



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN# 20230928002.1**

**Qualification of HFTF as an additional Assembly site for Select Devices  
Change Notification / Sample Request**

**Date:** September 28, 2023  
**To:** PREMIER FARNELL 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 and approval of this 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 change management team.

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

Sincerely,

Change Management Team  
SC Business Services

**20230928002.1**  
**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.

<b>DEVICE</b>	<b>CUSTOMER PART NUMBER</b>
TPS54040ADGQR	null

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

<b>PCN Number:</b>	20230928002.1		<b>PCN Date:</b>	September 28, 2023	
<b>Title:</b>	Qualification of HFTF as an alternate Assembly site for select devices				
<b>Customer Contact:</b>	Change Management Team		<b>Dept:</b>	Quality Services	
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Dec 29, 2023		<b>Sample requests accepted until:</b>	Oct 29, 2023*	
*Sample requests received after Oct 29, 2023 will not be supported.					
<b>Change Type:</b>					
<input checked="" 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 checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Material
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Process
<b>PCN Details</b>					
<b>Description of Change:</b>					
Texas Instruments Incorporated is announcing the qualification of HFTF as an additional Assembly site for set of devices listed below. Construction differences are as follows:					
	<b>UTL</b>	<b>ASESH</b>	<b>HFTF</b>		
Wire type	1.3mil Au, 1.3mil Cu	1.3mil Au, 1.0mil Cu	1.0 mil Cu		
Mold Compound	CZ0094	EN2000515	R-32		
Mount Compound	PZ0013	EY1000063	A-24		
<b>Package Outline Differences:</b>					
<b>UTL/ASESH</b>		<b>HFTF</b>			
Smaller thermal pad area		Larger thermal pad area			
<b>Reason for Change:</b>					
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>	<b>IEC 62474</b>		
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change		

**Changes to product identification resulting from this PCN:**

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
UTL	NS2	THA	Bangpakong
ASESH	ASH	CHN	Shanghai
<b>HFTF</b>	<b>HFT</b>	<b>CHN</b>	<b>Hefei</b>

Sample product shipping label (not actual product label)

**TEXAS INSTRUMENTS**  
 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**  
**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:**

TPS5401DGQ	TPS54040DGQ	TPS54060DGQR	TPS54160ADGQ
TPS5401DGQR	TPS54040DGQR	TPS54140ADGQ	TPS54160ADGQR
TPS5401DGQT	TPS54060ADGQ	TPS54140ADGQR	TPS54160DGQ
TPS54040ADGQ	TPS54060ADGQR	TPS54140DGQ	TPS54160DGQR
TPS54040ADGQR	TPS54060DGQ	TPS54140DGQR	

**Qualification Report**

Approve Date 01-AUGUST -2023

**Qualification Results**

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

Type	#	Test Name	Condition	Duration	Qual Device: TPS54160ADGQR	QBS Reference: LM5165XQDGSRQ1	QBS Reference: TPS40210QDGSRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	QBS	3/231/0	3/231/0
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	QBS	3/231/0	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	QBS	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	175C	500 Hours	QBS	3/135/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	QBS	1/15/0	-

QBS: Qual By Similarity

Qual Device TPS54160ADGQR is qualified at MSL1 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

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

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

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