12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20131118001
Qualification of NFME as Additional Assembly/Test Site for DBV Package Devices
Change Notification / Sample Request

Date: 11/22/2013
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.

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).

Sincerely,

PCN Team
SC Business Services
Phone: +1(214) 480-6037
Fax: +1(214) 480-6659

20131118001
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
UCC27511DBVR	null
UCC27511DBVT	null
UCC27517DBVT	null
UCC27518DBVT	null
UCC27519DBVT	null
UCC27531DBVT	null
UCC27532DBVT	null

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

PCN Number:	20131118001	PCN Date:	11/22/2013
Title:	Qualification of NFME as Additional Assembly/Test Site for DBV Package Devices		
Customer Contact:	PCN Manager	Phone: +1(214)480-6037	Dept: Quality Services
Proposed 1st Ship Date:	02/22/2014	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:

Qualification of NFME as Additional Assembly/Test Site for DBV Package Devices. Material differences are shown in the following table:

• Group 1 – Devices that will have the following change

	NS2	NFME
Wire	Au	Au, Cu
Mold Compound	CZ0096	R-17
Leadframe Finish	NiPdAu	Matte Sn

Upon expiration of this PCN, TI will combine lead free solutions in a single ***standard part number***, for example; ***UCC27511DBVR*** – can ship with both Matte Sn and NiPdAu.

• Group 2 – Devices that will have Mold Compound change only

	NS2	NFME
Mold Compound	CZ0096	R-17

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

Reason for Change:

Continuity of Supply

1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties
2) Maximize flexibility within our Assembly/Test production sites.
3) Cu is easier to obtain and stock

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

None

Changes to product identification resulting from this PCN:

ECAT: G4 = NiPdAu
ECAT: G3 = Matte

Assembly Site			
UTAC 2 Thailand	Assembly Site Origin (22L)	ASO: NS2	ECAT: G4
NFME	Assembly Site Origin (22L)	ASO: NFM	ECAT: G3

Sample product shipping label (not actual product label)

ASSEMBLY SITE CODES: NS2 =B, NFME = E

Product Affected: Group 1

UCC27511DBVR	UCC27517DBVT	UCC27518DBVR	UCC27519DBVR
UCC27511DBVT	UCC27517DBVR	UCC27518DBVT	UCC27519DBVT

Product Affected: Group 2

UCC27531DBVR	UCC27531DBVT	UCC27532DBVR	UCC27532DBVT

Group 1 : Qualification Data

This qualification has been specifically developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.

Qual Vehicle 1 : TPS2051BDBVR (MSL1-260C)

Package Construction Details

Assembly Site:	NFME	Mold Compound:	R-17
# Pins-Designator, Family:	5-DBV, SOT-23	Mount Compound:	A-03
Lead Finish, Base	Matte Sn, Cu	Bond Wire:	1.3 Mil Dia. Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail	
		Lot 1	Lot 2
Electrical Characterization	-	30/0	30/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0
Manufacturability (MQ)	(per mfg. Site specification)	Pass	-
Moisture Sensitivity	L2-260C	12/0	12/0

**- Preconditioning sequence: Level 1-260C.

Qual Vehicle 2 : TPS2552DBVR-1 (MSL1-260C)			
Package Construction Details			
Assembly Site:	NFME	Mold Compound:	R-17
# Pins-Designator, Family:	6-DBV, SOT-23	Mount Compound:	A-03
Lead Finish, Base	Matte Sn, Cu	Bond Wire:	2.0 Mil Dia. Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot3
Electrical Characterization	-	30/0	30/0	30/0
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass	Pass	Pass
**Life Test	125C (1000 Hrs)	40/0	40/0	40/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
Moisture Sensitivity	L1-260C	12/0	12/0	12/0

**- Preconditioning sequence: Level 1-260C.

Qual Vehicle 3 : TPS61041DBVR (MSL 1-260C)			
Package Construction Details			
Assembly Site:	NFME	Mold Compound:	R-17
# Pins-Designator, Family:	5-DBV, SOT-23	Mount Compound:	A-03
Lead Finish, Base	Matte Sn, Cu	Bond Wire:	1.3 Mil Dia. Cu

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot3
Electrical Characterization	-	30/0	30/0	30/0
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass	Pass	Pass
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
Moisture Sensitivity	L1-260C	12/0	12/0	12/0

**- Preconditioning sequence: Level 1-260C.

Qual Vehicle 4 : TPS2552DBVR-1 (MSL1-260C)			
Package Construction Details			
Assembly Site:	NFME	Mold Compound:	R-17
# Pins-Designator, Family:	6-DBV, SOT-23	Mount Compound:	A-03
Lead Finish, Base	Matte Sn, Cu	Bond Wire:	2.0 Mil Dia. Au

Qualification: ☐ **Plan** ☒ **Test Results**

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot3
Electrical Characterization	-	30/0	30/0	30/0
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass	-	-
**Life Test	125C (1000 Hrs)	40/0	40/0	40/0
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0

**- Preconditioning sequence: Level 1-260C.

Qual Vehicle 5 : TPS61041DBVR (MSL 1-260C)					
Package Construction Details					
Assembly Site:	NFME		Mold Compound:	R-17	
# Pins-Designator, Family:	5-DBV, SOT-23		Mount Compound:	A-03	
Lead Finish, Base	Matte Sn, Cu		Bond Wire:	1.3 Mil Dia. Au	
Qualification: ☐ **Plan** ☒ **Test Results**					
Reliability Test	Conditions	Sample Size / Fail			
		Lot 1	Lot 2	Lot3	
Electrical Characterization	-	30/0	30/0	30/0	
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass	-	-	
**Temp Cycle, -65C/150C	500 Cycles	77/0	77/0	77/0	
**High Temp Storage Bake	170C (420 Hrs)	77/0	77/0	77/0	
**Unbiased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0	
**- Preconditioning sequence: Level 1-260C.					

Group 2 : Qualification Data

Qual Vehicle 1 : TPS2553DBV (MSL 1-260C)					
Package Construction Details					
Assembly Site:	NFME		Mold Compound:	R-17	
# Pins-Designator, Family:	6-DBV, SOT-23		Mount Compound:	A-03	
Lead Finish, Base	NiPdAu, Cu		Bond Wire:	2.0 Mil Dia. Au	
Qualification: ☐ **Plan** ☒ **Test Results**					
Reliability Test	Conditions	Sample Size / Fail			
Electrical Characterization	-	30/0			
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass			
**Autoclave	121C (96 Hrs)	77/0			
**Temp Cycle, -65C/150C	500 Cycles	77/0			
Solderability	Steam age, 8 hours	22/0			
Moisture Sensitivity	Level-1, 260C	12/0			
**- Preconditioning sequence: Level 1-260C.					

Qual Vehicle 2 : OPA365AIDBV (MSL 1-260C)					
Package Construction Details					
Assembly Site:	NFME		Mold Compound:	R-17	
# Pins-Designator, Family:	5-DBV, SOT-23		Mount Compound:	A-03	
Lead Finish, Base	NiPdAu, Cu		Bond Wire:	1.0 Mil Dia. Au	
Qualification: ☐ **Plan** ☒ **Test Results**					
Reliability Test	Conditions	Sample Size / Fail			
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass			
Salt Atmosphere	24 Hrs	22/0			
X-ray	(top side only)	5/0			
**Autoclave	121C (96 Hrs)	77/0			
**Temp Cycle, -65C/150C	500 Cycles	77/0			
**Thermal Shock -65/150C	1000 Cycles	77/0			
**High Temp Storage Bake	170C (420 Hrs)	77/0			
Moisture Sensitivity	Level-1, 260C	12/0			
**- Preconditioning sequence: Level 1-260C.					

Qual Vehicle 3 : THS4304DBV (MSL 1-260C)			
Package Construction Details			
Assembly Site:	NFME	Mold Compound:	R-17
# Pins-Designator, Family:	5-DBV, SOT-23	Mount Compound:	A-03
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia. Au

Qualification: ☐ **Plan** ☒ **Test Results**		
Reliability Test	Conditions	Sample Size / Fail
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass
Salt Atmosphere	24 Hrs	22/0
X-ray	(top side only)	5/0
**Autoclave	121C (96 Hrs)	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0
**Thermal Shock -65/150C	1000 Cycles	77/0
**High Temp Storage Bake	170C (420 Hrs)	77/0
Moisture Sensitivity	Level-1, 260C	12/0
**- Preconditioning sequence: Level 1-260C.		

Qual Vehicle 4 : THS9001DBV (MSL 1-260C)			
Package Construction Details			
Assembly Site:	NFME	Mold Compound:	R-17
# Pins-Designator, Family:	6-DBV, SOT-23	Mount Compound:	A-03
Lead Finish, Base	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia. Au

Qualification: ☐ **Plan** ☒ **Test Results**		
Reliability Test	Conditions	Sample Size / Fail
Manufacturability Qualification (MQ)	(per mfg. Site specification)	Pass
Salt Atmosphere	24 Hrs	22/0
X-ray	(top side only)	5/0
**Autoclave	121C (96 Hrs)	77/0
**Temp Cycle, -65C/150C	500 Cycles	77/0
**Thermal Shock -65/150C	1000 Cycles	77/0
**High Temp Storage Bake	170C (420 Hrs)	77/0
Moisture Sensitivity	Level-1, 260C	12/0
**- Preconditioning sequence: Level 1-260C.		

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