

PCN#20170928005 Qualification of Hefei Tongfu Microelectronic Co. Ltd (HFTF) as additional Assembly and Test Site for Select Devices Change Notification / Sample Request

Date: October 02, 2017 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.

We request you acknowledge 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 you require samples or additional data to support your evaluation, please request within 30 days.

The proposed first ship date is indicated 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, contact your local Field Sales Representative or the PCN Manager (<u>PCN ww admin team@list.ti.com</u>).

Sincerely,

PCN Team SC Business Services

20170928005 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

DEVICE	COSTOPIEN	
SN74AHC1G00DCKR		null
SN74AHC1G126DCKR		null
SN74AHCT1G04DCKR		null
SN74AHCT1G86DCKR		null
		null
		null
		nun
		nuii
SN/4LVCIGU2DCKR		nuli
SN/4LVCIG08DCKR		null
SN/4LVC1G08DCK1		null
SN74LVC1G11DCKR		null
SN74LVC1G125DCKR		null
SN74LVC1G125DCKT		null
SN74LVC1G126DCKR		null
SN74LVC1G126DCKT		null
SN74LVC1G14DCKR		null
SN74LVC1G14DCKT		null
SN74LVC1G17DCKR		null
SN74LVC1G3157DCKR		null
SN74LVC1G32DCKR		null
SN74LVC1G32DCKT		null
SN74LVC1G34DCKR		null
		null
		null
		mull
		nun
SN/4LVC2GU/DCKR		null
SN/4LVC2G14DCKR		nuli
SN/4LVC2G14DCK1		null
SN/4LVC2G1/DCKR		null
SN/4LVC2GU04DCKR		null
SN74AHC1G02DCKR		null
SN74AHC1G09DCKR		null
SN74AHC1G14DCKT		null
SN74AHC1G32DCKT		null
SN74AHC1G86DCKR		null
SN74CBT1G384DCKT		null
SN74LV1T125DCKR		null
SN74LVC1G98DCKR		null
SN74LVC2G17DCKT		null
SN74LVC2G34DCKR		null
SN74LVC1G80DCKR		null
SN74LVC1GU04DCKR		null
TS5A3157DCKR		null
SN74AHC1G08DCKR		null
SN74LVC1G19DCKR		null
SN74AHC1G04DCKR		null
SN74AHC1G32DCKR		null
		null
SN/4AHC1G14DCKK		null
SN/4AHCI1G14DCKR		null
SN/4AHC1G125DCKR		null
SN/4LVC1G175DCKR		null

SN74LVC1G240DCKR
SN74LVC2G04DCKR
SN74LVC2G04DCKT

null null null

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

PCN Number: 20170928005							F	PCN Da	ate:	Oct. 2, 2017		
Title:Qualification of Hefei Tongfu Microelectronic Co. Ltd (HFTF) as additional Assembly and Test Site for Select Devices							ssembly and					
Customer Contact: PCN Manager Dept: Quality Services												
Proposed 1 st Ship Date: Jan			Jan. 2	2, 20	18	Estimated Sample Date provided at Availability: sample request			provided at le request			
Cha	Change Type:											
\boxtimes	Assem	bly Site	9				Desig	in 📃 Wafer Bur		r Bump	o Site	
	Assem	bly Pro	cess				Data	Sheet 📃 Wafer Bump Materia		o Material		
\boxtimes	Assem	bly Mat	erial	S			Part r	number change		Wafe	r Bump	o Process
Mechanical Specification Interfect Steep Stee				Wafe	r Fab S	Site						
Packing/Shipping/Labeling Test Process				Wafe	r Fab N	1aterials						
										Wafe	r Fab F	Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the Qualification of Hefei Tongfu Microelectronic Co. Ltd (HFTF) as additional Assembly and Test Site for Select Devices listed in the "Product Affected" Section. Current assembly sites and Material differences are as follows.

Assembly Site	Assembly Site Origin	Assembly Country Code	Assembly Site City
NFME	NFM	CHN	Chongchuan
HFTF	HFT	CHN	Hefei

Material Differences:

	NFME	HFTF
Lead finish	NiPdAu	Matte Sn
Mold compound	R-07	R-27

Upon expiration of this PCN, TI will combine lead free solutions in a single standard part number, for example; SN74AHC1G00DCKR - can ship with both Matte Sn and NiPdAu. When available customers may specify NiPdAu finish by ordering the part with the G4 suffix, e.g. SN74AHC1G00DCKRG4."

Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.

Reason for Change:

Continuity of supply.

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

None

An	Anticipated impact on Material Declaration					
	No Impact to the Material Declaration		Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the <u>TI Eco-Info website</u> . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.			
Ch	anges to product ide	ntific	ation resulting from this PCN.			

Changes to product identification resulting from this PCN:

ASSEMDLY SITE	Assembly Site Origin (22)		ECAT: G4			
HFTF	Assembly Site Origin (22L Assembly Site Origin (22L	ASO: HFT	ECAT: G3			
Sample product shipp	oing label (not actual pro	duct label)				
	ECAT: G4 = NiPdA	u				
	ECAT: G3 = Matte	Sn				
240						
TEXAS		1P) SN741 S07NSR				
MADE IN: Malaysia	G4	(a) 2000 (b) 033	86			
2DC: 2Q: MSL 2 /260C/1 YEAR SE	AL DT KAL	31T)LOT: 3959047ML	A			
MSL 1 /235C/UNLIM 03	/29/04	4W) TKY(1T) 7523483 P)	3512			
		2P) REV: (V) 0033 2 0L) CSO:SHE (21L) CCO:	317 USA			
LDL: JA (L)IU:	150	22L) ASO: MLA (23L) ACO:	MYS			
	EC NEME - E LETE - 1					
Product Affected: 6	$\frac{1}{1} = \frac{1}{1} + \frac{1}{1} = \frac{1}{1}$					
		SN74LVC1G125DCKK				
		SN74LVC1G125DCKT				
		SN74LVC1G126DCKT				
SN74AHC1G08DCKR	SN74CB3T1G125DCKR	SN74LVC1G132DCKR				
	SN74CBT1G125DCKR	SN74LVC1G132DCKT				
SN74AHC1G09DCKR	SN74CBT1G125DCKT	SN74LVC1G14DCKR				
SN74AHC1G125DCKR	SN74CBT1G384DCKR	SN74LVC1G14DCKT	SN74LVC1G97DCKR			
SN74AHC1G125DCKT	SN74CBT1G384DCKT	SN74LVC1G175DCKR	SN74LVC1G97DCKT			
SN74AHC1G126DCKR	SN74CBTD1G125DCKR	SN74LVC1G175DCKT	SN74LVC1G98DCKR			
SN74AHC1G126DCKT	SN74CBTD1G125DCKT	SN74LVC1G17DCKR	SN74LVC1G98DCKT			
SN74AHC1G14DCKR	SN74CBTD1G384DCKR	SN74LVC1G17DCKT	SN74LVC1GU04DCKR			
SN74AHC1G14DCKT	SN74CBTD1G384DCKT	SN74LVC1G18DCKR	SN74LVC1GU04DCKT			
SN74AHC1G32DCKR	SN74CBTLV1G125DCKR	SN74LVC1G19DCKR	SN74LVC1GX04DCKR			
SN74AHC1G32DCKT	SN74LV1T00DCKR	SN74LVC1G240DCKR	SN74LVC1GX04DCKT			
SN74AHC1G86DCKR	SN74LV1T02DCKR	SN74LVC1G240DCKT	SN74LVC2G04DCKR			
SN74AHC1G86DCKT	SN74LV1T04DCKR	SN74LVC1G27DCKR	SN74LVC2G04DCKT			
SN74AHC1GU04DCKR	SN74LV1T08DCKR	SN74LVC1G3157DCKR	SN74LVC2G06DCKR			
SN74AHC1GU04DCKT	SN74LV1T125DCKR	SN74LVC1G3208DCKR	SN74LVC2G07DCKR			
SN74AHCT1G00DCKR	SN74LV1T126DCKR	SN74LVC1G3208DCKT	SN74LVC2G07DCKT			
SN74AHCT1G00DCKT	SN74LV1T32DCKR	SN74LVC1G32DCKR	SN74LVC2G14DCKR			
SN74AHCT1G02DCKR	SN74LV1T34DCKR	SN74LVC1G32DCKT	SN74LVC2G14DCKT			
SN74AHCT1G02DCKT	SN74LV1T86DCKR	SN74LVC1G332DCKR	SN74LVC2G17DCKR			
SN74AHCT1G04DCKR	SN74LVC1G00DCKR	SN74LVC1G34DCKR	SN74LVC2G17DCKT			
SN74AHCT1G04DCKT	SN74LVC1G00DCKT	SN74LVC1G34DCKT	SN74LVC2G34DCKR			

SN74AHCT1G125DCKR	SN74LVC1G02DCKR	SN74LVC1G373DCKR	SN74LVC2GU04DCKR	
SN74AHCT1G125DCKT	SN74LVC1G02DCKT	SN74LVC1G374DCKR	SN74LVC2GU04DCKT	
SN74AHCT1G126DCKR	SN74LVC1G0832DCKR	SN74LVC1G386DCKR	TS5A1066DCKR	
SN74AHCT1G126DCKT	SN74LVC1G0832DCKT	SN74LVC1G38DCKR	TS5A3157DCKR	
SN74AHCT1G14DCKR	SN74LVC1G08DCKR	SN74LVC1G38DCKT		
SN74AHCT1G14DCKT	SN74LVC1G08DCKT	SN74LVC1G57DCKR		

Qualification Report

HFTF SOT: DCK Assy Site Qualification

Approve Date 26-Sep-2017

Product Attributes

Attributes	Qual Device: SN74AHC1G126DCKR	Qual Device: SN74CBT1G384DCKR	Qual Device: SN74LVC1G17DCKR	Qual Device: SN74LVC2G04DCKR
Assembly Site	HFTF	HFTF	HFTF	HFTF
Package Family	SC70	SC70	SC70	SC70
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	SFAB	SFAB	FFAB	FFAB
Wafer Process	EPIC1S1	EPIC1ZS	A3C10TPI/50B10.13_BO PO2	ASL3C

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL1-260C: SN74CBT1G384DCKR, SN74AHC1G126DCKR, SN74LVC2G04DCKR,

SN74LVC1G17DCKR

Qualification Results

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

Туре	Test Name / Condition	Duration	Qual Device: SN74AHC1G126DCKR	Qual Device: SN74CBT1G384DCKR
AC	Autoclave 121C	96 Hours	1/77/0	1/77/0
ED	Electrical Characterization	Per Datasheet Parameters	1/30/0	1/30/0
FLAM	Flammability (IEC 695-2-2)		-	-
FLAM	Flammability (UL 94V- 0)		-	-
FLAM	Flammability (UL- 1694)		-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-
HTOL	Life Test, 150C	300 Hours	-	-
HTSL	High Temp. Storage Bake, 170C	420 Hours	1/77/0	1/77/0
LI	Lead Fatigue	Leads	-	-
LI	Lead Pull to Destruction	Leads	-	-
PD	Physical Dimensions		-	-

SD	Solderability	Pb	-	-
SD	Solderability	Pb Free	-	-
тс	Temperature Cycle, - 65/150C	500 Cycles	1/77/0	1/77/0
WBP	Bond Pull	Wires	1/76/0	1/76/0
WBS	Ball Bond Shear		1/76/0	1/76/0

Туре	Test Name / Condition	Duration	Qual Device: SN74LVC1G17DCKR	Qual Device: SN74LVC2G04DCKR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
ED	Electrical Characterization	Per Datasheet Parameters	3/90/0	3/90/0
FLAM	Flammability (IEC 695- 2-2)		-	-
FLAM	Flammability (UL 94V- 0)		3/15/0	3/15/0
FLAM	Flammability (UL- 1694)		-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0
HTOL	Life Test, 150C	300 Hours	3/231/0	3/231/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0	3/231/0
LI	Lead Fatigue	Leads	3/66/0	3/66/0
LI	Lead Pull to Destruction	Leads	3/27/0	3/27/0
PD	Physical Dimensions		-	-
SD	Solderability	Pb	3/66/0	3/66/0
SD	Solderability	Pb Free	3/66/0	3/66/0
тс	Temperature Cycle, - 65/150C	500 Cycles	3/231/0	3/231/0
WBP	Bond Pull	Wires	3/228/0	3/228/0
WBS	Ball Bond Shear		3/228/0	3/228/0

- 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

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 your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
Japan	PCNJapanContact@list.ti.com