and the internal CPU clock edges.


The code for waiting for a transmission in slave mode often looks like:

```
WAIT      BRCLR      SPIF, SSR, WAIT
          LDA        SDR
```

The temporary solution is to add another instruction to read the SSR before the serial data register is accessed.

```
WAIT      BRCLR      SPIF, SSR, WAIT
          LDA        SSR
          LDA        SDR
```

Change the logic for clearing the SPIF bit.

Motorola reserves the right to make changes without further notice to any products herein. Motorola makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does Motorola assume any liability arising out of the application or use of any product or circuit, and specifically disclaims any and all liability, including without limitation consequential or incidental damages. "Typical" parameters which may be provided in Motorola data sheets and/or specifications can and do vary in different applications and actual performance may vary over time. All operating parameters, including "Typicals" must be validated for each customer application by customer's technical experts. Motorola does not convey any license under its patent rights nor the rights of others. Motorola products are not designed, intended, or authorized for use as components in systems intended for surgical implant into the body, or other applications intended to support or sustain life, or for any other application in which the failure of the Motorola product could create a situation where personal injury or death may occur. Should Buyer purchase or use Motorola products for any such unintended or unauthorized application, Buyer shall indemnify and hold Motorola and its officers, employees, subsidiaries, affiliates, and distributors harmless against all claims, costs, damages, and expenses, and reasonable attorney fees arising out of, directly or indirectly, any claim of personal injury or death associated with such unintended or unauthorized use, even if such claim alleges that Motorola was negligent regarding the design or manufacture of the part. Motorola and  are registered trademarks of Motorola, Inc. Motorola, Inc. is an Equal Opportunity/Affirmative Action Employer.

Additional mask set erratas can be found on the World Wide Web at <http://Design-NET.com/csic/TECHSPRT/TechSprt.htm>.



**MOTOROLA**

68HC705P6MSE4