

**PCN Number:** 20180402000 **PCN Date:** Apr 12, 2018

**Title:** Transfer of select SLM devices from GFAB to FFAB Wafer Fab site

**Customer Contact:** [PCN Manager](#) **Dept:** Quality Services

**Proposed 1<sup>st</sup> Ship Date:** Jul 12, 2018 **Estimated Sample Availability:** Date provided at sample request.

**Change Type:**

<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Assembly Materials
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process
<input checked="" type="checkbox"/>	Wafer Fab Site	<input checked="" type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process
		<input type="checkbox"/>	Part number change		

**PCN Details**

**Description of Change:**

This change notification is to announce the transfer of select SLM devices from GFAB to the FFAB Wafer Fab site for the selected devices listed in the "Product Affected" section.

Current Fab Site			New Fab Site		
Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter
GFAB6	SLM	150 mm	FFAB	SLM	200 mm
GFAB8	SLM	200 mm	FFAB	SLM	200 mm

Qual details are provided in the Qual Data Section.

**Reason for Change:**

Greenock, Scotland (GFAB) Wafer Fab site closure

**Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):**

None

**Changes to product identification resulting from this PCN:**

**Current:**

Current Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
GFAB6	GF6	GBR	Greenock
GFAB8	GF8	GBR	Greenock

**New Fab Site:**

New Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
FR-BIP-1	TID	DEU	Freising

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS  
MADE IN: Malaysia  
2DC: 20:



MSL 2 / 260C / 1 YEAR SEAL DT  
MSL 1 / 235C / UNLIM 03/29/04

OPT: 39  
ITEM: LBL: 5A (L) TO: 1750

(1P) SN74LS07NSR  
(Q) 2000 (D) 0336  
(31T) LOT: 3959047MLA  
(4W) TKY (1T) 7523483S12  
(P)  
(2P) REV: (V) 003317  
(20L) CSO: SHE (21L) CCO: USA  
(22L) ASO: MLA (23L) ACO: MYS

**Product Affected:**

LM2940C-12 MWC	LM2940S-12/NOPB	LM2941SX/SL163215	LM340MP-5.0
LM2940CS-12	LM2940S-5.0	LM2941T	LM340MP-5.0/NOPB
LM2940CS-12/NOPB	LM2940S-5.0/NOPB	LM2941T/LB03	LM340MPX-5.0/NOPB

LM2940CS-15	LM2940S-8.0/NOPB	LM2941T/LF03	LM340S-12/NOPB
LM2940CS-15/NOPB	LM2940S-9.0/NOPB	LM2941T/NOPB	LM340S-5.0
LM2940CS-5.0	LM2940SX-10	LM2941T/SL108980	LM340S-5.0/NOPB
LM2940CS-5.0/NOPB	LM2940SX-10/NOPB	LM317A MWC	LM340SX-12/NOPB
LM2940CS-9.0/NOPB	LM2940SX-12	LM317AEMP	LM340SX-5.0
LM2940CSX-12	LM2940SX-12/NOPB	LM317AEMP/NOPB	LM340SX-5.0/NOPB
LM2940CSX-12/NOPB	LM2940SX-5.0	LM317AEMPX	LM340T-12
LM2940CSX-15/NOPB	LM2940SX-5.0/NOPB	LM317AEMPX/NOPB	LM340T-12/NOPB
LM2940CSX-5.0	LM2940SX-8.0/NOPB	LM317AMDT	LM340T-15
LM2940CSX-5.0/NOPB	LM2940SX-9.0/NOPB	LM317AMDT/NOPB	LM340T-15/NOPB
LM2940CSX-9.0/NOPB	LM2940T-10.0	LM317AMDTX	LM340T-5.0
LM2940CT-12	LM2940T-10.0/NOPB	LM317AMDTX/NOPB	LM340T-5.0/LF01
LM2940CT-12/NOPB	LM2940T-12.0	LM317AT	LM340T-5.0/NOPB
LM2940CT-15	LM2940T-12.0/NOPB	LM317AT/E7001847	LM3940IMP-3.3
LM2940CT-15/NOPB	LM2940T-5.0	LM317AT/NOPB	LM3940IMP-3.3/NOPB
LM2940CT-5.0	LM2940T-5.0/LF08	LM317EMP	LM3940IMPX-3.3
LM2940CT-5.0/LF01	LM2940T-5.0/NOPB	LM317EMP/NOPB	LM3940IMPX-3.3/NOPB
LM2940CT-5.0/NOPB	LM2940T-8.0	LM317EMPX/NOPB	LM3940IS-3.3
LM2940CT-9.0/NOPB	LM2940T-8.0/NOPB	LM317HVT/NOPB	LM3940IS-3.3/NOPB
LM2940IMP-10/NOPB	LM2940T-9.0	LM317LM/NOPB	LM3940ISX-3.3
LM2940IMP-12/NOPB	LM2940T-9.0/NOPB	LM317LMX	LM3940ISX-3.3/NOPB
LM2940IMP-15	LM2941CS	LM317LMX/NOPB	LM3940IT-3.3
LM2940IMP-15/NOPB	LM2941CS/NOPB	LM317LZ/LFT1	LM3940IT-3.3/NOPB
LM2940IMP-5.0	LM2941CSX/NOPB	LM317LZ/LFT2	LM7805CT
LM2940IMP-5.0/NOPB	LM2941CT	LM317LZ/LFT3	LM7805CT/NOPB
LM2940IMP-9.0/NOPB	LM2941CT/LF03	LM317LZ/LFT4	LM7805MP/NOPB
LM2940IMPX-10/NOPB	LM2941CT/LF04	LM317LZ/LFT7	LM7805MPX/NOPB
LM2940IMPX-12/NOPB	LM2941CT/NOPB	LM317LZ/NOPB	LM7805S/NOPB
LM2940IMPX-5.0/NOPB	LM2941LD	LM317S/NOPB	LM7805SX/NOPB
LM2940IMPX-8.0/NOPB	LM2941LD/NOPB	LM317SX/NOPB	LM7812CT/NOPB
LM2940LD-12	LM2941LDX/NOPB	LM317T	LM7812S/NOPB
LM2940LD-12/NOPB	LM2941S	LM317T/E7001848	LM7812SX/NOPB
LM2940LD-5.0/NOPB	LM2941S/NOPB	LM317T/LF01	LM7815CT/NOPB
LM2940S-10	LM2941SX	LM317T/NOPB	LP395Z/LFT1
LM2940S-10/NOPB	LM2941SX/NOPB	LM340AT-5.0	LP395Z/NOPB
LM2940S-12	LM2941SX/S4000103	LM340AT-5.0/NOPB	

## Qualification Report

### New process qualification in FFAB on SLM (Zener diode) process-LM2941T/NOPB 1A Low Dropout Adjustable Approved 28-Mar-2018

#### Product Attributes

Attributes	Qual Device: LM2941T/NOPB	QBS Process Reference: LM2576HVT-5.0/NOPB
Assembly Site	TIEM-AT	TIEM-AT
Package Family	TO-220	TO-220
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	FFAB	FFAB
Wafer Fab Process	SLM	SLM

- QBS: Qual By Similarity

- Qual Device LM2941T/NOPB-QL is qualified at LEVEL1-NACG

#### Qualification Results

**Data Displayed as: Number of lots / Total sample size / Total failed**

Type	Test Name / Condition	Duration	Qual Device: LM2941T/NOPB	QBS Process Reference: LM2576HVT-5.0/NOPB
AC	Autoclave, 121C	96 Hours	-	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	2/60/0	3/90/0
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
HBM	ESD - HBM	2500 V	1/3/0	3/9/0
CDM	ESD - CDM	750 V	1/3/0	3/9/0
HTOL	Life Test, 125C	1000 Hours	2/154/0	3/231/0
HTSL	High Temp. Storage Bake, 150C	1000 Hours	-	3/231/0
LU	Latch-up	(per JESD78)	1/6/0	3/18/0
SD	Solderability	Pb Free	-	1/15/0
SD	Solderability	Pb	-	1/15/0
TC	Temperature Cycle, -55/150C	1000 Cycles	-	3/231/0
WBP	Bond Pull	Wires	-	1/30/0
WBS	Ball Bond Shear	Wires	-	1/30/0

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

- The following are equivalent HTOL options based on an activation energy of 0.7eV: 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours

- The following are equivalent HTSL options based on an activation energy of 0.7eV: 150C/1k Hours, and 170C/420 Hours

- The following are equivalent Temp Cycle options per JESD47: -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

#### Green/Pb-free Status:

Qualified Pb-Free (SMT) and Green

For questions regarding this notice, e-mails can be sent to the regional contacts shown below, or you can contact your local Field Sales Representative.

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