

**User Registration**

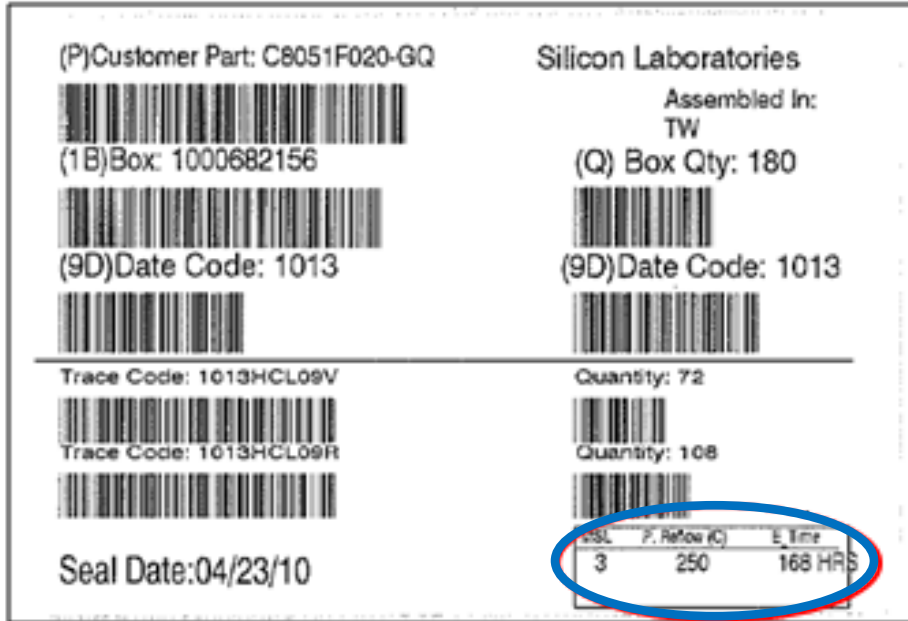
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<b>PCN Date:</b> 10May10		<b>Effective Date:</b> 10May10	
<b>Title:</b> EMS TQFP MSL Reclassification - 250 °C to 260 °C			
<b>Originator:</b> Yi Yin Chee	<b>Phone:</b> +65 - 6511 7749	<b>Dept:</b> Supplier Quality	
<b>Customer Contact:</b> Kathy Haggar	<b>Phone:</b> +1.512.532.5261	<b>Dept:</b> Inside Sales	
<b>PCN Type:</b>			
<input type="checkbox"/> Assembly	<input type="checkbox"/> Discontinuance	<input checked="" type="checkbox"/> Package	<input type="checkbox"/> Test
<input type="checkbox"/> Datasheet	<input type="checkbox"/> Fabrication	<input type="checkbox"/> Product Revision	
<input type="checkbox"/> Packing	<input type="checkbox"/> Labeling	<input type="checkbox"/> Location	<input type="checkbox"/> Other
<b>Last Order Date:</b> 10May10			
<b>PCN Details</b>			
<b>Description of Change:</b>			
<p>Silicon Labs is pleased to announce the successful MSL reclassification of the 64-TQFP-10X10 and 100-TQFP-14X14 devices in accordance with JEDEC JSTD020. The reclassification qualification increases the allowable maximum reflow temperature from 250 °C to 260 °C. The reclassification ensures our products will meet peak temperature expectations of lead free reflow profiles per JEDEC.</p> <p>The products were initially qualified using an MSL reflow profile maximum temperature of 250 °C. We have assessed the devices with reflow maximum 260 °C in accordance with JSTD020. The results demonstrate that they are able to withstand the more stringent profile.</p> <p>There is no change in product packaging methods, packaging materials or supplier processes. The product shipment label will change to reflect the new qualified reflow maximum temperature of 260 °C.</p>			
<b>Reason for Change:</b> Continuous improvement to meet industrial expectations.			
<b>Impact on Form, Fit, Function, Quality, Reliability:</b>			
<p>There is no impact to form, fit, function, quality or reliability of the 260 °C qualified TQFP devices. The devices comply with Silicon Labs' relevant datasheets and quality levels.</p>			

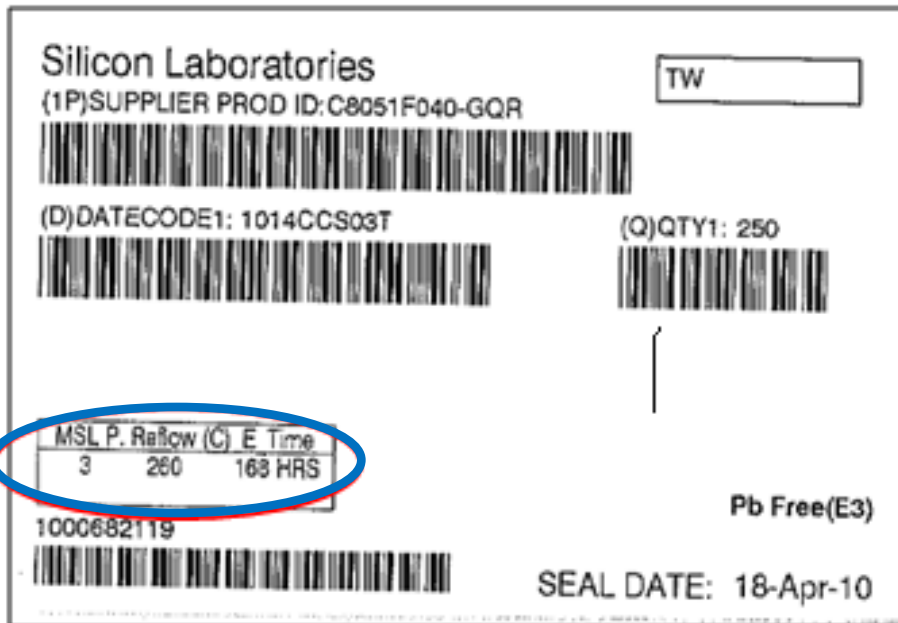
**Product Identification:**

The affected order part number list is shown in Appendix A.

Maximum reflow temperature labels will reflect 260 °C instead of 250 °C, see examples below:



Old - MSL 250 °C Label



New - MSL 260 °C Label

Last Date of Unchanged Product: 10May10

Qualification Samples: N/A

**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](mailto:katherine.hagggar@silabs.com)

**Qualification Data:**

3 lots of the TQFP devices have been selected for reliability test as below. All lots passed the test.

Tests	Through Scan / Reflection Scan* (Sample size = 22 units/lot)	Electrical Test (Sample size = 135 units/lot)
Pre-conditioning 1. Temperature Cycle 10 cycles (-65 °C / 150 °C). 2. Bake 24 hours. 3. Simulation of Moisture Sensitive Level 3 (30 °C / 60% RH, 192 hours). 4. Reflow 3 times, at maximum 260 °C (+5 °C / - 0 °C)	Passed	Passed
Temperature Cycle 750 cycles (-65 °C / 150 °C, condition C)	Passed	Passed

\* Through Scan & Reflection Scan is to check on delamination.

## Appendix A: Affected Order Part Numbers (OPN)

C8051F000-GQ	C8051F020-GQ	C8051F040-GQ	C8051F060-GQ	C8051F120-GQ	C8051F130-GQ
C8051F005-GQ	C8051F021-GQ	C8051F041-GQ	C8051F061-GQ	C8051F121-GQ	C8051F131-GQ
C8051F010-GQ	C8051F022-GQ	C8051F042-GQ	C8051F062-GQ	C8051F122-GQ	C8051F132-GQ
C8051F015-GQ	C8051F023-GQ	C8051F043-GQ	C8051F063-GQ	C8051F123-GQ	C8051F133-GQ
C8051F018-GQ	CF020-XL0010GQ	C8051F044-GQ	C8051F064-GQ	C8051F124-GQ	
CF000-XX0006GQ	CF021-XL0010GQ	C8051F045-GQ	C8051F065-GQ	C8051F125-GQ	
CF005-PM0273GQ	CF022-PM0443GQ	C8051F046-GQ	C8051F066-GQ	C8051F126-GQ	
CF005-XL0010GQ	CF023-PM0089GQ	C8051F047-GQ	C8051F067-GQ	C8051F127-GQ	
	CF023-PM0264GQ	CF040-XL0010GQ	CF060-XL0010GQ	CF120-XL0010GQ	
		CF041-XL0010GQ	CF061-XL0010GQ	CF120-XM0232GQ	
				CF121-SX0110GQ	
				CF121-XL0010GQ	