



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

**PCN# 20150713000**  
**Qualification of NFME as additional**  
**Assembly and Test Site for Select Devices**  
**Change Notification / Sample Request**

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 changes discussed within this PCN will not take effect any earlier than **90** days from the date of this notification, unless customer agreement has been reached on an earlier implementation of the change. This notification period is per TI's standard process.

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 ([PCN\\_ww\\_admin\\_team@list.ti.com](mailto:PCN_ww_admin_team@list.ti.com)).

Sincerely,

PCN Team  
SC Business Services

**PCN# 20150713000**  
**Attachment: 1**




**Products Affected:**

According to our records, there are the affected device(s) that you have purchased within the past twenty-four (24) months. Technical details of this Product Change follow on the next page(s).

<b>PCN Number:</b>	20150713000		<b>PCN Date:</b>	07/30/2015													
<b>Title:</b>	Qualification of NFME as additional Assembly and Test Site for Select Devices																
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services														
<b>Proposed 1<sup>st</sup> Ship Date:</b>	10/30/2015	<b>Estimated Sample Availability:</b>	Date Provided at Sample request														
<b>Change Type:</b>																	
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site												
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material												
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process												
<input type="checkbox"/>	Mechanical Specification	<input checked="" type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site												
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials												
		<input type="checkbox"/>		<input type="checkbox"/>	Wafer Fab Process												
<b>PCN Details</b>																	
<b>Description of Change:</b>																	
Qualification of NFME as additional Assembly and Test Site for Select Devices. Assembly differences are shown in the following table:																	
<table border="1"> <tr> <td></td> <td><b>LEN</b></td> <td><b>NFME</b></td> </tr> <tr> <td>Mount compound</td> <td>0003C10332</td> <td>A-03</td> </tr> </table>							<b>LEN</b>	<b>NFME</b>	Mount compound	0003C10332	A-03						
	<b>LEN</b>	<b>NFME</b>															
Mount compound	0003C10332	A-03															
<table border="1"> <tr> <td><b>Assembly Site</b></td> <td><b>Assembly Site Origin (22L)</b></td> <td><b>Assembly Country Code (23L)</b></td> <td><b>Assembly Site City</b></td> </tr> <tr> <td>LEN</td> <td>LIN</td> <td>TWN</td> <td>Taichung</td> </tr> <tr> <td>NFME</td> <td>NFM</td> <td>CHN</td> <td>Jiangsu</td> </tr> </table>						<b>Assembly Site</b>	<b>Assembly Site Origin (22L)</b>	<b>Assembly Country Code (23L)</b>	<b>Assembly Site City</b>	LEN	LIN	TWN	Taichung	NFME	NFM	CHN	Jiangsu
<b>Assembly Site</b>	<b>Assembly Site Origin (22L)</b>	<b>Assembly Country Code (23L)</b>	<b>Assembly Site City</b>														
LEN	LIN	TWN	Taichung														
NFME	NFM	CHN	Jiangsu														
Test coverage, insertions, conditions will remain consistent with current testing and verified with test MQ.																	
<b>Reason for Change:</b>																	
Continuity of Supply																	
<b>Anticipated impact on Material Declaration</b>																	
<input type="checkbox"/>	No Impact to the Material Declaration	<input checked="" type="checkbox"/>	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 <a href="#">TI ECO website</a> .														
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>																	
None																	
<b>Changes to product identification resulting from this PCN:</b>																	

Assembly Site		
LEN	Assembly Site Origin (22L)	ASO: LIN
NFME	Assembly Site Origin (22L)	ASO: NFM

Sample product shipping label (not actual product label)

(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

MADE IN: Malaysia

2DC: 20:

MSL '2 / 260C / 1 YEAR	SEAL DT
MSL 1 / 235C / UNLIM	03/29/04

OPT: 39

ITEM: LBL: 5A (L) T0: 1750

ASSEMBLY SITE CODES: LEN = 3, NFME = E

**Product Affected:**

SN65LVDS1DBVR	SN65LVDS1YDBVR	SN65LVDS2DBVTG4	SN65LVDT2DBVTG4
SN65LVDS1DBVRG4	SN65LVDS2DBVR	SN65LVDT2DBVR	SN65LVDT2YDBVR
SN65LVDS1DBVT	SN65LVDS2DBVRG4	SN65LVDT2DBVRG4	
SN65LVDS1DBVTG4	SN65LVDS2DBVT	SN65LVDT2DBVT	

## Qualification Data

### NFME Qualification of the DBV packages using R-13 mold compound and A-03 mount compound

#### Product Attributes

Attributes	Qual Device: INA168NA	Qual Device: OPA244NA
Assembly Site	NFME	NFME
Package Family	-	-
Flammability Rating	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	HFAB/SFAB	HFAB/SFAB
Wafer Fab Process	634G	635G

- QBS: Qual By Similarity
- Qual Device INA168NA is qualified at LEVEL2-260C
- Qual Device OPA244NA is qualified at LEVEL2-260C

#### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: INA168NA	Qual Device: OPA244NA
AC	Autoclave 121C	96 Hours	1/77/0	1/77/0
HTOL	Life Test, 125C	1000 Hours	1/77/0	1/77/0
LI	Lead Fatigue	Leads	1/22/0	1/22/0
LI	Lead Pull to Destruction	Leads	1/22/0	1/22/0
MISC	Salt Atmosphere	24 Hours	1/22/0	1/22/0
PD	Physical Dimensions	--	1/5/0	1/5/0
PKG	Lead Finish Adhesion	Leads	1/15/0	1/15/0
SD	Solderability	8 Hours Steam Age	-	1/22/0

Type	Test Name / Condition	Duration	Qual Device: INA168NA	Qual Device: OPA244NA
TC	Temperature Cycle -65/150C	500 Cycles	1/77/0	1/77/0

- 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

## NFME Qualification of the DBV packages with R-13 mold compound

### Product Attributes

Attributes	Qual Device: OPA365AIDBV	Qual Device: THS4304DBV	Qual Device: THS9001DBV	Qual Device: TPS3809I50DBV
<b>Qual ID</b>	20090808-8742	20090808-8742	20090808-8742	20090808-8742
<b>Assembly Site</b>	NFME	NFME	NFME	NFME
<b>Package Family</b>	SOT	SOT	SOT	SOT
<b>Flammability Rating</b>	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
<b>Wafer Fab Supplier</b>	DMOS5	FFAB	FFAB	DFAB
<b>Wafer Fab Process</b>	50HPA07	BICOM3	RFSige	LBC3

- QBS: Qual By Similarity

- Qual Device OPA365AIDBV is qualified at LEVEL1-260C

- Qual Device THS4304DBV is qualified at LEVEL1-260C

- Qual Device THS9001DBV is qualified at LEVEL1-260C

- Qual Device TPS3809I50DBV is qualified at LEVEL1-260C

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: OPA365AIDBV	Qual Device: THS4304DBV	Qual Device: THS9001DBV	Qual Device: TPS3809I50DBV
AC	Autoclave 121C	96 Hours	1/77/0	1/77/0	1/77/0	-
HTSL	High Temp Storage Bake 170C	420 Hours	1/77/0	1/74/0	1/77/0	-
LI	Lead Fatigue	Leads	1/22/0	1/22/0	1/22/0	1/22/0
LI	Lead Pull to Destruction	Leads	1/22/0	1/22/0	1/22/0	1/22/0
MISC	Salt Atmosphere	24 Hours	1/22/0	1/22/0	1/22/0	1/22/0
PD	Physical Dimensions	--	1/5/0	1/5/0	1/5/0	1/5/0
PKG	Lead Finish Adhesion	Leads	1/15/0	1/15/0	1/15/0	1/15/0
SD	Surface Mount Solderability	Pb Solder	1/22/0	1/22/0	1/22/0	1/22/0
TC	Temperature Cycle, -65/150C	500 Cycles	1/77/0	1/77/0	1/77/0	-
TS	Thermal Shock -65/150C	500 Cycles	1/77/0	1/77/0	1/77/0	-
WBP	Bond Pull	Wires	1/78/0	1/78/0	1/78/0	1/78/0
WBS	Ball Bond Shear	Wires	1/78/0	1/78/0	1/78/0	1/78/0

- 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

## NFME 5/6 DBV qualification using R-13 Mold Compound

### Product Attributes

Attributes	Qual Device: SN74LVC2G17DBVR	Qual Device: TL431CDBVR
Assembly Site	NFME	NFME
Package Family	SOT	SOT
Flammability Rating	UL 94 V 0	UL 94 V 0
Wafer Fab Supplier	TID	SFAB
Wafer Fab Process	ASL3C	JI BIPOLAR

- QBS: Qual By Similarity
- Qual Device SN74LVC2G17DBVR is qualified at LEVEL1-260CG
- Qual Device TL431CDBVR is qualified at LEVEL1-260CG

### Qualification Results

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

Type	Test Name / Condition	Duration	Qual Device: SN74LVC2G17DBVR	Qual Device: TL431CDBVR
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0
FLAM	Flammability (IEC 695-2-2)	--	3/15/0	-
FLAM	Flammability (UL 94V-0)	--	3/15/0	-
FLAM	Flammability (UL-1694)	--	3/15/0	-
TC	Temperature Cycle -65/150C	500 Cycles	3/231/0	3/231/0
TS	Thermal Shock -65/150C	500 Cycles	3/231/0	3/231/0
WBP	Bond Strength	Wires	3/234/0	3/234/0

- 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	<a href="mailto:PCNAmericasContact@list.ti.com">PCNAmericasContact@list.ti.com</a>
Europe	<a href="mailto:PCNEuropeContact@list.ti.com">PCNEuropeContact@list.ti.com</a>
Asia Pacific	<a href="mailto:PCNAsiaContact@list.ti.com">PCNAsiaContact@list.ti.com</a>
Japan	<a href="mailto:PCNJapanContact@list.ti.com">PCNJapanContact@list.ti.com</a>