PCN Number:	20130730000	**PCN Date:**	08/02/2013
Title:	Alternate Assembly Site Qualification		
Customer Contact:	PCN Manager	**Phone:** +1(214)480-6037	**Dept:** Quality Services
Proposed 1st Ship Date:	11/02/2013	**Estimated Sample Availability:**	09/02/2013

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

PCN Details

Description of Change:

Qualification of TI Taiwan and TI Malaysia as an alternate Assembly sites for select devices as shown below. The material set will remain unchanged for both groups.

Reason for Change:

Continuous Customer Supply

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

None

Changes to product identification resulting from this PCN:

Group 1

Assembly Site		
TI Malaysia	Assembly Site Origin (22L)	ASO: MLA
TI Taiwan	Assembly Site Origin (22L)	ASO: TAI

Group 2

Assembly Site		
TI Clark (Philippines)	Assembly Site Origin (22L)	ASO: QAB
TI Malaysia	Assembly Site Origin (22L)	ASO: MLA

Sample product shipping label (not actual product label)

Topside Device marking:
Assembly site code for TI Clark = I
Assembly site code for TI Malaysia = K
Assembly site code for TI Taiwan = T

Product Affected:			
Group 1: Adding TI Taiwan			
HPA00694DBTR	HPA00954DBTR	TPD12S521DBTR/2354	TPD12S521DBTRG4
HPA00885DBTR	TPD12S521DBTR		
Group 2: Adding TI Malaysia			
TXS02326AMRGER			

TI Taiwan Qualification Data: Approved July 2013

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.

Qualification Device: TPD12S521DBTR (MSL2-260C)

Package Construction Details

Assembly Site:	TAI	Mold Compound:	4206193
# Pins-Designator, Family:	38-DBT, TSSOP	Mount Compound:	4042500
Lead Finish:	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size / Fail
Electrical Characterization	Per PDS range	Pass
X-ray	(top side only)	Pass

TI Taiwan Reference Qualification Data: Approved January 2008

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.

Qualification Device: BQ8015DBT (MSL 2-260c)

Package Construction Details

Assembly Site:	TAI	Mold Compound:	4206193
# Pins-Designator, Family:	38-DBT, TSSOP	Mount Compound:	4042500
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
**High Temp Operating Life	155C (240 Hrs)	40/0	40/0	40/0
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	40/0	40/0	40/0
**Autoclave 121C	121C, 2 ATM (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
**Thermal Shock	-65C/+150C (500 Cyc)	77/0	77/0	77/0

Notes: **Tests received preconditioning sequence: MSL2-260C

TI Malaysia Qualification Data: Approved July 2013

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.

Qualification Device: TXS02326AMRGER (MSL2-260C)

Package Construction Details

Assembly Site:	MLA	Mold Compound:	4208625
# Pins-Designator, Family:	24-RGE, VQFN	Mount Compound:	4205846
Lead Finish:	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size / Fail
Electrical Characterization	Per PDS range	Pass
X-ray	(top side only)	Pass

TI Malaysia Reference Qualification Data: Approved March 2007

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.

Qualification Device: TSC2200RHB (MSL 2-260c)

Package Construction Details

Assembly Site:	MLA	Mold Compound:	4208625
# Pins-Designator, Family:	24-RGE, VQFN	Mount Compound:	4205846
Leadframe (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.96 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size / Fail		
		Lot 1	Lot 2	Lot 3
**Steady-state Life Test	150C (168, 300 Hrs)	116/0	116/0	116/0
**High Temp. Storage Bake	150C (1000 Hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	40/0	40/0	40/0
**Autoclave 121C	121C, 2 ATM (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0

Notes: **Tests received preconditioning sequence: MSL2-260C

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