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Control No. PCN-16241 **July 13, 2016**

PRODUCT/PROCESS CHANGE NOTIFICATION

TYPE OF CHANGE: ☒ **Design** ☐ **Manufacturing** ☐ **Other**

This notification is provided in accordance with Power Integrations policy of product/process change notification. If you have any questions or need further assistance, please contact your regional Power Integrations sales office.

DESCRIPTION OF CHANGE

A minor design change was made to improve the absolute maximum rating on D+/D- voltage and Switch N1 On-Resistance margins, and a change in $V_{BP(Reset)}$ to prevent Vout change in Quick Charge 3.0 specifications. Changes will be reflected in the datasheet as shown below.

Parameter	Symbol	Current	New
Absolute Maximum Rating on D+/D- Pin Voltage	-	-0.3 to 5V	-0.3 to 6.5V
Power-Up Reset Threshold Voltage	$V_{BP(Reset)}$	2.5 to 2.9V	2.7 to 3.1V
Switch N1 On-Resistance	$R_{DS(ON)N1}$	Max of 40 Ω	Max of 25 Ω

REASON FOR CHANGE

To improve the product performance to meet Quick Charge 3.0 specifications.

PRODUCTS AFFECTED

CHY103D, SC0163D

QUALIFICATION STATUS

See Appendix 1.

EFFECT ON CUSTOMER

No adverse impact is expected in manufacturers' applications. The product will be guaranteed to meet the new datasheet limits.

EFFECTIVE DATE

October 13, 2016. This date is subject to change.

SAMPLE AVAILABILITY

Samples will be available 6 weeks from the date of request.

CUSTOMER ACKNOWLEDGEMENT

Power Integrations requests you acknowledge the receipt of the above-mentioned PCN. If no acknowledgment is received within 30 days of this notification, Power Integrations will assume the change is acceptable. Lack of any additional response within 90 days of this notification further constitutes acceptance of the change.

Power Integrations reserves the right to ship either version manufactured after the effective date until the inventory of the earlier version has been depleted.

If you have any questions or need further assistance, please contact your regional Power Integrations sales office. Otherwise, please check the box below, acknowledging the receipt of the PCN.

The indicated Product/Process Change Notification was received by the undersigned authority.

Name/Title:_____

Signature:_____ Date:_____

Email Address/Phone#:_____

Company/Location:_____

CUSTOMER COMMENTS

_____

_____

_____

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Please email this signed form to pcn@power.com specifying the PCN# in the subject.

Appendix 1
Reliability Engineering
Qualification Report

Qualification Project: E161904
Date of Report: 28-June-2016
Prepared By: Nick Stanco
Manager, Reliability Engineering

Project Title: CHY103D and SC0163D UL Fix Die Revision Qualification
Summary: Reliability testing was conducted to qualify CHY103D and SC0163D die revisions made to meet Quick Charge 3.0 specifications. The new DM0041B1 die revision was accomplished with a minor three-layer fix and required only DOPL testing on one lot for qualification. DOPL completed 500 hours with passing results and the new die revision is now fully qualified and approved for production.
Qualification Vehicles: CHY103D

Reliability Test Descriptions and Conditions

Test Name	Conditions	Reference Specification
DOPL (Dynamic Operating Life Test)	Tj=125°C	EIA/JESD22-A108D

DOPL (Dynamic Operating Life)

Product	Description	Assy Lot	Die ID	Test Duration	Failures/Sample Size
CHY103D	UL Fix Qual Lot	4R232A	DM004B1	MSL1 + 1000 hours	0/47

Conclusion: Based on these qualification results, the DM0041B1 mask set revision to meet Quick Charge 3.0 specifications is fully qualified and approved for production with the CHY103D and SC0163D products.