


<b>PCN Number:</b>	20230417000.2		<b>PCN Date:</b>	April 19, 2023																			
<b>Title:</b>	Qualification of CFAB as an additional Fab site for select devices and CD-PR as additional probe site																						
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>		<b>Dept:</b>	Quality Services																			
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Oct 13, 2023		<b>Sample requests accepted until:</b>	May 17, 2023*																			
<b>*Sample requests received after May 17, 2023 will not be supported.</b>																							
<b>Change Type:</b>																							
<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 checked="" 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																				
<b>PCN Details</b>																							
<b>Description of Change:</b>																							
Qualification of CFAB as an additional Fab & CD-PR as an additional probe site for the set of devices listed below																							
<table border="1"> <thead> <tr> <th colspan="3">Current Fab Site</th> <th colspan="3">Additional Fab site</th> </tr> <tr> <th>Current Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> <th>Additional Fab site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>DL-LIN</td> <td>LBC3S</td> <td>150mm</td> <td>CFAB</td> <td>LBC3S</td> <td>200mm</td> </tr> </tbody> </table>						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
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.																							
<b>Reason for Change:</b>																							
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.																							
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																							
None																							
<b>Impact on Environmental Ratings</b>																							
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.																							
<b>RoHS</b>		<b>REACH</b>		<b>Green Status</b>																			
<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change		<input checked="" type="checkbox"/> No Change																			
<b>IEC 62474</b>																							
<input checked="" type="checkbox"/> No Change																							
<b>Changes to product identification resulting from this PCN:</b>																							
<b>Fab Site Information:</b>																							
Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City																				
DL-LIN	DLN	USA	Dallas																				
<b>CFAB</b>	<b>CU3</b>	<b>CHN</b>	<b>Chengdu</b>																				

Sample product shipping label (not actual product label)


  
**MADE IN: Malaysia**  
**2DC: 2Q:**  

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

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

G4



(1P) SN74LS07NSR  
 (Q) 2000 (D) 0336  
 (31T) LOT: 3959047MLA  
 (4W) TKY (1T) 7523483SI2  
 (P)  
 (2P) REV: (V) 0033317  
 (20L) CSO: SHE (21L) CCO:USA  
 (22L) ASO: MLA (23L) ACO: MYS

**Product Affected:**

MLA00240YR	TLC082QDGNRQ1	TLV2372QDRG4Q1	TLV272QDRG4Q1
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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		
<b>Test Group A – Accelerated Environment Stress Tests</b>										
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	
<b>Test Group B – Accelerated Lifetime Simulation Tests</b>										
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	-	
<b>Test Group C – Package Assembly Integrity Tests</b>										
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	-	
<b>Test Group D – Die Fabrication Reliability Tests</b>										
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	
<b>Test Group E – Electrical Verification Tests</b>										
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](http://TI.com)

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

<b>Location</b>	<b>E-Mail</b>
WW Change Management Team	<a href="mailto:PCN_ww_admin_team@list.ti.com">PCN_ww_admin_team@list.ti.com</a>

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