

PCN# 20170629002
Transfer of select SLM devices from GFAB to FFAB Wafer Fab site
Change Notification / Sample Request

Date: July 05, 2017
To: PREMIER FARNELL PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

We request you acknowledge receipt of this notification within **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If you require samples or additional data to support your evaluation, please request within 30 days.

The changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice, contact your local Field Sales Representative or the PCN Manager (PCN_ww_admin_team@list.ti.com).

PCN Team
SC Business Services

20170629002
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
LM10CN/NOPB	null
LM2577T-ADJ/NOPB	null
LM2585S-ADJ/NOPB	null
LM2585T-ADJ/NOPB	null
LM10CLN/NOPB	null
LM10CWM/NOPB	null
LM2577S-ADJ/NOPB	null
LM2577SX-ADJ/NOPB	null
LM2585S-5.0/NOPB	null
LM2585SX-ADJ/NOPB	null
LM2586S-ADJ/NOPB	null
LM2586T-ADJ/NOPB	null
LM2587S-5.0/NOPB	null
LM2587S-ADJ/NOPB	null
LM2587T-ADJ/NOPB	null
LM2588S-ADJ/NOPB	null
LM2588T-ADJ/NOPB	null
LM2585S-12/NOPB	null
LM2586SX-ADJ/NOPB	null
LM2588SX-ADJ/NOPB	null

Technical details of this Product Change follow on the next page(s).

PCN Number: 20170629002 **PCN Date:** July 5, 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: Oct. 5, 2017 **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 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:

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)

TEXAS INSTRUMENTS
MADE IN: Malaysia
2DC: 20:



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

OPT: ITEM: 39
LBL: 5A (L)T0:1750

(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY (1T) 7523483S12
(P)
(2P) REV: (V) 003317
(20L) CS0: SHE (21L) CCO: USA
(22L) AS0: MLA (23L) ACO: MYS

Product Affected:

LM10CLN/NOPB	LM2585S-ADJ	LM2586SX-ADJ	LM2587T-5.0/NOPB
LM10CN/NOPB	LM2585S-ADJ/NOPB	LM2586SX-ADJ/NOPB	LM2587T-ADJ
LM10CWM	LM2585SX-12/NOPB	LM2586T-3.3/NOPB	LM2587T-ADJ/NOPB

LM10CWM/NOPB	LM2585SX-5.0	LM2586T-5.0/NOPB	LM2587T-ADJ/SL110726
LM10CWMX/NOPB	LM2585SX-5.0/NOPB	LM2586T-ADJ	LM2588-5.0-MWC
LM2577S-ADJ	LM2585SX-ADJ/NOPB	LM2586T-ADJ/NOPB	LM2588S-12/NOPB
LM2577S-ADJ/NOPB	LM2585T-12/NOPB	LM2587S-12/NOPB	LM2588S-3.3/NOPB
LM2577SX-ADJ	LM2585T-3.3/NOPB	LM2587S-3.3/NOPB	LM2588S-5.0/NOPB
LM2577SX-ADJ/NOPB	LM2585T-5.0/NOPB	LM2587S-5.0	LM2588S-ADJ
LM2577SX-ADJ/S5001344	LM2585T-ADJ	LM2587S-5.0/NOPB	LM2588S-ADJ/NOPB
LM2577SX-ADJ/S5001804	LM2585T-ADJ/NOPB	LM2587S-ADJ	LM2588SX-12/NOPB
LM2577T-ADJ	LM2586S-12/NOPB	LM2587S-ADJ/NOPB	LM2588SX-3.3/NOPB
LM2577T-ADJ/J7002816	LM2586S-3.3/NOPB	LM2587SX-12/NOPB	LM2588SX-5.0/NOPB
LM2577T-ADJ/LB03	LM2586S-5.0/NOPB	LM2587SX-5.0/NOPB	LM2588SX-ADJ/NOPB
LM2577T-ADJ/LF03	LM2586S-ADJ	LM2587SX-ADJ	LM2588T-3.3/NOPB
LM2577T-ADJ/NOPB	LM2586S-ADJ/NOPB	LM2587SX-ADJ/NOPB	LM2588T-5.0/NOPB
LM2585S-12/NOPB	LM2586SX-3.3/NOPB	LM2587T-12/NOPB	LM2588T-ADJ
LM2585S-3.3/NOPB	LM2586SX-5.0/E7001891	LM2587T-3.3/NOPB	LM2588T-ADJ/NOPB
LM2585S-5.0/NOPB	LM2586SX-5.0/NOPB		

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

**New process qualification in FFAB on SLM process - LM2587T-ADJ/NOPB (Implant Resistor Module)
Approved 27-Jun-2017**

Product Attributes

Attributes	Qual Device: LM2587T-ADJ/NOPB	QBS Process Reference: LM2576HVT-5.0/NOPB
Assembly Site	TIEM-AT	TIEM-AT
Package Type	TO-220	TO-220
Wafer Fab Supplier	FFAB	FFAB
Wafer Fab Process	SLM	SLM

- QBS: Qual By Similarity

- Qual Device LM2587T-ADJ/NOPB is qualified at LEVEL1- 260CG

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: LM2587T-ADJ/NOPB	QBS Process Reference: LM2576HVT-5.0/NOPB
Test Group A – Accelerated Environment Stress Tests								
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0
AC	A3	JEDEC JESD22-A102	3	77	Autoclave 121C	96 Hours	-	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -55/150C	1000 Cycles	-	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	30	Post Temp. Cycle Bond Pull	Wires	-	3/30/0
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	1/77/0	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	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	1/30/0
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull (Cpk>1.67)	Wires	1/30/0	1/30/0
SD	C3	JEDEC JESD22-B102	1	15	Solderability >95% Lead Coverage	Pb Free	-	1/15/0
SD	C3	JEDEC JESD22-B102	1	15	Solderability >95% Lead Coverage	Pb	-	1/15/0
PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions (Cpk>1.67)	-	-	3/30/0
Test Group D – Die Fabrication Reliability Tests								
EM	D1	JESD61	-	-	Electromigration	-	-	-
TDDB	D2	JESD35	-	-	Time Dependant 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	2500V	1/3/0	3/9/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM	750V	1/3/0	3/9/0
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	1/6/0	3/18/0
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold test	1/30/0	3/90/0

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