PRODUCT / PROCESS CHANGE NOTIFICATION
PCN-000722
Date: SEP-03-2021

Semtech Corporation, 200 Flynn Road, Camarillo CA 93012

Change Details

Part Number(s) Affected:	**Customer Part Number(s) Affected:** ☒ N/A
GN1196-INE3 GN1196-INTE3Z	

Description, Purpose and Effect of Change:

Minor digital change to prevent potential ADC & DMMI corruption. When the ADC read over I2C occurs at the same time as the DDMI state machine updates the SRAM ADC storage bytes on the current GN1196 version, the 2 ADC bytes can be out of sync. As a result, the 2 bytes can be read from different ADC readings. The bug has an impact on the look-up tables as well.

The issue has been resolved by modifying the digital core of the device. To identify the new part, the die ID register has been updated from GN1196A3H to GN1196A4H.

Notes:
1. The Last Time Ship (LTS) date for unchanged product is February 28, 2022.
2. The Last Time Buy (LTB) date for unchanged product is November 29, 2021, or while stocks last.

Change Classification	☐ **Major** ☒ **Minor**	**Impact to Form, Fit, Function**	☐ **Yes** ☒ **No**
Impact to Data Sheet	☐ **Yes** ☒ **No**	**New Revision or Date**	☒ **N/A**

Impact to Performance, Characteristics or Reliability:

No impact to performance, characteristics or reliability.

Implementation Date	**NOV-30-2021**	**Work Week**	**48**
Last Time Ship (LTS) **Of unchanged product**	**FEB-28-2022**	**Affecting Lot No. / Serial No. (SN)**	**N/A**
Sample Availability	**SEP-01-2021**	**Qualification Report Availability**	**N/A**

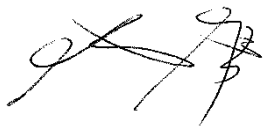
Supporting Documents for Change Validation/Attachments:

- CHIP_NAME on GN1196A4H has been updated to read the following:

Register	hex	ASCII	Note
CHIP_NAME_0	0x47	G	
CHIP_NAME_1	0x4E	N	
CHIP_NAME_2	0x31	1	
CHIP_NAME_3	0x31	1	
CHIP_NAME_4	0x39	9	
CHIP_NAME_5	0x36	6	
CHIP_NAME_6	0x41	A	
CHIP_NAME_7	0x34	4	
CHIP_NAME_8	0x48	H	

- No errors were detected in 10 runs (digital test) on 3 parts of GN1196A4H

Part	Test	Results
GN1196A3H	ISSUE_GN28L96_404_read_fpga	190 errors out of 100000 loops
	issue_75_LUT_write_DAC_issue_pi	97 errors out of 100000 loops
GN1196A4H 1	ISSUE_GN28L96_404_read_fpga	0 errors, 10x 100000 loops
	issue_75_LUT_write_DAC_issue_pi	0 errors, 10x 100000 loops
GN1196A4H 2	ISSUE_GN28L96_404_read_fpga	0 errors, 10x 100000 loops
	issue_75_LUT_write_DAC_issue_pi	0 errors, 10x 100000 loops
GN1196A4H 3	ISSUE_GN28L96_404_read_fpga	0 errors, 10x 100000 loops
	issue_75_LUT_write_DAC_issue_pi	0 errors, 10x 100000 loops

Issuing Authority		
Semtech Business Unit:	Signal Integrity Product Group (SIP)	
Semtech Contact Info:	Pedro Jr. Bernas Quality Assurance pbernas@semtech.com (289) 856-9326 x1162	

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