PCN Number:	20230417000.2	PCN Date:	April 19, 2023
Title:	Qualification of CFAB as an additional Fab site for select devices and CD-PR as additional probe site		
Customer Contact:	PCN Manager	Dept:	Quality Services
Proposed 1st Ship Date:	Oct 13, 2023	Sample requests accepted until:	May 17, 2023*

***Sample requests received after May 17, 2023 will not be supported.**

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:

Qualification of CFAB as an additional Fab & CD-PR as an additional probe site for the set of devices listed below

Current Fab Site			Additional Fab site		
Current Fab Site	Process	Wafer Diameter	Additional Fab site	Process	Wafer Diameter
DL-LIN	LBC3S	150mm	CFAB	LBC3S	200mm

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ

Qual details are provided in the Qual Data Section.

Reason for Change:

These changes are part of our multiyear plan to transition products from our 150-millimeter factories to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

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

None

Impact on Environmental Ratings

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

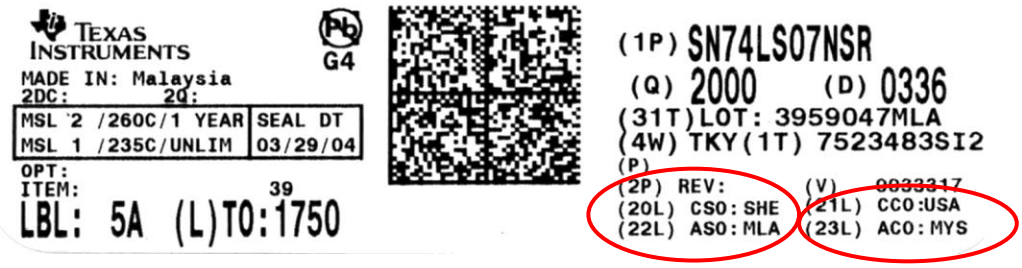
RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
DL-LIN	DLN	USA	Dallas
CFAB	**CU3**	**CHN**	**Chengdu**

Sample product shipping label (not actual product label)



Product Affected:

MLA00240YR	TLC082QDGNRQ1	TLV2372QDRG4Q1	TLV272QDRG4Q1

TI Information
Selective Disclosure

Automotive New Product Qualification Summary

(As per AEC-Q100 and JEDEC Guidelines)

Approved 2-March-2023

Product Attributes

Attributes	Qual Device: TLC2264AQPWRQ1	QBS Process Reference: TPS3838E18QDBVRCT	QBS Package Reference: SN3257QPWRQ1
Automotive Grade Level	Grade 1	Grade 1	Grade 1
Operating Temp Range	-40C to 125C	-40C to 125C	-40C to 125C
Product Function	Signal Chain	Interface	Interface
Wafer Fab Supplier	CFAB	CFAB	RFAB
Assembly Site	MLA	CDAT	MLA
Package Type	TSSOP	SOT-23	TSSOP
Package Designator	D	DBV	PW
Ball/Lead Count	14	5	16

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: TLC2264AQPWRQ1	QBS Process Reference: TPS3838E18QDBVRCT	
Test Group A – Accelerated Environment Stress Tests										
	PC	A1	JEDEC J-STD-020 JESD22-A113	3	231	Automotive Preconditioning	Level 1-260C	-	Pass	Pass
	bHAST	A2	JEDEC JESD22-A101	3	77	Biased HAST, 130C/85%RH	192 Hours	-	3/231/0	3/210/0
	AC	A3	JEDEC JESD22-A102	3	77	Autoclave, 121C	192 Hours	-	3/231/0	3/231/0
	TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	500 Cycles	-	3/231/0	3/231/0
	TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle, -65/150C	2000 Cycles	-	-	3/210
	HTSL	A6	JEDEC JESD22-A103	1	45	High Temp. Storage Life, 175C	500 Hours	-	1/45/0	3/135/0
	HTSL	A6	JEDEC JESD22-A103	1	45	High Temp. Storage Life, 175C	1000 Hours	-	-	3/132/0
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	-
Test Group C – Package Assembly Integrity Tests										
	WBS	C1	AEC Q100-001	1	30	Bond Shear (Cpk>1.67)	Wires	1/30/0	3/90/0	3/90/0
	WBP	C2	MIL-STD883 Method 2011	1	30	Bond Pull (Cpk>1.67)	Wires	1/30/0	3/90/0	3/90/0
	SD	C3	JEDEC JESD22-B102	1	15	Surface Mount Solderability >95% Lead Coverage	15	-	1/15/0	-
	PD	C4	JEDEC JESD22-B100 and B108	3	10	Physical Dimensions (Cpk>1.67)	10 units	1/10/0	3/30/0	-
Test Group D – Die Fabrication Reliability Tests										
	EM	D1	JESD61	-	-	Electromigration	--	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	-
	TDDB	D2	JESD35	-	-	Time Dependent Dielectric Breakdown	--	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
	HCI	D3	JESD60 & 28	-	-	Hot Injection Carrier	--	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
	NBTI	D4	-	-	-	Negative Bias Temperature Instability	--	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
	SM	D5	-	-	-	Stress Migration	--	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
Test Group E – Electrical Verification Tests										
	HBM	E2	AEC Q100-002	1	3	ESD - HBM	2000 V	1/3/0	1/3/0	-
	CDM	E3	AEC Q100-011	1	3	ESD - CDM	1000 V	1/3/0	1/3/0	-
	LU	E4	AEC Q100-004	1	6	Latch-up	+/100mA, 125C	1/6/0	1/6/0	-
	ED	E5	AEC Q100-005	3	30	Electrical Distribution	Cpk > 1.67	1/30/0	3/90/0	-

- QBS: Qual By Similarity
- Qual Device TLC2264AQPWRQ1 is qualified at LEVEL1-260C

A1 (PC): Preconditioning:
Performed for THB, Biased HAST, AC, uHAST, TC & PTC 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

ZVEI IDs: SEM-PW-02, SEM-PW-13, SEM-TF-01

For alternate parts with similar or improved performance, please visit the product page on TI.com

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

Location	E-Mail
WW Change Management Team	PCN_ww_admin_team@list.ti.com