



# Process Change Notice #1201111

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PCN Date: 11Jan12		Effective Date: 17Apr12	
Title: Si3452 Si3453 Firmware Revision			
Originator: John Wilson		Phone: 512-532-5755	Dept: Wireline Marketing
Customer Contact: Kathy Haggar		Phone: 512-532-5261	Dept: Sales
<b>PCN Type:</b> <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: 17Apr12			
<b>PCN Details</b>			
<b>Description of Change:</b>  Silicon Laboratories, Inc (Silicon Labs) is pleased to announce the release of a new firmware revision for the Si3452 and Si3453 Quad High-Voltage Port Controllers for PoE and PoE+ PSEs. This firmware revision improves compliance and addresses several minor flaws. The firmware revision 2.81 includes these changes: <ul style="list-style-type: none"> <li>- Fixed a signed/unsigned calculation error in the routine that measures FET voltage. Presently, parts are being screened for this issue, so the firmware change is transparent to the end-user.</li> <li>- Increased the amount of time that the I2C clock line can be held low before the Si3452 aborts the I2C transaction from 5 ms to 30 ms, allowing increased flexibility for the system designer.</li> <li>- Fixed an error that occurred in rare cases when reading port current or Vee; there were occasions where the upper byte and the lower byte do not belong to the port reading, because an I2C interrupt occurred between the writing of the two bytes. This error was fixed by disabling interrupts while writing these 2-byte values.</li> <li>- Reduced the initialization time from 100msec max to 20msec max, resulting in faster controller readiness.</li> <li>- Fixed an issue with current limiting during Tstart in 2x mode, improving "Sifos" PoE test set compliance.</li> <li>- Fixed an issue related to the disconnect timing for overloads that occur during the Tstart time period, improving "Sifos" PoE test set compliance.</li> </ul>			
<b>Reason for Change:</b>  Implementing these changes improves PoE system performance and PoE test set compliance for the product.			

**Impact on Form, Fit, Function, Quality, Reliability:**

There is no impact on form, fit, function, quality or reliability. This firmware revision improves compliance and addresses several minor flaws. Firmware revision 2.81 is software backwards compatible with the previous revision.

**Product Identification:**

Products ordered under the following ordering part numbers are affected by this change:

EXISTING OPN's:

Si3452-B01-GM	Si3453-B01-GM
Si3452A-B01-GM	Si3453A-B01-GM
Si3452B-B01-GM	Si3453B-B01-GM
Si3452C-B01-GM	Si3453C-B01-GM
Si3452D-B01-GM	Si3453D-B01-GM

NEW OPN's:

Si3452-B02-GM	Si3453-B02-GM
Si3452A-B02-GM	Si3453A-B02-GM
Si3452B-B02-GM	Si3453B-B02-GM
Si3452C-B02-GM	Si3453C-B02-GM
Si3452D-B02-GM	Si3453D-B02-GM

Note: Affected Part Numbers also include any additional custom parts made from the above listed base parts and tape and reel equivalents ("R" suffix).

**Last Date of Unchanged Product: 17Apr12**

**Qualification Samples:**

Available upon request. Please contact your local Silicon Laboratories sales representative to order samples. A list of Silicon Laboratories sales representatives may be found at [www.silabs.com](http://www.silabs.com)

The Si3452 and Si3453 updated datasheets are available at [www.silabs.com](http://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.haggard@silabs.com](mailto:katherine.haggard@silabs.com)

**Qualification Data:**

Available upon request. Please contact your local Silicon Labs sales representative. A list of Silicon Labs sales representatives is available at [www.silabs.com](http://www.silabs.com)