

PCN Number:	20230829006.1		PCN Date:	August 30, 2023																						
Title:	Qualification of LFAB as an additional Wafer Fab site option for select devices																									
Customer Contact:	Change Management team		Dept:	Quality Services																						
Proposed 1st Ship Date:	Nov 29, 2023		Sample requests accepted until:	Sep 29, 2023*																						
*Sample requests received after September 29, 2023 will not be supported.																										
Change Type:																										
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Material																					
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Process																					
<input type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input checked="" type="checkbox"/>	Wafer Fab Site																					
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Material																					
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Process																					
PCN Details																										
Description of Change:																										
Texas Instruments is pleased to announce the addition of LFAB as an additional Wafer Fab site option for the products listed in the "Product Affected" section of this document.																										
<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>New Fab Site</th> <th>Process</th> <th>Wafer Diameter</th> </tr> </thead> <tbody> <tr> <td>TSMC-F14</td> <td>F021</td> <td>300mm</td> <td rowspan="2">LFAB</td> <td rowspan="2">F65</td> <td rowspan="2">300mm</td> </tr> <tr> <td>UMC12i / DM6</td> <td>F65</td> <td>300mm</td> </tr> </tbody> </table>						Current Fab Site			Additional Fab Site			Current Fab Site	Process	Wafer Diameter	New Fab Site	Process	Wafer Diameter	TSMC-F14	F021	300mm	LFAB	F65	300mm	UMC12i / DM6	F65	300mm
Current Fab Site			Additional Fab Site																							
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TSMC-F14	F021	300mm	LFAB	F65	300mm																					
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Qual details are provided in the Qual Data Section.																										
Reason for Change:																										
Continuity of supply																										
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):																										
None																										
Changes to product identification resulting from this PCN:																										
Device Symbol:																										
2.3 Package Symbolization and Revision Identification																										
Figure 2-1 and Table 2-1 describe package symbolization and the device revision code.																										
Figure 2-1. Package Symbolization for Silicon Revision E																										
Table 2-1. Revision Identification																										
<table border="1"> <thead> <tr> <th>DEVICE REVISION CODE</th> <th>SILICON REVISION</th> </tr> </thead> <tbody> <tr> <td>E</td> <td>PG2.1 (see following NOTE)</td> </tr> <tr> <td>F</td> <td>PG3.0 (see following NOTE)</td> </tr> </tbody> </table>						DEVICE REVISION CODE	SILICON REVISION	E	PG2.1 (see following NOTE)	F	PG3.0 (see following NOTE)															
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E	PG2.1 (see following NOTE)																									
F	PG3.0 (see following NOTE)																									
Note																										
<ul style="list-style-type: none"> PG2.1 and PG3.0 are functionally equivalent and share the same data sheet specifications. PG3.0 was introduced to support the release into additional wafer fab sites. 																										

Current Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
TSMC-F14	T14	TWN	Tainan City
UMC 12i	UMI	SGP	Singapore
DMOS6	DM6	USA	Dallas

Additional Fab Site Information:

New Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
LFAB	LHI	USA	Lehi

Sample product shipping label (not actual product label)

**Product Affected:**

CC1312R1F3RGZR	CC1352P1F3RGZR	CC1352R1F3RGZR
CC1312R1F3RGZT	CC1352P1F3RGZT	CC1352R1F3RGZT

Qualification Results

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

Type	#	Test Name	Condition	Duration	LFAB Qual Device: CC2642R1FRGZR	LFAB Qual Device: CC1352R1F3RGZR	LFAB Qual Device: CC1352P1F3RGZR	LFAB QBS Reference: TMS320F28379SPTPQ	Previous Fab QBS Reference: CC2642R1FRGZR**
HAST	A2	Biased HAST	110C/85%RH	264 Hours	3/231/0	-	-	-	3/231/0
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-
UHAST	A3	Unbiased HAST	110C/85%RH	264 Hours	3/231/0	-	-	-	3/231/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-55C/125C	1000 Cycles	3/231/0	-	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	-	3/231/0	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	3/135/0	-	-	3/135/0	3/135/0
HTOL	B1	Life Test*	125C	1000 Hours	3/231/0	-	-	3/231/0	3/231/0
EDR	B3	NVM Data Retention*	150C	1000 Hours	3/231/0	-	-	3/231/0	3/231/0

- QBS: Qual By Similarity
- Qual Device CC2642R1FRGZR is qualified at MSL3 260C
- Qual Device CC1352R1F3RGZR is qualified at MSL3 260C
- Qual Device CC1352R1F3RGZR is qualified at MSL3 260C
- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours
- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles
- *HTOL/Life Test and EDR/NVM Data Retention units were W/E precycled prior to these stress tests.
- **The CC2642R1RGZR QBS Reference covers the previous commercial and automotive qualification(s) of the CC26x device family at previous fab sites.

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

TI Qualification ID: R-CHG-2303-018

For questions regarding this notice, e-mails can be sent to Change Management team or your local Field Sales Representative.

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