TEXAS INSTRUMENTS 12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20201215001.1
Qualification of TSMC-F10 as an additional Fab site option for select devices
Change Notification / Sample Request

Date: January 12, 2021
To: TOKYO ELECTRON DEVICE (DSTR) 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 **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance of the change. If samples or additional data are required, requests must be received within **30 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 PCN Team (PCN_ww_admin_team@list.ti.com). For sample requests or sample related questions, contact your local Field Sales Representative.

PCN Team
SC Business Services

20201215001.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, these are the devices that you have purchased within the past twenty-four (24) months. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
MSP430F2410TPMR	null
MSP430F2481TPM	null
MSP430F2471TPMR	null
MSP430F249TPMR	null
MSP430F247TPM	null
MSP430F235TPMR	null

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

PCN Number:	20201215001.1	**PCN Date:**	Jan. 12, 2021
Title:	Qualification of TSMC-F10 as an additional Fab site option for select devices		
Customer Contact:	PCN Manager	**Dept:**	Quality Services
Proposed 1st Ship Date:	Apr. 12, 2021	**Estimated Sample Availability:**	Date provided at sample request.

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:

Texas Instruments is pleased to announce the qualification of TSMC-F10 fabrication facility as an additional Wafer Fab source for the selected devices listed in the “Product Affected” section.

Current Fab Site			Additional Fab Site		
Current Fab Site	**Process**	**Wafer Diameter**	**Additional Fab Site**	**Process**	**Wafer Diameter**
TSMC-WFT (Fab 11)	0.35UM-TSMC	200mm	TSMC-F10 (Fab 10)	0.35UM-TSMC	200mm

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:

Current

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
TSMC-WFT (Fab 11)	T13	USA	San Jose

New Fab Site

Chip Site	Chip Site Origin (20L)	Chip Site Country Code (21L)	Chip Site City
TSMC-F10 (Fab 10)	TSS	CHN	Shanghai

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
G4
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)TO:1750
(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:

MSP430F233TPM	MSP430F2410TRGCR	MSP430F2481TPM	MSP430F2491TRGCR
MSP430F233TPMR	MSP430F2410TRGCT	MSP430F2481TPMR	MSP430F2491TRGCT
MSP430F233TRGCR	MSP430F2471TPM	MSP430F2481TRGCR	MSP430F249CY

MSP430F233TRGCT	MSP430F2471TPMR	MSP430F2481TRGCT	MSP430F249CYS
MSP430F235TPM	MSP430F2471TRGCR	MSP430F248TPM	MSP430F249TPM
MSP430F235TPMR	MSP430F2471TRGCT	MSP430F248TPMR	MSP430F249TPMR
MSP430F235TRGCR	MSP430F247TPM	MSP430F248TRGCR	MSP430F249TRGCR
MSP430F235TRGCT	MSP430F247TPMR	MSP430F248TRGCT	MSP430F249TRGCT
MSP430F2410TPM	MSP430F247TRGCR	MSP430F2491TPM	MSP430V314TPMR
MSP430F2410TPMR	MSP430F247TRGCT	MSP430F2491TPMR	

Qualification Report

Approve Date 04-Dec-2020

Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: MSP430F249TPMR	QBS Process Reference: MSP430F149IPMR	QBS Package Reference: MSP430F149IPMR	QBS Package Reference: MSP430F149IPMR	QBS Package Reference: MSP430F2370IRHA	QBS Package Reference: MSP430V282TRGCR
AC	Autoclave 121C	96 Hours	-	-	3/231/0	3/231/0	3/231/0	3/231/0
CDM	ESD - CDM	250, 500*, 750*, 1000* V	1/3/0	-	-	-	-	-
EDR	W/E Endurance, -40C	20K Cycles	-	3/60/0				
EDR	W/E Endurance, 25C	20K Cycles	-	3/60/0				
EDR	W/E Endurance, 105C	20K Cycles	-	3/60/0				
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	3/77/0	-
HBM	ESD - HBM	500, 1000 V, 1500*, 2000*, 2500*, 3000* V	1/3/0	-	-	-	-	-
HTOL	High Temp. Operating Life, 125C	1000 Hours	-	3/231/0	-	-	-	-
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	3/230/0	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-	-	3/231/0	-
LU	Latch-up, 105C	+/-100mA	1/6/0	-	-	-	-	-
LU	Latch-up, 25C	+/-200mA	1/6/0	-	-	-	-	-
TC	Temperature Cycle, -65/+150C	500 Cycles	-	-	3/231/0	3/231/0	3/231/0	3/231/0
WBP	Bond Pull	Wires	1/76/0	-	3/228/0	3/228/0	3/228/0	3/228/0
WBS	Ball Bond Shear	Wires	1/76/0	-	3/228/0	3/228/0	3/228/0	3/228/0

- * Indicates extended data beyond the qualification requirement for margin assessment
- QBS: Qualification By Similarity
- Qual Device MSP430F249TPMR is qualified at Moisture Sensitivity Level 3 – 260C.

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

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

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
WW PCN Team	PCN_ww_admin_team@list.ti.com

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