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PCN Date: 25Aug10		Effective Date: 25Nov10							
Title: C8051F99x Revision B									
Originator: Steve Gerber		Phone: 512-532-5868	Dept: EMS						
Customer Contact: Kathy Haggar		Phone: 512-532-5261	Dept: Sales						
PCN Type: <input type="checkbox"/> Assembly <input type="checkbox"/> Discontinuance <input type="checkbox"/> Package <input type="checkbox"/> Test <input type="checkbox"/> Datasheet <input type="checkbox"/> Fabrication <input checked="" type="checkbox"/> Product Revision <input type="checkbox"/> Packing <input type="checkbox"/> Labeling <input type="checkbox"/> Location <input type="checkbox"/> Other Last Order Date: 25Nov10									
PCN Details									
Description of Change: Silicon Laboratories (Silicon Labs) is pleased to announce the elimination of all six Rev A errata with the release of the C8051F99x Rev B family of low-power capacitive sensing MCUs. The eliminated errata include repair of the capacitive sense pin monitor, CS0MD1 bit mapping, P1.4 ADC input, the SmartClock startup time, reduction in non-sleep mode current, and indeterminant CRC0CN writes.									
Reason for Change: Eliminate the six previously identified C8051F99x revision A errata. Three of these errata had no available workaround (P1.4 ADC input, SmartClock startup time, and reduction in non-sleep mode current) in Rev A. All six errata have been eliminated in Rev B.									
Impact on Form, Fit, Function, Quality, Reliability: C8051F99x Rev B eliminates all known errata observed in Rev A silicon. The Rev B devices are 100% functionally compatible to Rev A. There is no impact to form, fit, quality, or reliability.									
Product Identification: This PCN applies to devices ordered using the following ordering part numbers <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <th colspan="3">Affected Ordering Part Numbers</th> </tr> <tr> <td>C8051F990-GM</td> <td>C8051F996-GM</td> <td>C8051F996-GU</td> </tr> </table>				Affected Ordering Part Numbers			C8051F990-GM	C8051F996-GM	C8051F996-GU
Affected Ordering Part Numbers									
C8051F990-GM	C8051F996-GM	C8051F996-GU							
Note: Affected Part Numbers also include all custom parts made from the above listed base parts and tape and reel equivalents ("R" suffix).									
Last Date of Unchanged Product: 25Nov10 Subsequent to the Effective Date of this PCN, Silicon Labs will supply the new rev B parts for all C8051F99x orders. The ordering part numbers have not changed subsequent to this product improvement.									
Qualification Samples: Samples are available now. Please contact your local Silicon Laboratories sales representative to order samples. A list of authorized sales representatives may be found at www.silabs.com									

Customer Early Acceptance Sign Off:

Customers may approve early PCN acceptance by completing the information below:

Early Acceptance Date:

Name:

Company:

Email your early Acceptance approval to: katherine.hagggar@silabs.com

Qualification Data: See Appendix A for the Qualification Report

Appendix A: Qualification Report

Preliminary C8051F99x Qualification Report



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Part Rev C8051F99x, TSMC 0.18um Fabrication							
Test Name	Test Condition	Qualification	Lot ID or Start	Fail/Pass or End	Notes	Summary	Status
Test Group B - Accelerated Lifetime Simulation Tests							
HTOL	JA108 125°C, Dynamic Vcc=3.3V, 1000 hours	3 lots, N=>77	Q27065 Q28301 Q28955	0/88 0/80 f/p		2 lots 0/168	Ongoing
LTOL	JA108 -10°C, Dynamic Vcc=3.3V, 1000 hours	1 lot, N=>32	Q25548	0/39		1 lots 0/39	Pass
ELFR	JA108 125°C, Dynamic Vcc=3.3V, 48 hours	3 lots, N=>500	Q27592 Q28218 Q28868	0/520 0/516 f/p		2 lots 0/1036	Ongoing
Test Group E - Electrical Verification							
ESD-HBM	JA114	1 lot, N=>3	Q28863				2kV
ESD-MM	JA115	1 lot, N=>3	Q28865				225V
ESD-CDM	JC101	1 lot, N=>3	Q28864				2kV
Latch Up	JESD78 ±200mA Overvoltage = 3.6V	1 lot, N=>6	Q28867 Q28866	85C 25C			Pass