Texas Instruments
12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20131028000

Qualification of Carsem Suzhou (CSZ) as Additional Assembly and Test Site for Select Devices on QFN/SON package

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).

Sincerely,

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

PCN# 20131028000
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).

PCN Number:	20131028000	**PCN Date:**	11/04/2013

Title:	Qualification of Carsem Suzhou (CSZ) as Additional Assembly and Test Site for Select Devices on QFN/SON package

Customer Contact:	PCN Manager	**Phone:**	+1(214)480-6037	**Dept:**	Quality Services

Proposed 1st Ship Date:	02/04/2014	**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 Carsem Suzhou (CSZ) as Additional Assembly and Test Site for Select Devices on QFN/SON package.

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

Changes to product identification resulting from this PCN:

Assembly Site		
UTAC Thailand	Assembly Site Origin (22L)	ASO: NSE
TI Malaysia	Assembly Site Origin (22L)	ASO: MLA
TI Clark - Philippines	Assembly Site Origin (22L)	ASO: QAB
Carsem Suzhou	Assembly Site Origin (22L)	ASO: CSZ

Sample product shipping label (not actual product label)

TEXAS INSTRUMENTS
G4
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

(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

ASSEMBLY SITE CODES: NSE =J, TI-Malaysia = K , TI-Clark = I, Carsem Suzhou = F

Product Affected:

BQ24072RGTR	BQ24314ADSGT	SN1004052RTER	TPS51461RGET
BQ24072RGTRG4	BQ24314ADSGTG4	TLV62065DSGR	TPS51462RGER
BQ24072RGTT	BQ24314DSGR	TLV62065DSGT	TPS51462RGET
BQ24072RGTTG4	BQ24314DSGRG4	TPS2540ARTER	TPS53311RGTR
BQ24075RGTR	BQ24314DSGT	TPS2540ARTET	TPS53311RGTT
BQ24075RGTRG4	BQ24314DSGTG4	TPS2541ARTER	TPS53312RGTR
BQ24075RGTT	BQ24315DSGR	TPS2541ARTET	TPS53312RGTT
BQ24075RGTTG4	BQ24315DSGRG4	TPS2541RTER	TPS54319RTER
BQ24210DQCR	BQ24315DSGT	TPS2541RTET	TPS54319RTET
BQ24210DQCT	BQ24315DSGTG4	TPS2546RTER	TPS62065DSGR
BQ24300DSGR	BQ24316DSGR	TPS2546RTET	TPS62065DSGT
BQ24300DSGRG4	BQ24316DSGRG4	TPS2554DRCR	TPS62090RGTR
BQ24300DSGT	BQ24316DSGT	TPS2554DRCT	TPS62090RGTT
BQ24300DSGTG4	BQ24316DSGTG4	TPS2560DRCR	TPS62091RGTR
BQ24304DSGR	FX006	TPS2560DRCT	TPS62091RGTT
BQ24304DSGRG4	FX016	TPS51200DRC/2801	TPS62092RGTR
BQ24304DSGT	HPA00512DRCR	TPS51200DRCR	TPS62092RGTT
BQ24304DSGTG4	HPA00810RGTR-1/2	TPS51200DRCR/2801	TPS62093RGTR
BQ24313DSGR	HPA00935RGTR	TPS51200DRCRG4	TPS62093RGTT
BQ24313DSGT	HPA01187DSGR	TPS51200DRCT	
BQ24314ADSGR	SN0803054DRCR	TPS51200DRCTG4	
BQ24314ADSGRG4	SN0803054DRCRG4	TPS51461RGER	

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: TPA3117D2RHBR (MSL2-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	32-RHB, VQFN	Mount Compound:	SID#435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.3 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96hrs)	77/0	77/0	77/0
**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
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	12/0	12/0
Notes	**- Preconditioning sequence: Level 3-260C.			

Qual Vehicle #2: TPA6132A2RTER (MSL2-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	16-RTE, WQFN	Mount Compound:	SID#435933
Lead frame (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
**Autoclave 121C	121C, 2 atm (96 Hrs)	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	-

Notes **- Preconditioning sequence: Level 2-260C.

Qual Vehicle # 3: TPS2540RTER (MSL2-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	16-RTE, WQFN	Mount Compound:	SID#435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.98 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
High Temp Life Test	125C (168 Hrs)	80/0	80/0	80/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	-

Notes **- Preconditioning sequence: Level 2-260C.

Reference 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: 2ELVC412CDRTJR (MSL2-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	20-RTJ, WQFN	Mount Compound:	SID#435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**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
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	-	-

Notes **- Preconditioning sequence: Level 2-260C.

Qual Vehicle # 2: ONET8501PBRGTR (MSL2-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	16-RGT, VQFN	Mount Compound:	SID#435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**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
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	-	-

Notes **- Preconditioning sequence: Level 2-260C.

Qual Vehicle # 3: TPS51728RHAR (MSL3-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	20-RTJ, VQFN	Mount Compound:	SID#435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420 Hrs)	77/0	77/0	77/0
**Autoclave 121C	121C, 2 atm (96 Hrs)	76/0	75/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Manufacturability	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 3 @ 260C peak +5/-0C)	12/0	-	-

Notes **- Preconditioning sequence: Level 3-260C.

Qual Vehicle # 4: TPS53211RGTR (MSL2-260C)

Package Construction Details

Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	16-RGT, VQFN	Mount Compound:	SID#435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	1.0 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**Biased HAST	130C/85%RH (96hrs)	77/0	76/0	77/0
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**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
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 2 @ 260C peak +5/-0C)	12/0	-	-

Notes **- Preconditioning sequence: Level 2-260C.

Qual Vehicle # 5: UCD9211RHAR (MSL3-260C)			
Package Construction Details			
Assembly Site:	CARSEM SUZHOU	Mold Compound:	SID#441086
# Pins-Designator, Family:	40-RHA, VQFN	Mount Compound:	SID#435143
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.8 Mil Dia., Cu

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

Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420hrs)	77/0	77/0	77/0
**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
Salt Atmosphere	24 hrs	22/0	22/0	22/0
Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass
Moisture Sensitivity	(level 3 @ 260C peak +5/-0C)	12/0	-	-
Notes **- Preconditioning sequence: Level 3-260C.				

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