PCN Number:	20170629002-001	**PCN Date:**	Aug 21, 2017
Title:	Transfer of select SLM devices from GFAB to FFAB Wafer Fab site		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Feb 21, 2018	**Estimated Sample Availability:**	Date provided at sample request.

Change Type:

☐	Assembly Site	☐	Assembly Process	☐	Assembly Materials
☐	Design	☐	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☒	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process
		☐	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:

GFAB closure

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

None

Changes to product identification resulting from this PCN:

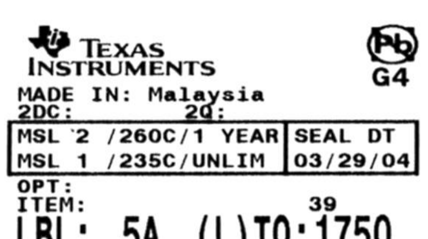
Current:

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)



Product Affected:

LM1815MX/S7001824	LM2936QDTX-5.0/NOPB	LM2936QMP-3.0/NOPB	LM9036QM-5.0/NOPB
LM2903M/ELLI699	LM2936QHBMA-5.0/NOPB	LM2936QMP-3.3/NOPB	LM9036QMM-3.3/NOPB

LM2903MX/E7002290	LM2936QHBMAX5.0/NOPB	LM2936QMP-5.0/NOPB	LM9036QMM-5.0/NOPB
LM2904MX/E2000208	LM2936QM-3.3/NOPB	LM2936QMPX-3.0/NOPB	LM9036QMMX-3.3/NOPB
LM2904MX/E7002723	LM2936QM-5.0/NOPB	LM2936QMPX-3.3/NOPB	LM9036QMMX-5.0/NOPB
LM2936QDT-3.0/NOPB	LM2936QMM-3.0/NOPB	LM2936QMPX-5.0/NOPB	LM9036QMX-3.3/NOPB
LM2936QDT-3.3/NOPB	LM2936QMM-3.3/NOPB	LM2936QMX-3.3/NOPB	LM9036QMX-5.0/NOPB
LM2936QDT-5.0/NOPB	LM2936QMM-5.0/NOPB	LM2936QMX-5.0/NOPB	LP2951ACMX-3.3/E7001834
LM2936QDTX-3.0/NOPB	LM2936QMMX-3.3/NOPB	LM9036MM-5.0/E7002414	LP2951ACMX-3.3/E7002569
LM2936QDTX-3.3/NOPB	LM2936QMMX-5.0/NOPB	LM9036QM-3.3/NOPB	LP2951CMX/E7002568

Automotive New Product Qualification Summary
(As per AEC-Q100 and JEDEC Guidelines)

New process qualification in FFAB on SLM process – LP2951ACM/NOPB Adjustable Micropower Voltage Regulators
Approved 01-Aug-2017

Product Attributes

Attributes	Qual Device: LP2951ACM/NOPB	QBS Process Reference: LM2576HVT-5.0/NOPB
Assembly Site	TIEM-AT	TIEM-AT
Package Type	SOIC	TO-220
Wafer Fab Supplier	FFAB	FFAB
Wafer Fab Process	SLM	SLM

- QBS: Qual By Similarity
- Qual Device LP2951ACM/NOPB is qualified at LEVEL1-260C

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

	Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: LP2951ACM/NOPB	QBS Process Reference: LM2576HVT-5.0/NOPB
Test Group A – Accelerated Environment Stress Tests									
	PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Automotive Preconditioning	Level 1-260C	3/720/0	-
	HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96HRS	3/231/0	-
	AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96HRS	3/2310	-
	TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500CYC	3/231/0	-
	TC-BP	A4	MIL-STD883 Method 2011	1	30	Post Temp. Cycle Bond Pull	-	1/30/0	-

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: LP2951ACM/NOPB	QBS Process Reference: LM2576HVT-5.0/NOPB
PTC	A5	JEDEC JESD22-A105	1	45	Power Temperature Cycle	1000 Cycles	N/A	-
HTSL	A6	JEDEC JESD22-A103	1	45	High Temp Storage Bake 150C	1000 Hours	-	3/231/0
Test Group B – Accelerated Lifetime Simulation Tests								
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test, 125C	1000 Hours	3/231/0	-
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	-	N/A	-
Test Group C – Package Assembly Integrity Tests								
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear (Cpk>1.67)	Wires	1/30/0	-
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull (Cpk>1.67)	Wires	1/30/0	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability >95% Lead Coverage	Pb	1/15/0	-
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability >95% Lead Coverage	Pb-Free	1/15/0	-
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions (Cpk>1.67)	-	3/30/0	-
SBS	C5	AEC Q100-010	3	50	Solder Ball Shear (Cpk>1.67)	Post HTSL/Bump	-	-
SBS	C5	AEC Q100-010	3	50	Solder Ball Shear (Cpk>1.67)	Solder Balls	-	-
Test Group D – Die Fabrication Reliability Tests								
EM	D1	JESD61	-	-	Electromigration	-	-	-
TDDB	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	-	-	-
HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	-	-	-
NBTI	D4	-	-	-	Negative Bias Temperature Instability	-	-	-
SM	D5	-	-	-	Stress Migration	-	-	-
Test Group E – Electrical Verification Tests								
HBM	E2	AEC Q100-002	1	3	ESD - HBM - Q100	1000V	1/3/0	-
CDM	E3	AEC Q100-011	1	3	ESD - CDM - Q100	1250V	1/3/0	-
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	1/6/0	-
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67	3/90/0	-

A1 (PC): Preconditioning:
Performed for THB, Biased HAST, AC, uHAST &TC samples, as applicable.

Ambient Operating Temperature by Automotive Grade Level:
Grade 0 (or E): -40°C to +150°C
Grade 1 (or Q): -40°C to +125°C
Grade 2 (or T): -40°C to +105°C
Grade 3 (or I): -40°C to +85°C

E1 (TEST): Electrical test temperatures of Qual samples (High temperature according to Grade level):
Room/Hot/Cold: HTOL, ED
Room/Hot: THB / HAST, TC / PTC, HTSL, ELFR, ESD & LU
Room: AC/uHAST

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.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com