12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20250404000.1
Qualification of LFAB as an additional Wafer Fab site option for select devices
Change Notification / Sample Request

Date: April 04, 2025
To: MOUSER 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.

Texas Instruments requires acknowledgement of receipt of this notification within 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 days of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

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 or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Sincerely,

Change Management Team
SC Business Services

20250404000.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
F280041CPZS	F280041CPZS
F280045PZS	F280045PZS
F280045RSHSR	F280045RSHSR
F280049CPMSR	NULL
F280049RSHSR	F280049RSHSR
F280041CPMS	F280041CPMS
F280049PZSR	NULL
F280049CRSHSR	F280049CRSHSR
F280049CPZS	F280049CPZS
F280041CRSHSR	F280041CRSHSR
F280045PZSR	NULL
F280049PZS	F280049PZS
F280041PZS	F280041PZS
F280049PMSR	F280049PMSR
F280049CPMS	F280049CPMS
F280049PMS	F280049PMS
F280041PMS	F280041PMS
F280045PMSR	F280045PMSR

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

PCN Number:	20250404000.1	**PCN Date:**	April 04, 2025
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:	July 03, 2025	**Sample requests accepted until:**	June 03, 2025*

***Sample requests received after June 03, 2025 will not be supported.**

Change Type:

☐	Assembly Site	☒	Design	☐	Wafer Bump Material
☐	Assembly Process	☐	Data Sheet	☐	Wafer Bump Process
☐	Assembly Materials	☐	Part number change	☒	Wafer Fab Site
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Material
☒	Packing/Shipping/Labeling	☐	Test Process	☒	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the addition of LFAB as a Wafer Fab site option for the products listed in the "Product Affected" section of this document.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
TSMC-F14	F021	300mm	LFAB	F65	300mm

The silicon revision/die revision was also changed as a result of the process change.

Qual details are provided in the Qual Data Section.

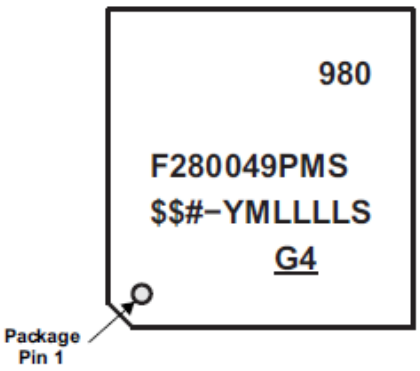
Reason for Change:

Continuity of Supply

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

None

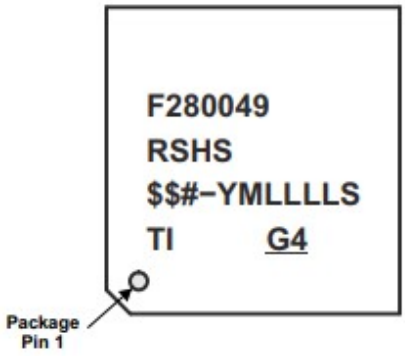
Changes to product identification resulting from this PCN:



YMLLLLS = Lot Trace Code

YM = 2-Digit Year/Month Code
LLLL = Assembly Lot
S = Assembly Site Code
980 = TI E.I.A. Code
$$ = Wafer Fab Code (one or two characters) as applicable
= Silicon Revision Code

G4 = Green (Low Halogen and RoHS-compliant)



YMLLLLS = Lot Trace Code

YM = 2-Digit Year/Month Code
LLLL = Assembly Lot
S = Assembly Site Code
$$ = Wafer Fab Code (one or two characters) as applicable
= Silicon Revision Code

G4 = Green (Low Halogen and RoHS-compliant)

Original Wafer Fab Code:
$$ = YF → TSMC-F14

Updated Wafer Fab Code:
$$ = YF → TSMC-F14
Or
$$ = 3L → LFAB

Original Silicon Revision Code:
= B

Updated Silicon Revision Code:
= B
Or
= D

Fab Site Information:

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
TSMC-F14	T14	TWN	Tainan City
LFAB	**LHI**	**USA**	**Lehi**

Die Rev:

Current	**New**
Die Rev [2P]	**Die Rev [2P]**
B	**D**

Sample product shipping label (not actual product label)

Product Affected:

F280041CPMS	F280041PZSR	F280045RSHSR	F280049PMSR
F280041CPZS	F280041RSHSR	F280049CPMS	F280049PZS
F280041CRSHSR	F280045PMS	F280049CPMSR	F280049PZSR
F280041PMS	F280045PMSR	F280049CPZS	F280049RSHSR
F280041PMSR	F280045PZS	F280049CRSHSR	SG00944PMS
F280041PZS	F280045PZSR	F280049PMS	

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: F280048CPMQR	Qual Device: F280049CPZQR	Qual Device: F280049CRSHSR	QBS LFAB Wafer Process Qualification: TMS320F28379SPTPQ
Test Group A - Accelerated Environment Stress Tests											
PC	A1	JEDEC J-STD-020 JESD22-A113	3	77	Preconditioning	MSL3 260C	-	QBS	QBS	QBS	3/462/0
HAST	A2	JEDEC JESD22-A110	3	77	Biased HAST	110C/85%RH	264 Hours	QBS	QBS	QBS	3/231/0
AC/UHAST	A3	JEDEC JESD22-A102/JEDEC JESD22-A118	3	77	Unbiased HAST	130C/85%RH	96 Hours	QBS	QBS	QBS	3/231/0
TC	A4	JEDEC JESD22-A104 and Appendix 3	3	77	Temperature Cycle	-65C/150C	500 Cycles	QBS	QBS	QBS	3/231/0
TC-BP	A4	MIL-STD883 Method 2011	1	5	Post Temp Cycle Bond Pull	-	-	QBS	QBS	QBS	1/5/0
HTSL	A6	JEDEC JESD22-A103	1	45	High Temperature Storage Life	150C	1000 Hours	QBS	QBS	QBS	3/135/0
Test Group B - Accelerated Lifetime Simulation Tests											
HTOL	B1	JEDEC JESD22-A108	3	77	Life Test	125C	1000 Hours	QBS	QBS	QBS	3/231/0
ELFR	B2	AEC Q100-008	3	800	Early Life Failure Rate	125C	48 Hours	QBS	QBS	QBS	3/2400/0
EDR	B3	AEC Q100-005	3	77	NVM Endurance, Data Retention, and Operational Life	155C	1000 Hours	QBS	QBS	QBS	3/231/0
Test Group C - Package Assembly Integrity Tests											
WBS	C1	AEC Q100-001	1	30	Wire Bond Shear	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	QBS	1/30/0	QBS	3/90/0
WBP	C2	MIL-STD883 Method 2011	1	30	Wire Bond Pull	Minimum of 5 devices, 30 wires Cpk>1.67	Wires	QBS	1/30/0	QBS	3/90/0
Test Group D - Die Fabrication Reliability Tests											
EM	D1	JESD61	-	-	Electromigration	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	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	Completed Per Process Technology Requirements
HCI	D3	JESD60 & 28	-	-	Hot Carrier Injection	-	-	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements	Completed Per Process Technology Requirements
BTI	D4	-	-	-	Bias Temperature Instability	-	-	Completed Per Process Technology Requirements	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	Completed Per Process Technology Requirements

Type	#	Test Spec	Min Lot Qty	SS / Lot	Test Name	Condition	Duration	Qual Device: F280048CPMQR	Qual Device: F280049CPZQR	Qual Device: F280049CRSHSR	QBS LFAB Wafer Process Qualification: TMS320F28379SPTPQ
Test Group E - Electrical Verification Tests											
ESD	E2	AEC Q100-002	1	3	ESD HBM	-	2000 Volts	1/3/0	1/3/0	1/3/0	
ESD	E3	AEC Q100-011	1	3	ESD CDM	-	750 Volts	1/3/0	1/3/0	1/3/0	
LU	E4	AEC Q100-004	1	3	Latch-Up	Per AEC Q100-004	-	1/3/0	1/3/0	1/3/0	
ED	E5	AEC Q100-009	3	30	Electrical Distributions	Cpk>1.67 Room, hot, and cold	-	3/90/0	3/90/0	3/90/0	

- 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

Ambient Operating Temperature by Automotive Grade Level:

- Grade 0 (or E): -40C to +150C
- Grade 1 (or Q): -40C to +125C
- Grade 2 (or T): -40C to +105C
- Grade 3 (or I) : -40C to +85C

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

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

TI Qualification ID: R-CHG-2401-119

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

of these resources does not expand or otherwise alter TI's applicable warranties or warranty disclaimers for TI products.