

PCN# 20131028000 Qualification of Carsem Suzhou (CSZ) as Additional Assembly and Test Site for Select Devices on QFN/SON package Change Notification / Sample Request

Date: 11/4/2013 To: Newark/Farnell 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 (<u>PCN ww admin team@list.ti.com</u>).

Sincerely,

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

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
BQ24210DQCR	null
TPS51200DRCT	null
BQ24072RGTT	null
BQ24075RGTT	null
BQ24210DQCT	null
BQ24313DSGT	null
BQ24314ADSGT	null
BQ24315DSGT	null
TPS2541RTET	null
TPS2560DRCT	null
TPS51200DRCR	null
TPS53311RGTT	null
TPS54319RTET	null
TPS62065DSGT	null
TPS62090RGTT	null
TPS62091RGTT	null
TPS62092RGTT	null
TPS62093RGTT	null
BQ24314DSGT	null
TPS51462RGET	null

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

PCN	Num	ber:	20131028000 PCN Date: 11/04/2013					11/04/2013		
Title	Title:Qualification of Carsem Suzhou (CSZ) as Additional Assembly and Test Site for Select Devices on QFN/SON package									
Cust	Istomer Contact: PCN Manager Phone: +1(214)480-6037 Dept: Quality Services						uality Services			
Proposed 1st Ship Date:02/04/2014Estimated Sample Availability:Date Provided at Sample request				rovided at e request						
Change Type:										
\boxtimes	Asse	embly Site			Assembly Pro	cess			Assembly Ma	aterials
	Desi	gn			Electrical Spe	cification			Mechanical S	Specification
	Test	Site			Packing/Shipp	oing/Label	ling		Test Process	
	Waf	er Bump Site			Wafer Bump I	Material			Wafer Bump	Process
	Waf	er Fab Site		\square	Water Fab Ma	iterials			Wafer Fab P	rocess
					Part number	change				
_					PCI	N Detail	S			
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										
Rea	son f	or Change								
Cont	inuity	of supply.								
Anti	cipat	ed impact on	Fo	rm,	Fit, Function	. Ouality	or Relia	bili	tv (positive	/ negative):
None	5	•••••						-		/
Cha	nges	to product id	ent	tific	ation resultin	g from th	nis PCN:			
As	semb	y Site				-				
UT	AC Th	nailand			Assembly	Site Origii	า (22L)		ASO	NSE
TI	Malay	/sia			Assembly	Site Origii	n (22L)		ASO:	MLA
TI	Clark	- Philippines			Assembly	Site Origii	า (22L)		ASO:	QAB
Ca	rsem	Suzhou			Assembly	Site Origii	า (22L)		ASO:	CSZ
Sample product shipping label (not actual product label) WE TEXAS INSTRUMENTS MADE IN: Malaysia 20: MSL 2 /260C/1 YEAR SEAL DT MSL 1 /235C/UNLIM 03/29/04 OPT: ITEM: BL: 5A (L)T0:1750 (0) 2000 (D) 0336 (31T) L0T: 3959047MLA (4W) TKY (1T) 7523483S12 (P) (2P) REV: (V) 0033317 (20L) CS0: SHE (21L) CC0:USA (2L) AS0: MLA (23L) AC0: MYS										
ASS	SEMBL	Y SITE CODES	5: 1	NSE	=J, TI-Malays	sia = K ,	TI-Clark	=]	, Carsem Suz	hou = F

Product Affected:						
BQ24072RGTR	BQ24314ADSG1	SN1004052RTER	IPS51461RGE1			
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	Veł	nicle # 1: TPA311	TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	0C)			
Package Construction Details							
Assembly Site:	CA	RSEM SUZHOU	Mold Compound:	SID#44	41086		
# Pins-Designator, Family:	32-	-RHB, VQFN	Mount Compound:	SID#43	35143		
Lead frame (Finish, Base): NiF		dAu, Cu	Bond Wire:	1.3 Mil	Dia., Cu		
Qualification: 🗌 Plan 🛛 Test Results							
Reliability Test		Conditions		Sample Size/Fail			
		Conditions		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 p	12/0	12/0	12/0		
Notes **- Preconditioning sequence: Level 3-260C.							

Qual Vehicle #2: TPA6132A2RTER (MSL2-260C)								
Package Construction Details								
Assembly Site:	CA	RSEM SUZHOU	SID#441086					
# Pins-Designator, Family:	16-	RTE, WQFN	Mount Compound:	SID#43	35933			
Lead frame (Finish, Base):	NiP	dAu, Cu	Bond Wire:	0.96 M	il Dia., Cu			
Qualification: 🗌 Plan 🛛 Test Results								
Deliability Test				Sample Size/Fail				
Reliability Test		Conditions		Lot#	1	Lot#2		
**Autoclave 121C		121C, 2 atm (96	Hrs)	77/0)	77/0		
**T/C -65C/150C		-65C/+150C (500) Сус)	77/0)	77/0		
Manufacturability		(per mfg. Site spe	Pass	5	-			
Notes **- Preconditioning	seq	uence: Level 2-26	0C.					
Qua	al V	ehicle # 3: TPS2	540RTER (MSL2-260	C)				
		Package Constr	ruction Details					
Assembly Site:	CA	RSEM SUZHOU	Mold Compound:	SID#441086				
# Pins-Designator, Family:	16-	-RTE, WQFN	Mount Compound:	SID#43	SID#435143			
Lead frame (Finish, Base):	NiP	dAu, Cu	Bond Wire:	1.98 M	il Dia., Cu	I		
Qualification: 🗌 Plan	\square	Test Results						
Deliability Teet		Conditions		Sample Size/Fail				
Reliability Test		Conditions		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	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		d: SID#441086				
# Pins-Designator, Family:	20-RTJ, WQFN	-RTJ, WQFN Mount Compound		nd: SID#435143			
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wi	re: 1.0 N	4il Dia., Cu			
Qualification: 🗌 Plan 🛛 Test Results							
Reliability Test	Conditions	Conditions		ple Size/	Fail		
Reliability rest	Conditions			Lot#2	Lot#3		
**High Temp. Storage Bake	170C (420hrs)	170C (420hrs)		77/0	77/0		
**Autoclave 121C	121C, 2 atm (96 l	Hrs)	77/0	77/0	77/0		
**T/C -65C/150C	-65C/+150C (500	-65C/+150C (500 Cyc)		77/0	77/0		
Manufacturability	(per mfg. Site spe	(per mfg. Site specification)		Pass	Pass		
Moisture Sensitivity	(level 2 @ 260C p	(level 2 @ 260C peak +5/-0C)			-		
Notes **- Preconditioning sequence: Level 2-260C.							

Qual Vehicle # 2: ONET8501PBRGTR (MSL2-260C)							
Package Construction Details							
Assembly Site:	CA	RSEM SUZHOU	Mold Compou	Mold Compound: SID#441086			
# Pins-Designator, Family: 16-		-RGT, VQFN	Mount Compour	Mount Compound: SID#43514			
Lead frame (Finish, Base):	NiF	dAu, Cu	Bond Wi	re:	1.0 №	1il Dia., C	u
Qualification: 🗌 Plan		Test Results		1			
Peliphility Test		Conditions			Sample Size		Fail
Reliability Test		Conditions		Lo	ot#1	Lot#2	Lot#3
**High Temp. Storage Bake		170C (420hrs)		7	7/0	77/0	77/0
**Autoclave 121C		121C, 2 atm (96 l	Hrs)	7	7/0	77/0	77/0
**T/C -65C/150C		-65C/+150C (500	Сус)	7	7/0	77/0	77/0
Manufacturability (Assembly	')	(per mfg. Site spe	ecification)	F	Pass	Pass	Pass
Moisture Sensitivity		(level 2 @ 260C p	eak +5/-0C)	1	.2/0	-	-
Notes **- Preconditioning	seq	uence: Level 2-260)C.				
Qua	l Ve	hicle # 3: TPS51	728RHAR (MSL3-26	0C)			
		Package Constr	uction Details	_			
Assembly Sit	e:	CARSEM SUZHOU	Mold Compound:	S	ID#44	1086	
# Pins-Designator, Fami	ly:	20-RTJ, VQFN	Mount Compound:	S	SID#435143		
Lead frame (Finish, Base): NiPdAu, Cu Bond Wire: 1.0 Mil Di				Dia., Cu			
Qualification: Plan		Test Results					
Reliability Test		Conditions			Sam	ple Size/	Fail
Reliability Test					ot#1	Lot#2	Lot#3
**High Temp. Storage Bake		170C (420 Hrs)		7	7/0	77/0	77/0
**Autoclave 121C		121C, 2 atm (96 Hrs)			6/0	75/0	77/0
**T/C -65C/150C		-65C/+150C (500 Cyc)			7/0	77/0	77/0
Manufacturability		(per mfg. Site specification)			ass	Pass	Pass
Moisture Sensitivity		(level 3 @ 260C peak +5/-0C)			2/0	-	-
Notes **- Preconditioning	sec	uence: Level 3-260)C.				
Qua	l Ve	hicle # 4: TPS53	211RGTR (MSL2-260	DC)			
		Package Constr	uction Details				
Assembly Site:	CA	RSEM SUZHOU	Mold Compound:	SID#441086			
# Pins-Designator, Family:	16	-RGT, VQFN	Mount Compound:	SID#435143			
Lead frame (Finish, Base):	NiF	dAu, Cu	Bond Wire:	1	.0 Mil I	Dia., Cu	
Qualification: 🗌 Plan	\square	Test Results					
Deliability Test Conditions Sample Size/Fai					Fail		
Reliability Test		Conditions		Lo	ot#1	Lot#2	Lot#3
**Biased HAST		130C/85%RH (96	hrs)	7	'7/0	76/0	77/0
**High Temp. Storage Bake	2	170C (420hrs)			7/0	77/0	77/0
**Autoclave 121C		121C, 2 atm (96 l	Hrs)	7	7/0	77/0	77/0
**T/C -65C/150C		-65C/+150C (500	Сус)	7	'7/0	77/0	77/0
Manufacturability (Assembly	′)	(per mfg. Site spe	ecification)	F	Pass	Pass	Pass
Moisture Sensitivity		(level 2 @ 260C peak +5/-0C)			.2/0	-	-
Notes **- Preconditioning sequence: Level 2-260C.							

Qual Vehicle # 5: UCD9211RHAR (MSL3-260C)								
Package Construction Details								
Assembly Site:	CARSEM SUZHOU	ARSEM SUZHOU Mold Compound:		SID#441086				
# Pins-Designator, Family:	40-RHA, VQFN	Mount Compound:	SID#43	SID#435143				
Lead frame (Finish, Base):	NiPdAu, Cu	Bond Wire:	0.8 Mil	0.8 Mil Dia., Cu				
Qualification: 🗌 Plan 🛛 Test Results								
Poliphility Test	Conditions	Conditions		Sample Size/Fail				
	Conditions			Lot#2	Lot#3			
**High Temp. Storage Bake	170C (420hrs)	170C (420hrs)		77/0	77/0			
**Autoclave 121C	121C, 2 atm (96	121C, 2 atm (96 Hrs)		77/0	77/0			
**T/C -65C/150C	-65C/+150C (500	-65C/+150C (500 Cyc)		77/0	77/0			
Salt Atmosphere	24 hrs	24 hrs		22/0	22/0			
Manufacturability (Assembly) (per mfg. Site spe	ecification)	Pass	Pass	Pass			
Moisture Sensitivity	(level 3 @ 260C p	(level 3 @ 260C peak +5/-0C)			-			
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