

PCN Number: 20170316001 **PCN Date:** Mar 22, 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: Jun 22, 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) 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:

LM2574HVM-12/NOPB	LM2575HVS-5.0/NOPB	LM2575S-5.0/NOPB	LM2576HVT-12
LM2574HVM-15	LM2575HVS-ADJ	LM2575S-ADJ	LM2576HVT-12/LF03
LM2574HVM-15/NOPB	LM2575HVS-ADJ/J7001488	LM2575S-ADJ/NOPB	LM2576HVT-12/NOPB

LM2574HVM-3.3/NOPB	LM2575HVS-ADJ/J7003077	LM2575SX-12/NOPB	LM2576HVT-15/LB03
LM2574HVM-5.0	LM2575HVS-ADJ/NOPB	LM2575SX-15/NOPB	LM2576HVT-15/LF03
LM2574HVM-5.0/NOPB	LM2575HVSX-15/NOPB	LM2575SX-3.3/NOPB	LM2576HVT-15/NOPB
LM2574HVM-ADJ	LM2575HVSX-3.3/NOPB	LM2575SX-5.0	LM2576HVT-5.0
LM2574HVM-ADJ/NOPB	LM2575HVSX-5.0	LM2575SX-5.0/E7001840	LM2576HVT-5.0/LB03
LM2574HVMX-12/NOPB	LM2575HVSX-5.0/ELLI927	LM2575SX-5.0/NOPB	LM2576HVT-5.0/LF02
LM2574HVMX-12/SL163175	LM2575HVSX-5.0/NOPB	LM2575SX-ADJ	LM2576HVT-5.0/LF03
LM2574HVMX-15/NOPB	LM2575HVSX-ADJ	LM2575SX-ADJ/NOPB	LM2576HVT-5.0/NOPB
LM2574HVMX-3.3/NOPB	LM2575HVSX-ADJ/E5000816	LM2575T-12	LM2576HVT-ADJ
LM2574HVMX-5.0	LM2575HVSX-ADJ/NOPB	LM2575T-12/LB03	LM2576HVT-ADJ/LB03
LM2574HVMX-5.0/ELLI947	LM2575HVT-12	LM2575T-12/LF03	LM2576HVT-ADJ/LF03
LM2574HVMX-5.0/NOPB	LM2575HVT-12/LB03	LM2575T-12/NOPB	LM2576HVT-ADJ/NOPB
LM2574HVMX-ADJ/NOPB	LM2575HVT-12/LF03	LM2575T-15	LM2576S-12
LM2574HVN-12/NOPB	LM2575HVT-12/NOPB	LM2575T-15/LF03	LM2576S-12/NOPB
LM2574HVN-15/NOPB	LM2575HVT-15	LM2575T-15/NOPB	LM2576S-3.3/NOPB
LM2574HVN-5.0/NOPB	LM2575HVT-15/LB03	LM2575T-3.3/LF03	LM2576S-5.0
LM2574HVN-ADJ/NOPB	LM2575HVT-15/LF03	LM2575T-3.3/NOPB	LM2576S-5.0/NOPB
LM2574M-12	LM2575HVT-15/NOPB	LM2575T-5.0	LM2576S-ADJ/NOPB
LM2574M-12/NOPB	LM2575HVT-3.3/LF03	LM2575T-5.0/LB03	LM2576SX-3.3/E7001841
LM2574M-3.3/NOPB	LM2575HVT-3.3/NOPB	LM2575T-5.0/LF03	LM2576SX-3.3/NOPB
LM2574M-5.0	LM2575HVT-5.0	LM2575T-5.0/NOPB	LM2576SX-5.0/J7001717
LM2574M-5.0/NOPB	LM2575HVT-5.0/ELLI859	LM2575T-ADJ	LM2576SX-5.0/NOPB
LM2574M-ADJ	LM2575HVT-5.0/LB03	LM2575T-ADJ/LB03	LM2576SX-ADJ/NOPB
LM2574M-ADJ/NOPB	LM2575HVT-5.0/LF03	LM2575T-ADJ/LF02	LM2576T-12
LM2574MX-12/NOPB	LM2575HVT-5.0/NOPB	LM2575T-ADJ/LF03	LM2576T-12/LB03
LM2574MX-3.3/NOPB	LM2575HVT-ADJ	LM2575T-ADJ/NOPB	LM2576T-12/LF03
LM2574MX-5.0	LM2575HVT-ADJ/J7002108	LM2576HVS-12	LM2576T-12/NOPB
LM2574MX-5.0/NOPB	LM2575HVT-ADJ/LB03	LM2576HVS-12/NOPB	LM2576T-15/LF03
LM2574MX-ADJ	LM2575HVT-ADJ/LF03	LM2576HVS-3.3	LM2576T-15/NOPB
LM2574MX-ADJ/NOPB	LM2575HVT-ADJ/NOPB	LM2576HVS-3.3/NOPB	LM2576T-3.3/LF03
LM2574N-12/NOPB	LM2575M-5.0	LM2576HVS-5.0	LM2576T-3.3/NOPB
LM2574N-3.3/NOPB	LM2575M-5.0/NOPB	LM2576HVS-5.0/NOPB	LM2576T-5.0
LM2574N-5.0/NOPB	LM2575M-ADJ/NOPB	LM2576HVS-ADJ	LM2576T-5.0/LB03
LM2574N-ADJ/NOPB	LM2575MX-5.0/NOPB	LM2576HVS-ADJ/NOPB	LM2576T-5.0/LF02
LM2575HVMX-5.0/NOPB	LM2575MX-ADJ/NOPB	LM2576HVSX-12	LM2576T-5.0/LF03
LM2575HVN-5.0/NOPB	LM2575N-5.0/NOPB	LM2576HVSX-12/NOPB	LM2576T-5.0/NOPB
LM2575HVN-ADJ/NOPB	LM2575N-ADJ/NOPB	LM2576HVSX-3.3/NOPB	LM2576T-ADJ
LM2575HVS-12	LM2575S-12/NOPB	LM2576HVSX-5.0	LM2576T-ADJ/LB03
LM2575HVS-12/NOPB	LM2575S-15/NOPB	LM2576HVSX-5.0/NOPB	LM2576T-ADJ/LF02
LM2575HVS-15	LM2575S-3.3	LM2576HVSX-ADJ	LM2576T-ADJ/LF03
LM2575HVS-15/NOPB	LM2575S-3.3/NOPB	LM2576HVSX-ADJ/E5001494	LM2576T-ADJ/NOPB
LM2575HVS-3.3/NOPB	LM2575S-5.0	LM2576HVSX-ADJ/NOPB	LM2576T-ADJ/S5001479
LM2575HVS-5.0			

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

**New process qualification in FFAB on SLM Core process - LM2576HVT-5.0/NOPB (Automotive Grade 1)
Approved 07-Mar-2017
Product Attributes**

Attributes	Qual Device: LM2576HVT-5.0/NOPB
Assembly Site	TIEM-AT
Package Family	TO-220
Wafer Fab Supplier	FFAB
Wafer Fab Process	SLM

- QBS: Qual By Similarity
- Qual Device LM2576HVT-5.0/NOPB-QL is qualified at LEVEL1-NACG

**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: 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	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate, 125C	48 Hours	3/2400/0

Type	#	Test Spec	Min Lot Qty	SS/Lot	Test Name / Condition	Duration	Qual Device: LM2576HVT-5.0/NOPB
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 Free	1/15/0
SD	C3	JEDEC JESD22-B102	1	15	Surface Mount 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 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	2500V	3/9/0
CDM	E3	AEC Q100-011	1	3	ESD - CDM	750V	3/9/0
LU	E4	AEC Q100-004	1	6	Latch-up	(Per AEC-Q100-004)	3/18/0
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67	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