



PRODUCT / PROCESS CHANGE NOTIFICATION

PCN-000585 General

Date: 11/13/2019

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<input checked="" type="checkbox"/> Semtech Corporation, 200 Flynn Road, Camarillo CA 93012
<input type="checkbox"/> Semtech Canada Corporation, 4281 Harvester Road, Burlington, Ontario L7L 5M4 Canada
<input type="checkbox"/> Semtech Irvine, 5141 California Ave., Suite 100, Irvine CA 92617
<input type="checkbox"/> Semtech Neuchatel Sarl, Route des Gouttes d'Or 40, CH-2000 Neuchatel Switzerland
<input type="checkbox"/> Semtech Bristol - EMEA Limited, Block B, St James Court, Great Park Road, Bristol BS32 4QJ, UK
<input type="checkbox"/> Semtech Corpus Christi SA de CV, Carretera Matamorros Edificio 7, Reynosa, Tamaulipas, Mexico 88780
<input type="checkbox"/> Semtech Plano, 1101 Resource Drive, Suite 121, Plano TX 75074
<input type="checkbox"/>

Change Details

Part Number(s) Affected: <ul style="list-style-type: none"> SC4212MLTRT 	Customer Part Number(s) Affected: <input type="checkbox"/> N/A
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Description, Purpose and Effect of Change:

Semtech is changing the VIN parameter of the SC4212MLTRT due to a supply chain issue. This change is due to a fab process only able to support VIN = 1.6V. This parameter change affects the device Vdropout and LoadReg. These tests use VIN = 1.5V and 1A load.

The datasheet defines the dropout at 1A load to be 400mV (room temperature) and with a guardband that 375mV at Final Test. We pull the rejects and noticed that the Vout at 1A full load recover by 200mV when we start increasing the VIN by at least 1.55V.

After reviewing the fab capability, we found that the fab process is not really capable to run at 1.5V. Thus, we propose the change.

Please note that we are holding all VIN modified product until approval of this PCN. There is no VIN 1.5V product available at all.

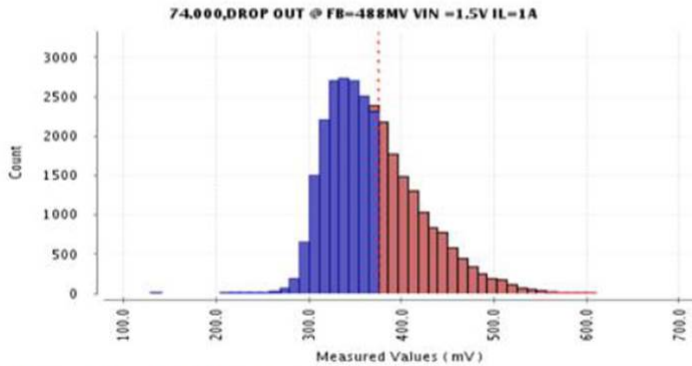
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Dropout Voltage ⁽¹⁾⁽²⁾	V_{DO}	$I_{OUT} = 500mA, T_A = 25^\circ C$	
		$I_{OUT} = 500mA$	
		$I_{OUT} = 1A, T_A = 25^\circ C$	
		$I_{OUT} = 1A$	



Electrical Characteristics

Unless specified otherwise: FB = VOUT, EN = VIN = 1.5V to 6V, $I_{OUT} = 8mA$ to 1A, $T_A = +25^\circ C$ for Typ, -40 to +85 °C for Min and Max, $T_j < 125^\circ C$.

Sample:

	1.5	1.55V
1st reading	1.4979	1.54881
2nd reading	0.98707	1.19635



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Change Classification	<input checked="" type="checkbox"/> Major <input type="checkbox"/> Minor	Impact to Form, Fit, Function	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Impact to Data Sheet	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	New Revision or Date	R5 / 11-13-2019 <input type="checkbox"/> N/A
Impact to Performance, Characteristics or Reliability:			
Modification to VIN from 1.5V to 1.6V is a functional change to this part.			
Implementation Date	Upon customer approval	Work Week	1938
Last Time Ship (LTS) Of unchanged product	No unchanged product available	Affecting Lot No. / Serial No. (SN)	
Sample Availability	1938	Qualification Report Availability	
Supporting Documents for Change Validation/Attachments:			
<ul style="list-style-type: none"> • SC4212MLTRT Product Data Sheet 			
Issuing Authority			
Semtech Business Unit:	POWER MANAGEMENT		
Semtech Contact Info:	Pat Sanchez Semtech Corporation Corporate Quality 200 Flynn Road Camarillo, CA 93012 Psanchez@semtech.com Office: (805) 480-2074 Fax: (805) 498-3804		
FOR FURTHER INFORMATION & WORLDWIDE SALES COVERAGE: http://www.semtech.com/contact/index.html#support			