



# 17070794 C8051f39x/37x Datasheet Update

**PCN Issue Date:** 7/7/2017

**Effective Date:** 10/12/2017

**PCN Type:** Datasheet

## Description of Change

Silicon Labs is pleased to announce the release of version 1.1 of the C8051F39x and C8051F37x datasheet.

This change includes a single specification change of the maximum internal voltage reference short circuit current and other minor updates. The complete list of changes are as follows.

- Increased the maximum Voltage Reference(VREF) Short Circuit Current specification in Table 7.13 "Voltage Reference Electrical Characteristics" from 8 mA to 9 mA.
- Corrected the the size of the CRC0CNT CRC Automatic Flash Sector Count from 5 bits to 6 bits.
- Corrected the pin assignments in Figure 27.3 "Crossbar Priority Decoder - Possible Pin Assignments" on and Figure 27.4 "Crossbar Priority Decoder Example". The EESCL and EESDA have been swapped and are now in their correct positions.
- Corrected Figure 17.1 "C8051F39x/37x Memory Map" and Figure 17.2 "Flash Program Memory Map" to correctly list C8051F374/5 with 8 kB of flash.
- Removed a mention of the maximum VDD ramp time in Section 24.1 "Power-On Reset".
- Updated Figure 24.2 "Power-On and VDD Monitor Reset Timing" to use the VRST\_LOW threshold for power-on, since this is the default setting.
- Removed the part numbers from the Test Condition for EEPROM Size and Endurance specifications in Table 7.6 "EEPROM Electrical Characteristics".
- Removed the part numbers from the Test Condition for EEPROM Write Cycle Time specification and replaced with "16-byte page" in Table 7.6 "EEPROM Electrical Characteristics".
- Added notes and clarified through Section 22.2 "Write Operation" to state that the writes are all 16-byte page aligned.

## Reason for Change

Through further characterization and Silicon Labs continual improvement process the Voltage Reference Max Short Circuit Current has been slightly increased. This specification applies to a fault condition and states the maximum current the voltage reference can supply under a short circuit condition.

## Impact on Form, Fit, Function, Quality, Reliability

All but one change is considered minor and does not affect form, fit, function, quality, or reliability. The increase in the voltage reference maximum short circuit current will cause slightly more current to be supplied by the voltage reference under a short condition. This may lead to the device itself or external devices using the voltage reference to experience slightly more current if either shorts the voltage reference to ground.

## Product Identification

C8051F390-A-GM  
C8051F390-A-GMR  
C8051F391-A-GM  
C8051F391-A-GMR  
C8051F392-A-GM  
C8051F392-A-GMR  
C8051F393-A-GM  
C8051F393-A-GMR  
C8051F394-A-GM  
C8051F394-A-GMR  
C8051F395-A-GM  
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C8051F399-A-GM  
C8051F399-A-GMR  
C8051F370-A-GM  
C8051F370-A-GMR  
C8051F371-A-GM  
C8051F371-A-GMR  
C8051F374-A-GM  
C8051F374-A-GMR  
C8051F375-A-GM  
C8051F375-A-GMR

**Last Date of Unchanged Product:** 10/12/2017

### Qualification Samples

Samples available on request.

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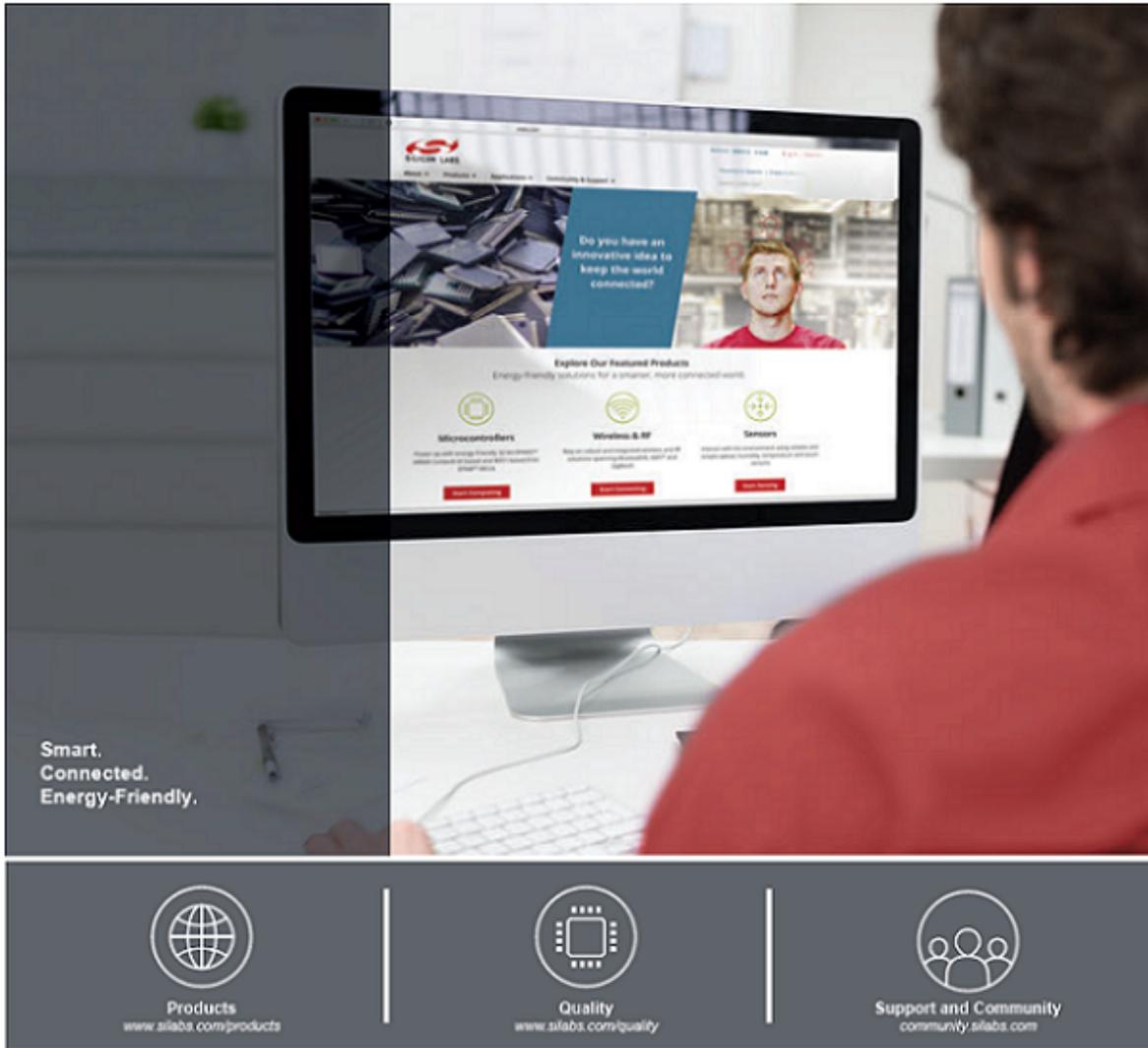
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### Qualification Data

Qualification data available on request.



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**Silicon Laboratories Inc.**  
 400 West Cesar Chavez  
 Austin, TX 78701

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